

Orientalmotor

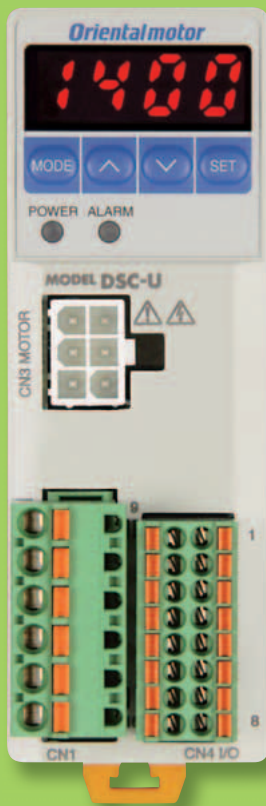
AC Speed Control Motors
DSC Series

Simple to use Speed Control
with Closed Loop Performance.



A Speed Control Solution that is Reasonably Priced, Compact and Provides Excellent Performance.

Speed Controllers



Actual Size

Providing an answer to the call for the ability to change speed without the hassle of changing settings,

the **DSC** Series provides easy, intuitive functions that don't require laborious adjustment, even for first time users.



AC Speed Control Motors

DSC Series

Features

Speed Control Using Closed Loop Control

Speed regulation $\pm 1\%$ (Reference value)

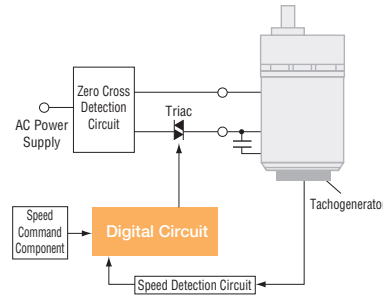
Speed is always monitored by the tachogenerator built into the AC motor. The actual speed is controlled to match the speed setting, even when the load fluctuates.

Digital Circuits

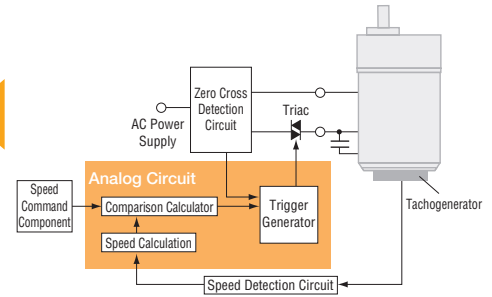
Most of the analog circuits that were used in the past have been digitized, now run by the CPU, and circuit components have been vastly reduced. This has reduced the size as well as the number of circuit components. Due to this, it is possible to make the deviation for the speed command and speed detection values almost 0, and speed regulation has been improved from -5% to $\pm 1\%*$.

*0~permissible torque when at 1000 r/min

DSC Series Digital Circuit (Block diagram)



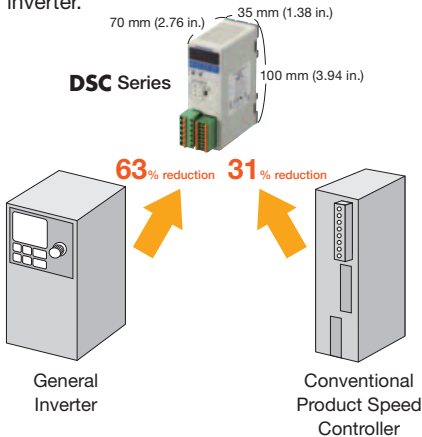
Conventional Product Analog Circuit (Block diagram)



Easy, Less Space

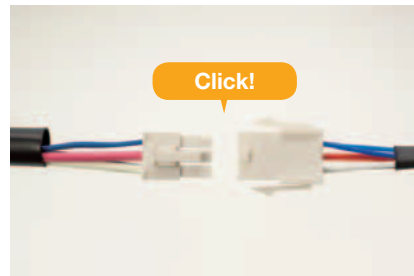
Compact

The volume is 63% smaller than a general inverter.



Connecting the Motor and Driver is Easy

Wiring the speed controller and motor together uses a connector, so installation and removal is easy.



Screwless I/O Wiring Requires No Crimping or Screwing

No need for soldering or crimping tools, and no torque management for screws. Reduces wiring time and maintenance.



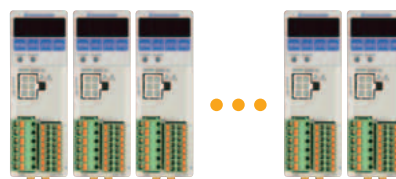
Slim Body

Depth is 90 mm (3.54 in.). Can be installed in slim control cabinets.



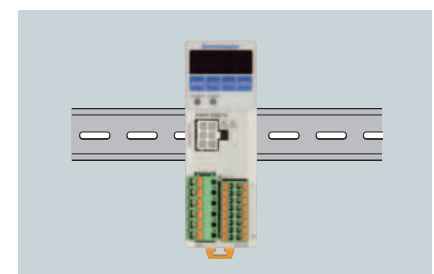
Side-by-Side Installation Saves Space

The body width is 35 mm (1.38 in.), and even when using multiple axes, the installation is compact because they can be installed side by side.



Easy DIN Rail Installation

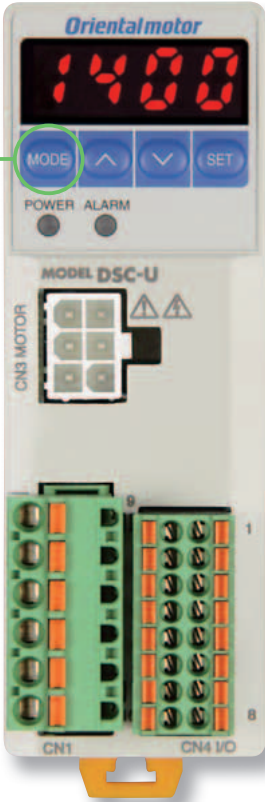
The speed controller can be installed directly on the DIN rail.



Features

Functionality in a Compact Body

Speed and Other Settings are Shown and can be Entered Directly



Monitoring Mode

Real-time monitor for speed (motor, gear shaft, conveyor speed), alarms, warnings, I/O status monitor

Data Mode

Speed setting

Parameter Mode

Set I/O assignments and parameters

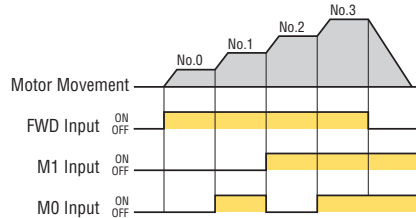
Test Mode

Test operation without data setting is possible.

● An operation lock can prevent accidental operation.

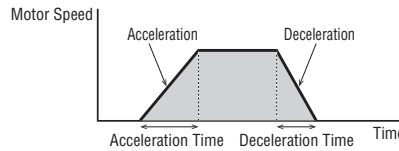
Speed Control (4 speeds)

4 units of operating data can be set, and can be switched with I/O during operation.



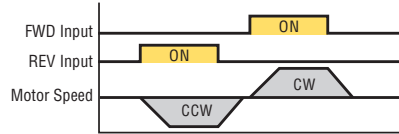
Acceleration/Deceleration

Makes the motor movement at start/stop smoother. It is possible to set acceleration/deceleration differently for each of the 4-speed data units.



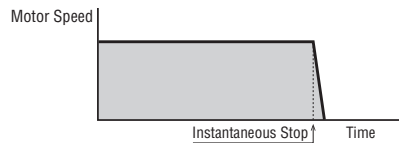
Bi-Directional Operation

Performs the operation according to the command for rotation direction.



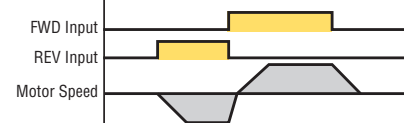
Instantaneous Stop

Stops the operating motor instantaneously. (Short cycle run/stop conditions can be created)



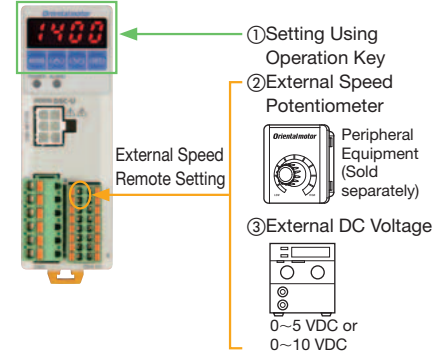
Instantaneous Bi-Directional Operation

Instantaneously switches the rotation direction of the motor while operating. (Short cycle change conditions can be created)



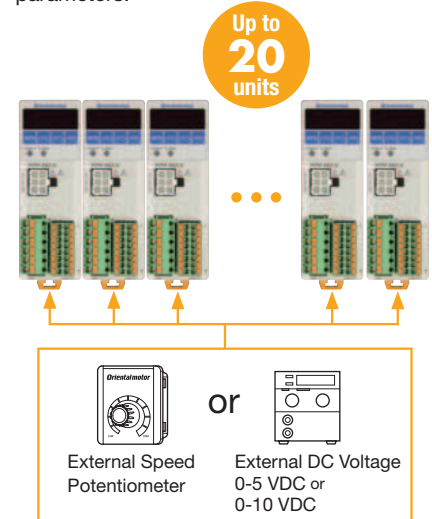
External Speed Setting Input is Possible

Setting is possible not only using the operation keys, but also through an external speed potentiometer (sold separately) or external DC voltage.



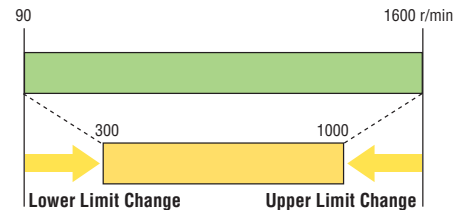
Parallel-Motor Operation (20 Units Max.)

A single external speed potentiometer can operate a max. of 20 units in parallel. Fine adjustment of each motor's speed can be performed by changing the controller's parameters.



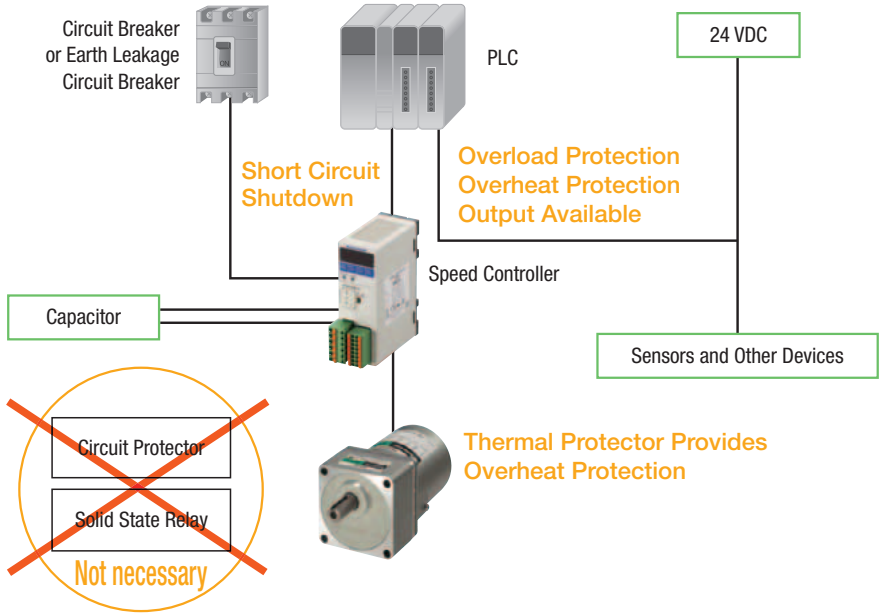
Speed Range Control

It is possible to limit the speed setting in advance with the speed range.

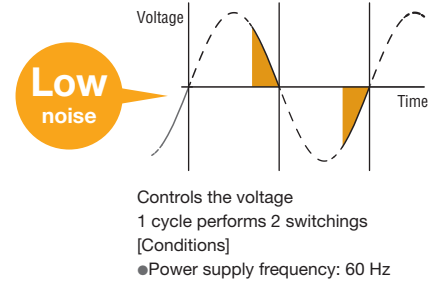


High Reliability

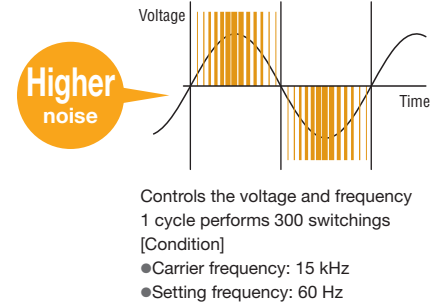
Low Electrical Noise Gives Peace of Mind, System Configuration is Simple



DSC Series [Phase control]

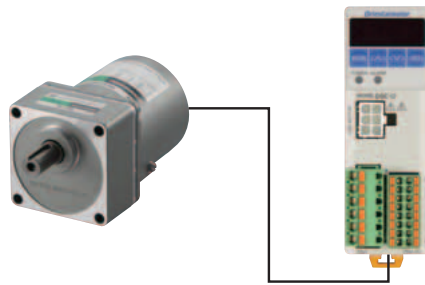


Inverter + Three-Phase Motor [PWM control]



Alarm Output Increases Reliability

Thanks to the closed loop control, feedback on the motor status is provided to the controller in real-time. An alarm signal is output when an abnormality, such as motor lock due to overload, occurs and the supply of power to the motor is stopped.



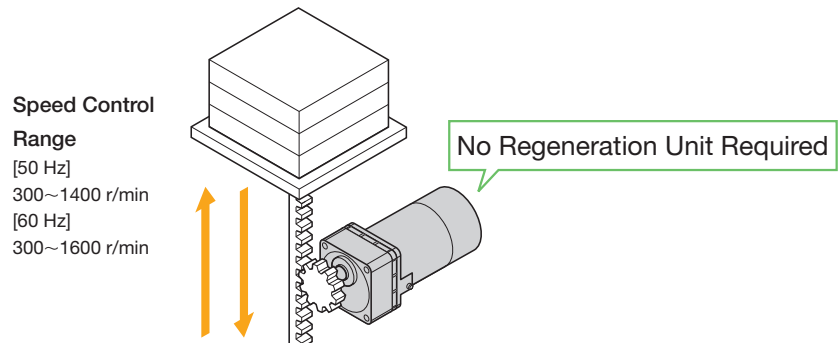
Alarm Details

- Motor Overheat
- Motor Lock
- Overspeed
- EEPROM (Saved data error)
- Operation Stop During Initialization
- External Stop

Saves a History of up to 9 Alarms

Vertical Operation is Possible using the Deceleration Control Feature and an Electromagnetic Brake

Speed control in vertical operation is possible through Deceleration Control. (For details on Deceleration Control and driving conditions while using Deceleration Control, refer to page 45.)

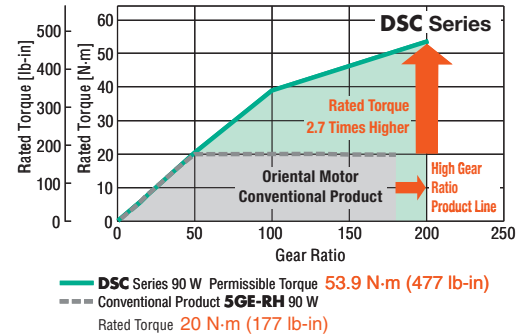
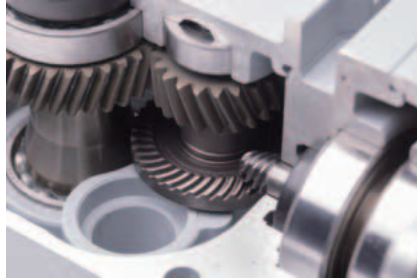


Features

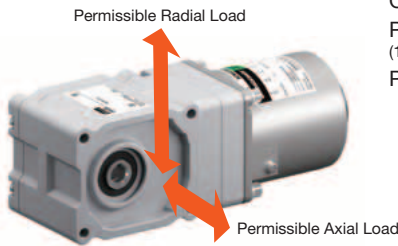
Utilizes a Gearhead that Excels in Both Torque and Strength

Right-angle Shaft Hypoid JH/JL Gears

Uses high-strength hypoid gears. Compared to conventional products, torque has been greatly increased and noise has been reduced. Furthermore, the radial load and axial load on the gearhead output shaft have been increased, contributing to decreased equipment size and increased reliability.

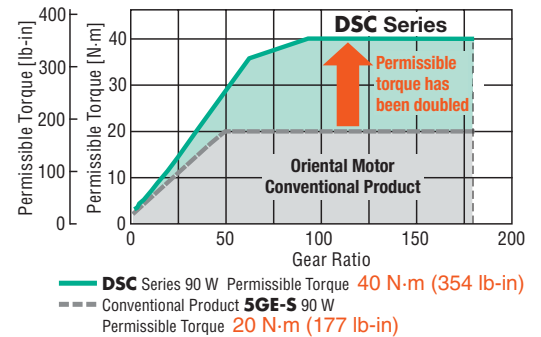
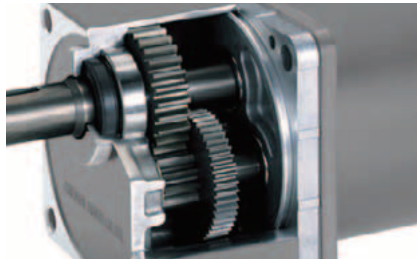


Output Power 90 W (1/8 HP)
 Permissible Radial Load (10 mm from installation surface) 1291 N (290 lb.)
 Permissible Axial Load 343 N (77 lb.)

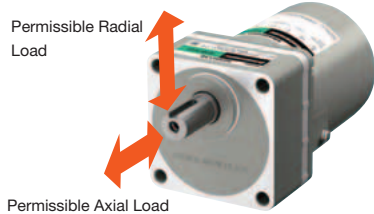


Parallel Shaft Gearhead GV Gears

The adoption of a larger output shaft bearing and carburized gears has allowed for increased torque, permissible radial load and axial load when compared to conventional gearheads.



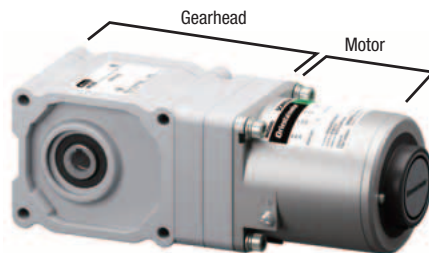
Output Power 90 W (1/8 HP)
 Permissible Radial Load 500 N (112 lb.)
 10 mm (0.39 in.) from the end of the output shaft
 Permissible Axial Load 150 N (33 lb.)



Pre-assembled Motor and Gearhead Right-angle Shaft Hypoid JH/JL Gears, Parallel Shaft Gearhead GV Gears

Motor and Gearhead are Delivered Pre-assembled

Reduces customer assembly time, and can be installed on equipment immediately.



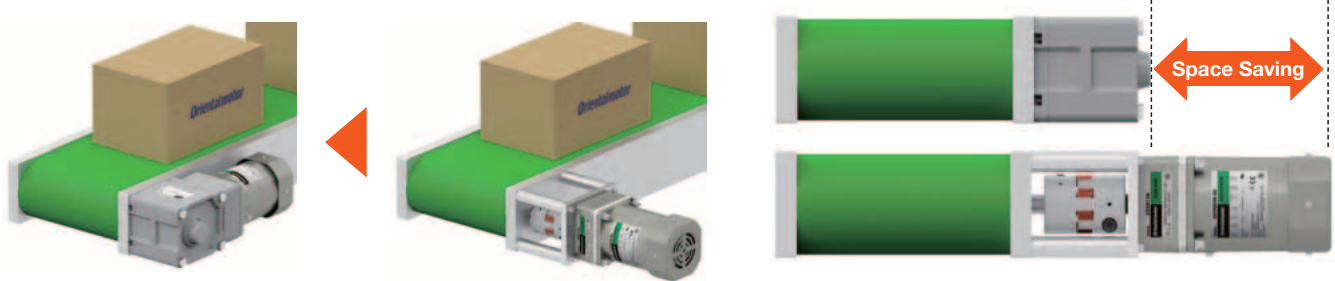
Detachable Gearhead

The motor position can be rotated in 90° increments, and the lead wire pull-out direction can be changed. The gearhead can be purchased and replaced for maintenance or to change the gear ratio.



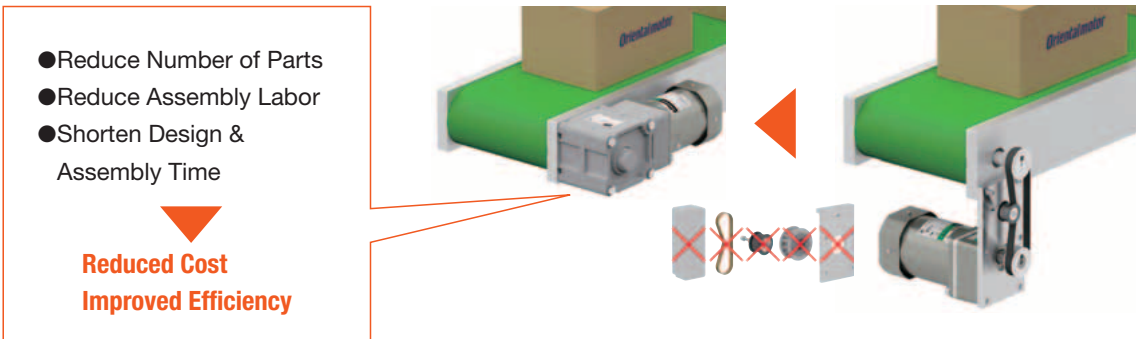
Reduced Space and Cost Right-angle Shaft Hypoid JH/JL Gears

Motor Mounted Perpendicularly to the Drive Shaft, Saves Space



Extension from conveyor can be reduced.

Connect Directly to the Drive Shaft to Reduce Costs

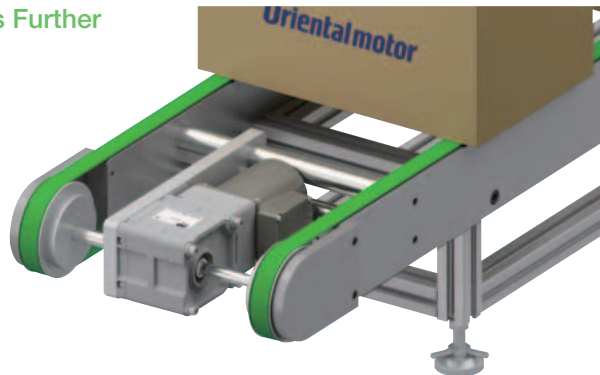


- Reduce Number of Parts
- Reduce Assembly Labor
- Shorten Design & Assembly Time

Reduced Cost
Improved Efficiency

Installation Inside Conveyor Provides Further Space Savings

Conveyor drive rollers can be installed on both ends of the load shaft of a hollow shaft type. The equipment can be made even smaller compared to when the motor is installed on the side of the conveyor.



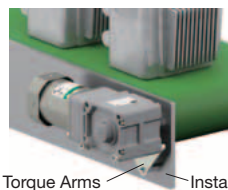
Use of a torque arm (Peripheral equipment → Page 75) allows for even further time and labor savings for installation. (Hollow shaft type)

Advantages of torque arm installation

- Centering of equipment is easier
- Only one anti-spin location is fine for equipment fixture



Application Example



Torque Arms Installation Plate

Check Oriental Motor's website for a video showing an installation method using the torque arm.



Installation Using Torque Arm

Product Line



Motor

Type	Output Power [W (HP)]	Power Supply Voltage [V]	Max. Permissible Torque [N·m (lb-in)]
NEW Standard Type Right-angle Shaft Hypoid JH Gear → Page 11	25 (1/30) 40 (1/19) 90 (1/8)	Single-phase 100 VAC	53.9 (477)
NEW Standard Type Right-angle Shaft Hypoid JL Gear → Page 11		Single-phase 110/115 VAC Single-phase 200 VAC Single-phase 220/230 VAC	
Additions to the Product Line Standard Type Parallel Shaft Gearhead GV Gear → Page 26	6 (1/125) 15 (1/50) 25 (1/30) 40 (1/19) 60 (1/12) 90 (1/8)	Single-phase 100 VAC	40 (354)
Standard Type Round Shaft Type → Page 26		Single-phase 110/115 VAC Single-phase 200 VAC Single-phase 220/230 VAC	0.73 (6.5)
NEW Type with an Electromagnetic Brake Right-angle Shaft Hollow Hypoid JH Gear → Page 44	25 (1/30) 40 (1/19) 90 (1/8)	Single-phase 100 VAC	53.9 (477)
NEW Type with an Electromagnetic Brake Right-angle Shaft Hollow Hypoid JL Gear → Page 44		Single-phase 110/115 VAC Single-phase 200 VAC Single-phase 220/230 VAC	
Type with an Electromagnetic Brake Parallel Shaft Gearhead GV Gear → Page 55	6 (1/125) 15 (1/50) 25 (1/30) 40 (1/19) 60 (1/12) 90 (1/8)	Single-phase 100 VAC Single-phase 110/115 VAC Single-phase 200 VAC Single-phase 220/230 VAC	40 (354)

Speed Controller

Type	Output Power [W (HP)]	Power Supply Voltage [V]
Standard Type 	6 (1/125) 15 (1/50) 25 (1/30) 40 (1/19) 60 (1/12) 90 (1/8)	Single-phase 100 VAC Single-phase 110/115 VAC Single-phase 200 VAC Single-phase 220/230 VAC
Type with an Electromagnetic Brake 	6 (1/125) 15 (1/50) 25 (1/30) 40 (1/19) 60 (1/12) 90 (1/8)	Single-phase 100 VAC Single-phase 110/115 VAC Single-phase 200 VAC Single-phase 220/230 VAC

Connection Cable

Cable Type
Connection Cables Flexible Connection Cables  1~10 m (3.3~32.8 ft.)
Connection Cables Flexible Connection Cables  1~10 m (3.3~32.8 ft.)

Overview of Related Products

NEW Rack-and-Pinion **L** Series

AC Speed Control Motors with Built in **DSC** Series

Easily Build a Linear Mechanism with the Rack-and-Pinion System **L** Series. The on-board AC speed control motor allows for reasonable speed control.

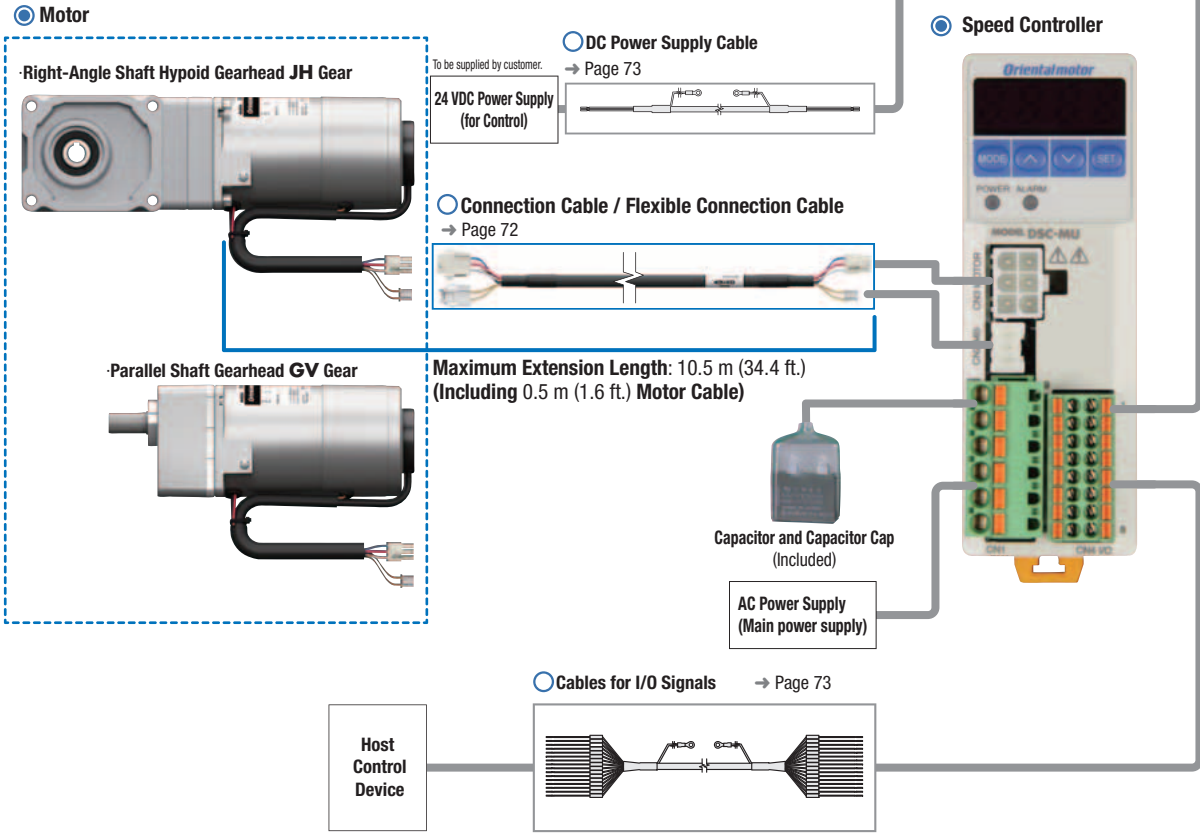
●Features

- Easily build a compact linear motion mechanism.
- Heavy loads can be transferred vertically.
- Transportable mass from 6.6 to 67 kg (14.6 to 148 lb.).
- Compact speed controller provides easy speed control.



System Configuration

- Purchase is required
- Purchase as necessary



Motor Accessories			Speed Controller Accessories		Capacitor Accessories	
Mounting Brackets → Page 75	Flexible Couplings → Page 74	Torque Arms → Page 75	Driver Mounting Brackets → Page 74	External Speed Potentiometer → Page 75	Lead Wires for Capacitor Connection → Page 72	Capacitor Mounting Brackets → Page 74

Example of System Configuration Pricing

Motor	Speed Controller	Connection Cable	Accessories	
SCM425UAM-25	DSCD25UAM	CC05SCM	Motor/Gearhead Mounting Bracket SOL4M6F	Flexible Coupling MCL401515
\$272.00	\$132.00	\$80.00	\$27.00	\$88.00
<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The system configuration shown above is an example. Other combinations are also available.

Product Number

Motor

◇ Right-Angle Shaft Hypoid Gearhead

SCM 4 25 K UA M - 4 H 10 B

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

Motor Product Name

Gearhead Product Name

Motor Product Name	①	Motor Type	SCM: Speed Control Motor
	②	Frame Size	4: 80 mm (3.15 in.) 5: 90 mm (3.54 in.)
	③	Output Power (W)	(Example) 25: 25 W (1/30 HP)
	④	Combination Motor	K: Round Shaft Type (with Key)
	⑤	Power Supply Voltage	JA: Single-Phase 100 VAC
			UA: Single-Phase 110/115 VAC
JC: Single-Phase 200 VAC EC: Single-Phase 220/230 VAC			
⑥	M: Power-Off Activated Type Electromagnetic Brake		
Gearhead Product Name	⑦	Combination Motor Frame Size	4: 80 mm (3.15 in.) 5: 90 mm (3.54 in.)
	⑧	Gearhead Type	H: Right-Angle Hollow Shaft Hypoid JH Gear
			L: Right-Angle Solid Shaft Hypoid JL Gear
	⑨	Gear Ratio	Number: Gearhead Gear Ratio
⑩	Output Shaft Material	B: Steel	

◇ Parallel Shaft Gearhead **GV** Gear

SCM 4 25 UA - 15

① ② ③ ④ ⑤ ⑥

◇ Round Shaft Type

SCM 4 25 A - UA

① ② ③ ④ ⑤

①	Motor Type	SCM: Speed Control Motor
②	Frame Size	2: 60 mm (2.36 in.) 3: 70 mm (2.76 in.)
		4: 80 mm (3.15 in.) 5: 90 mm (3.54 in.)
		(Example) 25: 25 W (1/30 HP)
④	Power Supply Voltage	JA: Single-Phase 100 VAC UA: Single-Phase 110/115 VAC
		JC: Single-Phase 200 VAC EC: Single-Phase 220/230 VAC
		M: Power-Off Activated Type Electromagnetic Brake
⑥	Gear Ratio/Shaft Type	Number: Gearhead Gear Ratio
		A: Round Shaft Type

Speed Controller

DSCD 25 UA

① ② ③ ④

①	Speed Controller Type	DSCD: DSC Series Speed Controller
②	Output Power (W)	(Example) 25: 25 W (1/30 HP)
③	Power Supply Voltage	JA: Single-Phase 100 VAC UA: Single-Phase 110/115 VAC
		JC: Single-Phase 200 VAC EC: Single-Phase 220/230 VAC
④	M: Power-Off Activated Type Electromagnetic Brake	

Connection Cable, Flexible Connection Cable

CC 01 SC R

① ② ③ ④ ⑤

①	Cable Type	CC: Connection Cable
②	Length	01: 1 m (3.3 ft.) 02: 2 m (6.6 ft.) 03: 3 m (9.8 ft.)
		05: 5 m (16.4 ft.) 10: 10 m (32.8 ft.)
③	Applicable Model	SC: Speed Control Motor
④	M: Power-Off Activated Type Electromagnetic Brake	
⑤	Blank: Connection Cable	R: Flexible Connection Cable

Standard Type

Right-Angle Shaft Hypoid Gearhead

NEW



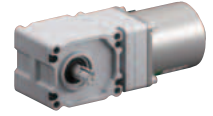
Hollow Shaft Type

Solid Shaft Type

Product Line

Right-Angle Shaft Hypoid Gearhead

Price includes motor and gearhead.



Output Power	Power Supply	Hollow Shaft Type			Solid Shaft Type		
		Product Name	Gear Ratio	List Price	Product Name	Gear Ratio	List Price
25 W (1/30 HP)	Single-Phase 110/115 VAC	SCM425KUA-4H□B	10, 15, 20, 30, 50 100, 200	\$354.00 \$383.00	SCM425KUA-4L□B	10, 15, 20, 30, 50 100, 200	\$320.00 \$335.00
	Single-Phase 220/230 VAC	SCM425KEC-4H□B	10, 15, 20, 30, 50 100, 200	\$357.00 \$386.00	SCM425KEC-4L□B	10, 15, 20, 30, 50 100, 200	\$323.00 \$338.00
40 W (1/19 HP)	Single-Phase 110/115 VAC	SCM540KUA-5H□B	10, 15, 20, 30, 50 100, 200	\$374.00 \$403.00	SCM540KUA-5L□B	10, 15, 20, 30, 50 100, 200	\$340.00 \$355.00
	Single-Phase 220/230 VAC	SCM540KEC-5H□B	10, 15, 20, 30, 50 100, 200	\$378.00 \$407.00	SCM540KEC-5L□B	10, 15, 20, 30, 50 100, 200	\$344.00 \$359.00
90 W (1/8 HP)	Single-Phase 110/115 VAC	SCM590KUA-5H□B	10, 15, 20, 30, 50 100, 200	\$423.00 \$452.00	SCM590KUA-5L□B	10, 15, 20, 30, 50 100, 200	\$389.00 \$404.00
	Single-Phase 220/230 VAC	SCM590KEC-5H□B	10, 15, 20, 30, 50 100, 200	\$428.00 \$457.00	SCM590KEC-5L□B	10, 15, 20, 30, 50 100, 200	\$394.00 \$409.00

Speed Controller

Price includes speed controller, capacitor and capacitor cap.



Connection Cables

Flexible Connection Cables

Output Power	Power Supply Voltage	Product Name	List Price
25 W (1/30 HP)	Single-Phase 110/115 VAC	DSCD25UA	\$125.00
	Single-Phase 220/230 VAC	DSCD25EC	
40 W (1/19 HP)	Single-Phase 110/115 VAC	DSCD40UA	\$125.00
	Single-Phase 220/230 VAC	DSCD40EC	
90 W (1/8 HP)	Single-Phase 110/115 VAC	DSCD90UA	\$127.00
	Single-Phase 220/230 VAC	DSCD90EC	

Length	Product Name	List Price
1 m (3.3 ft.)	CC01SC	\$35.00
2 m (6.6 ft.)	CC02SC	\$39.00
3 m (9.8 ft.)	CC03SC	\$49.00
5 m (16.4 ft.)	CC05SC	\$68.00
10 m (32.8 ft.)	CC10SC	\$116.00

Length	Product Name	List Price
1 m (3.3 ft.)	CC01SCR	\$68.00
2 m (6.6 ft.)	CC02SCR	\$78.00
3 m (9.8 ft.)	CC03SCR	\$97.00
5 m (16.4 ft.)	CC05SCR	\$135.00
10 m (32.8 ft.)	CC10SCR	\$231.00

Included

Motor

Shaft Type	Installation Screws	Parallel Key	Safety Cover	Operating Manual
Hollow Shaft Type	1 Set	1 pc. (Material: Stainless Steel)	1 pc.	1 Copy
Solid Shaft Type		1 pc. (Material: Steel)	—	

Speed Controller

Capacitor	Capacitor Cap	Operating Manual
1 pc.	1 pc.	1 Copy

● A number indicating the gear ratio is specified where the box □ is located within the product name.

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

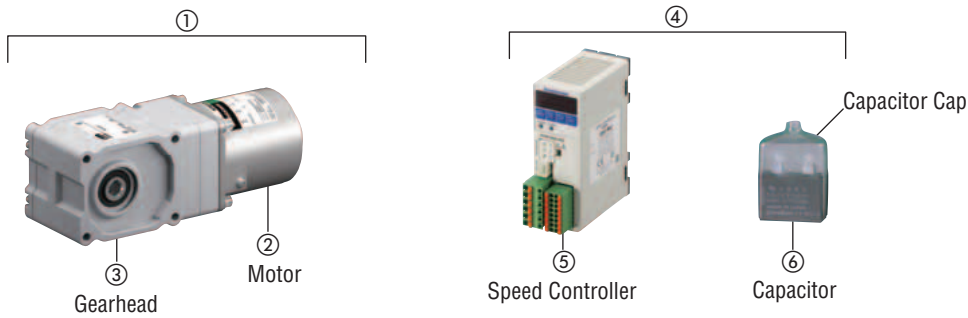
Electromagnetic Brake

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

List of Motor and Speed Controller Combinations



Right-Angle Hollow Shaft Hypoid JH Gear

Output Power	Power Supply Voltage	Speed Control Motor			Speed Controller		
		Product Name	Component Product Name		Product Name	Component Product Name	
		①	②	③	④	⑤	⑥
25 W (1/30 HP)	Single-Phase 100 VAC	SCM425KJA-4H□B	SCM425KJA	4H□B	DSCD25JA	DSC-U	CH80CFAUL2
	Single-Phase 200 VAC	SCM425KJC-4H□B	SCM425KJC		DSCD25JC		CH20BFAUL
	Single-Phase 110/115 VAC	SCM425KUA-4H□B	SCM425KUA		DSCD25UA		CH65CFAUL2
	Single-Phase 220/230 VAC	SCM425KEC-4H□B	SCM425KEC		DSCD25EC		CH15BFAUL
40 W (1/19 HP)	Single-Phase 100 VAC	SCM540KJA-5H□B	SCM540KJA	5H□B	DSCD40JA	DSC-U	CH110CFAUL2
	Single-Phase 200 VAC	SCM540KJC-5H□B	SCM540KJC		DSCD40JC		CH30BFAUL
	Single-Phase 110/115 VAC	SCM540KUA-5H□B	SCM540KUA		DSCD40UA		CH90CFAUL2
	Single-Phase 220/230 VAC	SCM540KEC-5H□B	SCM540KEC		DSCD40EC		CH23BFAUL
90 W (1/8 HP)	Single-Phase 100 VAC	SCM590KJA-5H□B	SCM590KJA	5H□B	DSCD90JA	DSC-U	CH280CFAUL2
	Single-Phase 200 VAC	SCM590KJC-5H□B	SCM590KJC		DSCD90JC		CH70BFAUL
	Single-Phase 110/115 VAC	SCM590KUA-5H□B	SCM590KUA		DSCD90UA		CH200CFAUL2
	Single-Phase 220/230 VAC	SCM590KEC-5H□B	SCM590KEC		DSCD90EC		CH60BFAUL

● A capacitor and a capacitor cap are included with the speed controller product (product name ④). A capacitor cap is not included with the capacitor product (product name ⑥).

Right-Angle Solid Shaft Hypoid JL Gear

Output Power	Power Supply Voltage	Speed Control Motor			Speed Controller		
		Product Name	Component Product Name		Product Name	Component Product Name	
		①	②	③	④	⑤	⑥
25 W (1/30 HP)	Single-Phase 100 VAC	SCM425KJA-4L□B	SCM425KJA	4L□B	DSCD25JA	DSC-U	CH80CFAUL2
	Single-Phase 200 VAC	SCM425KJC-4L□B	SCM425KJC		DSCD25JC		CH20BFAUL
	Single-Phase 110/115 VAC	SCM425KUA-4L□B	SCM425KUA		DSCD25UA		CH65CFAUL2
	Single-Phase 220/230 VAC	SCM425KEC-4L□B	SCM425KEC		DSCD25EC		CH15BFAUL
40 W (1/19 HP)	Single-Phase 100 VAC	SCM540KJA-5L□B	SCM540KJA	5L□B	DSCD40JA	DSC-U	CH110CFAUL2
	Single-Phase 200 VAC	SCM540KJC-5L□B	SCM540KJC		DSCD40JC		CH30BFAUL
	Single-Phase 110/115 VAC	SCM540KUA-5L□B	SCM540KUA		DSCD40UA		CH90CFAUL2
	Single-Phase 220/230 VAC	SCM540KEC-5L□B	SCM540KEC		DSCD40EC		CH23BFAUL
90 W (1/8 HP)	Single-Phase 100 VAC	SCM590KJA-5L□B	SCM590KJA	5L□B	DSCD90JA	DSC-U	CH280CFAUL2
	Single-Phase 200 VAC	SCM590KJC-5L□B	SCM590KJC		DSCD90JC		CH70BFAUL
	Single-Phase 110/115 VAC	SCM590KUA-5L□B	SCM590KUA		DSCD90UA		CH200CFAUL2
	Single-Phase 220/230 VAC	SCM590KEC-5L□B	SCM590KEC		DSCD90EC		CH60BFAUL

● A capacitor and a capacitor cap are included with the speed controller product (product name ④). A capacitor cap is not included with the capacitor product (product name ⑥).

● A number indicating the gear ratio is specified where the box □ is located within the product name.

Specifications - Continuous Rating

● 25 W (1/30 HP)



Product Name			Output Power [W (HP)]	Voltage [VAC]	Frequency [Hz]	Current [A]	Power Consumption [W]	Capacitor [μF]	Motor Overheat Protection Device
Hollow Shaft Type	Solid Shaft Type	Speed Controller							
SCM425KJA-4H □B	SCM425KJA-4L □B	DSCD25JA	25 (1/30)	Single-Phase 100	50	0.75	62	8.0	TP
					60	0.75	66		
SCM425KJC-4H □B	SCM425KJC-4L □B	DSCD25JC		Single-Phase 200	50	0.38	67	2.0	TP
					60	0.38	67		
SCM425KUA-4H □B	SCM425KUA-4L □B	DSCD25UA		Single-Phase 110	60	0.75	58	6.5	TP
						0.75	69		
SCM425KEC-4H □B	SCM425KEC-4L □B	DSCD25EC		Single-Phase 220	50	0.37	70	1.5	TP
					60	0.37	70		
					50	0.37	70		
					60	0.37	70		

TP: This indicates that there is a built-in thermal protector (automatic return type).

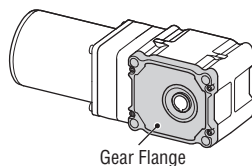
Gear Ratio			10	15	20	30	50	100	200	
Rotation Direction*1			Same direction as the motor					Opposite direction to the motor		
Variable Speed Range [r/min]	High Speed	1400 r/min (50 Hz)	140	93	70	46	28	14	7	
	Low Speed	90 r/min	9	6	4.5	3	1.8	0.9	0.5	
Permissible Torque [N·m (lb-in)]	Single-Phase 100 VAC 200 VAC	1200 r/min	50 Hz	1.0 (8.8)	1.5 (13.2)	2.1 (18.5)	3.4 (30)	5.6 (49)	10.3 (91)	20.5 (181)
		1450 r/min	60 Hz	1.0 (8.8)	1.5 (13.2)	2.0 (17.7)	3.3 (29)	5.5 (48)	10.0 (88)	20.0 (177)
		Starting	100 VAC 50 Hz	0.65 (5.7)	0.98 (8.6)	1.3 (11.5)	2.1 (18.5)	3.6 (31)	6.5 (57)	13.0 (115)
			200 VAC 50/60 Hz	0.60 (5.3)	0.90 (7.9)	1.2 (10.6)	2.0 (17.7)	3.3 (29)	6.0 (53)	12.0 (106)
	Single-Phase 110 VAC 115 VAC	1450 r/min	60 Hz	1.0 (8.8)	1.5 (13.2)	2.1 (18.5)	3.4 (30)	5.6 (49)	10.3 (91)	20.5 (181)
		90 r/min	60 Hz	0.23 (2.0)	0.34 (3.0)	0.45 (3.9)	0.74 (6.5)	1.2 (10.6)	2.3 (20)	4.5 (39)
		Starting	110 VAC 60 Hz	0.63 (5.5)	0.94 (8.3)	1.3 (11.5)	2.1 (18.5)	3.4 (30)	6.3 (55)	12.5 (110)
	115 VAC 60 Hz		0.68 (6.0)	1.0 (8.8)	1.4 (12.3)	2.2 (19.4)	3.7 (32)	6.8 (60)	13.5 (119)	
	Single-Phase 220 VAC 230 VAC	1200 r/min	50 Hz	1.0 (8.8)	1.5 (13.2)	2.1 (18.5)	3.4 (30)	5.6 (49)	10.3 (91)	20.5 (181)
		1450 r/min	60 Hz	1.0 (8.8)	1.5 (13.2)	2.1 (18.5)	3.4 (30)	5.6 (49)	10.3 (91)	20.5 (181)
		90 r/min	50/60 Hz	0.20 (1.77)	0.30 (2.6)	0.40 (3.5)	0.66 (5.8)	1.1 (9.7)	2.0 (17.7)	4.0 (35)
		Starting	220 VAC 50/60 Hz	0.55 (4.8)	0.83 (7.3)	1.1 (9.7)	1.8 (15.9)	3.0 (26)	5.5 (48)	11.0 (97)
230 VAC 50/60 Hz	0.60 (5.3)		0.90 (7.9)	1.2 (10.6)	2.0 (17.7)	3.3 (29)	6.0 (53)	12.0 (106)		
Permissible Inertia J [$\times 10^{-4}$ kg·m ² (oz-in ²)]		When Instantaneous Stop is Performed		100 (550)	225 (1230)	400 (2200)	900 (4900)	2500 (13700)	10000 (55000)	40000 (220000)
Permissible Radial Load [N (lb.)]	Hollow Shaft*2	10 mm (0.39 in.) from Installation Surface	311 (69)	400 (90)	488 (109)	622 (139)	799 (179)	888 (199)	978 (220)	
		20 mm (0.79 in.) from Installation Surface	265 (59)	341 (76)	417 (93)	531 (119)	682 (153)	758 (170)	836 (188)	
	Solid Shaft	10 mm (0.39 in.) from Output Shaft End	304 (68)	390 (87)	477 (107)	607 (136)	781 (175)	868 (195)	956 (210)	
		20 mm (0.79 in.) from Output Shaft End	390 (87)	501 (112)	613 (137)	780 (175)	1003 (220)	1114 (250)	1228 (270)	
Permissible Axial Load [N (lb.)]				88 (19.8)	108 (24)	137 (30)	177 (39)	226 (50)	245 (55)	275 (61)

*1 The rotation direction is as seen from the gear flange surface.

*2 The radial load at each distance can be calculated with a formula. Permissible radial load calculation for hollow shaft type → Page 25

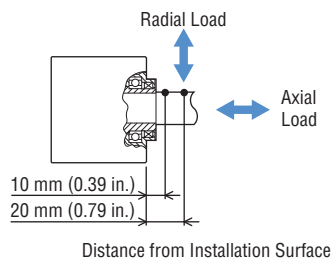
● 90 r/min, 1200 r/min, 1400 r/min, 1450 r/min, and 1600 r/min represent the motor shaft speed.

◇ Gear Flange Position

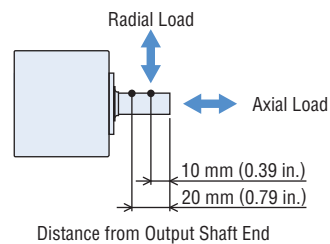


◇ Load Position

● Hollow Shaft Type



● Solid Shaft Type



● A number indicating the gear ratio is specified where the box □ is located within the product name.

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

Product Name			Output Power [W (HP)]	Voltage [VAC]	Frequency [Hz]	Current [A]	Power Consumption [W]	Capacitor [μF]	Motor Overheat Protection Device	
Hollow Shaft Type	Solid Shaft Type	Speed Controller								
SCM540KJA-5H □B	SCM540KJA-5L □B	DSCD40JA	40 (1/19)	Single-Phase 100	50	1.1	92	11	TP	
					60	1.1	101			
SCM540KJC-5H □B	SCM540KJC-5L □B	DSCD40JC		Single-Phase 200	50	0.57	94	3.0	TP	
					60	0.57	100			
SCM540KUA-5H □B	SCM540KUA-5L □B	DSCD40UA		Single-Phase 110	Single-Phase 115	60	1.1	107	9.0	TP
						60	1.1	107		
SCM540KEC-5H □B	SCM540KEC-5L □B	DSCD40EC		Single-Phase 220	50	0.55	96	2.3	TP	
					60	0.55	104			
					50	0.55	99			
				Single-Phase 230	50	0.55	105			
					60	0.55	105			

TP: This indicates that there is a built-in thermal protector (automatic return type).

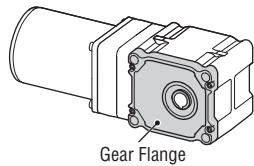
Gear Ratio			10	15	20	30	50	100	200	
Rotation Direction*1			Same direction as the motor						Opposite direction to the motor	
Variable Speed Range [r/min]	High Speed	1400 r/min (50 Hz)	140	93	70	46	28	14	7	
	Low Speed	1600 r/min (60 Hz)	160	106	80	53	32	16	8	
		90 r/min	9	6	4.5	3	1.8	0.9	0.5	
Permissible Torque [N·m (lb-in)]	Single-Phase 100 VAC 200 VAC	1200 r/min	50 Hz	1.6 (14.1)	2.4 (21)	3.2 (28)	4.8 (42)	8.0 (70)	17.6 (155)	35.2 (310)
		1450 r/min	100 VAC 60 Hz	1.5 (13.2)	2.3 (20)	3.0 (26)	4.5 (39)	7.5 (66)	16.5 (146)	33.0 (290)
			200 VAC 60 Hz	1.6 (14.1)	2.4 (21)	3.2 (28)	4.8 (42)	8.0 (70)	17.6 (155)	35.2 (310)
		90 r/min	100 VAC 50/60 Hz	0.40 (3.5)	0.60 (5.3)	0.80 (7.0)	1.2 (10.6)	2.0 (17.7)	4.4 (38)	8.8 (77)
			200 VAC 50/60 Hz	0.45 (3.9)	0.68 (6.0)	0.90 (7.9)	1.4 (12.3)	2.3 (20)	5.0 (44)	9.9 (87)
		Starting	100 VAC 50 Hz	0.90 (7.9)	1.4 (12.3)	1.8 (15.9)	2.7 (23)	4.5 (39)	9.9 (87)	19.8 (175)
	200 VAC 50/60 Hz		0.95 (8.4)	1.4 (12.3)	1.9 (16.8)	2.9 (25)	4.8 (42)	10.5 (92)	20.9 (184)	
	Single-Phase 110 VAC 115 VAC	1450 r/min	60 Hz	1.6 (14.1)	2.4 (21)	3.2 (28)	4.8 (42)	8.0 (70)	17.6 (155)	35.2 (310)
		90 r/min	60 Hz	0.35 (3.0)	0.53 (4.6)	0.70 (6.1)	1.1 (9.7)	1.8 (15.9)	3.9 (34)	7.7 (68)
		Starting	110 VAC 60 Hz	0.90 (7.9)	1.4 (12.3)	1.8 (15.9)	2.7 (23)	4.5 (39)	9.9 (87)	19.8 (175)
	115 VAC 60 Hz		0.95 (8.4)	1.4 (12.3)	1.9 (16.8)	2.9 (25)	4.8 (42)	10.5 (92)	20.9 (184)	
	Single-Phase 220 VAC 230 VAC	1200 r/min	50 Hz	1.6 (14.1)	2.4 (21)	3.2 (28)	4.8 (42)	8.0 (70)	17.6 (155)	35.2 (310)
		1450 r/min	60 Hz	1.6 (14.1)	2.4 (21)	3.2 (28)	4.8 (42)	8.0 (70)	17.6 (155)	35.2 (310)
		90 r/min	50 Hz	0.33 (2.9)	0.49 (4.3)	0.65 (5.7)	0.98 (8.6)	1.6 (14.1)	3.6 (31)	7.2 (63)
			60 Hz	0.35 (3.0)	0.53 (4.6)	0.70 (6.1)	1.1 (9.7)	1.8 (15.9)	3.9 (34)	7.7 (68)
		Starting	50/60 Hz	0.95 (8.4)	1.4 (12.3)	1.9 (16.8)	2.9 (25)	4.8 (42)	10.5 (92)	20.9 (184)
	Permissible Inertia J [$\times 10^{-4}$ kg·m ² (oz-in ²)]			200 (1090)	450 (2500)	800 (4400)	1800 (9800)	5000 (27000)	20000 (109000)	80000 (440000)
	When Instantaneous Stop is Performed			59 (320)	132.8 (730)	236 (1290)	531 (2900)	1475 (8100)	5900 (32000)	23600 (129000)
Permissible Radial Load [N (lb.)]	Hollow Shaft*2	10 mm (0.39 in.) from Installation Surface	415 (93)	554 (124)	692 (155)	923 (200)	1112 (250)	1196 (260)	1291 (290)	
		20 mm (0.79 in.) from Installation Surface	363 (81)	484 (108)	605 (136)	806 (181)	971 (210)	1045 (230)	1127 (250)	
	Solid Shaft	10 mm (0.39 in.) from Output Shaft End	378 (85)	504 (113)	630 (141)	840 (189)	1011 (220)	1089 (240)	1174 (260)	
		20 mm (0.79 in.) from Output Shaft End	481 (108)	641 (144)	802 (180)	1069 (240)	1287 (280)	1385 (310)	1495 (330)	
Permissible Axial Load [N (lb.)]			108 (24)	147 (33)	186 (41)	245 (55)	294 (66)	324 (72)	343 (77)	

*1 The rotation direction is as seen from the gear flange surface.

*2 The radial load at each distance can be calculated with a formula. Permissible radial load calculation for hollow shaft type → Page 25

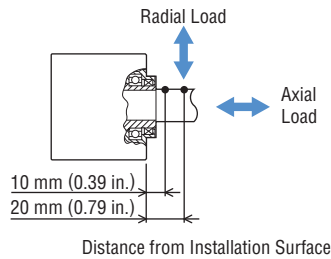
● 90 r/min, 1200 r/min, 1400 r/min, 1450 r/min, and 1600 r/min represent the motor shaft speed.

◇ Gear Flange Position

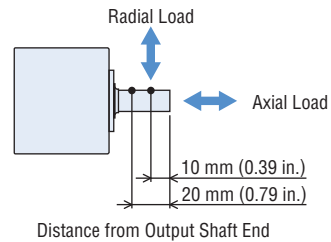


◇ Load Position

● Hollow Shaft Type



● Solid Shaft Type



● A number indicating the gear ratio is specified where the box □ is located within the product name.

Product Name			Output Power [W (HP)]	Voltage [VAC]	Frequency [Hz]	Current [A]	Power Consumption [W]	Capacitor [μF]	Motor Overheat Protection Device	
Hollow Shaft Type	Solid Shaft Type	Speed Controller								
SCM590KJA-5H □B	SCM590KJA-5L □B	DSCD90JA	90 (1/8)	Single-Phase 100	50	2.4	195	28	TP	
					60	2.6	217			
SCM590KJC-5H □B	SCM590KJC-5L □B	DSCD90JC		Single-Phase 200	50	1.2	198	7.0	TP	
					60	1.3	221			
SCM590KUA-5H □B	SCM590KUA-5L □B	DSCD90UA		Single-Phase 110	Single-Phase 115	60	2.4	224	20	TP
						60	2.5	227		
SCM590KEC-5H □B	SCM590KEC-5L □B	DSCD90EC		Single-Phase 220	50	1.2	201	6.0	TP	
					60	1.3	226			
					50	1.2	204			
					60	1.3	228			

TP: This indicates that there is a built-in thermal protector (automatic return type).

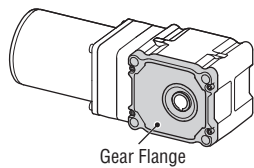
Gear Ratio			10	15	20	30	50	100	200		
Rotation Direction*1			Same direction as the motor						Opposite direction to the motor		
Variable Speed Range [r/min]	High Speed	1400 r/min (50 Hz)	140	93	70	46	28	14	7		
	Low Speed	1600 r/min (60 Hz)	160	106	80	53	32	16	8		
90 r/min			9	6	4.5	3	1.8	0.9	0.5		
Permissible Torque [N·m (lb-in)]	Single-Phase 100 VAC 200 VAC	1200 r/min	50 Hz	4.1 (36)	6.1 (53)	8.3 (73)	12.7 (112)	20.6 (182)	39.2 (340)	53.9 (470)	
		1450 r/min	60 Hz	4.1 (36)	6.1 (53)	8.3 (73)	12.7 (112)	20.6 (182)	39.2 (340)	53.9 (470)	
		90 r/min	100 VAC 50/60 Hz	200 VAC 60 Hz	0.77 (6.8)	1.2 (10.6)	1.5 (13.2)	2.3 (20)	3.9 (34)	7.7 (68)	15.4 (136)
			200 VAC 50 Hz	0.84 (7.4)	1.3 (11.5)	1.7 (15.0)	2.5 (22)	4.2 (37)	8.4 (74)	16.8 (148)	
	Starting	100 VAC 50/60 Hz	3.3 (29)	4.9 (43)	6.6 (58)	9.9 (87)	16.5 (146)	32.9 (290)	53.9 (470)		
		200 VAC 50 Hz	3.4 (30)	5.0 (44)	6.7 (59)	10.1 (89)	16.8 (148)	33.6 (290)	53.9 (470)		
	200 VAC 60 Hz	3.6 (31)	5.4 (47)	7.1 (62)	10.7 (94)	17.9 (158)	35.7 (310)	53.9 (470)			
		1450 r/min	60 Hz	4.1 (36)	6.1 (53)	8.3 (73)	12.7 (112)	20.6 (182)	39.2 (340)	53.9 (470)	
	Single-Phase 110 VAC 115 VAC	90 r/min	60 Hz	0.60 (5.3)	0.89 (7.8)	1.2 (10.6)	1.8 (15.9)	3.0 (26)	6.0 (53)	11.9 (105)	
		Starting	110 VAC 60 Hz	2.8 (24)	4.2 (37)	5.6 (49)	8.4 (74)	14.0 (123)	28.0 (240)	53.9 (470)	
	115 VAC 60 Hz		3.1 (27)	4.6 (40)	6.2 (54)	9.2 (81)	15.4 (136)	30.8 (270)	53.9 (470)		
	Single-Phase 220 VAC 230 VAC	1200 r/min	50 Hz	4.1 (36)	6.1 (53)	8.3 (73)	12.7 (112)	20.6 (182)	39.2 (340)	53.9 (470)	
		1450 r/min	60 Hz	4.1 (36)	6.1 (53)	8.3 (73)	12.7 (112)	20.6 (182)	39.2 (340)	53.9 (470)	
		90 r/min	50/60 Hz	0.67 (5.9)	1.0 (8.8)	1.3 (11.5)	2.0 (17.7)	3.3 (29)	6.7 (59)	13.3 (117)	
			220 VAC 50 Hz	3.4 (30)	5.1 (45)	6.9 (61)	10.3 (91)	17.2 (152)	34.3 (300)	53.9 (470)	
		Starting	220 VAC 60 Hz	3.5 (30)	5.3 (46)	7.0 (61)	10.5 (92)	17.5 (154)	35.0 (300)	53.9 (470)	
230 VAC 50 Hz			3.6 (31)	5.5 (48)	7.3 (64)	10.9 (96)	18.2 (161)	36.4 (320)	53.9 (470)		
230 VAC 60 Hz	3.7 (32)	5.6 (49)	7.4 (65)	11.1 (98)	18.6 (164)	37.1 (320)	53.9 (470)				
Permissible Inertia J [$\times 10^{-4}$ kg·m ² (oz-in ²)]			200 (1090)	450 (2500)	800 (4400)	1800 (9800)	5000 (27000)	20000 (109000)	80000 (440000)		
When Instantaneous Stop is Performed			39 (210)	87.8 (480)	156 (850)	351 (1920)	975 (5300)	3900 (21000)	15600 (85000)		
Permissible Radial Load [N (lb.)]	Hollow Shaft*2	10 mm (0.39 in.) from Installation Surface	415 (93)	554 (124)	692 (155)	923 (200)	1112 (250)	1196 (260)	1291 (290)		
		20 mm (0.79 in.) from Installation Surface	363 (81)	484 (108)	605 (136)	806 (181)	971 (210)	1045 (230)	1127 (250)		
	Solid Shaft	10 mm (0.39 in.) from Output Shaft End	378 (85)	504 (113)	630 (141)	840 (189)	1011 (220)	1089 (240)	1174 (260)		
		20 mm (0.79 in.) from Output Shaft End	481 (108)	641 (144)	802 (180)	1069 (240)	1287 (280)	1385 (310)	1495 (330)		
Permissible Axial Load [N (lb.)]			108 (24)	147 (33)	186 (41)	245 (55)	294 (66)	324 (72)	343 (77)		

*1 The rotation direction is as seen from the gear flange surface.

*2 The radial load at each distance can be calculated with a formula. Permissible radial load calculation for hollow shaft type → Page 25

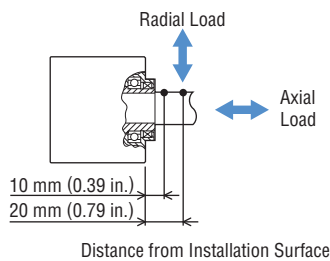
● 90 r/min, 1200 r/min, 1400 r/min, 1450 r/min, and 1600 r/min represent the motor shaft speed.

◇ Gear Flange Position

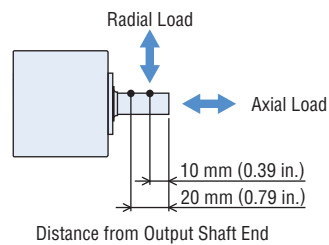


◇ Load Position

● Hollow Shaft Type



● Solid Shaft Type



● A number indicating the gear ratio is specified where the box □ is located within the product name.

Common Specifications

Item	Specifications	
Speed Setting Method	The speed of the motor output shaft can be set using any of the following methods: <ul style="list-style-type: none"> Using operation panel Up to four types of operation data can be set. Using an external speed potentiometer Using external DC voltage: 0 to 5 VDC, or 0 to 10 VDC 	
Acceleration Time and Deceleration Time Setting Range	0.0 to 15.0 s The motor acceleration time and deceleration time vary depending on the load condition.	
Functions	Monitor Mode	Speed, Operation Data No., Alarm Code, Warning Code, I/O Monitor
	Data Mode	Speed, Accelerating Time, Decelerating Time, Initialization
	Parameter Mode	Speed Reduction Ratio, Speed Increasing Ratio, Lowest Digit Display Fixed, Prevention of Operation at Power-on Alarm, External Speed Command Input, External Speed Command Voltage Selection, External Speed Command OffSet, Speed Upper and Lower Limit, Input Function Selection, Output Function Selection, Motor Lock Detection Time, Motor Rotation Direction, Initialization
	Test Mode	JOG Operation
	Other Function	Prohibiting Data Editing
Control Power Supply	24 VDC \pm 10% 0.15 A min.	
Input Signals	Photocoupler Input, Input Resistance: 4.7 k Ω Signal assignment to IN0 to IN5 inputs (6 points) is possible as desired. []: Initial Setting [FWD], [REV], [MO], [M1], [ALARM-RESET], [FREE], EXT-ERROR Source input or sink input can be switched using the selection switch. Factory Setting: Sink Input	
Output Signals	Photocoupler and Open-Collector Output, External Power Supply: 4.5 to 30 VDC, 40 mA max. Signal assignment to OUT0 and OUT1 outputs (2 points) is possible as desired. []: Initial Setting [SPEED-OUT], [ALARM-OUT], TH-OUT, WNG Source output or sink output can be switched by changing the external wiring.	
Protective Function	When any of the following protective functions is activated, the motor will coast to a stop. Then the ALARM output will be turned off. At the same, the alarm code will be displayed on the control panel and the ALARM LED will be lit. Alarm Types: Motor Overheat, Motor Lock, Overspeed, EEPROM Error, Prevention of Operation at Power-On, External Stop	
Maximum Extension Length	Between the motor and the speed controller: 10 m (32.8 ft.)	

General Specifications

Item	Motor	Speed Controller
Insulation Resistance	100 M Ω or more when 500 VDC megger is applied between the windings and the case after continuous operation under normal ambient temperature and humidity.	100 M Ω or more when 500 VDC megger is applied between the following places after continuous operation under normal ambient temperature and humidity: <ul style="list-style-type: none"> Main Circuit Terminal - Control Circuit Terminal Main Circuit Terminal - Case Main Circuit Terminal - FG
Dielectric Strength	Sufficient to withstand 1.5 kVAC at 50 Hz or 60 Hz applied between the windings and the case for 1 minute after continuous operation under normal ambient temperature and humidity.	Sufficient to withstand the following for 1 minute after continuous operation under normal ambient temperature and humidity: <ul style="list-style-type: none"> Main Circuit Terminal - Control Circuit Terminal 1.9 kVAC at 50 Hz or 60 Hz Main Circuit Terminal - Case 1.9 kVAC at 50 Hz or 60 Hz Main Circuit Terminal - FG 1.5 kVAC at 50 Hz or 60 Hz
Temperature Rise	The temperature rise of the windings is 80°C (176°F) or less measured by the resistance change method after no-load continuous operation under normal ambient temperature and humidity.	—
Overheat Protection Device	Thermal Protector Built-in (Automatic Return Type) Open: 130 \pm 5°C (266 \pm 9°F) Close: 85 \pm 20°C (185 \pm 36°F)	—
Operating Environment	Ambient Temperature	0 to +40°C (+32 to +104°F) (Non-freezing)
	Ambient Humidity	85% or less (Non-condensing)
	Altitude	Up to 1000 m (3300 ft.) above sea level
Operating Environment	Surrounding Atmosphere	No corrosive gases or dust. The product should not be exposed to water, oil or other liquids. Cannot be used in radioactive materials, magnetic field, vacuum or other special environments.
	Vibration	Not subject to continuous vibrations or excessive impact. In conformance with JIS C 60068-2-6 "Sine-wave vibration test method" Frequency Range: 10 to 55 Hz, Pulsating Amplitude: 0.15 mm (0.006 in.) Sweep Direction: 3 Directions (X, Y, Z), Number of Sweeps: 20 times
Storage Conditions*	Ambient Temperature	-10 to +60°C [+14 to +140°F] (Non-freezing)
	Ambient Humidity	85% or less (Non-condensing)
	Altitude	Up to 1000 m (3300 ft.) above sea level
	Surrounding Atmosphere	No corrosive gases or dust. The product should not be exposed to water, oil or other liquids. Cannot be used in radioactive materials, magnetic field, vacuum or other special environments.
Thermal Class	130 (B)	—
Degree of Protection	IP20	IP20

*The storage condition applies to short periods such as the period during transportation.

Note

- Do not measure insulation resistance or perform the dielectric voltage test while the motor and speed controller are connected.

How to Read Speed - Torque Characteristics

The characteristics on the right shows the relationship between each setting speed and torque when a speed control motor is operated.

① Continuous Duty Region

Continuous operation is possible in this region within the specification rating.

② Limited Duty Region

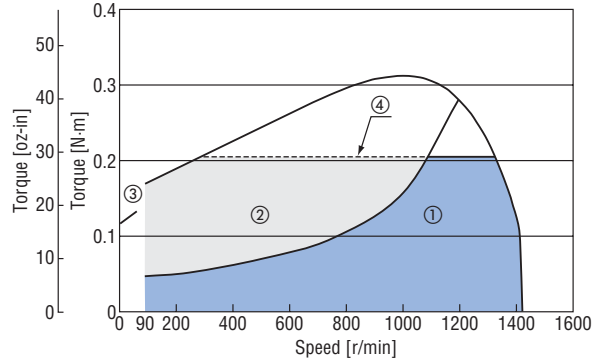
The motor case temperature may exceed 90°C (194°F) if operated continuously within the limited duty region. When operating within the limited duty region, ensure that the motor case temperature is maintained at 90°C (194°F) or less.

③ Starting Torque

This refers to the degree of torque with which the motor can start.

④ Permissible Torque

This refers to the permissible value of the motor torque when operating with the gearhead installed. Use the motor without exceeding the value on the list of permissible torques.



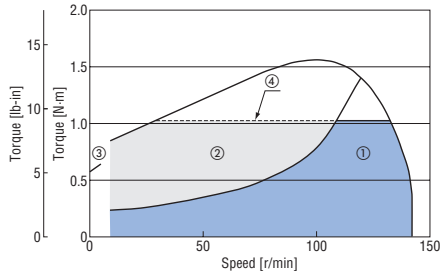
Speed - Torque Characteristics (Reference values)

① Continuous Duty Region ② Limited Duty Region ③ Starting Torque ④ Permissible Torque

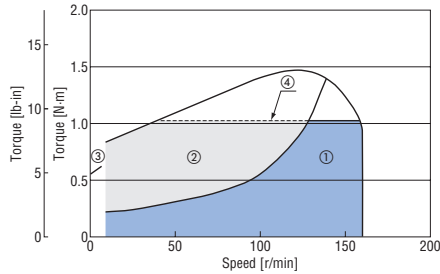
● All output characteristics are representative values. The permissible torque and starting torque of the motor vary according to the voltage. Use after checking the specifications and permissible torque.

● 25 W (1/30 HP)

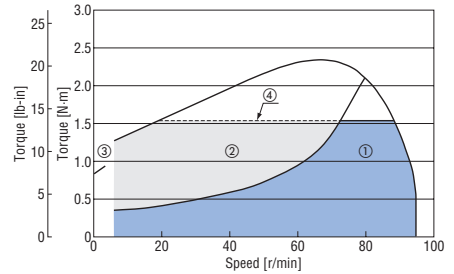
◇ Gear Ratio: 10 50 Hz



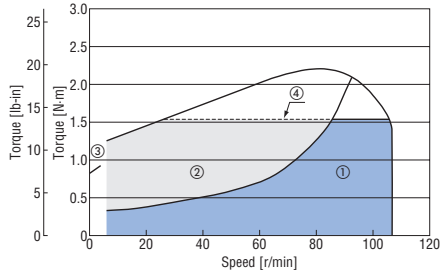
◇ Gear Ratio: 10 60 Hz



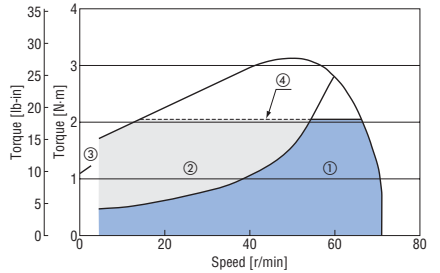
◇ Gear Ratio: 15 50 Hz



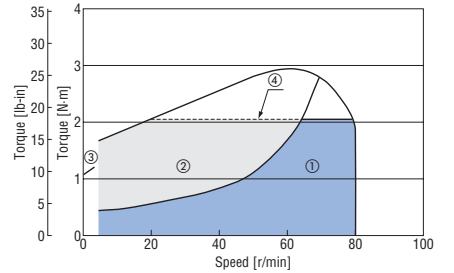
◇ Gear Ratio: 15 60 Hz



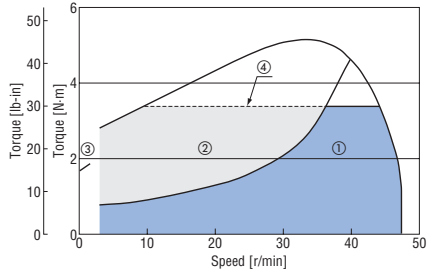
◇ Gear Ratio: 20 50 Hz



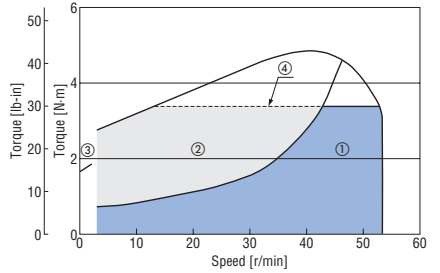
◇ Gear Ratio: 20 60 Hz



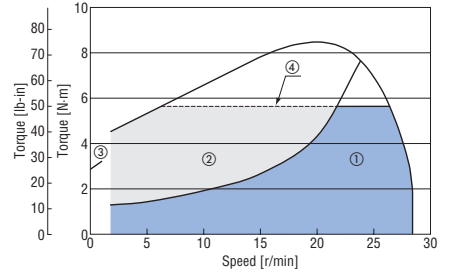
◇ Gear Ratio: 30 50 Hz



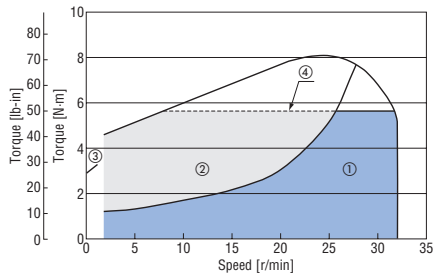
◇ Gear Ratio: 30 60 Hz



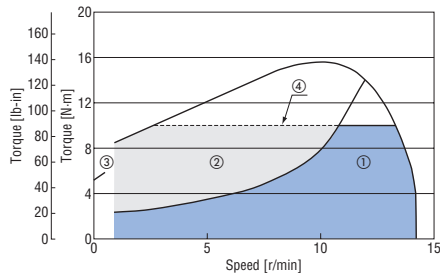
◇ Gear Ratio: 50 50 Hz



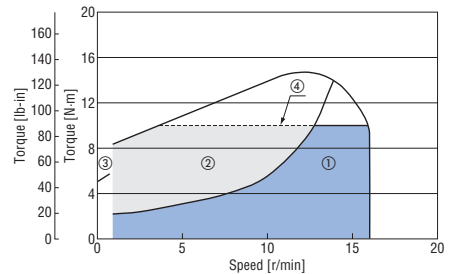
◇ Gear Ratio: 50 60 Hz



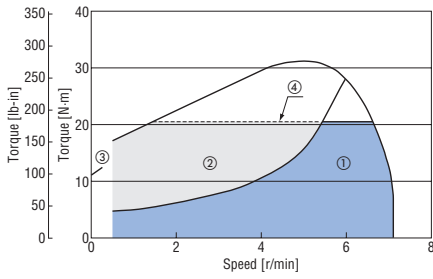
◇ Gear Ratio: 100 50 Hz



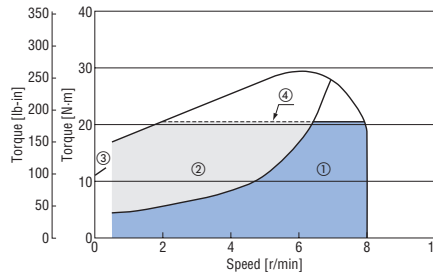
◇ Gear Ratio: 100 60 Hz



◇ Gear Ratio: **200** 50 Hz

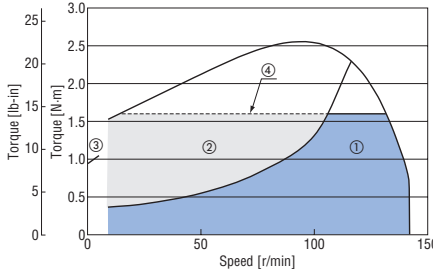


◇ Gear Ratio: **200** 60 Hz

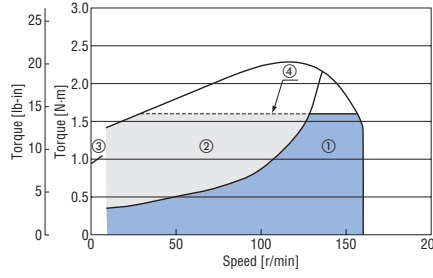


● 40 W (1/19 HP)

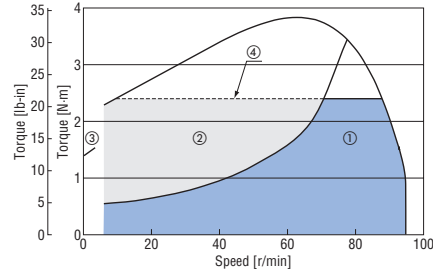
◇ Gear Ratio: **10** 50 Hz



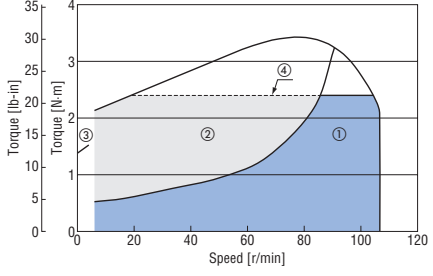
◇ Gear Ratio: **10** 60 Hz



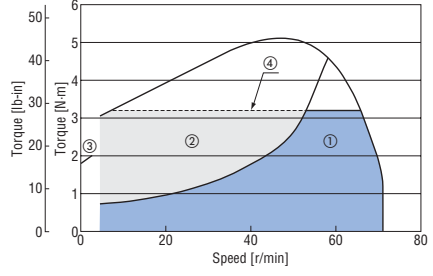
◇ Gear Ratio: **15** 50 Hz



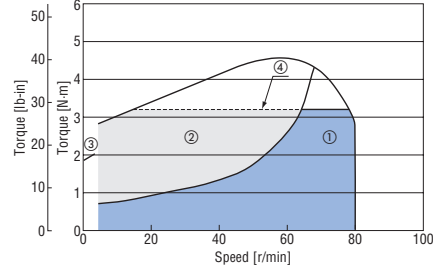
◇ Gear Ratio: **15** 60 Hz



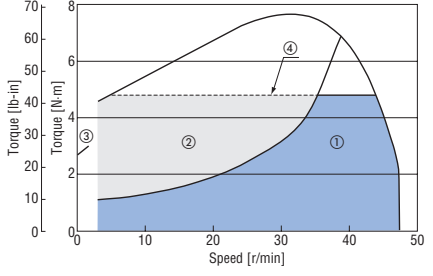
◇ Gear Ratio: **20** 50 Hz



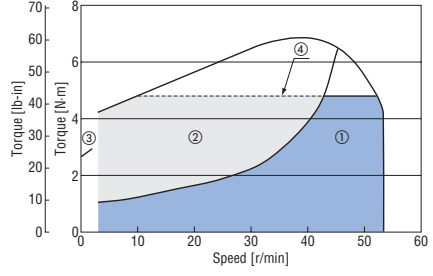
◇ Gear Ratio: **20** 60 Hz



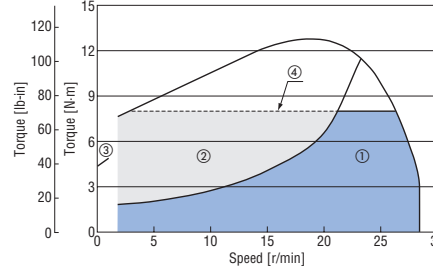
◇ Gear Ratio: **30** 50 Hz



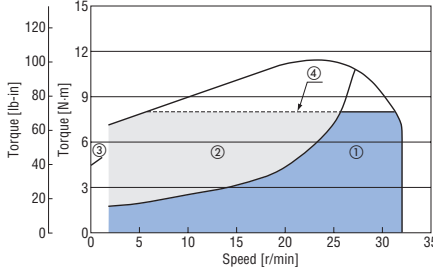
◇ Gear Ratio: **30** 60 Hz



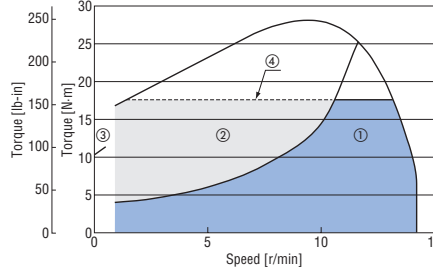
◇ Gear Ratio: **50** 50 Hz



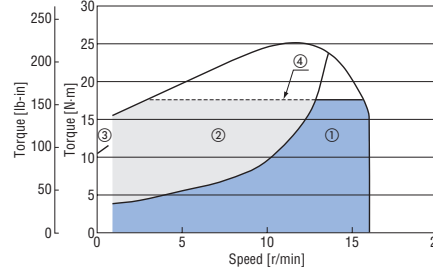
◇ Gear Ratio: **50** 60 Hz



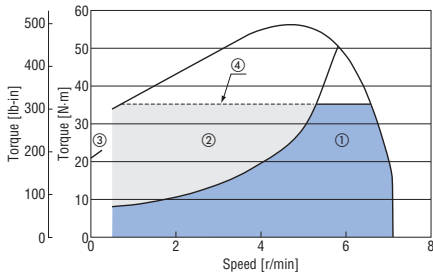
◇ Gear Ratio: **100** 50 Hz



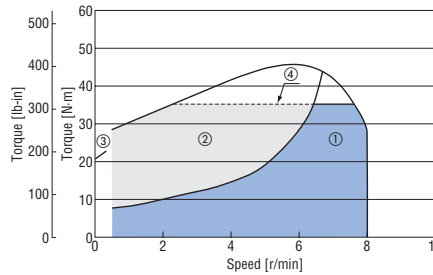
◇ Gear Ratio: **100** 60 Hz



◇ Gear Ratio: **200** 50 Hz

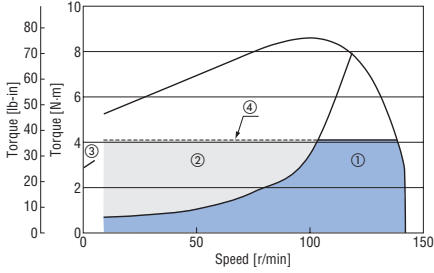


◇ Gear Ratio: **200** 60 Hz

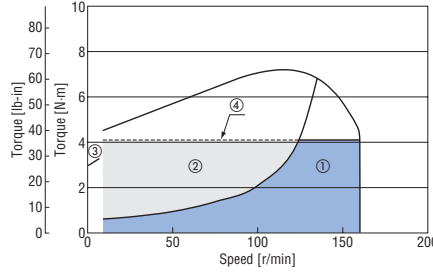


● 90 W (1/8 HP)

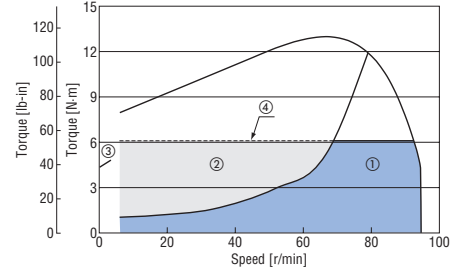
◇ Gear Ratio: 10 50 Hz



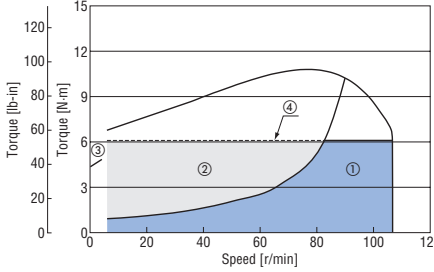
◇ Gear Ratio: 10 60 Hz



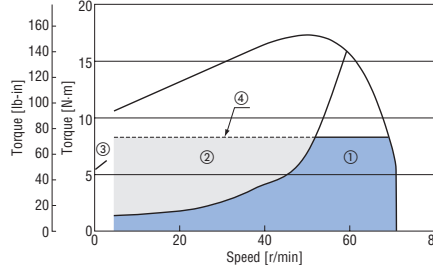
◇ Gear Ratio: 15 50 Hz



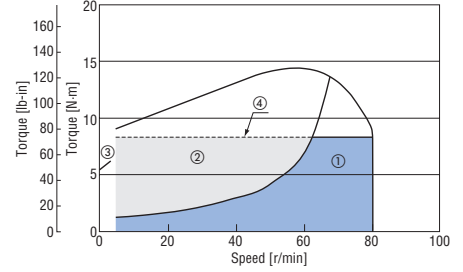
◇ Gear Ratio: 15 60 Hz



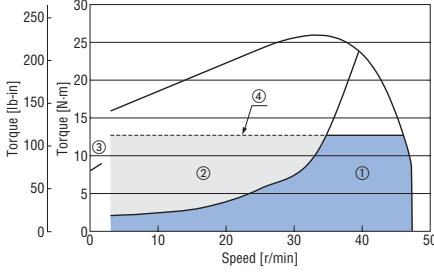
◇ Gear Ratio: 20 50 Hz



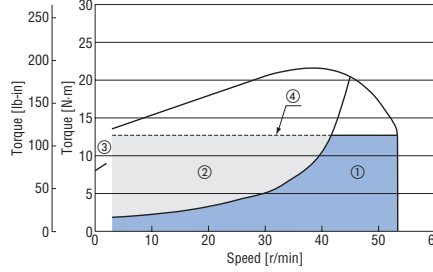
◇ Gear Ratio: 20 60 Hz



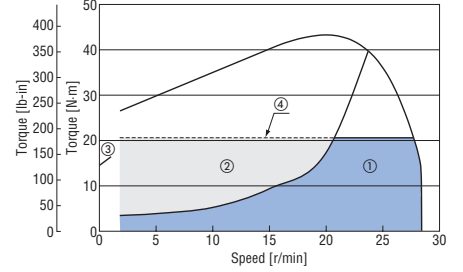
◇ Gear Ratio: 30 50 Hz



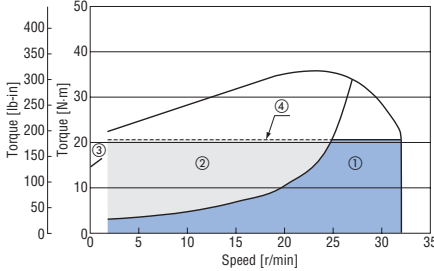
◇ Gear Ratio: 30 60 Hz



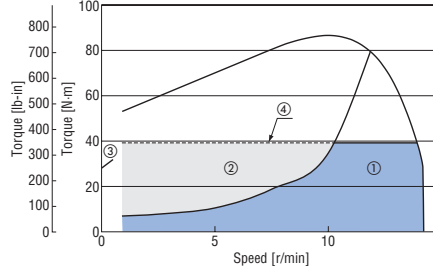
◇ Gear Ratio: 50 50 Hz



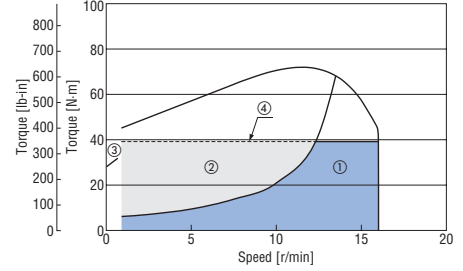
◇ Gear Ratio: 50 60 Hz



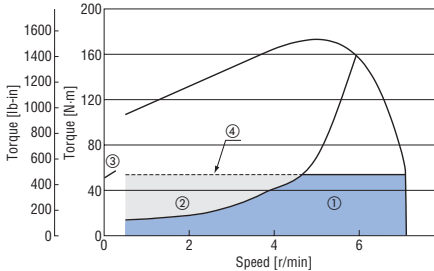
◇ Gear Ratio: 100 50 Hz



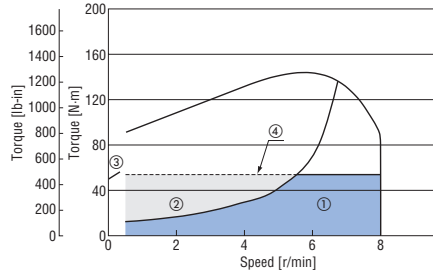
◇ Gear Ratio: 100 60 Hz



◇ Gear Ratio: 200 50 Hz



◇ Gear Ratio: 200 60 Hz



Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Electromagnetic Brake

Right-Angle Shaft

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

Dimensions [Unit: mm (in.)]

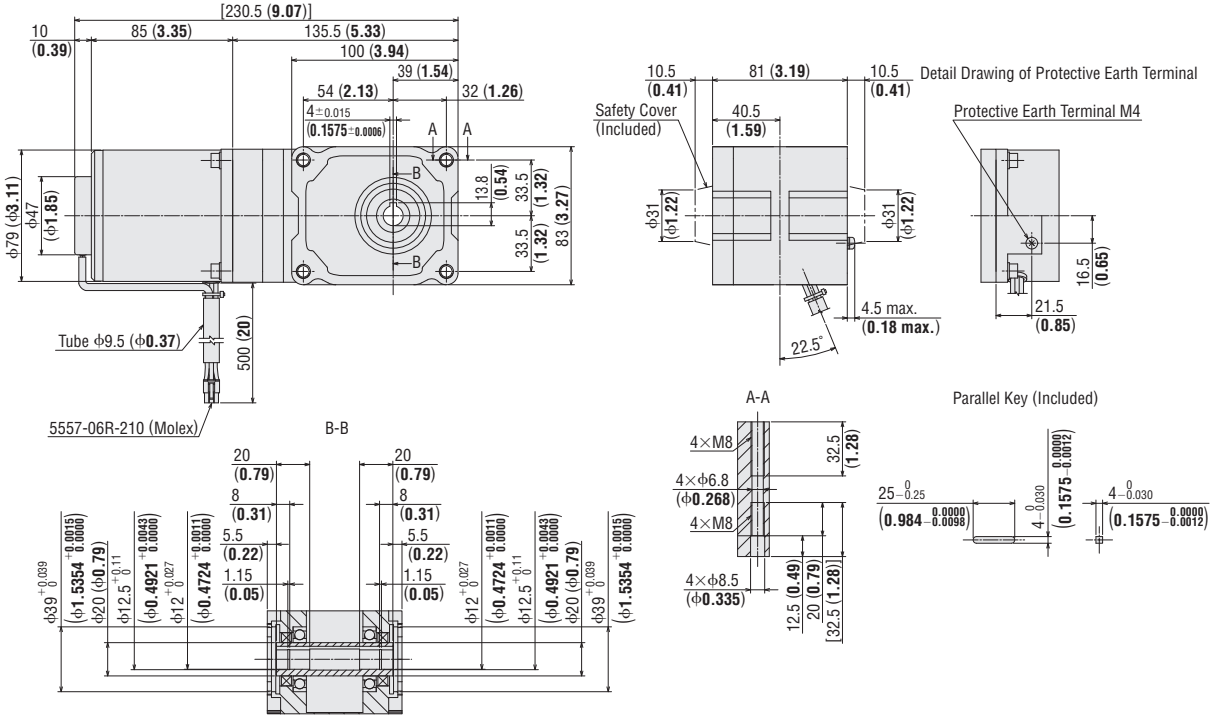
- "Installation screws" are included. Dimensions for installation screws → Page 24
- A number indicating the gear ratio is specified where the box □ is located within the product name.

● 25 W (1/30 HP)

◇ Right-Angle Hollow Shaft Hypoid JH Gear

2D & 3D CAD

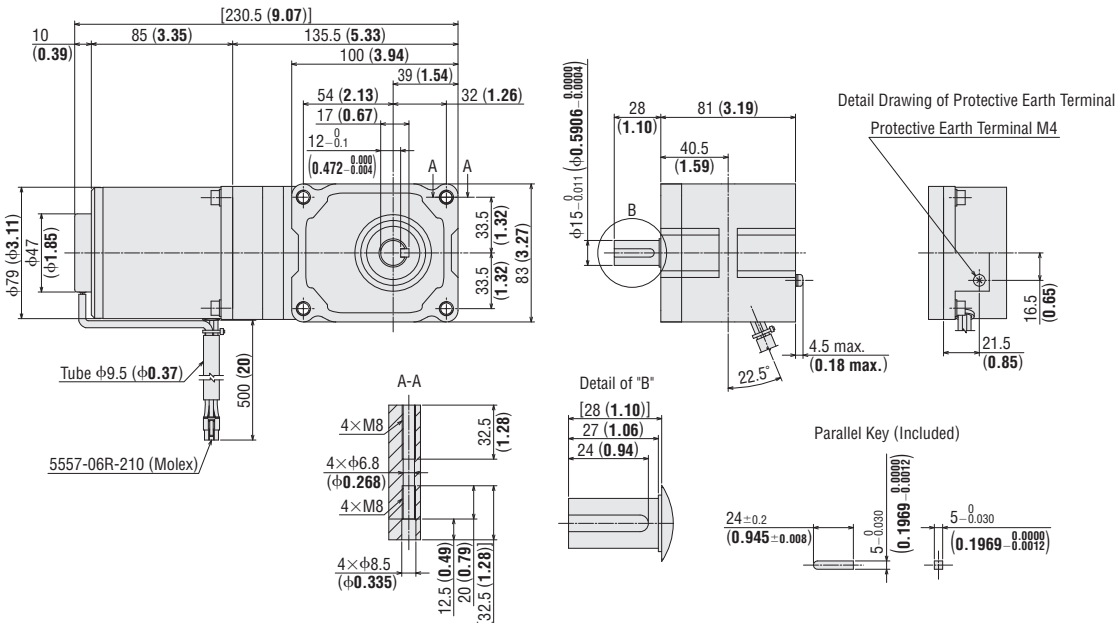
Product Name	Motor Product Name	Gearhead Product Name	Mass kg (lb.)	2D CAD
SCM425KJA-4H□B	SCM425KJA	4H□B	3.6 (7.9)	A1680
SCM425KJC-4H□B	SCM425KJC			
SCM425KUA-4H□B	SCM425KUA			
SCM425KEC-4H□B	SCM425KEC			



◇ Right-Angle Solid Shaft Hypoid JL Gear

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Mass kg (lb.)	2D CAD
SCM425KJA-4L□B	SCM425KJA	4L□B	3.6 (7.9)	A1681
SCM425KJC-4L□B	SCM425KJC			
SCM425KUA-4L□B	SCM425KUA			
SCM425KEC-4L□B	SCM425KEC			

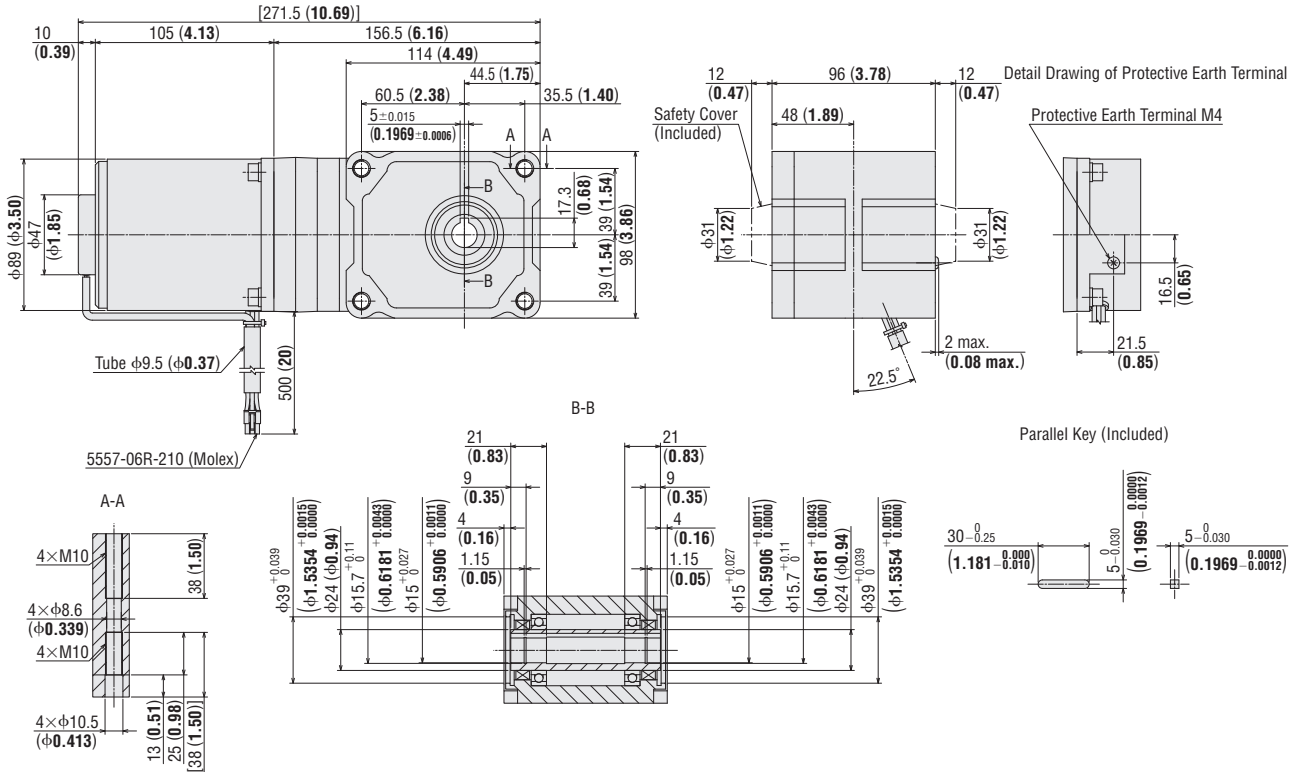


● 40 W (1/19 HP)

◇ Right-Angle Hollow Shaft Hypoid **JH** Gear

2D & 3D CAD

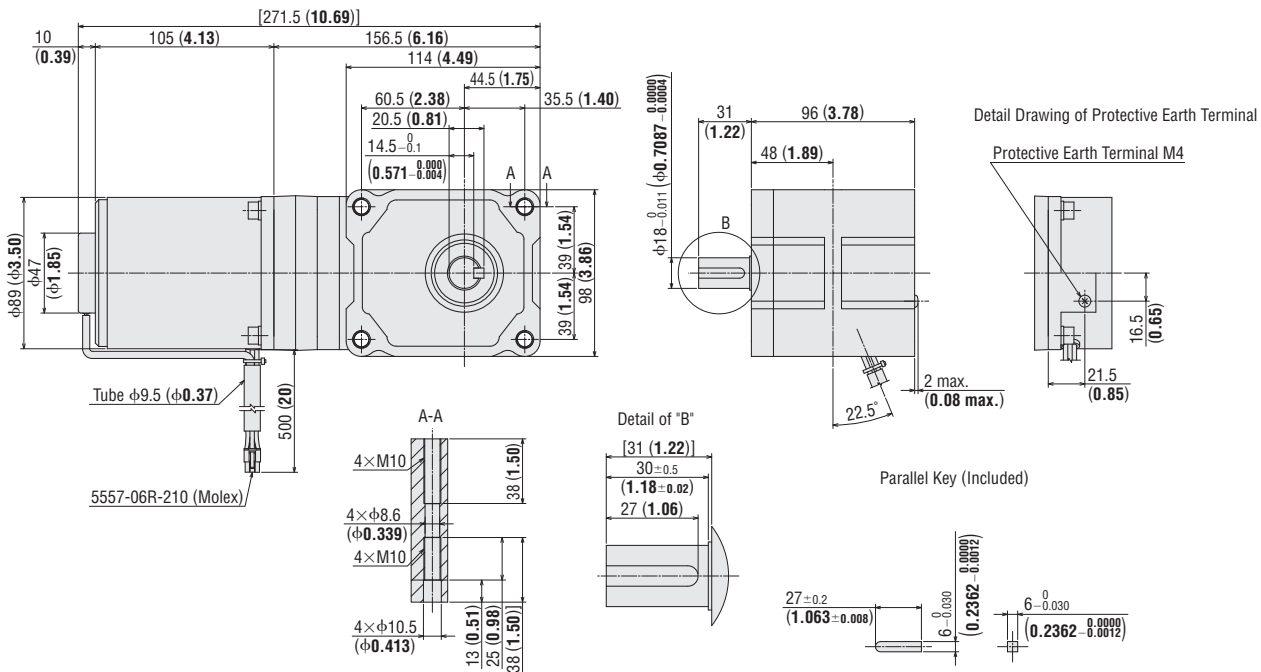
Product Name	Motor Product Name	Gearhead Product Name	Mass kg (lb.)	2D CAD
SCM540KJA-5H □B	SCM540KJA	5H□B	5.6 (12.3)	A1682
SCM540KJC-5H □B	SCM540KJC			
SCM540KUA-5H □B	SCM540KUA			
SCM540KEC-5H □B	SCM540KEC			



◇ Right-Angle Solid Shaft Hypoid **JL** Gear

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Mass kg (lb.)	2D CAD
SCM540KJA-5L □B	SCM540KJA	5L□B	5.6 (12.3)	A1683
SCM540KJC-5L □B	SCM540KJC			
SCM540KUA-5L □B	SCM540KUA			
SCM540KEC-5L □B	SCM540KEC			



Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

Connection and
Operation

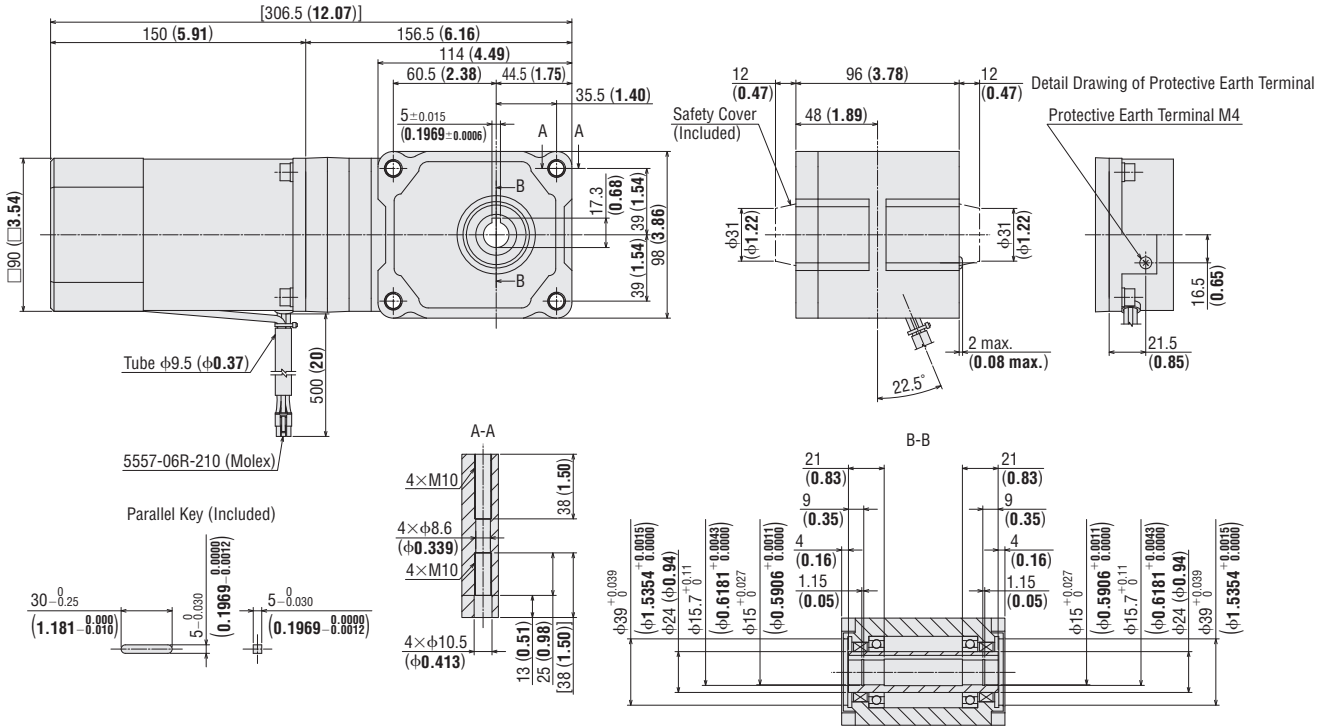
Cables
Accessories

● 90 W (1/8 HP)

◇ Right-Angle Hollow Shaft Hypoid JH Gear

2D & 3D CAD

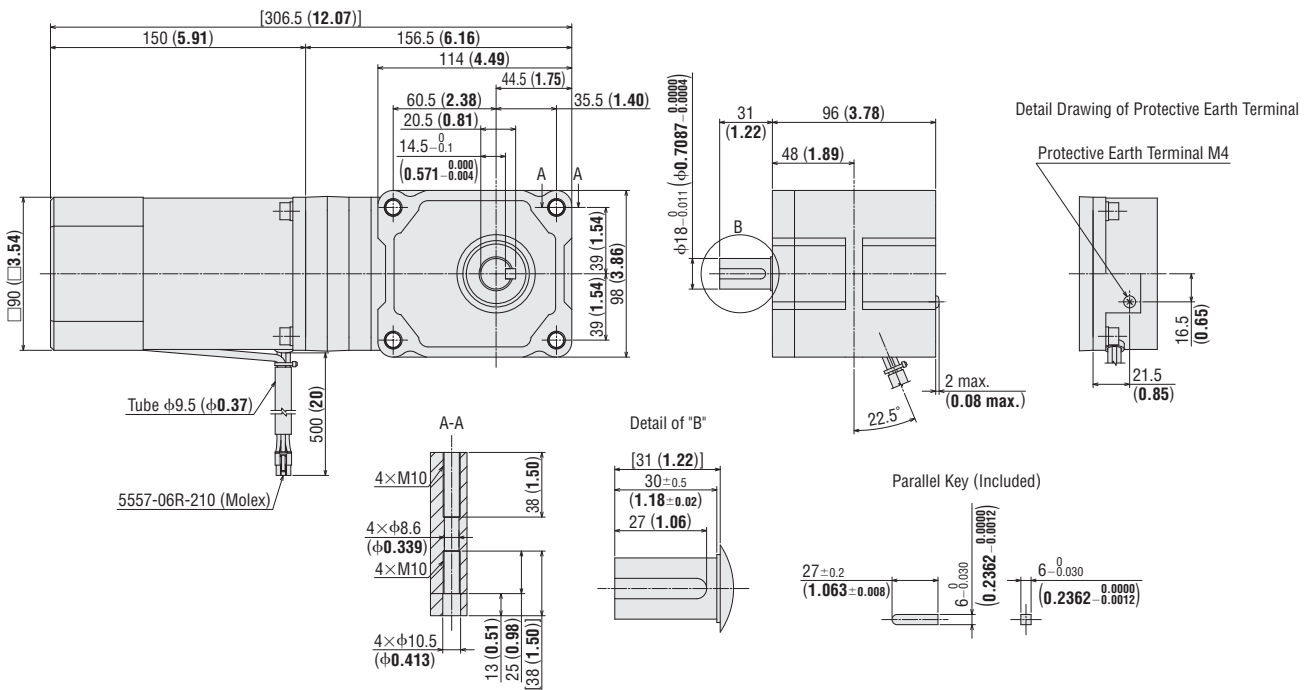
Product Name	Motor Product Name	Gearhead Product Name	Mass kg (lb.)	2D CAD
SCM590KJA-5H□B	SCM590KJA	5H□B	6.3 (13.9)	A1684
SCM590KJC-5H□B	SCM590KJC			
SCM590KUA-5H□B	SCM590KUA			
SCM590KEC-5H□B	SCM590KEC			



◇ Right-Angle Solid Shaft Hypoid JL Gear

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Mass kg (lb.)	2D CAD
SCM590KJA-5L□B	SCM590KJA	5L□B	6.3 (13.9)	A1685
SCM590KJC-5L□B	SCM590KJC			
SCM590KUA-5L□B	SCM590KUA			
SCM590KEC-5L□B	SCM590KEC			

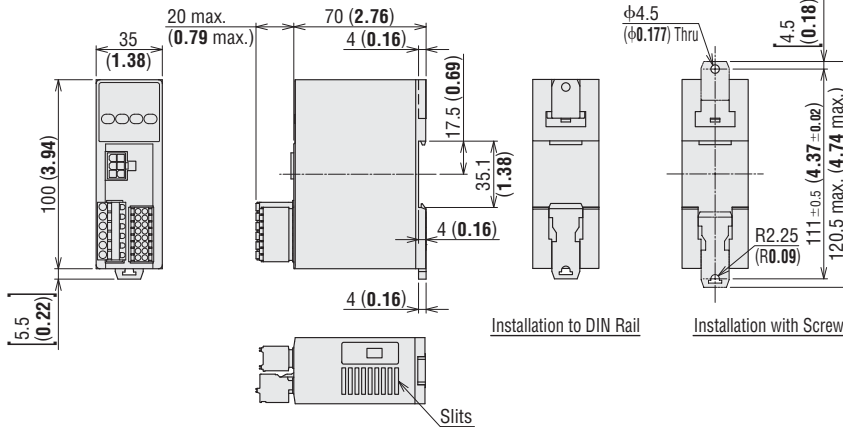


● Speed Controller

DSC-U

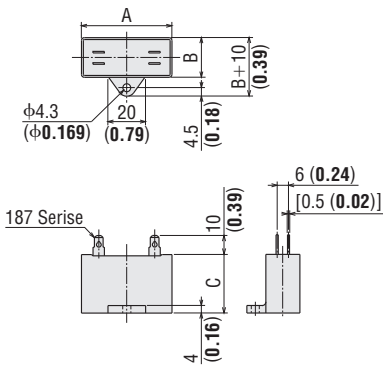
Mass: 0.2 kg (0.44 lb.)

2D CAD A1262 3D CAD

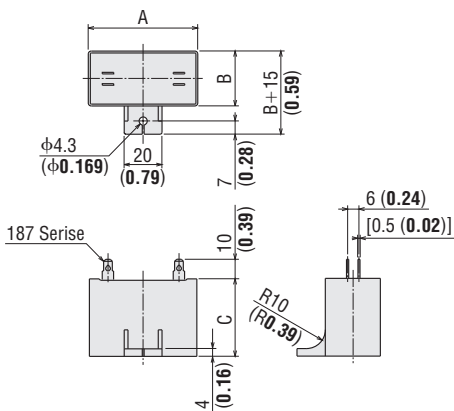


◇ Capacitor (Included with the speed controller)

Dimensions No. ①



Dimensions No. ②



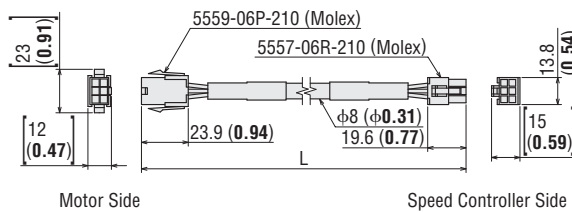
● Capacitor Dimensions [unit: mm (in.)]

Speed Controller Product Name	Capacitor					Dimension No.	
	Product Name	A	B	C	Mass g (oz.)		
DSCD25JA	CH80CFAUL2	48 (1.89)	21 (0.83)	31 (1.22)	41 (1.45)	①	
DSCD25JC	CH20BFAUL	48 (1.89)	19 (0.75)	29 (1.14)	36 (1.27)		
DSCD25UA	CH65CFAUL2	48 (1.89)	19 (0.75)	29 (1.14)	35 (1.24)		
DSCD25EC	CH15BFAUL	38 (1.50)	21 (0.83)	31 (1.22)	37 (1.31)		
DSCD40JA	CH110CFAUL2	58 (2.28)	21 (0.83)	31 (1.22)	49 (1.73)		
DSCD40JC	CH30BFAUL	58 (2.28)	21 (0.83)	31 (1.22)	50 (1.77)		
DSCD40UA	CH90CFAUL2	48 (1.89)	22.5 (0.89)	31.5 (1.24)	45 (1.59)		
DSCD40EC	CH23BFAUL	48 (1.89)	21 (0.83)	31 (1.22)	43 (1.52)		
DSCD90JA	CH280CFAUL2	58 (2.28)	35 (1.38)	50 (1.97)	140 (4.9)		②
DSCD90JC	CH70BFAUL	58 (2.28)	35 (1.38)	50 (1.97)	138 (4.9)		
DSCD90UA	CH200CFAUL2	58 (2.28)	29 (1.14)	41 (1.61)	91 (3.2)		
DSCD90EC	CH60BFAUL	58 (2.28)	29 (1.14)	41 (1.61)	92 (3.2)		

● A capacitor and a capacitor cap are included with the speed controller product.
A capacitor cap is not included with the capacitor product.

● Connection Cable

Product Name	Length L [m (ft.)]
CC01SC	1 (3.3)
CC02SC	2 (6.6)
CC03SC	3 (9.8)
CC05SC	5 (16.4)
CC10SC	10 (32.8)



● Flexible Connection Cable

Product Name	Length L [m (ft.)]
CC01SCR	1 (3.3)
CC02SCR	2 (6.6)
CC03SCR	3 (9.8)
CC05SCR	5 (16.4)
CC10SCR	10 (32.8)

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

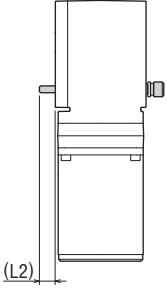
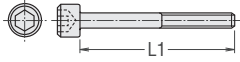
Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

■ Dimensions for Installation Screws

● Right-Angle Shaft Hypoid Gearhead



Product Name	Gear Ratio	Installation Screws		L2 [mm (in.)]
		Screw Size	L1 [mm (in.)]	
4H□B 4L□B	10 to 200	M6	95 (3.74)	11 (0.43)
5H□B 5L□B	10 to 200	M8	110 (4.33)	10 (0.39)

- Installation Screws: 4 each pieces of flat washers and spring washers are included.
- The material of the installation screw is stainless steel.

● A number indicating the gear ratio is specified where the box □ is located within the product name.

Installation of Hollow Shaft Load

● Example of Load Shaft Installation Method

The load installation method differs depending on the shape of the load shaft. See the figures below.

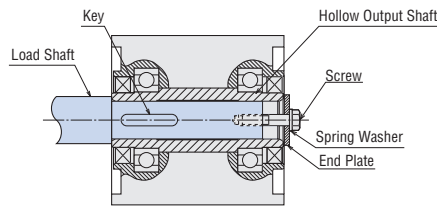
- The hollow output shaft is processed to a tolerance of the inner diameter H8, and incorporates a key slot for load shaft installation.
- The recommended tolerance of the load shaft is h7.

Note

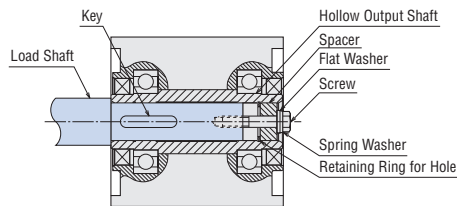
- To prevent sticking, apply a coat of grease on the exterior surface of the load shaft and interior surface of the hollow output shaft.

◇ Stepped Load Shaft

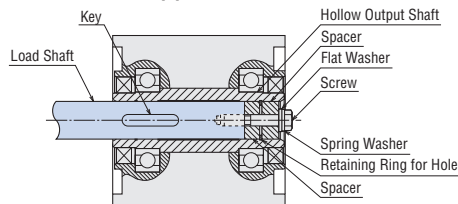
● Fixing method using the end plate



● Fixing method using the retaining ring for hole



◇ For Non-Stepped Load Shaft



● Recommended Load Shaft Installation Method

Unit: mm (in.)

Output Power	25 W (1/30 HP)	40 W (1/19 HP), 90 W (1/8 HP)
Inner Diameter of Hollow Shaft (H8)	$\phi 12^{+0.027}_0$ ($\phi 0.4724^{+0.0011}_0$)	$\phi 15^{+0.027}_0$ ($\phi 0.5906^{+0.0011}_0$)
Recommended Tolerance of Load Shaft (h7)	$\phi 12^{0}_{-0.018}$ ($\phi 0.4724^{0}_{-0.0007}$)	$\phi 15^{0}_{-0.018}$ ($\phi 0.5906^{0}_{-0.0007}$)
Screw Size	M5	M6
Spacer Size	Outer Diameter	$\phi 11.5$ ($\phi 0.45$)
	Inner Diameter	$\phi 6$ ($\phi 0.24$)
Width	3 (0.12)	3 (0.12)
	Nominal Hole Diameter of Retaining Ring (C Type Retaining Ring)	$\phi 12$ ($\phi 0.47$)
End Plate Thickness	3 (0.12)	3 (0.12)
Stepped Shaft La Length	55 (2.17)	72 (2.83)

- Retaining rings for holes, spacers, screws and other parts used to install the load shaft are not included. The customer must supply these.

● Permissible Radial Load Calculation of the Hollow Shaft Type

Formulas to calculate permissible radial loads vary depending on the mechanism.

◇ When One End of the Load Shaft is Not Supported by a Bearing Unit

● 25 W (1/30 HP)

$$\text{Permissible Radial Load } W \text{ [N]} = \frac{58.5}{48.5 + L_P} \times F_0$$

● 40 W (1/19 HP), 90 W (1/8 HP)

$$\text{Permissible Radial Load } W \text{ [N]} = \frac{69}{59 + L_P} \times F_0$$

◇ When One End of the Load Shaft is Supported by a Bearing Unit

● 25 W (1/30 HP)

$$\text{Permissible Radial Load } W \text{ [N]} = \frac{58.5 (S + 5.5)}{53 (S - L_P)} \times F_0$$

● 40 W (1/19 HP), 90 W (1/8 HP)

$$\text{Permissible Radial Load } W \text{ [N]} = \frac{69 (S + 4)}{65 (S - L_P)} \times F_0$$

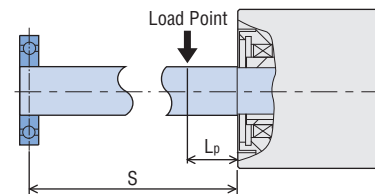
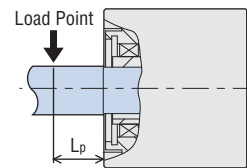
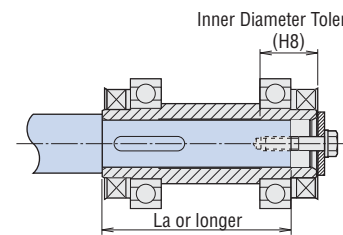
F_0 [N]: Permissible radial load when the reference point is at 10 mm (0.39 in.) from the installation surface.

L_P [mm]: Distance from the installation surface to the load point.

S [mm]: Distance from the installation surface to the bearing unit.

- For details on the permissible radial load when the reference position is 10 mm (0.39 in.) away from the flange installation surface, see the Specifications table.

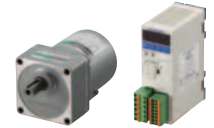
◇ Recommended Load Shaft Length



Standard Type

Parallel Shaft Gearhead **GV** Gear

Round Shaft Type



Parallel Shaft Gearhead **GV** Gear

Product Line

Parallel Shaft Gearhead **GV** Gear

Price includes motor and gearhead.



Speed Controller

Price includes speed controller, capacitor and capacitor cap.



Output Power	Power Supply Voltage	Product Name	Gear Ratio	List Price
6 W (1/125 HP)	Single-Phase 110/115 VAC	SCM26UA -□	5, 6, 7.5, 9, 12.5, 15, 18	\$147.00
			25, 30, 36	\$154.00
			50, 60, 75, 90, 100, 120, 150, 180	\$162.00
	Single-Phase 220/230 VAC	SCM26EC -□	250, 300, 360	\$197.00
			5, 6, 7.5, 9, 12.5, 15, 18	\$149.00
			25, 30, 36	\$156.00
15 W (1/50 HP)	Single-Phase 110/115 VAC	SCM315UA -□	50, 60, 75, 90, 100, 120, 150, 180	\$164.00
			250, 300, 360	\$199.00
			5, 6, 7.5, 9, 12.5, 15, 18	\$157.00
	Single-Phase 220/230 VAC	SCM315EC -□	25, 30, 36	\$164.00
			50, 60, 75, 90, 100, 120, 150, 180	\$173.00
			250, 300, 360	\$205.00
25 W (1/30 HP)	Single-Phase 110/115 VAC	SCM425UA -□	5, 6, 7.5, 9, 12.5, 15, 18	\$160.00
			25, 30, 36	\$167.00
			50, 60, 75, 90, 100, 120, 150, 180	\$176.00
	Single-Phase 220/230 VAC	SCM425EC -□	250, 300, 360	\$208.00
			5, 6, 7.5, 9, 12.5, 15, 18	\$171.00
			25, 30, 36	\$178.00
40 W (1/19 HP)	Single-Phase 110/115 VAC	SCM540UA -□	50, 60, 75, 90, 100, 120, 150, 180	\$186.00
			250, 300, 360	\$221.00
			5, 6, 7.5, 9, 12.5, 15, 18	\$199.00
	Single-Phase 220/230 VAC	SCM540EC -□	25, 30, 36	\$207.00
			50, 60, 75, 90, 100, 120, 150, 180	\$214.00
			250, 300	\$279.00
60 W (1/12 HP)	Single-Phase 110/115 VAC	SCM560UA -□	5, 6, 7.5, 9, 12.5, 15, 18	\$240.00
			25, 30, 36, 50, 60, 75, 90, 100	\$251.00
			120, 150, 180	\$261.00
	Single-Phase 220/230 VAC	SCM560EC -□	250, 300	\$295.00
			5, 6, 7.5, 9, 12.5, 15, 18	\$244.00
			25, 30, 36, 50, 60, 75, 90, 100	\$255.00
90 W (1/8 HP)	Single-Phase 110/115 VAC	SCM590UA -□	120, 150, 180	\$265.00
			250, 300	\$299.00
			5, 6, 7.5, 9, 12.5, 15, 18	\$258.00
	Single-Phase 220/230 VAC	SCM590EC -□	25, 30, 36, 50, 60	\$278.00
			75, 90, 100, 120, 150, 180	\$288.00
			5, 6, 7.5, 9, 12.5, 15, 18	\$263.00
Single-Phase 220/230 VAC	SCM590EC -□	25, 30, 36, 50, 60	\$283.00	
		75, 90, 100, 120, 150, 180	\$293.00	

Output Power	Power Supply Voltage	Product Name	List Price
6 W (1/125 HP)	Single-Phase 110/115 VAC	DSCD6UA	\$125.00
	Single-Phase 220/230 VAC	DSCD6EC	
15 W (1/50 HP)	Single-Phase 110/115 VAC	DSCD15UA	\$125.00
	Single-Phase 220/230 VAC	DSCD15EC	
25 W (1/30 HP)	Single-Phase 110/115 VAC	DSCD25UA	\$125.00
	Single-Phase 220/230 VAC	DSCD25EC	
40 W (1/19 HP)	Single-Phase 110/115 VAC	DSCD40UA	\$125.00
	Single-Phase 220/230 VAC	DSCD40EC	
60 W (1/12 HP)	Single-Phase 110/115 VAC	DSCD60UA	\$126.00
	Single-Phase 220/230 VAC	DSCD60EC	
90 W (1/8 HP)	Single-Phase 110/115 VAC	DSCD90UA	\$127.00
	Single-Phase 220/230 VAC	DSCD90EC	

● A number indicating the gear ratio is specified where the box □ is located within the product name.

● Round Shaft Type



Output Power	Power Supply Voltage	Product Name	List Price
6 W (1/125 HP)	Single-Phase 110/115 VAC	SCM26A-UA	\$81.00
	Single-Phase 220/230 VAC	SCM26A-EC	\$83.00
15 W (1/50 HP)	Single-Phase 110/115 VAC	SCM315A-UA	\$86.00
	Single-Phase 220/230 VAC	SCM315A-EC	\$89.00
25 W (1/30 HP)	Single-Phase 110/115 VAC	SCM425A-UA	\$94.00
	Single-Phase 220/230 VAC	SCM425A-EC	\$98.00
40 W (1/19 HP)	Single-Phase 110/115 VAC	SCM540A-UA	\$112.00
	Single-Phase 220/230 VAC	SCM540A-EC	\$115.00
60 W (1/12 HP)	Single-Phase 110/115 VAC	SCM560A-UA	\$128.00
	Single-Phase 220/230 VAC	SCM560A-EC	\$132.00
90 W (1/8 HP)	Single-Phase 110/115 VAC	SCM590A-UA	\$145.00
	Single-Phase 220/230 VAC	SCM590A-EC	\$150.00

● Speed Controller

Price includes speed controller, capacitor and capacitor cap.



Output Power	Power Supply Voltage	Product Name	List Price
6 W (1/125 HP)	Single-Phase 110/115 VAC	DSCD6UA	\$125.00
	Single-Phase 220/230 VAC	DSCD6EC	
15 W (1/50 HP)	Single-Phase 110/115 VAC	DSCD15UA	\$125.00
	Single-Phase 220/230 VAC	DSCD15EC	
25 W (1/30 HP)	Single-Phase 110/115 VAC	DSCD25UA	\$125.00
	Single-Phase 220/230 VAC	DSCD25EC	
40 W (1/19 HP)	Single-Phase 110/115 VAC	DSCD40UA	\$125.00
	Single-Phase 220/230 VAC	DSCD40EC	
60 W (1/12 HP)	Single-Phase 110/115 VAC	DSCD60UA	\$126.00
	Single-Phase 220/230 VAC	DSCD60EC	
90 W (1/8 HP)	Single-Phase 110/115 VAC	DSCD90UA	\$127.00
	Single-Phase 220/230 VAC	DSCD90EC	

● Connection Cables



Length	Product Name	List Price
1 m (3.3 ft.)	CC01SC	\$35.00
2 m (6.6 ft.)	CC02SC	\$39.00
3 m (9.8 ft.)	CC03SC	\$49.00
5 m (16.4 ft.)	CC05SC	\$68.00
10 m (32.8 ft.)	CC10SC	\$116.00

● Flexible Connection Cables



Length	Product Name	List Price
1 m (3.3 ft.)	CC01SCR	\$68.00
2 m (6.6 ft.)	CC02SCR	\$78.00
3 m (9.8 ft.)	CC03SCR	\$97.00
5 m (16.4 ft.)	CC05SCR	\$135.00
10 m (32.8 ft.)	CC10SCR	\$231.00

Included

● Motor

Type	Parallel Key	Installation Screws	Operating Manual
Parallel Shaft Gearhead GV Gear	1 pc.	1 Set	1 Copy
Round Shaft Type	–	–	

● Speed Controller

Capacitor	Capacitor Cap	Operating Manual
1 pc.	1 pc.	1 Copy

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

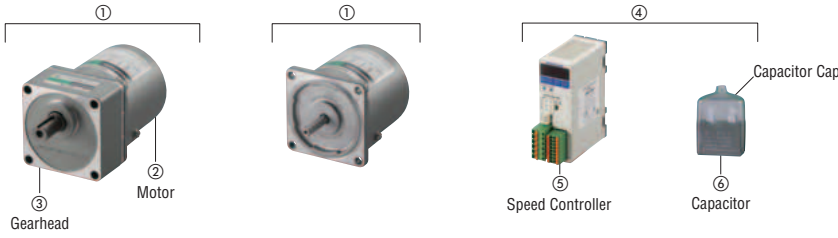
Connection and
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Cables
Accessories

List of Motor and Speed Controller Combinations

Parallel Shaft Gearhead **GV** Gear

Round Shaft Type



Parallel Shaft Gearhead **GV** Gear

Output Power	Power Supply Voltage	Speed Control Motor			Speed Controller	
		Product Name	Component Product Name		Product Name	Component Product Name
		①	②	③	④	⑤
6 W (1/125 HP)	Single-Phase 100 VAC	SCM26JA -□	SCM26GV-JA	2GV□B	DSCD6JA	CH35FAUL2
	Single-Phase 200 VAC	SCM26JC -□	SCM26GV-JC		DSCD6JC	CH08BFAUL
	Single-Phase 110/115 VAC	SCM26UA -□	SCM26GV-UA		DSCD6UA	CH25FAUL2
	Single-Phase 220/230 VAC	SCM26EC -□	SCM26GV-EC		DSCD6EC	CH06BFAUL
15 W (1/50 HP)	Single-Phase 100 VAC	SCM315JA -□	SCM315GV-JA	3GV□B	DSCD15JA	CH55FAUL2
	Single-Phase 200 VAC	SCM315JC -□	SCM315GV-JC		DSCD15JC	CH15BFAUL
	Single-Phase 110/115 VAC	SCM315UA -□	SCM315GV-UA		DSCD15UA	CH45FAUL2
	Single-Phase 220/230 VAC	SCM315EC -□	SCM315GV-EC		DSCD15EC	CH10BFAUL
25 W (1/30 HP)	Single-Phase 100 VAC	SCM425JA -□	SCM425GV-JA	4GV□B	DSCD25JA	CH80CFAUL2
	Single-Phase 200 VAC	SCM425JC -□	SCM425GV-JC		DSCD25JC	CH20BFAUL
	Single-Phase 110/115 VAC	SCM425UA -□	SCM425GV-UA		DSCD25UA	CH65CFAUL2
	Single-Phase 220/230 VAC	SCM425EC -□	SCM425GV-EC		DSCD25EC	CH15BFAUL
40 W (1/19 HP)	Single-Phase 100 VAC	SCM540JA -□	SCM540GV-JA	5GV□B	DSCD40JA	CH110CFAUL2
	Single-Phase 200 VAC	SCM540JC -□	SCM540GV-JC		DSCD40JC	CH30BFAUL
	Single-Phase 110/115 VAC	SCM540UA -□	SCM540GV-UA		DSCD40UA	CH90CFAUL2
	Single-Phase 220/230 VAC	SCM540EC -□	SCM540GV-EC		DSCD40EC	CH23BFAUL
60 W (1/12 HP)	Single-Phase 100 VAC	SCM560JA -□	SCM560GVH-JA	5GVH□B	DSCD60JA	CH180CFAUL2
	Single-Phase 200 VAC	SCM560JC -□	SCM560GVH-JC		DSCD60JC	CH40BFAUL
	Single-Phase 110/115 VAC	SCM560UA -□	SCM560GVH-UA		DSCD60UA	CH120CFAUL2
	Single-Phase 220/230 VAC	SCM560EC -□	SCM560GVH-EC		DSCD60EC	CH30BFAUL
90 W (1/8 HP)	Single-Phase 100 VAC	SCM590JA -□	SCM590GVR-JA	5GVR□B	DSCD90JA	CH280CFAUL2
	Single-Phase 200 VAC	SCM590JC -□	SCM590GVR-JC		DSCD90JC	CH70BFAUL
	Single-Phase 110/115 VAC	SCM590UA -□	SCM590GVR-UA		DSCD90UA	CH200CFAUL2
	Single-Phase 220/230 VAC	SCM590EC -□	SCM590GVR-EC		DSCD90EC	CH60BFAUL

● A capacitor and a capacitor cap are included with the speed controller product (product name ④).

A capacitor cap is not included with the capacitor product (product name ⑥).

Round Shaft Type

Output Power	Power Supply Voltage	Speed Control Motor	Speed Controller		
		Product Name	Product Name	Component Product Name	
		①	④	⑤	⑥
6 W (1/125 HP)	Single-Phase 100 VAC	SCM26A-JA	DSCD6JA	DSC-U	CH35FAUL2
	Single-Phase 200 VAC	SCM26A-JC	DSCD6JC		CH08BFAUL
	Single-Phase 110/115 VAC	SCM26A-UA	DSCD6UA		CH25FAUL2
	Single-Phase 220/230 VAC	SCM26A-EC	DSCD6EC		CH06BFAUL
15 W (1/50 HP)	Single-Phase 100 VAC	SCM315A-JA	DSCD15JA	DSC-U	CH55FAUL2
	Single-Phase 200 VAC	SCM315A-JC	DSCD15JC		CH15BFAUL
	Single-Phase 110/115 VAC	SCM315A-UA	DSCD15UA		CH45FAUL2
	Single-Phase 220/230 VAC	SCM315A-EC	DSCD15EC		CH10BFAUL
25 W (1/30 HP)	Single-Phase 100 VAC	SCM425A-JA	DSCD25JA	DSC-U	CH80CFAUL2
	Single-Phase 200 VAC	SCM425A-JC	DSCD25JC		CH20BFAUL
	Single-Phase 110/115 VAC	SCM425A-UA	DSCD25UA		CH65CFAUL2
	Single-Phase 220/230 VAC	SCM425A-EC	DSCD25EC		CH15BFAUL
40 W (1/19 HP)	Single-Phase 100 VAC	SCM540A-JA	DSCD40JA	DSC-U	CH110CFAUL2
	Single-Phase 200 VAC	SCM540A-JC	DSCD40JC		CH30BFAUL
	Single-Phase 110/115 VAC	SCM540A-UA	DSCD40UA		CH90CFAUL2
	Single-Phase 220/230 VAC	SCM540A-EC	DSCD40EC		CH23BFAUL
60 W (1/12 HP)	Single-Phase 100 VAC	SCM560A-JA	DSCD60JA	DSC-U	CH180CFAUL2
	Single-Phase 200 VAC	SCM560A-JC	DSCD60JC		CH40BFAUL
	Single-Phase 110/115 VAC	SCM560A-UA	DSCD60UA		CH120CFAUL2
	Single-Phase 220/230 VAC	SCM560A-EC	DSCD60EC		CH30BFAUL
90 W (1/8 HP)	Single-Phase 100 VAC	SCM590A-JA	DSCD90JA	DSC-U	CH280CFAUL2
	Single-Phase 200 VAC	SCM590A-JC	DSCD90JC		CH70BFAUL
	Single-Phase 110/115 VAC	SCM590A-UA	DSCD90UA		CH200CFAUL2
	Single-Phase 220/230 VAC	SCM590A-EC	DSCD90EC		CH60BFAUL

● A capacitor and a capacitor cap are included with the speed controller product (product name ④).

A capacitor cap is not included with the capacitor product (product name ⑥).

● A number indicating the gear ratio is specified where the box □ is located within the product name.

Specifications - Continuous Rating

● Single-Phase 100 VAC, Single-Phase 200 VAC



Product Name Upper Line: Parallel Shaft Gearhead GV Gear Lower Line: Round Shaft Type		Speed Controller	Maximum Output Power W (HP)	Voltage VAC	Frequency Hz	Variable Speed Range r/min	Permissible Torque		Starting Torque mN-m (oz-in)	Current A	Power Consumption W	Capacitor μF	Motor Overheat Protection Device
							1200 r/min (50 Hz) 1450 r/min (60 Hz)	90 r/min					
SCM26JA -□ SCM26A-JA	DSCD6JA	6 (1/125)	Single-Phase 100	50	90 to 1400	50 (7.1)	50 (7.1)	45 (6.3)	0.29	26	3.5	ZP	
				60	90 to 1600	45 (6.3)	45 (6.3)	40 (5.6)					
SCM26JC -□ SCM26A-JC	DSCD6JC	6 (1/125)	Single-Phase 200	50	90 to 1400	44 (6.2)	50 (7.1)	45 (6.3)	0.140	27	0.8	ZP	
				60	90 to 1600	46 (6.5)	46 (6.5)	45 (6.3)					
SCM315JA -□ SCM315A-JA	DSCD15JA	15 (1/50)	Single-Phase 100	50	90 to 1400	125 (17.7)	52 (7.3)	88 (12.4)	0.50	42	5.5	TP	
				60	90 to 1600	115 (16.3)	54 (7.6)	90 (12.7)					
SCM315JC -□ SCM315A-JC	DSCD15JC	15 (1/50)	Single-Phase 200	50	90 to 1400	125 (17.7)	56 (7.9)	90 (12.7)	0.25	42	1.5	TP	
				60	90 to 1600	120 (17.0)	56 (7.9)	90 (12.7)					
SCM425JA -□ SCM425A-JA	DSCD25JA	25 (1/30)	Single-Phase 100	50	90 to 1400	205 (29)	55 (7.8)	130 (18.4)	0.75	62	8.0	TP	
				60	90 to 1600	200 (28)	55 (7.8)	135 (19.1)					
SCM425JC -□ SCM425A-JC	DSCD25JC	25 (1/30)	Single-Phase 200	50	90 to 1400	205 (29)	55 (7.8)	120 (17.0)	0.38	67	2.0	TP	
				60	90 to 1600	200 (28)	55 (7.8)	120 (17.0)					
SCM540JA -□ SCM540A-JA	DSCD40JA	40 (1/19)	Single-Phase 100	50	90 to 1400	320 (45)	80 (11.3)	180 (25)	1.1	92	11	TP	
				60	90 to 1600	300 (42)	80 (11.3)	190 (26)					
SCM540JC -□ SCM540A-JC	DSCD40JC	40 (1/19)	Single-Phase 200	50	90 to 1400	320 (45)	90 (12.7)	190 (26)	0.57	94	3.0	TP	
				60	90 to 1600	320 (45)	90 (12.7)	190 (26)					
SCM560JA -□ SCM560A-JA	DSCD60JA	60 (1/12)	Single-Phase 100	50	90 to 1400	490 (69)	110 (15.6)	320 (45)	1.6	128	18	TP	
				60	90 to 1600	450 (63)	110 (15.6)	330 (46)					
SCM560JC -□ SCM560A-JC	DSCD60JC	60 (1/12)	Single-Phase 200	50	90 to 1400	490 (69)	90 (12.7)	320 (45)	0.76	128	4.0	TP	
				60	90 to 1600	430 (61)	100 (14.2)	340 (48)					
SCM590JA -□ SCM590A-JA	DSCD90JA	90 (1/8)	Single-Phase 100	50	90 to 1400	730 (103)	110 (15.6)	470 (66)	2.4	195	28	TP	
				60	90 to 1600	720 (102)	110 (15.6)	470 (66)					
SCM590JC -□ SCM590A-JC	DSCD90JC	90 (1/8)	Single-Phase 200	50	90 to 1400	730 (103)	120 (17.0)	480 (68)	1.2	198	7.0	TP	
				60	90 to 1600	730 (103)	110 (15.6)	510 (72)					

● The values in the table are characteristics for the motor only. The valuable speed ranges shown are under no load conditions.

ZP: This indicates that it is impedance protected.

TP: This indicates that there is a built-in thermal protector (automatic return type).

● A number indicating the gear ratio is specified where the box □ is located within the product name.

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

● Single-Phase 110/115 VAC, Single-Phase 220/230 VAC



Product Name		Maximum Output Power	Voltage	Frequency	Variable Speed Range	Permissible Torque		Starting Torque	Current	Power Consumption	Capacitor	Motor Overheat Protection Device	
						1200 r/min (50 Hz)	90 r/min						
Upper Line: Parallel Shaft Gearhead GV Gear	Speed Controller	W (HP)	VAC	Hz	r/min	mN·m (oz-in)	mN·m (oz-in)	mN·m (oz-in)	A	W	μF		
Lower Line: Round Shaft Type													
SCM26UA-□ SCM26A-UA	DSCD6UA	6 (1/125)	Single-Phase 110	60	90 to 1600	50 (7.1)	38 (5.3)	40 (5.6)	0.28	29	2.5	ZP	
			Single-Phase 115										
SCM26EC-□ SCM26A-EC	DSCD6EC	6 (1/125)	Single-Phase 220	50	90 to 1400	42 (5.9)	40 (5.6)	44 (6.2)	0.135	29	0.6	ZP	
				60	90 to 1600	46 (6.5)							
			Single-Phase 230	50	90 to 1400	46 (6.5)	37 (5.2)	44 (6.2)					
				60	90 to 1600	50 (7.1)							39 (5.5)
SCM315UA-□ SCM315A-UA	DSCD15UA	15 (1/50)	Single-Phase 110	60	90 to 1600	120 (17.0)	45 (6.3)	84 (11.9)	0.48	46	4.5	TP	
			Single-Phase 115			125 (17.7)		90 (12.7)					
SCM315EC-□ SCM315A-EC	DSCD15EC	15 (1/50)	Single-Phase 220	50	90 to 1400	125 (17.7)	40 (5.6)	67 (9.5)	0.23	43	1.0	TP	
				60	90 to 1600	110 (15.6)		46					
			Single-Phase 230	50	90 to 1400	125 (17.7)		72 (10.2)					44
				60	90 to 1600	120 (17.0)		81 (11.5)					47
SCM425UA-□ SCM425A-UA	DSCD25UA	25 (1/30)	Single-Phase 110	60	90 to 1600	205 (29)	45 (6.3)	125 (17.7)	0.75	58	6.5	TP	
			Single-Phase 115					135 (19.1)		69			
SCM425EC-□ SCM425A-EC	DSCD25EC	25 (1/30)	Single-Phase 220	50	90 to 1400	205 (29)	40 (5.6)	110 (15.6)	0.37	70	1.5	TP	
				60	90 to 1600								
			Single-Phase 230	50	90 to 1400			120 (17.0)					
				60	90 to 1600								
SCM540UA-□ SCM540A-UA	DSCD40UA	40 (1/19)	Single-Phase 110	60	90 to 1600	320 (45)	70 (9.9)	180 (25)	1.1	107	9.0	TP	
			Single-Phase 115					190 (26)					
SCM540EC-□ SCM540A-EC	DSCD40EC	40 (1/19)	Single-Phase 220	50	90 to 1400	320 (45)	65 (9.2)	190 (26)	0.55	96	2.3	TP	
				60	90 to 1600		70 (9.9)			104			
			Single-Phase 230	50	90 to 1400		65 (9.2)			99			
				60	90 to 1600		70 (9.9)			105			
SCM560UA-□ SCM560A-UA	DSCD60UA	60 (1/12)	Single-Phase 110	60	90 to 1600	460 (65)	80 (11.3)	260 (36)	1.5	144	12	TP	
			Single-Phase 115			490 (69)		280 (39)		145			
SCM560EC-□ SCM560A-EC	DSCD60EC	60 (1/12)	Single-Phase 220	50	90 to 1400	490 (69)	80 (11.3)	280 (39)	0.71	129	3.0	TP	
				60	90 to 1600	460 (65)	75 (10.6)	290 (41)	0.74	143			
			Single-Phase 230	50	90 to 1400	490 (69)	85 (12.0)	290 (41)	0.72	132			
				60	90 to 1600	490 (69)	80 (11.3)	300 (42)	0.74	144			
SCM590UA-□ SCM590A-UA	DSCD90UA	90 (1/8)	Single-Phase 110	60	90 to 1600	730 (103)	85 (12.0)	400 (56)	2.4	224	20	TP	
			Single-Phase 115					440 (62)		227			
SCM590EC-□ SCM590A-EC	DSCD90EC	90 (1/8)	Single-Phase 220	50	90 to 1400	730 (103)	95 (13.4)	490 (69)	1.2	201	6.0	TP	
				60	90 to 1600			500 (71)		226			
			Single-Phase 230	50	90 to 1400			520 (73)		204			
				60	90 to 1600			530 (75)		228			

● The values in the table are characteristics for the motor only. The valuable speed ranges shown are under no load conditions.

ZP: This indicates that it is impedance protected.

TP: This indicates that there is a built-in thermal protector (automatic return type).

● A number indicating the gear ratio is specified where the box □ is located within the product name.

Common Specifications

Item	Specifications	
Speed Setting Method	The speed of the motor output shaft can be set using any of the following methods: <ul style="list-style-type: none"> · Using operation panel Up to four types of operation data can be set. · Using an external speed potentiometer · Using external DC voltage: 0 to 5 VDC, or 0 to 10 VDC 	
Acceleration Time and Deceleration Time Setting Range	0.0 to 15.0 s The motor acceleration time and deceleration time vary depending on the load condition.	
Functions	Monitor Mode	Speed, Operation Data No., Alarm Code, Warning Code, I/O Monitor
	Data Mode	Speed, Accelerating Time, Decelerating Time, Initialization
	Parameter Mode	Speed Reduction Ratio, Speed Increasing Ratio, Lowest Digit Display Fixed, Prevention of Operation at Power-on Alarm, External Speed Command Input, External Speed Command Voltage Selection, External Speed Command OffSet, Speed Upper and Lower Limit, Input Function Selection, Output Function Selection, Motor Lock Detection Time, Motor Rotation Direction, Initialization
	Test Mode	JOG Operation
	Other Function	Prohibiting Data Editing
Control Power Supply	24 VDC±10% 0.15 A min.	
Input Signals	Photocoupler Input, Input Resistance: 4.7 kΩ Signal assignment to IN0 to IN5 inputs (6 points) is possible as desired. []: Initial Setting [FWD], [REV], [MO], [M1], [ALARM-RESET], [FREE], EXT-ERROR Source input or sink input can be switched using the selection switch. Factory Setting: Sink Input	
Output Signals	Photocoupler and Open-Collector Output, External Power Supply: 4.5 to 30 VDC, 40 mA max. Signal assignment to OUT0 and OUT1 outputs (2 points) is possible as desired. []: Initial Setting [SPEED-OUT], [ALARM-OUT], TH-OUT, WNG Source output or sink output can be switched by changing the external wiring.	
Protective Function	When any of the following protective functions is activated, the motor will coast to a stop. Then the ALARM output will be turned off. At the same, the alarm code will be displayed on the control panel and the ALARM LED will be lit. Alarm Types: Motor Overheat, Motor Lock, Overspeed, EEPROM Error, Prevention of Operation at Power-On, External Stop	
Maximum Extension Length	Between the motor and the speed controller: 10 m (32.8 ft.)	

General Specifications

Item	Motor	Speed Controller
Insulation Resistance	100 MΩ or more when 500 VDC megger is applied between the windings and the case after continuous operation under normal ambient temperature and humidity.	100 MΩ or more when 500 VDC megger is applied between the following places after continuous operation under normal ambient temperature and humidity: <ul style="list-style-type: none"> · Main Circuit Terminal - Control Circuit Terminal · Main Circuit Terminal - Case · Main Circuit Terminal - FG
Dielectric Strength	Sufficient to withstand 1.5 kVAC at 50 Hz or 60 Hz applied between the windings and the case for 1 minute after continuous operation under normal ambient temperature and humidity.	Sufficient to withstand the following for 1 minute after continuous operation under normal ambient temperature and humidity: <ul style="list-style-type: none"> · Main Circuit Terminal - Control Circuit Terminal 1.9 kVAC at 50 Hz or 60 Hz · Main Circuit Terminal - Case 1.9 kVAC at 50 Hz or 60 Hz · Main Circuit Terminal - FG 1.5 kVAC at 50 Hz or 60 Hz
Temperature Rise	In a state where the motor is attached to a gearhead or a heat sink*1 equivalent to the gearhead, the temperature rise of the windings is 80°C (176°F) or less measured by the resistance change method after no-load continuous operation under normal ambient temperature and humidity.	—
Overheat Protection Device	6 W (1/125 HP) Type: Impedance Protected Others: Thermal Protector Built-in (Automatic Return Type) Open: 130±5°C (266±9°F) Close: 85±20°C (185±36°F)	—
Operating Environment	Ambient Temperature	0 to +50°C (+32 to +122°F) (Non-freezing)
	Ambient Humidity	85% or less (Non-condensing)
	Altitude	Up to 1000 m (3300 ft.) above sea level
	Surrounding Atmosphere	No corrosive gases or dust. The product should not be exposed to water, oil or other liquids. Cannot be used in radioactive materials, magnetic field, vacuum or other special environments.
Storage Condition*2	Vibration	Not subject to continuous vibrations or excessive impact. In conformance with JIS C 60068-2-6 "Sine-wave vibration test method" Frequency Range: 10 to 55 Hz, Pulsating Amplitude: 0.15 mm (0.006 in.) Sweep Direction: 3 Directions (X, Y, Z), Number of Sweeps: 20 times
	Ambient Temperature	−25 to +70°C (−13 to +158°F) (Non-freezing)
	Ambient Humidity	85% or less (Non-condensing)
	Altitude	Up to 3000 m (10000 ft.) above sea level
	Surrounding Atmosphere	No corrosive gases or dust. The product should not be exposed to water, oil or other liquids. Cannot be used in radioactive materials, magnetic field, vacuum or other special environments.
Thermal Class	130 (B)	—
Degree of Protection	IP20	IP20

*1 Heat radiation plate (Material: Aluminum)

Motor Output Power	Size mm (in.)	Thickness mm (in.)
6 W (1/125 HP)	115×115 (4.53×4.53)	5 (0.20)
15 W (1/50 HP)	125×125 (4.92×4.92)	
25 W (1/30 HP)	135×135 (5.31×5.31)	
40 W (1/19 HP)	165×165 (6.50×6.50)	
60 W (1/12 HP)	200×200 (7.87×7.87)	
90 W (1/8 HP)	200×200 (7.87×7.87)	

*2 Storage conditions represent a short period, including transportation.

Note

● Do not measure insulation resistance or perform the dielectric voltage test while the motor and speed controller are connected.

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

Output Shaft Speed

Motor Shaft Speed

Low speed: 90 r/min, High speed at 50 Hz: 1400 r/min, High speed at 60 Hz: 1600 r/min

Unit: r/min

Gear Ratio		2	3	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
High Speed	50 Hz	700	466	280	233	186	155	112	93	77	56	46	38	28	23	18.6	15.5	14	11.6	9.3	7.7	5.6	4.6	3.8
	60 Hz	800	533	320	266	213	177	128	106	88	64	53	44	32	26	21	17.7	16	13.3	10.6	8.8	6.4	5.3	4.4
Low Speed		45	30	18	15	12	10	7.2	6	5	3.6	3	2.5	1.8	1.5	1.2	1	0.9	0.75	0.6	0.5	0.36	0.3	0.25

Permissible Torque

- A colored background indicates gear shaft rotation in the same direction as the motor shaft, while the others rotate in the opposite direction.
- A number indicating the gear ratio is specified where the box is located within the product name.

Single-Phase 100 VAC

Unit: N·m (lb-in)

Product Name	Gear Ratio		2	3	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360			
	Motor Shaft Speed r/min																											
SCM26JA-□	1200	50 Hz	0.070 (0.61)	0.12 (1.06)	0.23 (2.0)	0.27 (2.3)	0.34 (3.0)	0.41 (3.6)	0.56 (4.9)	0.68 (6.0)	0.81 (7.1)	1.1 (9.7)	1.3 (11.5)	1.5 (13.2)	2.2 (19.4)	2.6 (23)	3.2 (28)	3.9 (34)	4.3 (38)	5.2 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	
		60 Hz	0.063 (0.55)	0.11 (0.97)	0.20 (1.77)	0.24 (2.1)	0.30 (2.6)	0.36 (3.1)	0.51 (4.5)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	3.9 (34)	4.6 (40)	5.5 (48)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	
	90	50 Hz	0.070 (0.61)	0.12 (1.06)	0.23 (2.0)	0.27 (2.3)	0.34 (3.0)	0.41 (3.6)	0.56 (4.9)	0.68 (6.0)	0.81 (7.1)	1.1 (9.7)	1.3 (11.5)	1.5 (13.2)	2.2 (19.4)	2.6 (23)	3.2 (28)	3.9 (34)	4.3 (38)	5.2 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	
		60 Hz	0.063 (0.55)	0.10 (0.88)	0.20 (1.77)	0.24 (2.1)	0.30 (2.6)	0.36 (3.1)	0.51 (4.5)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	3.9 (34)	4.6 (40)	5.5 (48)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	
SCM315JA-□	1200	50 Hz	0.18 (1.59)	0.30 (2.6)	0.56 (4.9)	0.68 (6.0)	0.84 (7.4)	1.0 (8.8)	1.4 (12.3)	1.7 (15.0)	2.0 (17.7)	2.8 (24)	3.2 (28)	3.9 (34)	5.4 (47)	6.5 (57)	8.1 (71)	9.7 (85)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)
		60 Hz	0.16 (1.41)	0.28 (2.4)	0.52 (4.6)	0.62 (5.4)	0.78 (6.9)	0.93 (8.2)	1.3 (11.5)	1.6 (14.1)	1.9 (16.8)	2.6 (23)	3.0 (26)	3.6 (31)	4.9 (43)	5.9 (52)	7.4 (65)	8.9 (78)	9.9 (87)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)
	90	50 Hz	0.073 (0.64)	0.13 (1.15)	0.23 (2.0)	0.28 (2.4)	0.35 (3.0)	0.42 (3.7)	0.59 (5.2)	0.70 (6.1)	0.84 (7.4)	1.2 (10.6)	1.3 (11.5)	1.6 (14.1)	2.2 (19.4)	2.7 (23)	3.4 (30)	4.0 (35)	4.5 (39)	5.4 (47)	6.3 (55)	7.6 (67)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	
		60 Hz	0.076 (0.67)	0.13 (1.15)	0.24 (2.1)	0.29 (2.5)	0.36 (3.1)	0.44 (3.8)	0.61 (5.3)	0.73 (6.4)	0.87 (7.6)	1.2 (10.6)	1.4 (12.3)	1.7 (15.0)	2.3 (20)	2.8 (24)	3.5 (30)	4.2 (37)	4.6 (40)	5.6 (49)	6.6 (58)	7.9 (69)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	
SCM425JA-□	1200	50 Hz	0.32 (2.8)	0.50 (4.4)	0.92 (8.1)	1.1 (9.7)	1.4 (12.3)	1.7 (15.0)	2.3 (20)	2.8 (24)	3.3 (29)	4.6 (40)	5.3 (46)	6.3 (55)	8.8 (77)	10.6 (93)	13.2 (116)	15.9 (140)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)
		60 Hz	0.31 (2.7)	0.49 (4.3)	0.90 (7.9)	1.1 (9.7)	1.4 (12.3)	1.6 (14.1)	2.3 (20)	2.7 (23)	3.2 (28)	4.5 (39)	5.2 (46)	6.2 (54)	8.6 (76)	10.3 (91)	12.9 (114)	15.5 (137)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	
	90	0.070 (0.61)	0.12 (1.06)	0.25 (2.2)	0.30 (2.6)	0.37 (3.2)	0.45 (3.9)	0.62 (5.4)	0.74 (6.5)	0.89 (7.8)	1.2 (10.6)	1.4 (12.3)	1.7 (15.0)	2.4 (21)	2.8 (24)	3.5 (30)	4.3 (37)	4.7 (41)	5.7 (50)	6.7 (59)	8.0 (70)	11.1 (98)	13.4 (118)	16 (141)	16 (141)	16 (141)		
SCM540JA-□	1200	50 Hz	0.50 (4.4)	0.78 (6.9)	1.4 (12.3)	1.7 (15.0)	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.2 (46)	6.9 (61)	8.3 (73)	9.9 (87)	13.8 (122)	16.5 (146)	20.6 (182)	24.8 (210)	27.5 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—
		60 Hz	0.47 (4.1)	0.73 (6.4)	1.4 (12.3)	1.6 (14.1)	2.0 (17.7)	2.4 (21)	3.4 (30)	4.1 (36)	4.9 (43)	6.5 (57)	7.7 (68)	9.3 (82)	12.9 (114)	15.5 (137)	19.4 (171)	23.2 (200)	25.8 (220)	29.2 (250)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—	
	90	0.12 (1.06)	0.19 (1.68)	0.36 (3.1)	0.43 (3.8)	0.54 (4.7)	0.65 (5.7)	0.90 (7.9)	1.1 (9.7)	1.3 (11.5)	1.7 (15.0)	2.1 (18.5)	2.5 (22)	3.4 (30)	4.1 (36)	5.2 (46)	6.2 (54)	6.9 (61)	7.8 (69)	9.7 (85)	11.7 (103)	16.2 (143)	19.4 (171)	—	—	—		
SCM560JA-□	1200	50 Hz	0.79 (6.9)	1.2 (10.6)	2.2 (19.4)	2.6 (23)	3.3 (29)	4.0 (35)	5.5 (48)	6.6 (58)	7.9 (69)	10.5 (92)	12.6 (111)	15.2 (134)	21.1 (186)	25.3 (220)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—	—
		60 Hz	0.73 (6.4)	1.1 (9.7)	2.0 (17.7)	2.4 (21)	3.0 (26)	3.6 (31)	5.1 (45)	6.1 (53)	7.3 (64)	9.7 (85)	11.6 (102)	13.9 (123)	19.4 (171)	23.2 (200)	29.0 (250)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—	—	
	90	0.16 (1.41)	0.27 (2.3)	0.50 (4.4)	0.59 (5.2)	0.74 (6.5)	0.89 (7.8)	1.2 (10.6)	1.5 (13.2)	1.8 (15.9)	2.4 (21)	2.8 (24)	3.4 (30)	4.7 (41)	5.7 (50)	7.1 (62)	8.5 (75)	9.5 (84)	10.7 (94)	13.4 (118)	16.0 (141)	22.3 (197)	26.7 (230)	—	—	—		
SCM590JA-□	1200	50 Hz	1.2 (10.6)	1.8 (15.9)	3.3 (29)	3.9 (34)	4.9 (43)	5.9 (52)	8.2 (72)	9.9 (87)	11.3 (100)	15.7 (138)	18.8 (166)	22.6 (200)	31.4 (270)	37.7 (330)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	—	—	—	—	—
		60 Hz	1.2 (10.6)	1.7 (15.0)	3.2 (28)	3.9 (34)	4.9 (43)	5.8 (51)	8.1 (71)	9.7 (85)	11.1 (98)	15.5 (137)	18.6 (164)	22.3 (197)	31.0 (270)	37.2 (320)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	—	—	—	—	—
	90	0.16 (1.41)	0.23 (2.0)	0.50 (4.4)	0.59 (5.2)	0.74 (6.5)	0.89 (7.8)	1.2 (10.6)	1.5 (13.2)	1.7 (15.0)	2.4 (21)	2.8 (24)	3.4 (30)	4.7 (41)	5.7 (50)	7.1 (62)	8.0 (70)	8.9 (78)	10.7 (94)	13.4 (118)	16 (141)	—	—	—	—	—		

● Single-Phase 200 VAC

Unit: N-m (lb-in)

Product Name	Gear Ratio		Torque (N-m)																							
	Motor Shaft Speed r/min		2	3	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360	
SCM26JC-□	1200	50 Hz	0.062 (0.54)	0.11 (0.97)	0.20 (1.77)	0.24 (2.1)	0.30 (2.6)	0.36 (3.1)	0.50 (4.4)	0.59 (5.2)	0.71 (6.2)	0.99 (8.7)	1.1 (9.7)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.8 (24)	3.4 (30)	3.8 (33)	4.5 (39)	5.3 (46)	6 (53)	6 (53)	6 (53)	6 (53)	
		60 Hz	0.064 (0.56)	0.11 (0.97)	0.21 (1.85)	0.25 (2.2)	0.31 (2.7)	0.37 (3.2)	0.52 (4.6)	0.62 (5.4)	0.75 (6.6)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	2.0 (17.7)	2.4 (21)	2.4 (26)	3.0 (31)	3.6 (35)	4.0 (41)	4.7 (49)	5.6 (53)	6 (53)	6 (53)	6 (53)	6 (53)
	90	50 Hz	0.070 (0.61)	0.12 (1.06)	0.23 (2.0)	0.27 (2.3)	0.34 (3.0)	0.41 (3.6)	0.56 (4.9)	0.68 (6.0)	0.81 (7.1)	1.1 (9.7)	1.3 (11.5)	1.5 (13.2)	2.2 (19.4)	2.6 (23)	3.2 (28)	3.9 (34)	4.3 (38)	5.2 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)
		60 Hz	0.064 (0.56)	0.11 (0.97)	0.21 (1.85)	0.25 (2.2)	0.31 (2.7)	0.37 (3.2)	0.52 (4.6)	0.62 (5.4)	0.75 (6.6)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	2.0 (17.7)	2.4 (21)	2.4 (26)	3.0 (31)	3.6 (35)	4.0 (41)	4.7 (49)	5.6 (53)	6 (53)	6 (53)	6 (53)	6 (53)
SCM315JC-□	1200	50 Hz	0.18 (1.59)	0.30 (2.6)	0.56 (4.9)	0.68 (6.0)	0.84 (7.4)	1.0 (8.8)	1.4 (12.3)	1.7 (15.0)	2.0 (17.7)	2.8 (24)	3.2 (28)	3.9 (34)	5.4 (47)	6.5 (57)	8.1 (71)	9.7 (85)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	
		60 Hz	0.17 (1.50)	0.29 (2.5)	0.54 (4.7)	0.65 (5.7)	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (13.2)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	
	90	50 Hz	0.078 (0.69)	0.14 (1.23)	0.25 (2.2)	0.30 (2.6)	0.38 (3.3)	0.45 (3.9)	0.63 (5.5)	0.76 (6.7)	0.91 (8.0)	1.3 (11.5)	1.4 (12.3)	1.7 (15.0)	2.4 (21)	2.9 (25)	3.6 (31)	4.3 (38)	4.8 (42)	5.8 (51)	6.8 (60)	8.2 (72)	10 (88)	10 (88)	10 (88)	
		60 Hz	0.078 (0.69)	0.14 (1.23)	0.25 (2.2)	0.30 (2.6)	0.38 (3.3)	0.45 (3.9)	0.63 (5.5)	0.76 (6.7)	0.91 (8.0)	1.3 (11.5)	1.4 (12.3)	1.7 (15.0)	2.4 (21)	2.9 (25)	3.6 (31)	4.3 (38)	4.8 (42)	5.8 (51)	6.8 (60)	8.2 (72)	10 (88)	10 (88)	10 (88)	
SCM425JC-□	1200	50 Hz	0.32 (2.8)	0.50 (4.4)	0.92 (8.1)	1.1 (9.7)	1.4 (12.3)	1.7 (15.0)	2.3 (20)	2.8 (24)	3.3 (29)	4.6 (40)	5.3 (46)	6.3 (55)	8.8 (77)	10.6 (93)	13.2 (116)	15.9 (140)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	
		60 Hz	0.31 (2.7)	0.49 (4.3)	0.90 (7.9)	1.1 (9.7)	1.4 (12.3)	1.6 (14.1)	2.3 (20)	2.7 (23)	3.2 (28)	4.5 (39)	5.2 (46)	6.2 (54)	8.6 (76)	10.3 (91)	12.9 (114)	15.5 (137)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	
	90	50 Hz	0.070 (0.61)	0.12 (1.06)	0.25 (2.2)	0.30 (2.6)	0.37 (3.2)	0.45 (3.9)	0.62 (5.4)	0.74 (6.5)	0.89 (7.8)	1.2 (10.6)	1.4 (12.3)	1.7 (15.0)	2.4 (21)	2.8 (24)	3.5 (30)	4.3 (38)	4.7 (41)	5.7 (50)	6.7 (59)	8.0 (70)	11.1 (98)	13.4 (118)	16 (141)	
		60 Hz	0.070 (0.61)	0.12 (1.06)	0.25 (2.2)	0.30 (2.6)	0.37 (3.2)	0.45 (3.9)	0.62 (5.4)	0.74 (6.5)	0.89 (7.8)	1.2 (10.6)	1.4 (12.3)	1.7 (15.0)	2.4 (21)	2.8 (24)	3.5 (30)	4.3 (38)	4.7 (41)	5.7 (50)	6.7 (59)	8.0 (70)	11.1 (98)	13.4 (118)	16 (141)	
SCM540JC-□	1200	50 Hz	0.50 (4.4)	0.78 (6.9)	1.4 (12.3)	1.7 (15.0)	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.2 (46)	6.9 (61)	8.3 (73)	9.9 (87)	13.8 (122)	16.5 (146)	20.6 (182)	24.8 (210)	27.5 (240)	30 (260)	30 (260)	30 (260)	30 (260)	-		
	1450	60 Hz	0.44 (3.9)	0.72 (6.4)	1.3 (11.5)	1.6 (14.1)	2.1 (18.8)	2.5 (22)	3.4 (30)	4.1 (36)	5.0 (44)	6.7 (59)	8.1 (71)	9.7 (85)	13.0 (116)	15.7 (140)	20.0 (177)	23.7 (210)	26.5 (234)	30 (260)	30 (260)	30 (260)	30 (260)	-		
	90	50 Hz	0.13 (1.15)	0.22 (1.94)	0.41 (3.6)	0.49 (4.3)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.5 (13.2)	1.9 (16.8)	2.3 (20)	2.8 (24)	3.9 (34)	4.6 (41)	5.8 (51)	7.0 (61)	7.7 (68)	8.7 (76)	10.9 (96)	13.1 (115)	18.2 (161)	21.9 (193)		
SCM560JC-□	1200	50 Hz	0.79 (6.9)	1.2 (10.6)	2.2 (19.4)	2.6 (23)	3.3 (29)	4.0 (35)	5.5 (48)	6.6 (58)	7.9 (69)	10.5 (92)	12.6 (111)	15.2 (134)	21.1 (186)	25.3 (220)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	-	
		60 Hz	0.70 (6.1)	1.0 (8.8)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	4.8 (42)	5.8 (51)	7.0 (61)	9.2 (81)	11.1 (98)	13.3 (117)	18.5 (163)	22.2 (196)	27.7 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	-	
	90	50 Hz	0.13 (1.15)	0.22 (1.94)	0.41 (3.6)	0.49 (4.3)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.5 (13.2)	1.9 (16.8)	2.3 (20)	2.8 (24)	3.9 (34)	4.6 (41)	5.8 (51)	7.0 (61)	7.7 (68)	8.7 (76)	10.9 (96)	13.1 (115)	18.2 (161)	21.9 (193)	-	
		60 Hz	0.14 (1.23)	0.24 (2.1)	0.45 (3.9)	0.54 (4.7)	0.68 (6.0)	0.81 (7.1)	1.1 (9.7)	1.4 (12.3)	1.6 (14.1)	2.2 (19.4)	2.6 (23)	3.1 (27)	4.3 (38)	5.2 (46)	6.5 (57)	7.7 (68)	8.6 (76)	9.7 (85)	12.2 (107)	14.6 (129)	20.3 (179)	24.3 (210)	-	
SCM590JC-□	1200	50 Hz	1.2 (10.6)	1.8 (15.9)	3.3 (29)	3.9 (34)	4.9 (43)	5.9 (52)	8.2 (72)	9.9 (88)	11.3 (100)	15.7 (138)	18.8 (166)	22.6 (200)	31.4 (270)	37.7 (330)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	-	-	
		60 Hz	1.1 (9.7)	1.7 (15.0)	3.1 (27)	3.7 (32)	4.7 (41)	5.7 (50)	8.0 (70)	9.7 (85)	11.1 (98)	15.0 (132)	18.1 (161)	22.0 (194)	30.0 (264)	36.0 (318)	39 (350)	39 (350)	39 (350)	39 (350)	39 (350)	39 (350)	39 (350)	-	-	
	90	50 Hz	0.17 (1.50)	0.26 (2.3)	0.54 (4.7)	0.65 (5.7)	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.6 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.3 (64)	8.7 (76)	9.7 (85)	11.7 (103)	14.6 (129)	17.5 (154)	-	-	-	
		60 Hz	0.16 (1.41)	0.23 (2.0)	0.50 (4.4)	0.59 (5.2)	0.74 (6.5)	0.89 (7.8)	1.2 (10.6)	1.5 (13.2)	1.7 (15.0)	2.4 (21)	2.8 (24)	3.4 (30)	4.7 (41)	5.7 (50)	6.7 (59)	8.0 (70)	8.9 (78)	10.7 (94)	13.4 (118)	16 (141)	-	-	-	

● Single-Phase 110/115 VAC

Unit: N-m (lb-in)

Product Name	Gear Ratio		Torque (N-m)																							
	Motor Shaft Speed r/min		2	3	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360	
SCM26UA-□	1450	110 VAC	0.070 (0.61)	0.12 (1.06)	0.23 (2.0)	0.27 (2.3)	0.34 (3.0)	0.41 (3.6)	0.56 (4.9)	0.68 (6.0)	0.81 (7.1)	1.1 (9.7)	1.3 (11.5)	1.5 (13.2)	2.2 (19.4)	2.6 (23)	3.2 (28)	3.9 (34)	4.3 (38)	5.2 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	
		90	0.053 (0.46)	0.088 (0.77)	0.17 (1.50)	0.21 (1.85)	0.26 (2.3)	0.31 (2.7)	0.43 (3.8)	0.51 (4.5)	0.62 (5.4)	0.86 (7.6)	0.98 (8.6)	1.2 (10.6)	1.6 (14.1)	2.0 (17.7)	2.5 (22)	2.9 (25)	3.3 (29)	3.9 (34)	4.6 (40)	5.5 (48)	6 (53)	6 (53)	6 (53)	
SCM315UA-□	1450	110 VAC	0.17 (1.50)	0.29 (2.5)	0.54 (4.7)	0.65 (5.7)	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	
		115 VAC	0.18 (1.59)	0.30 (2.6)	0.56 (4.9)	0.68 (6.0)	0.84 (7.4)	1.0 (8.8)	1.4 (12.3)	1.7 (15.0)	2.0 (17.7)	2.8 (24)	3.2 (28)	3.9 (34)	5.4 (47)	6.5 (57)	8.1 (71)	9.7 (85)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	
	90	110 VAC	0.063 (0.55)	0.11 (0.97)	0.20 (1.77)	0.24 (2.1)	0.30 (2.6)	0.36 (3.1)	0.51 (4.5)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	3.9 (34)	4.6 (40)	5.5 (48)	6.6 (57)	9.1 (80)	10 (88)	10 (88)	
		115 VAC	0.063 (0.55)	0.11 (0.97)	0.20 (1.77)	0.24 (2.1)	0.30 (2.6)	0.36 (3.1)	0.51 (4.5)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	3.9 (34)	4.6 (40)	5.5 (48)	6.6 (57)	9.1 (80)	10 (88)	10 (88)	
SCM425UA-□	1450	110 VAC	0.32 (2.8)	0.50 (4.4)	0.92 (8.1)	1.1 (9.7)	1.4 (12.3)	1.7 (15.0)	2.3 (20)	2.8 (24)	3.3 (29)	4.6 (40)	5.3 (46)	6.3 (55)	8.8 (77)	10.6 (93)	13.2 (116)	15.9 (140)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)		
	90	110 VAC	0.058 (0.51)	0.099 (0.87)	0.20 (1.77)	0.24 (2.1)	0.30 (2.6)	0.36 (3.1)	0.51 (4.5)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	3.9 (34)	4.6 (40)	5.5 (48)	6.6 (57)	9.1 (80)	10.9 (96)		
SCM540UA-□	1450	110 VAC	0.50 (4.4)	0.78 (6.9)	1.4 (12.3)	1.7 (15.0)	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.2 (46)	6.9 (61)	8.3 (73)	9.9 (87)	13.8 (122)	16.5 (146)	20.6 (182)	24.8 (210)	27.5 (240)	30 (260)	30 (260)	30 (260)	30 (260)	-		
	90	110 VAC	0.10 (0.88)	0.17 (1.50)	0.32 (2.8)	0.38 (3.3)	0.47 (4.1)	0.57 (5.0)	0.79 (6.9)	0.95 (8.4)	1.1 (9.7)	1.5 (13.2)	1.8 (15.9)	2.2 (19.4)	3.0 (26)	3.6 (31)	4.5 (39)	5.4 (47)	6.0 (53)	6.8 (60)	8.5 (75)	10.2 (90)	14.2 (125)	17.0 (150)		
SCM560UA-□	1450	110 VAC	0.75 (6.6)	1.1 (9.7)	2.1 (18.5)	2.5 (22)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.5 (66)	9.9 (87)	11.9 (105)	14.2 (125)	19.8 (175)	23.7 (210)	29.7 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	-	
		115 VAC	0.79 (6.9)	1.2 (10.6)	2.2 (19.4)	2.6 (23)	3.3 (29)	4.0 (35)	5.5 (48)	6.6 (58)	7.9 (69)	10.5 (92)	12.6 (111)	15.2 (134)	21.1 (186)	25.3 (220)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	-	
	90	110 VAC	0.12 (1.06)	0.19 (1.68)	0.36 (3.1)	0.43 (3.8)	0.54 (4.7)	0.65 (5.7)	0.90 (7.9)	1.1 (9.7)	1.3 (11.5)	1.7 (15.0)	2.1 (18.5)	2.5 (22)	3.4 (30)	4.1 (36)	5.2 (46)	6.2 (54)	6.9 (61)	7.8 (69)	9.7 (85)	11.7 (103)	16.2 (143)	19.4 (171)		
SCM590UA-□	1450	110 VAC	1.2 (10.6)	1.8 (15.9)	3.3 (29)	3.9 (34)	4.9 (43)	5.9 (52)	8.2 (72)	9.9 (88)	11.3 (100)	15.7 (138)	18.8 (166)	22.6 (200)	31.4 (270)	37.7 (330)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	-	-	
		90	110 VAC	0.12 (1.06)	0.18 (1.59)	0.38 (3.3)	0.46 (4.0)	0.57 (5.0)	0.69 (6.1)	0.96 (8.4)	1.1 (9.7)	1.3 (11.5)	1.8 (15.9)	2.2 (19.4)	2.6 (23)	3.7 (32)	4.4 (38)	5.2 (46)	6.2 (54)	6.9 (61)	8.3 (73)	10.3 (91)	12.4 (109)	-	-	

Features	System Configuration Product Number	Standard	Electromagnetic Brake	Connection and Operation	Cables Accessories
Right-Angle Shaft	Parallel Shaft/ Round Shaft	Right-Angle Shaft	Parallel Shaft/ Round Shaft	Right-Angle Shaft	Parallel Shaft/ Round Shaft

● Single-Phase 220/230 VAC

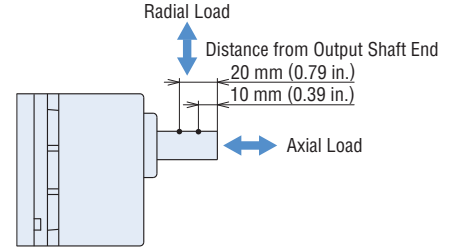
Unit: N-m (lb-in)

Product Name	Gear Ratio		2	3	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360	
	Motor Shaft Speed r/min																									
SCM26EC-□	1200	220 VAC	0.059	0.10	0.19	0.23	0.28	0.34	0.47	0.57	0.68	0.95	1.1	1.3	1.8	2.2	2.7	3.3	3.6	4.3	5.1	6	6	6	6	
		50 Hz	(0.52)	(0.88)	(1.68)	(2.0)	(2.4)	(3.0)	(4.1)	(5.0)	(6.0)	(8.4)	(9.7)	(11.5)	(15.9)	(19.4)	(23)	(29)	(31)	(38)	(45)	(53)	(53)	(53)	(53)	(53)
	1450	220 VAC	0.064	0.11	0.21	0.25	0.31	0.37	0.52	0.62	0.75	1.0	1.2	1.4	2.0	2.4	3.0	3.6	4.0	4.7	5.6	6	6	6	6	6
		60 Hz	(0.56)	(0.97)	(1.85)	(2.2)	(2.7)	(3.2)	(4.6)	(5.4)	(6.6)	(8.8)	(10.6)	(12.3)	(17.7)	(21)	(26)	(31)	(35)	(41)	(49)	(53)	(53)	(53)	(53)	(53)
	90	220 VAC	0.070	0.12	0.23	0.27	0.34	0.41	0.56	0.68	0.81	1.1	1.3	1.5	2.2	2.6	3.2	3.9	4.3	5.2	6	6	6	6	6	6
		60 Hz	(0.61)	(1.06)	(2.0)	(2.3)	(3.0)	(3.6)	(4.9)	(6.0)	(7.1)	(9.7)	(11.5)	(13.2)	(19.4)	(23)	(28)	(34)	(38)	(46)	(53)	(53)	(53)	(53)	(53)	(53)
50 Hz	220 VAC	0.056	0.092	0.18	0.22	0.27	0.32	0.45	0.54	0.65	0.90	1.0	1.2	1.7	2.1	2.6	3.1	3.4	4.1	4.9	5.8	6	6	6	6	
	50/60 Hz	(0.49)	(0.81)	(1.59)	(1.94)	(2.3)	(2.8)	(3.9)	(4.7)	(5.7)	(7.9)	(8.8)	(10.6)	(15.0)	(18.5)	(23)	(27)	(30)	(36)	(43)	(51)	(53)	(53)	(53)	(53)	
SCM315EC-□	1200	50 Hz	0.18	0.30	0.56	0.68	0.84	1.0	1.4	1.7	2.0	2.8	3.2	3.9	5.4	6.5	8.1	9.7	10	10	10	10	10	10	10	10
		60 Hz	(1.59)	(2.6)	(4.9)	(6.0)	(7.4)	(8.8)	(12.3)	(15.0)	(17.7)	(24)	(28)	(34)	(47)	(57)	(71)	(85)	(88)	(88)	(88)	(88)	(88)	(88)	(88)	(88)
	1450	220 VAC	0.15	0.27	0.50	0.59	0.74	0.89	1.2	1.5	1.8	2.5	2.8	3.4	4.7	5.7	7.1	8.5	9.5	10	10	10	10	10	10	10
		60 Hz	(1.32)	(2.3)	(4.4)	(5.2)	(6.5)	(7.8)	(10.6)	(13.2)	(15.9)	(22)	(24)	(30)	(41)	(50)	(62)	(75)	(84)	(88)	(88)	(88)	(88)	(88)	(88)	(88)
	90	220 VAC	0.17	0.29	0.54	0.65	0.81	0.97	1.4	1.6	1.9	2.7	3.1	3.7	5.2	6.2	7.7	9.3	10	10	10	10	10	10	10	10
		60 Hz	(1.50)	(2.5)	(4.7)	(5.7)	(7.1)	(8.5)	(12.3)	(14.1)	(16.8)	(23)	(27)	(32)	(46)	(54)	(68)	(82)	(88)	(88)	(88)	(88)	(88)	(88)	(88)	(88)
50 Hz	0.056	0.097	0.18	0.22	0.27	0.32	0.45	0.54	0.65	0.90	1.0	1.2	1.7	2.1	2.6	3.1	3.4	4.1	4.9	5.8	6	6	6	6	6	
50/60 Hz	(0.49)	(0.81)	(1.59)	(1.94)	(2.3)	(2.8)	(3.9)	(4.7)	(5.7)	(7.9)	(8.8)	(10.6)	(15.0)	(18.5)	(23)	(27)	(30)	(36)	(43)	(51)	(53)	(53)	(53)	(53)	(53)	
SCM425EC-□	1200	50 Hz	0.32	0.50	0.92	1.1	1.4	1.7	2.3	2.8	3.3	4.6	5.3	6.3	8.8	10.6	13.2	15.9	16	16	16	16	16	16	16	16
	1450	60 Hz	(2.8)	(4.4)	(8.1)	(9.7)	(12.3)	(15.0)	(20)	(24)	(29)	(40)	(46)	(55)	(77)	(93)	(116)	(140)	(141)	(141)	(141)	(141)	(141)	(141)	(141)	(141)
	90	0.051	0.088	0.18	0.22	0.27	0.32	0.45	0.54	0.65	0.90	1.0	1.2	1.7	2.1	2.6	3.1	3.4	4.1	4.9	5.8	6	6	6	6	
50 Hz	(0.45)	(0.77)	(1.59)	(1.94)	(2.3)	(2.8)	(3.9)	(4.7)	(5.7)	(7.9)	(8.8)	(10.6)	(15.0)	(18.5)	(23)	(27)	(30)	(36)	(43)	(51)	(53)	(53)	(53)	(53)	(53)	
SCM540EC-□	1200	50 Hz	0.50	0.78	1.4	1.7	2.2	2.6	3.6	4.3	5.2	6.9	8.3	9.9	13.8	16.5	20.6	24.8	27.5	30	30	30	30	30	30	30
		60 Hz	(4.4)	(6.9)	(12.3)	(15.0)	(19.4)	(23)	(31)	(38)	(46)	(61)	(73)	(87)	(122)	(146)	(182)	(210)	(240)	(260)	(260)	(260)	(260)	(260)	(260)	(260)
	90	50 Hz	0.094	0.16	0.29	0.35	0.44	0.53	0.73	0.88	1.1	1.4	1.7	2.0	2.8	3.4	4.2	5.0	5.6	6.3	7.9	9.5	13.2	15.8	15.8	15.8
		60 Hz	(0.83)	(1.41)	(2.5)	(3.0)	(3.8)	(4.6)	(6.4)	(7.7)	(9.7)	(12.3)	(15.0)	(17.7)	(24)	(30)	(37)	(44)	(49)	(55)	(69)	(84)	(116)	(139)	(139)	(139)
SCM560EC-□	1200	50 Hz	0.79	1.2	2.2	2.6	3.3	4.0	5.5	6.6	7.9	10.5	12.6	15.2	21.1	25.3	30	30	30	30	30	30	30	30	30	30
		60 Hz	(6.6)	(9.7)	(18.5)	(22)	(27)	(32)	(46)	(54)	(66)	(87)	(105)	(125)	(175)	(200)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)
	1450	220 VAC	0.79	1.2	2.2	2.6	3.3	4.0	5.5	6.6	7.9	10.5	12.6	15.2	21.1	25.3	30	30	30	30	30	30	30	30	30	30
		60 Hz	(6.9)	(10.6)	(19.4)	(23)	(29)	(35)	(48)	(58)	(69)	(92)	(111)	(134)	(186)	(220)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)
	90	220 VAC	0.12	0.19	0.36	0.43	0.54	0.65	0.90	1.1	1.3	1.7	2.1	2.5	3.4	4.1	5.2	6.2	6.9	7.8	9.7	11.7	16.2	19.4	19.4	19.4
		60 Hz	(1.06)	(1.68)	(3.1)	(3.8)	(4.7)	(5.7)	(7.9)	(9.7)	(11.5)	(15.0)	(18.5)	(22)	(30)	(36)	(46)	(54)	(61)	(69)	(85)	(103)	(143)	(171)	(171)	(171)
50 Hz	220 VAC	0.11	0.18	0.34	0.41	0.51	0.61	0.84	1.0	1.2	1.6	1.9	2.3	3.2	3.9	4.8	5.8	6.5	7.3	9.1	10.9	15.2	18.2	18.2	18.2	
	60 Hz	(0.97)	(1.59)	(3.0)	(3.6)	(4.5)	(5.3)	(7.4)	(8.8)	(10.6)	(14.1)	(16.8)	(20)	(28)	(34)	(42)	(51)	(57)	(64)	(80)	(96)	(134)	(161)	(161)	(161)	
50 Hz	0.12	0.21	0.38	0.46	0.57	0.69	0.96	1.1	1.4	1.8	2.2	2.6	3.7	4.4	5.5	6.6	7.3	8.3	10.3	12.4	17.2	20.7	20.7	20.7		
50/60 Hz	(1.06)	(1.85)	(3.3)	(4.0)	(5.0)	(6.1)	(8.4)	(9.7)	(12.3)	(15.9)	(19.4)	(23)	(32)	(38)	(48)	(58)	(64)	(73)	(91)	(109)	(152)	(183)	(183)	(183)		
SCM590EC-□	1200	50 Hz	1.2	1.8	3.3	3.9	4.9	5.9	8.2	9.9	11.3	15.7	18.8	22.6	31.4	37.7	40	40	40	40	40	40	40	40	40	40
		60 Hz	(10.6)	(15.9)	(29)	(34)	(43)	(52)	(72)	(87)	(100)	(138)	(166)	(200)	(270)	(330)	(350)	(350)	(350)	(350)	(350)	(350)	(350)	(350)	(350)	(350)
90	0.13	0.20	0.43	0.51	0.64	0.77	1.1	1.3	1.5	2.0	2.5	2.9	4.1	4.9	5.8	6.9	7.7	9.2	11.5	13.9	13.9	13.9	13.9	13.9		
50/60 Hz	(1.15)	(1.77)	(3.8)	(4.5)	(5.6)	(6.8)	(9.7)	(11.5)	(13.2)	(17.7)	(22)	(25)	(36)	(43)	(51)	(61)	(68)	(81)	(101)	(123)	(123)	(123)	(123)	(123)	(123)	

Permissible Radial Load and Permissible Axial Load

Parallel Shaft Gearhead GV Gear

Output Power	Gear Ratio	Permissible Radial Load N (lb.)		Permissible Axial Load N (lb.)
		Distance from the Gearhead Output Shaft End		
		10 mm (0.39 in.)	20 mm (0.79 in.)	
6 W (1/125 HP)	2	100 (22)	150 (33)	15 (3.3)
	3	100 (22)	150 (33)	30 (6.7)
	5 to 25	150 (33)	200 (45)	40 (9.0)
	30 to 360	200 (45)	300 (67)	
15 W (1/50 HP)	2	150 (33)	250 (56)	20 (4.5)
	3	150 (33)	250 (56)	40 (9.0)
	5 to 25 30 to 360	200 (45) 300 (67)	300 (67) 400 (90)	80 (18.0)
25 W (1/30 HP)	2	300 (67)	350 (78)	25 (5.6)
	3	300 (67)	350 (78)	50 (11.2)
	5 to 25 30 to 360	300 (67) 450 (101)	350 (78) 550 (123)	100 (22)
40 W (1/19 HP)	2	250 (56)	350 (78)	100 (22)
	3 to 9	400 (90)	500 (112)	150 (33)
	12.5 to 18	450 (101)	600 (135)	
60 W (1/12 HP)	25 to 300	500 (112)	700 (157)	100 (22)
	2	250 (56)	350 (78)	
90 W (1/8 HP)	3 to 9	400 (90)	500 (112)	150 (33)
	12.5 to 18	450 (101)	600 (135)	
	25 to 180	500 (112)	700 (157)	



Round Shaft Type

Output Power	Permissible Radial Load N (lb.)		Permissible Axial Load
	Distance from Motor Output Shaft End		
	10 mm (0.39 in.)	20 mm (0.79 in.)	
6 W (1/125 HP)	50 (11.2)	110 (24)	Half of Motor Mass or Less*
15 W (1/50 HP)	40 (9.0)	60 (13.5)	
25 W (1/30 HP)	90 (20)	140 (31)	
40 W (1/19 HP)	140 (31)	200 (45)	
60 W (1/12 HP) 90 W (1/8 HP)	240 (54)	270 (60)	

* Avoid applying axial loads as much as possible.

If an axial load is unavoidable, keep it at half or less of the motor mass.

Gearhead Efficiency

Product Name	Gear Ratio																						
	2	3	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
2GV□B, 3GV□B	70%	81%	90%									86%						81%					
4GV□B	78%	81%	90%									86%						81%					
5GV□B	78%	81%	90%									86%						81%					
5GVH□B	81%		90%									86%						81%					
5GVR□B	81%		90%									86%						81%					

Permissible Inertia J

Unit: $\times 10^{-4}$ kg·m² (oz·in²)

Output Power	Gear Ratio	2	3	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
		6 W (1/125 HP)		2 (10.9)	4 (22)	12 (66)	18 (98)	28 (153)	40 (220)	78 (430)	110 (600)	160 (880)	260 (1420)	370 (2000)	540 (3000)	920 (5000)	1300 (7100)	1700 (9300)	2000 (10900)	2500 (13700)	3600 (19700)	5000 (27000)	5000 (27000)	5000 (27000)
15 W (1/50 HP)		0.25 (1.37)	0.56 (3.1)	1.55 (8.5)	2.23 (12.2)	3.49 (19.1)	5.02 (27)	9.69 (53)	14 (77)	20.1 (110)	38.8 (210)	55.8 (310)	80.4 (440)	155 (850)	155 (850)	155 (850)	155 (850)	155 (850)	155 (850)	155 (850)	155 (850)	155 (850)	155 (850)	155 (850)
	When Instantaneous Stop or Bi-Directional Operation is performed*	3 (16.4)	7 (38)	20 (109)	28 (153)	45 (250)	65 (360)	120 (660)	180 (980)	260 (1420)	440 (2400)	630 (3400)	900 (4900)	1500 (8200)	2100 (11500)	2800 (15300)	3200 (17500)	4000 (22000)	5700 (31000)	8000 (44000)	8000 (44000)	8000 (44000)	8000 (44000)	8000 (44000)
25 W (1/30 HP)		0.6 (3.3)	1.3 (7.1)	3.5 (19.1)	5.04 (28)	7.88 (43)	11.3 (62)	21.9 (120)	31.5 (172)	45.4 (250)	87.5 (480)	126 (690)	181 (990)	350 (1910)	350 (1910)	350 (1910)	350 (1910)	350 (1910)	350 (1910)	350 (1910)	350 (1910)	350 (1910)	350 (1910)	350 (1910)
	When Instantaneous Stop or Bi-Directional Operation is performed*	3 (16.4)	8 (44)	22 (120)	32 (175)	50 (270)	72 (390)	150 (820)	220 (1200)	310 (1700)	550 (3000)	800 (4400)	1100 (6000)	2200 (12000)	3200 (17500)	4000 (22000)	5000 (27000)	6200 (34000)	8900 (49000)	12000 (66000)	12000 (66000)	12000 (66000)	12000 (66000)	12000 (66000)
40 W (1/19 HP)		7 (38)	16 (88)	45 (250)	65 (360)	100 (550)	150 (820)	300 (1640)	420 (2300)	620 (3400)	1100 (6000)	1600 (8800)	2300 (12600)	4500 (25000)	6000 (33000)	8000 (44000)	10000 (55000)	12000 (66000)	17000 (93000)	25000 (137000)	25000 (137000)	25000 (137000)	25000 (137000)	-
	When Instantaneous Stop or Bi-Directional Operation is performed*	4.4 (24)	9.9 (54)	27.5 (150)	39.6 (220)	61.9 (340)	89.1 (490)	172 (940)	248 (1360)	356 (1950)	688 (3800)	990 (5400)	1426 (7800)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	-
60 W (1/12 HP)		7 (38)	16 (88)	45 (250)	65 (360)	100 (550)	150 (820)	300 (1640)	420 (2300)	620 (3400)	1100 (6000)	1600 (8800)	2300 (12600)	4500 (25000)	6000 (33000)	8000 (44000)	10000 (55000)	12000 (66000)	17000 (93000)	25000 (137000)	25000 (137000)	-	-	-
	When Instantaneous Stop or Bi-Directional Operation is performed*	4.4 (24)	9.9 (54)	27.5 (150)	39.6 (220)	61.9 (340)	89.1 (490)	172 (940)	248 (1360)	356 (1950)	688 (3800)	990 (5400)	1426 (7800)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	-	-	-
90 W (1/8 HP)		7 (38)	16 (88)	45 (250)	65 (360)	100 (550)	150 (820)	300 (1640)	420 (2300)	620 (3400)	1100 (6000)	1600 (8800)	2300 (12600)	4500 (25000)	6000 (33000)	8000 (44000)	10000 (55000)	12000 (66000)	17000 (93000)	25000 (137000)	25000 (137000)	-	-	-
	When Instantaneous Stop or Bi-Directional Operation is performed*	4.4 (24)	9.9 (54)	27.5 (150)	39.6 (220)	61.9 (340)	89.1 (490)	172 (940)	248 (1360)	356 (1950)	688 (3800)	990 (5400)	1426 (7800)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	2750 (15000)	-	-	-

* For DSC Series products with an electromagnetic brake, the values represent when "deceleration control" is ON.

● A number indicating the gear ratio is specified where the box □ is located within the product name.

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

How to Read Speed – Torque Characteristics

The characteristics on the right shows the relationship between each setting speed and torque when a speed control motor is operated.

① Continuous Duty Region

Continuous operation is possible in this region within the specification rating.

② Limited Duty Region

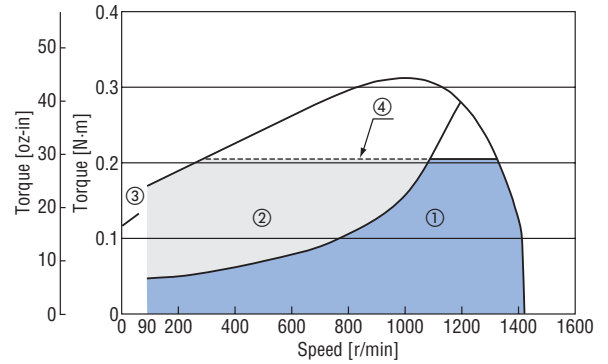
The motor case temperature may exceed 90°C (194°F) if operated continuously within the limited duty region. When operating within the limited duty region, ensure that the motor case temperature is maintained at 90°C (194°F) or less.

③ Starting Torque

This refers to the degree of torque with which the motor can start.

④ Permissible Torque

This refers to the permissible value of the motor torque when operating with the gearhead installed. Use the motor without exceeding the value on the list of permissible torques.



Speed – Torque Characteristics (Reference values)

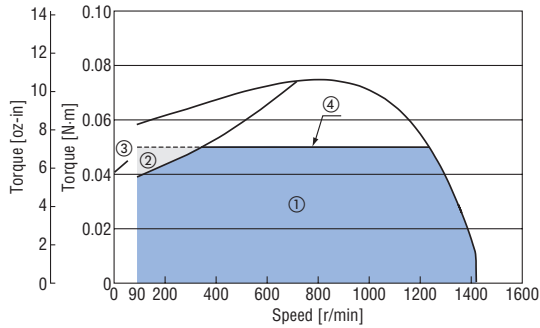
① Continuous Duty Region ② Limited Duty Region ③ Starting Torque ④ Permissible Torque

● All output characteristics are representative values.

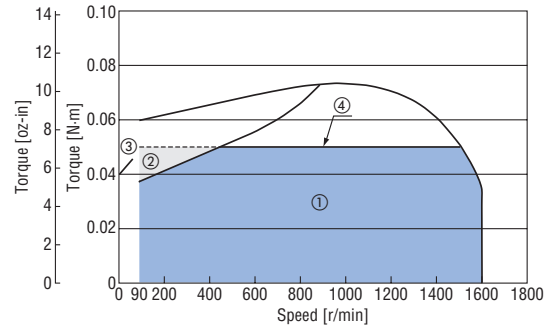
The permissible torque and starting torque of the motor vary according to the voltage. Use after checking the specifications and permissible torque.

● 6 W (1/125 HP)

◇ 50 Hz

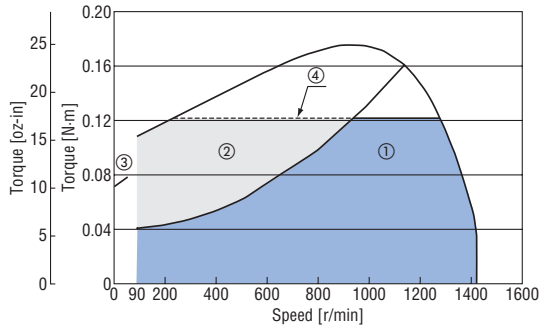


◇ 60 Hz

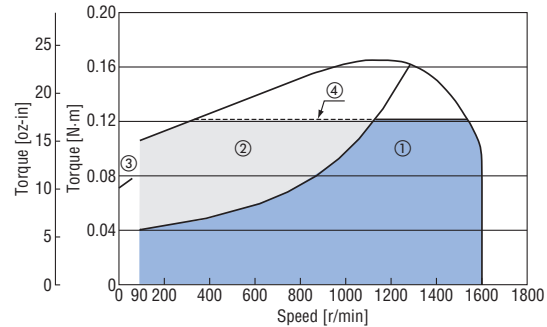


● 15 W (1/50 HP)

◇ 50 Hz

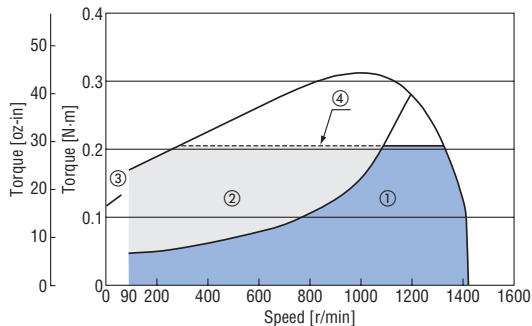


◇ 60 Hz

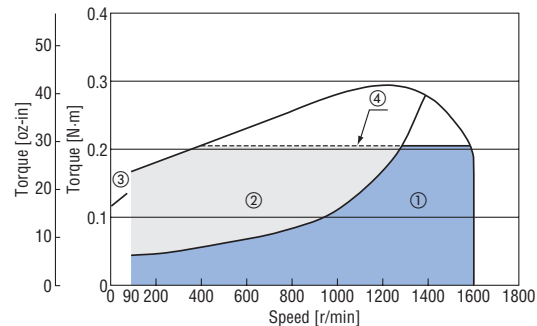


● 25 W (1/30 HP)

◇ 50 Hz

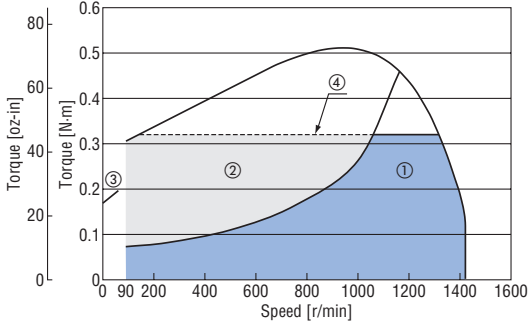


◇ 60 Hz

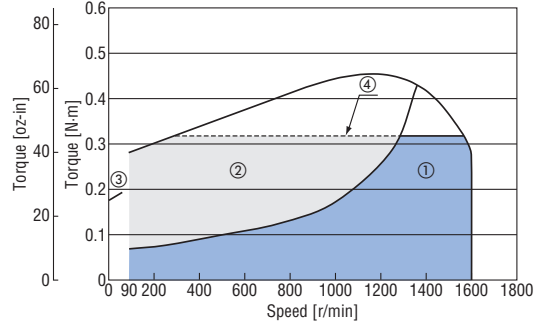


● 40 W (1/19 HP)

◇ 50 Hz

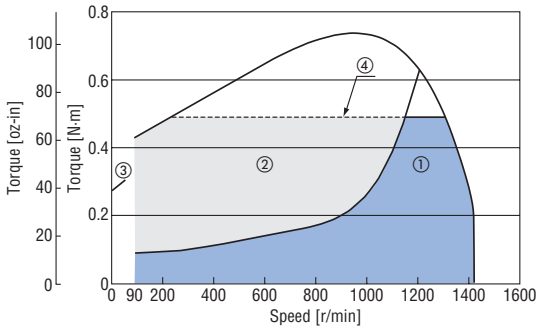


◇ 60 Hz

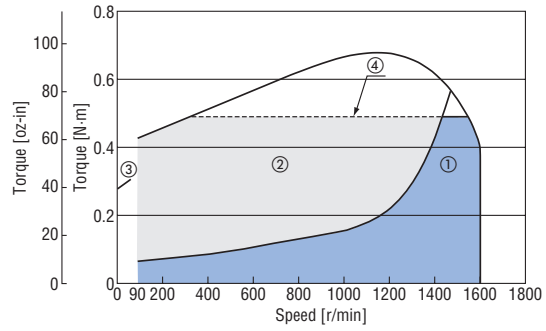


● 60 W (1/12 HP)

◇ 50 Hz

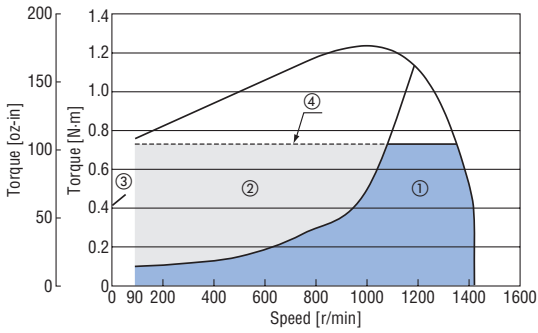


◇ 60 Hz

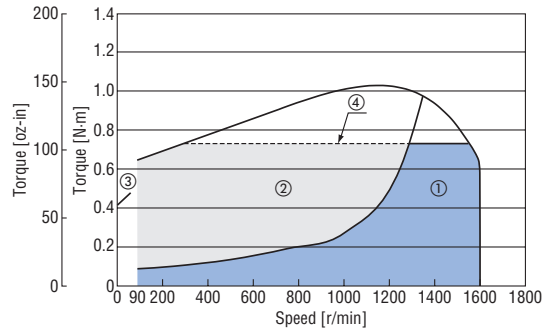


● 90 W (1/8 HP)

◇ 50 Hz



◇ 60 Hz



Features	System Configuration Product Number	Right-Angle Shaft	Parallel Shaft/ Round Shaft	Standard	Right-Angle Shaft	Parallel Shaft/ Round Shaft	Electromagnetic Brake	Connection and Operation	Cables Accessories
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Dimensions [Unit: mm (in.)]

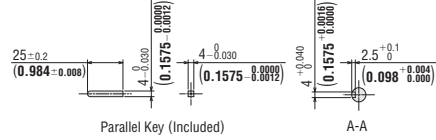
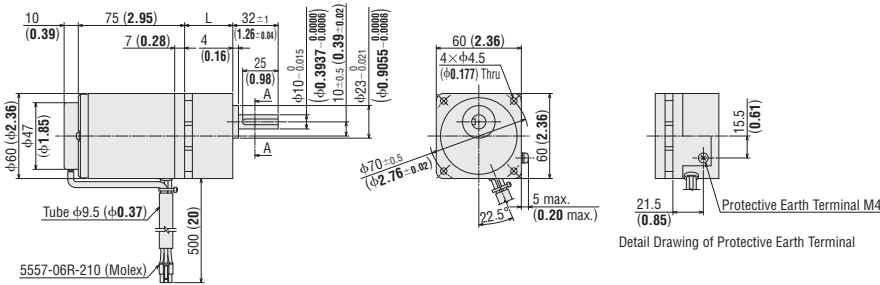
- "Installation screws" are included. Dimensions for installation screws → Page 43
- A number indicating the gear ratio is specified where the box □ is located within the product name.

Parallel Shaft Gearhead **GV** Gear

◇ 6 W (1/125 HP)

2D & 3D CAD

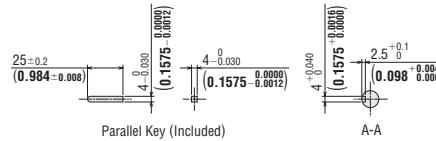
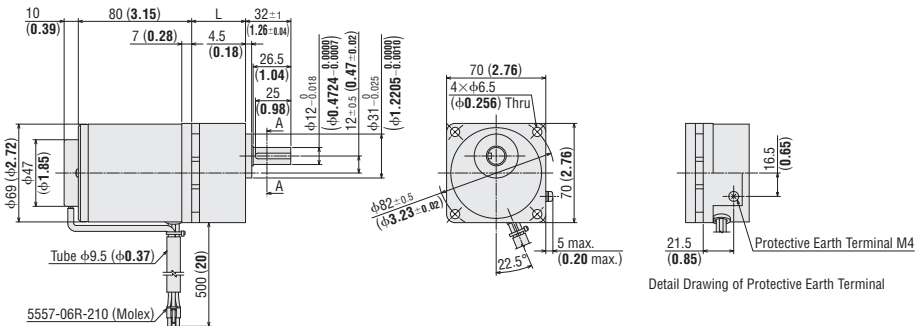
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM26JA -□	SCM26GV-JA	2GV□B	5 to 25	34 (1.34)	1.1 (2.4)	A1214A
SCM26JC -□	SCM26GV-JC		2, 3, 30 to 120	38 (1.50)	1.1 (2.4)	A1214B
SCM26UA -□	SCM26GV-UA		150 to 360	43 (1.69)	1.2 (2.6)	A1214C
SCM26EC -□	SCM26GV-EC					



◇ 15 W (1/50 HP)

2D & 3D CAD

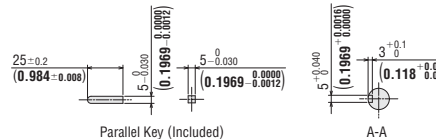
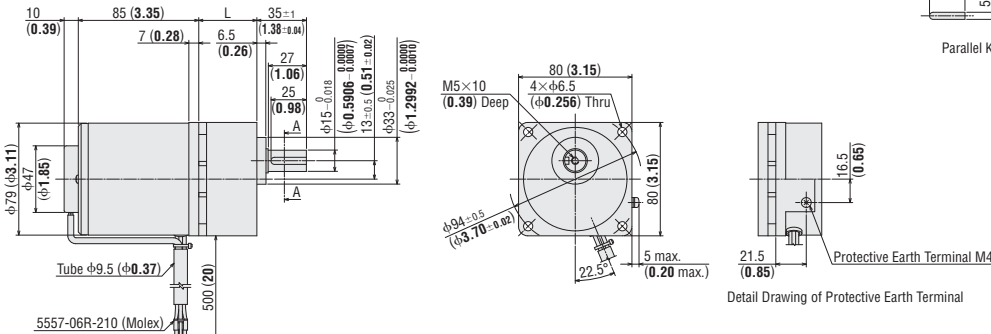
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM315JA -□	SCM315GV-JA	3GV□B	5 to 25	38 (1.50)	1.6 (3.5)	A1215A
SCM315JC -□	SCM315GV-JC		2, 3, 30 to 120	43 (1.69)	1.7 (3.7)	A1215B
SCM315UA -□	SCM315GV-UA		150 to 360	48 (1.89)	1.8 (4.0)	A1215C
SCM315EC -□	SCM315GV-EC					



◇ 25 W (1/30 HP)

2D & 3D CAD

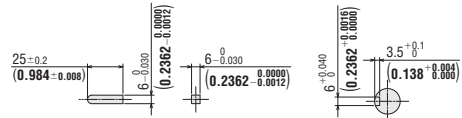
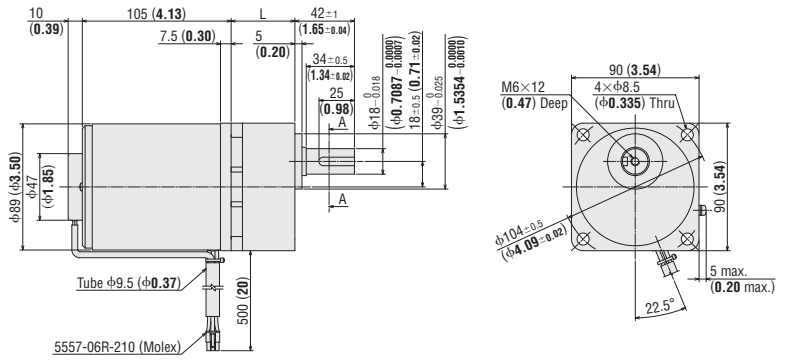
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM425JA -□	SCM425GV-JA	4GV□B	5 to 25	41 (1.61)	2.3 (5.1)	A1216A
SCM425JC -□	SCM425GV-JC		2, 3, 30 to 120	46 (1.81)	2.4 (5.3)	A1216B
SCM425UA -□	SCM425GV-UA		150 to 360	51 (2.01)	2.5 (5.5)	A1216C
SCM425EC -□	SCM425GV-EC					



◇ 40 W (1/19 HP)

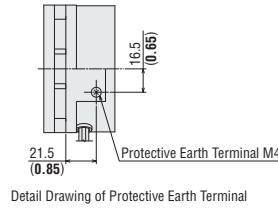
2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM540JA -□ SCM540JC -□ SCM540UA -□ SCM540EC -□	SCM540GV-JA SCM540GV-JC SCM540GV-UA SCM540GV-EC	5GV□B	5 to 18	45 (1.77)	3.6 (7.9)	A1217A
			2, 3, 25 to 100	58 (2.28)	3.9 (8.6)	A1217B
			120 to 300	64 (2.52)	4.0 (8.8)	A1217C



Parallel Key (Included)

A-A

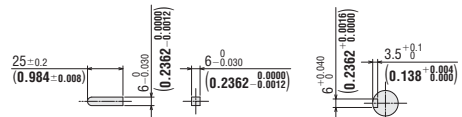
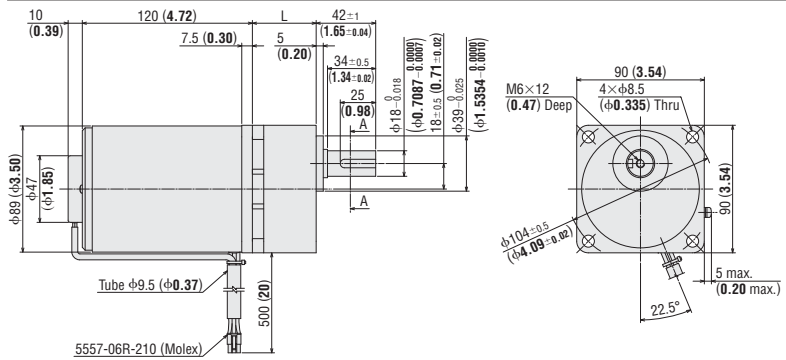


Detail Drawing of Protective Earth Terminal

◇ 60 W (1/12 HP)

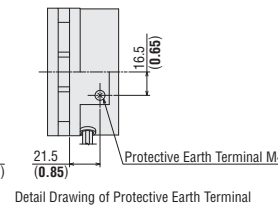
2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM560JA -□ SCM560JC -□ SCM560UA -□ SCM560EC -□	SCM560GVH-JA SCM560GVH-JC SCM560GVH-UA SCM560GVH-EC	5GVH□B	5 to 18	45 (1.77)	4.1 (9.0)	A1218A
			2, 3, 25 to 100	58 (2.28)	4.4 (9.7)	A1218B
			120 to 300	64 (2.52)	4.5 (9.9)	A1218C



Parallel Key (Included)

A-A

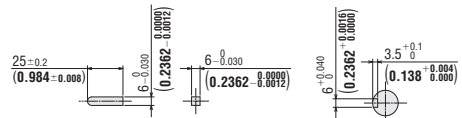
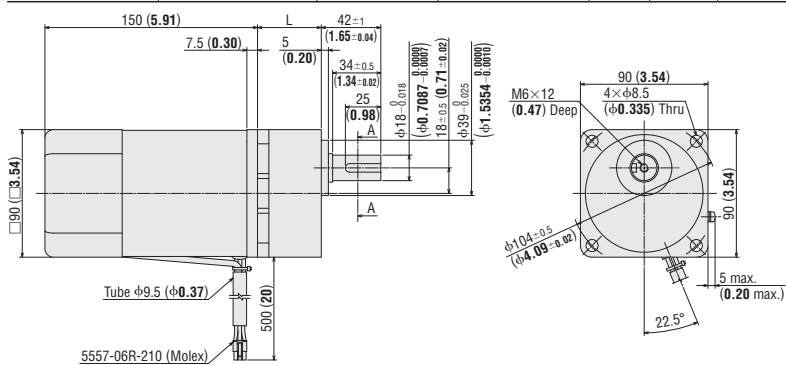


Detail Drawing of Protective Earth Terminal

◇ 90 W (1/8 HP)

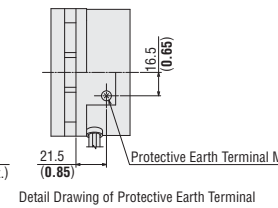
2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM590JA -□ SCM590JC -□ SCM590UA -□ SCM590EC -□	SCM590GVR-JA SCM590GVR-JC SCM590GVR-UA SCM590GVR-EC	5GVR□B	5 to 15	45 (1.77)	4.3 (9.5)	A1219A
			2, 3, 18 to 36	58 (2.28)	4.7 (10.3)	A1219B
			50, 60	70 (2.76)	4.8 (10.6)	A1219C
			75 to 180			



Parallel Key (Included)

A-A



Detail Drawing of Protective Earth Terminal

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

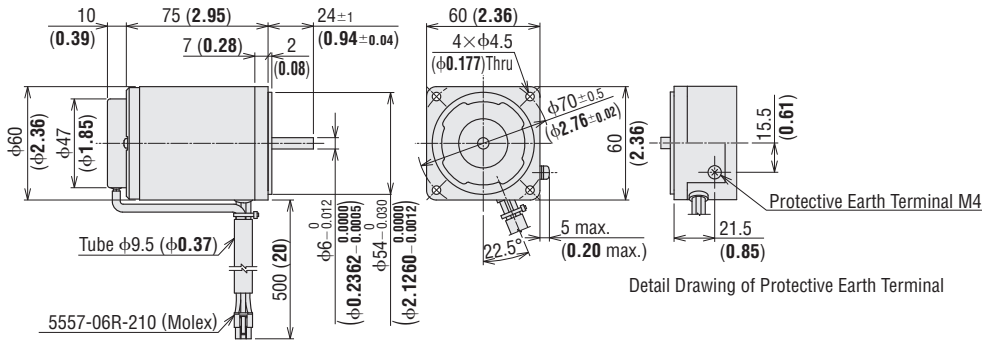
● Round Shaft Type

◇ 6 W (1/125 HP)

SCM26A-JA, SCM26A-JC, SCM26A-UA, SCM26A-EC

Mass: 0.8 kg (1.76 lb.)

2D CAD A1256 3D CAD

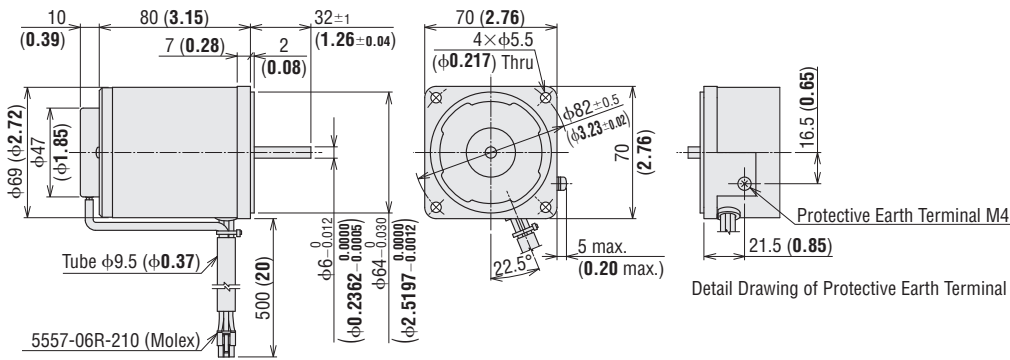


◇ 15 W (1/50 HP)

SCM315A-JA, SCM315A-JC, SCM315A-UA, SCM315A-EC

Mass: 1.2 kg (2.6 lb.)

2D CAD A1257 3D CAD

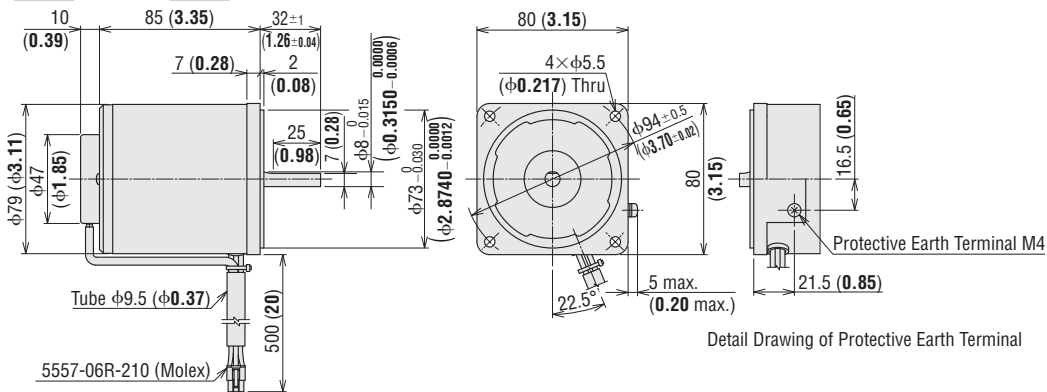


◇ 25 W (1/30 HP)

SCM425A-JA, SCM425A-JC, SCM425A-UA, SCM425A-EC

Mass: 1.6 kg (3.5 lb.)

2D CAD A1258 3D CAD

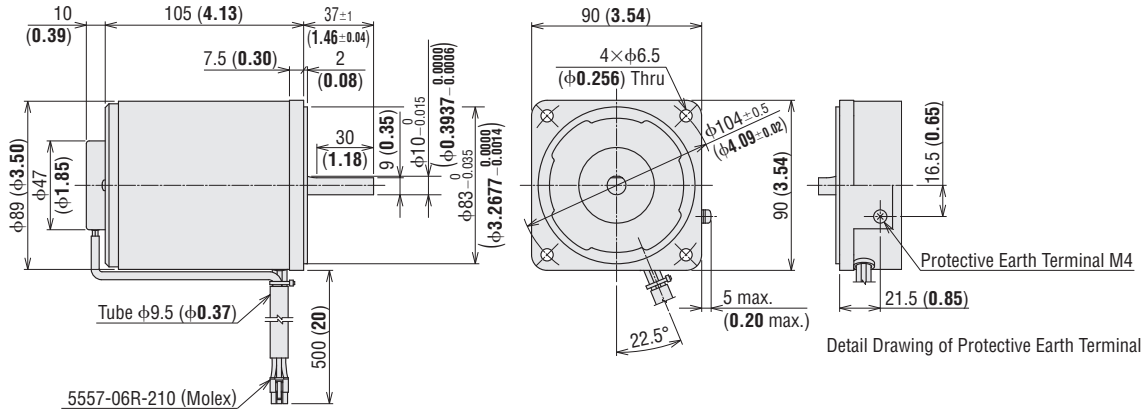


◇ 40 W (1/19 HP)

SCM540A-JA, SCM540A-JC, SCM540A-UA, SCM540A-EC

Mass: 2.6 kg (5.7 lb.)

2D CAD A1259 **3D CAD**

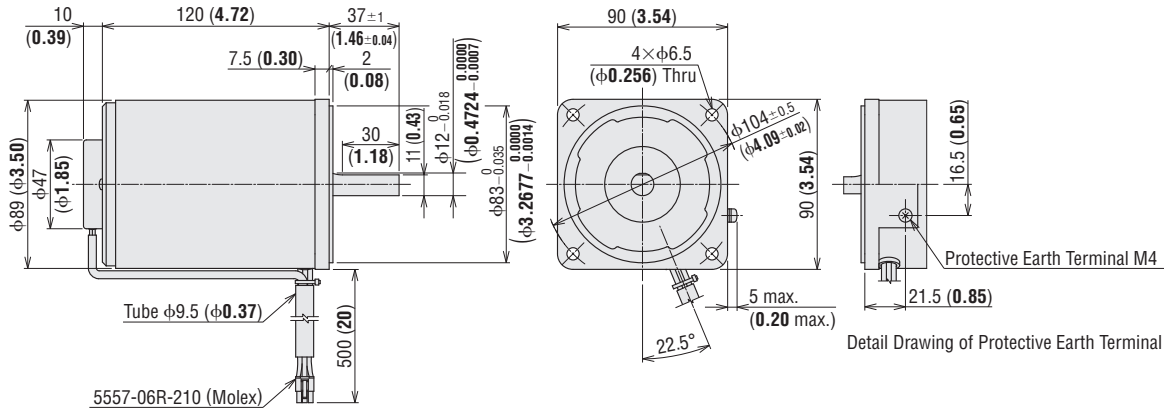


◇ 60 W (1/12 HP)

SCM560A-JA, SCM560A-JC, SCM560A-UA, SCM560A-EC

Mass: 3.1 kg (6.8 lb.)

2D CAD A1260 **3D CAD**

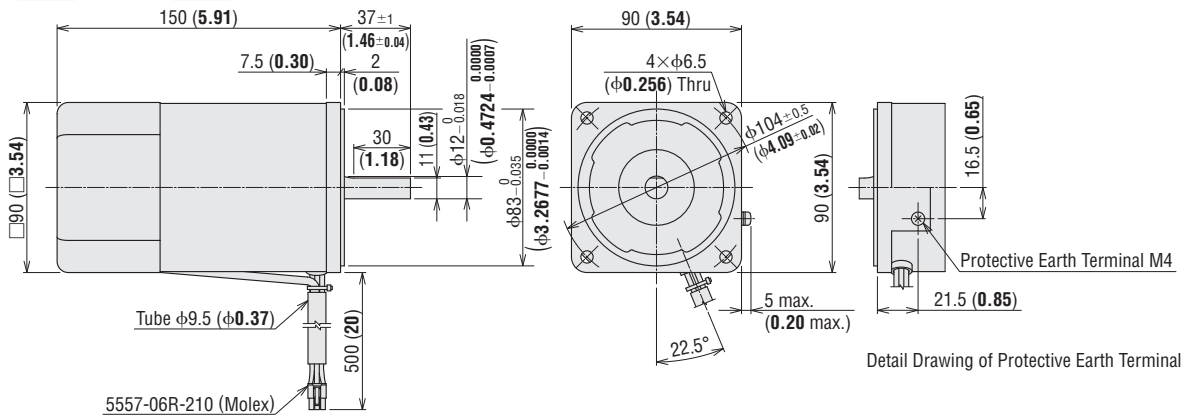


◇ 90 W (1/8 HP)

SCM590A-JA, SCM590A-JC, SCM590A-UA, SCM590A-EC

Mass: 3.3 kg (7.3 lb.)

2D CAD A1261 **3D CAD**



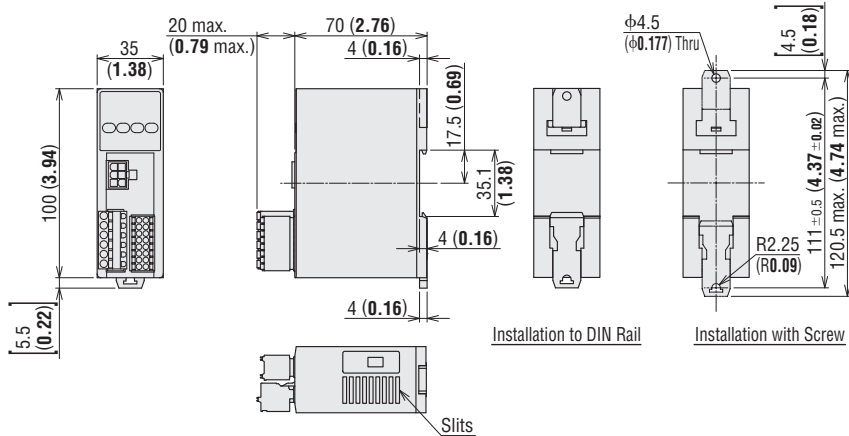
Features	System Configuration Product Number	Right-Angle Shaft	Standard	Right-Angle Shaft	Electromagnetic Brake	Connection and Operation	Cables Accessories
		Parallel Shaft/ Round Shaft		Parallel Shaft/ Round Shaft			

● Speed Controller

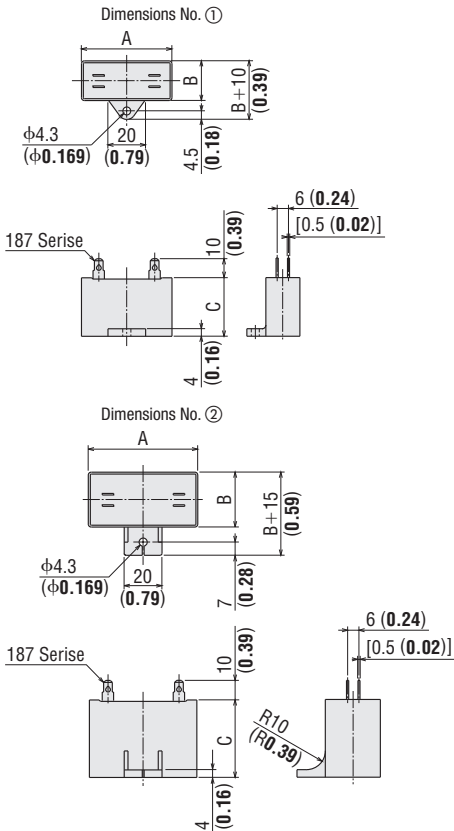
DSC-U

Mass: 0.2 kg (0.44 lb.)

2D CAD A1262 3D CAD



◇ Capacitor (Included with the speed controller)



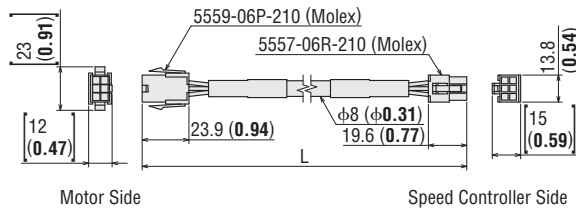
● Capacitor Dimensions [Unit: mm (in.)]

Speed Controller Product Name	Capacitor					Dimension No.
	Product Name	A	B	C	Mass g (oz.)	
DSCD6JA	CH35FAUL2	31 (1.22)	17 (0.67)	27 (1.06)	22 (0.78)	①
DSCD6JC	CH08BFAUL	31 (1.22)	17 (0.67)	27 (1.06)	23 (0.81)	
DSCD6JA	CH25FAUL2	31 (1.22)	17 (0.67)	27 (1.06)	21 (0.74)	
DSCD6EC	CH06BFAUL	31 (1.22)	14.5 (0.57)	23.5 (0.93)	18 (0.64)	
DSCD15JA	CH55FAUL2	38 (1.50)	21 (0.83)	31 (1.22)	35 (1.24)	
DSCD15JC	CH15BFAUL	38 (1.50)	21 (0.83)	31 (1.22)	37 (1.31)	
DSCD15UA	CH45FAUL2	37 (1.46)	18 (0.71)	27 (1.06)	26 (0.92)	
DSCD15EC	CH10BFAUL	37 (1.46)	18 (0.71)	27 (1.06)	27 (0.95)	
DSCD25JA	CH80CFAUL2	48 (1.89)	21 (0.83)	31 (1.22)	41 (1.45)	
DSCD25JC	CH20BFAUL	48 (1.89)	19 (0.75)	29 (1.14)	36 (1.27)	
DSCD25UA	CH65CFAUL2	48 (1.89)	19 (0.75)	29 (1.14)	35 (1.24)	
DSCD25EC	CH15BFAUL	38 (1.50)	21 (0.83)	31 (1.22)	37 (1.31)	
DSCD40JA	CH110CFAUL2	58 (2.28)	21 (0.83)	31 (1.22)	49 (1.73)	
DSCD40JC	CH30BFAUL	58 (2.28)	21 (0.83)	31 (1.22)	50 (1.77)	
DSCD40UA	CH90CFAUL2	48 (1.89)	22.5 (0.89)	31.5 (1.24)	45 (1.59)	
DSCD40EC	CH23BFAUL	48 (1.89)	21 (0.83)	31 (1.22)	43 (1.52)	
DSCD60JA	CH180CFAUL2	58 (2.28)	29 (1.14)	41 (1.61)	92 (3.2)	②
DSCD60JC	CH40BFAUL	58 (2.28)	23.5 (0.93)	37 (1.46)	73 (2.6)	
DSCD60UA	CH120CFAUL2	58 (2.28)	22 (0.87)	35 (1.38)	60 (2.1)	①
DSCD60EC	CH30BFAUL	58 (2.28)	21 (0.83)	31 (1.22)	50 (1.77)	
DSCD90JA	CH280CFAUL2	58 (2.28)	35 (1.38)	50 (1.97)	140 (4.9)	②
DSCD90JC	CH70BFAUL	58 (2.28)	35 (1.38)	50 (1.97)	138 (4.9)	
DSCD90UA	CH200CFAUL2	58 (2.28)	29 (1.14)	41 (1.61)	91 (3.2)	
DSCD90EC	CH60BFAUL	58 (2.28)	29 (1.14)	41 (1.61)	92 (3.2)	

● A capacitor and a capacitor cap are included with the speed controller product.
A capacitor cap is not included with the capacitor product.

● Connection Cable

Product Name	Length L [m (ft.)]
CC01SC	1 (3.3)
CC02SC	2 (6.6)
CC03SC	3 (9.8)
CC05SC	5 (16.4)
CC10SC	10 (32.8)

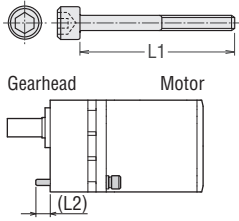


● Flexible Connection Cable

Product Name	Length L [m (ft.)]
CC01SCR	1 (3.3)
CC02SCR	2 (6.6)
CC03SCR	3 (9.8)
CC05SCR	5 (16.4)
CC10SCR	10 (32.8)

Dimensions for Installation Screws

Parallel Shaft Gearhead **GV** Gear



Product Name	Gear Ratio	Mounting Screws		L2 [mm (in.)]
		Screw Size	L1 [mm (in.)]	
2GV□B	2, 3	M4	55 (2.17)	8 (0.31)
	5 to 25		50 (1.97)	7 (0.28)
	30 to 120		55 (2.17)	8 (0.31)
	150 to 360		60 (2.36)	8 (0.31)
3GV□B	2, 3	M6	65 (2.56)	12 (0.47)
	5 to 25		60 (2.36)	12 (0.47)
	30 to 120		65 (2.56)	12 (0.47)
	150 to 360		70 (2.76)	12 (0.47)
4GV□B	2, 3	M6	65 (2.56)	9 (0.35)
	5 to 25		60 (2.36)	9 (0.35)
	30 to 120		65 (2.56)	9 (0.35)
	150 to 360		70 (2.76)	9 (0.35)
5GV□B	2, 3	M8	85 (3.35)	16 (0.63)
	5 to 18		70 (2.76)	14 (0.55)
	25 to 100		85 (3.35)	16 (0.63)
	120 to 300		90 (3.54)	15 (0.59)
5GVH□B	2, 3	M8	85 (3.35)	16 (0.63)
	5 to 18		70 (2.76)	14 (0.55)
	25 to 100		85 (3.35)	16 (0.63)
	120 to 300		90 (3.54)	15 (0.59)
5GVR□B	2, 3	M8	85 (3.35)	16 (0.63)
	5 to 15		70 (2.76)	14 (0.55)
	18 to 36		85 (3.35)	16 (0.63)
	50 to 180		95 (3.74)	14 (0.55)

- Mounting Screws: 4 each pieces of flat washers and spring washers are included.
- The material of the mounting screw is stainless steel.

● A number indicating the gear ratio is specified where the box □ is located within the product name.

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

Electromagnetic Brake Type

Right-Angle Shaft Hypoid Gearhead

NEW



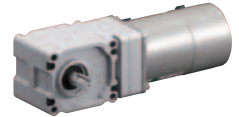
Hollow Shaft Type



Solid Shaft Type

Product Line

- Right-Angle Shaft Hypoid Gearhead
Price includes motor and gearhead.



Output Power	Power Supply Voltage	Hollow Shaft Type			Solid Shaft Type		
		Product Name	Gear Ratio	List Price	Product Name	Gear Ratio	List Price
25 W (1/30 HP)	Single-Phase 110/115 VAC	SCM425KUAM-4H□B	10, 15, 20, 30, 50	\$460.00	SCM425KUAM-4L□B	10, 15, 20, 30, 50	\$426.00
			100, 200	\$489.00		100, 200	\$441.00
	Single-Phase 220/230 VAC	SCM425KECM-4H□B	10, 15, 20, 30, 50	\$464.00	SCM425KECM-4L□B	10, 15, 20, 30, 50	\$430.00
			100, 200	\$493.00		100, 200	\$445.00
40 W (1/19 HP)	Single-Phase 110/115 VAC	SCM540KUAM-5H□B	10, 15, 20, 30, 50	\$493.00	SCM540KUAM-5L□B	10, 15, 20, 30, 50	\$459.00
			100, 200	\$522.00		100, 200	\$474.00
	Single-Phase 220/230 VAC	SCM540KECM-5H□B	10, 15, 20, 30, 50	\$497.00	SCM540KECM-5L□B	10, 15, 20, 30, 50	\$463.00
			100, 200	\$526.00		100, 200	\$478.00
90 W (1/8 HP)	Single-Phase 110/115 VAC	SCM590KUAM-5H□B	10, 15, 20, 30, 50	\$560.00	SCM590KUAM-5L□B	10, 15, 20, 30, 50	\$526.00
			100, 200	\$589.00		100, 200	\$541.00
	Single-Phase 220/230 VAC	SCM590KECM-5H□B	10, 15, 20, 30, 50	\$565.00	SCM590KECM-5L□B	10, 15, 20, 30, 50	\$531.00
			100, 200	\$594.00		100, 200	\$546.00

Speed Controller

- Price includes speed controller, capacitor and capacitor cap.



Output Power	Power Supply Voltage	Product Name	List Price
25 W (1/30 HP)	Single-Phase 110/115 VAC	DSCD25UAM	\$132.00
	Single-Phase 220/230 VAC	DSCD25ECM	
40 W (1/19 HP)	Single-Phase 110/115 VAC	DSCD40UAM	\$132.00
	Single-Phase 220/230 VAC	DSCD40ECM	
90 W (1/8 HP)	Single-Phase 110/115 VAC	DSCD90UAM	\$134.00
	Single-Phase 220/230 VAC	DSCD90ECM	

● A number indicating the gear ratio is specified where the box □ is located within the product name.

● Connection Cable



Length	Product Name	List Price
1 m (3.3 ft.)	CC01SCM	\$47.00
2 m (6.6 ft.)	CC02SCM	\$51.00
3 m (9.8 ft.)	CC03SCM	\$61.00
5 m (16.4 ft.)	CC05SCM	\$80.00
10 m (32.8 ft.)	CC10SCM	\$128.00

● Flexible Connection Cable



Length	Product Name	List Price
1 m (3.3 ft.)	CC01SCMR	\$92.00
2 m (6.6 ft.)	CC02SCMR	\$102.00
3 m (9.8 ft.)	CC03SCMR	\$121.00
5 m (16.4 ft.)	CC05SCMR	\$159.00
10 m (32.8 ft.)	CC10SCMR	\$255.00

■ Included

● Motor

Shaft Type	Installation Screws	Parallel Key	Safety Cover	Operating Manual
Hollow Shaft Type	1 Set	1 pc. (Material: Stainless Steel)	1 pc.	1 Copy
Solid Shaft Type		1 pc. (Material: Steel)	—	

● Speed Controller

Capacitor	Capacitor Cap	Operating Manual
1 pc.	1 pc.	1 Copy

Deceleration Control Function Integrated with the Electromagnetic Brake Type

The electromagnetic brake type features a deceleration control function which allows speed control during vertical operation and gravitational operation.

"What is the Deceleration Control Function?"

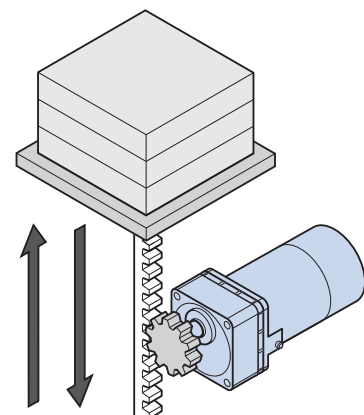
It is a function that applies brake current automatically to regulate the speed when the motor rotates faster than the setting speed. Even when force is applied in the direction of the motor output shaft's rotation due to vertical operation or an inertial load, the motor can be controlled to meet the setting speed.

"Deceleration Control" ON (Factory setting): Applicable for vertical operation, gravitational operation, horizontal operation, position holding.

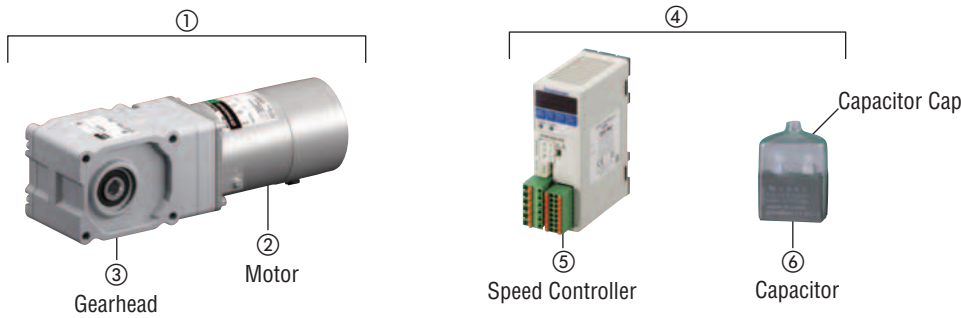
"Deceleration Control" OFF: Applicable for horizontal operation, position holding. (Variable speed range is expanded.)

● Specification values and permissible torque values will differ based on whether the deceleration control is ON or OFF.

Item	"Deceleration Control" Parameter ON (Factory Setting)	"Deceleration Control" Parameter OFF
Deceleration Control Function	Enabled	Disabled
Variable Speed Range	300 to 1400 r/min (50 Hz) 300 to 1600 r/min (60 Hz)	90 to 1400 r/min (50 Hz) 90 to 1600 r/min (60 Hz)
Acceleration Time/ Deceleration Time Range	0.2 to 15.0 seconds	0.0 to 15.0 seconds



List of Motor and Speed Controller Combinations



Right-Angle Hollow Shaft Hypoid JH Gear

Output Power	Power Supply Voltage	Speed Control Motor			Speed Controller		
		Product Name	Component Product Name		Product Name	Component Product Name	
		①	②	③	④	⑤	⑥
25 W (1/30 HP)	Single-Phase 100 VAC	SCM425KJAM-4H□B	SCM425KJAM	4H□B	DSCD25JAM	DSC-MU	CH80CFAUL2
	Single-Phase 200 VAC	SCM425KJCM-4H□B	SCM425KJCM		DSCD25JCM		CH20BFAUL
	Single-Phase 110/115 VAC	SCM425KUAM-4H□B	SCM425KUAM		DSCD25UAM		CH65CFAUL2
	Single-Phase 220/230 VAC	SCM425KECM-4H□B	SCM425KECM		DSCD25ECM		CH15BFAUL
40 W (1/19 HP)	Single-Phase 100 VAC	SCM540KJAM-5H□B	SCM540KJAM	5H□B	DSCD40JAM		CH110CFAUL2
	Single-Phase 200 VAC	SCM540KJCM-5H□B	SCM540KJCM		DSCD40JCM		CH30BFAUL
	Single-Phase 110/115 VAC	SCM540KUAM-5H□B	SCM540KUAM		DSCD40UAM		CH90CFAUL2
	Single-Phase 220/230 VAC	SCM540KECM-5H□B	SCM540KECM		DSCD40ECM		CH23BFAUL
90 W (1/8 HP)	Single-Phase 100 VAC	SCM590KJAM-5H□B	SCM590KJAM	5H□B	DSCD90JAM		CH280CFAUL2
	Single-Phase 200 VAC	SCM590KJCM-5H□B	SCM590KJCM		DSCD90JCM		CH70BFAUL
	Single-Phase 110/115 VAC	SCM590KUAM-5H□B	SCM590KUAM		DSCD90UAM		CH200CFAUL2
	Single-Phase 220/230 VAC	SCM590KECM-5H□B	SCM590KECM		DSCD90ECM		CH60BFAUL

- A capacitor and a capacitor cap are included with the speed controller product (product name ④).
A capacitor cap is not included with the capacitor product (product name ⑥).

Right-Angle Solid Shaft Hypoid JL Gear

Output Power	Power Supply Voltage	Speed Control Motor			Speed Controller		
		Product Name	Component Product Name		Product Name	Component Product Name	
		①	②	③	④	⑤	⑥
25 W (1/30 HP)	Single-Phase 100 VAC	SCM425KJAM-4L□B	SCM425KJAM	4L□B	DSCD25JAM	DSC-MU	CH80CFAUL2
	Single-Phase 200 VAC	SCM425KJCM-4L□B	SCM425KJCM		DSCD25JCM		CH20BFAUL
	Single-Phase 110/115 VAC	SCM425KUAM-4L□B	SCM425KUAM		DSCD25UAM		CH65CFAUL2
	Single-Phase 220/230 VAC	SCM425KECM-4L□B	SCM425KECM		DSCD25ECM		CH15BFAUL
40 W (1/19 HP)	Single-Phase 100 VAC	SCM540KJAM-5L□B	SCM540KJAM	5L□B	DSCD40JAM		CH110CFAUL2
	Single-Phase 200 VAC	SCM540KJCM-5L□B	SCM540KJCM		DSCD40JCM		CH30BFAUL
	Single-Phase 110/115 VAC	SCM540KUAM-5L□B	SCM540KUAM		DSCD40UAM		CH90CFAUL2
	Single-Phase 220/230 VAC	SCM540KECM-5L□B	SCM540KECM		DSCD40ECM		CH23BFAUL
90 W (1/8 HP)	Single-Phase 100 VAC	SCM590KJAM-5L□B	SCM590KJAM	5L□B	DSCD90JAM		CH280CFAUL2
	Single-Phase 200 VAC	SCM590KJCM-5L□B	SCM590KJCM		DSCD90JCM		CH70BFAUL
	Single-Phase 110/115 VAC	SCM590KUAM-5L□B	SCM590KUAM		DSCD90UAM		CH200CFAUL2
	Single-Phase 220/230 VAC	SCM590KECM-5L□B	SCM590KECM		DSCD90ECM		CH60BFAUL

- A capacitor and a capacitor cap are included with the speed controller product (product name ④).
A capacitor cap is not included with the capacitor product (product name ⑥).

● A number indicating the gear ratio is specified where the box □ is located within the product name.

Specifications – Continuous Rating*

● 25 W (1/30 HP)



Product Name			Output Power [W (HP)]	Voltage [VAC]	Frequency [Hz]	Current [A]	Power Consumption [W]	Capacitor [μF]	Motor Overheat Protection Device	Electromagnetic Brake (Power off Activated Type) Static Friction Torque [mN·m (oz·in)]
Hollow Shaft Type	Solid Shaft Type	Speed Controller								
SCM425KJAM-4H □B	SCM425KJAM-4L □B	DSCD25JAM	25 (1/30)	Single-Phase 100	50	0.75	62	8.0	TP	100 (14.2)
					60	0.75	66			
SCM425KJCM-4H □B	SCM425KJCM-4L □B	DSCD25JCM		Single-Phase 200	50	0.38	67	2.0	TP	
					60	0.38	67			
SCM425KUAM-4H □B	SCM425KUAM-4L □B	DSCD25UAM		Single-Phase 110	60	0.75	58	6.5	TP	
					60	0.75	69			
SCM425KECM-4H □B	SCM425KECM-4L □B	DSCD25ECM		Single-Phase 220	50	0.37	70	1.5	TP	
					60	0.37	70			
					50	0.37	70			
					60	0.37	70			

*When the deceleration control is set ON, the rated specifications differ. For details, refer to "Common Specifications – Permissible Continuous Operation Time While Deceleration Control is ON" (→ Page 50).

Description of deceleration control → Page 45

TP: This indicates that there is a built-in thermal protector (automatic return type).

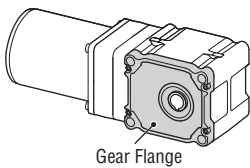
Gear Ratio			10	15	20	30	50	100	200		
Rotation Direction*1			Same direction as the motor					Opposite direction to the motor			
Variable Speed Range [r/min]	High Speed	1400 r/min (50 Hz)	140	93	70	46	28	14	7		
		1600 r/min (60 Hz)	160	106	80	53	32	16	8		
	Low Speed	300 r/min ("Deceleration Control" ON)	30	20	15	10	6	3	1.5		
		90 r/min ("Deceleration Control" OFF)	9	6	4.5	3	1.8	0.9	0.5		
When "Deceleration Control" is ON Permissible Torque Starting Torque [N·m (lb·in)]			50 Hz 60 Hz	0.4 (3.5)	0.6 (5.3)	0.8 (7.0)	1.3 (11.5)	2.2 (19.4)	4.0 (35)	8.0 (70)	
When "Deceleration Control" is OFF Permissible Torque Starting Torque [N·m (lb·in)]	Single-Phase 100 VAC 200 VAC	1200 r/min	50 Hz	1.0 (8.8)	1.5 (13.2)	2.1 (18.5)	3.4 (30)	5.6 (49)	10.3 (91)	20.5 (181)	
		1450 r/min	60 Hz	1.0 (8.8)	1.5 (13.2)	2.0 (17.7)	3.3 (29)	5.5 (48)	10.0 (88)	20.0 (177)	
		Starting	90 r/min	50/60 Hz	0.28 (2.4)	0.41 (3.6)	0.55 (4.8)	0.91 (8.0)	1.5 (13.2)	2.8 (24)	5.5 (48)
			100 VAC 50 Hz	0.65 (5.7)	0.98 (8.6)	1.3 (11.5)	2.1 (18.5)	3.6 (31)	6.5 (57)	13.0 (115)	
	100 VAC 60 Hz	0.68 (6.0)	1.0 (8.8)	1.4 (12.3)	2.2 (19.4)	3.7 (32)	6.8 (60)	13.5 (119)			
	200 VAC 50/60 Hz	0.60 (5.3)	0.90 (7.9)	1.2 (10.6)	2.0 (17.7)	3.3 (29)	6.0 (53)	12.0 (106)			
	Single-Phase 110 VAC 115 VAC	1450 r/min	60 Hz	1.0 (8.8)	1.5 (13.2)	2.1 (18.5)	3.4 (30)	5.6 (49)	10.3 (91)	20.5 (181)	
		90 r/min	60 Hz	0.23 (2.0)	0.34 (3.0)	0.45 (3.9)	0.74 (6.5)	1.2 (10.6)	2.3 (20)	4.5 (39)	
		Starting	110 VAC 60 Hz	0.63 (5.5)	0.94 (8.3)	1.3 (11.5)	2.1 (18.5)	3.4 (30)	6.3 (55)	12.5 (110)	
	115 VAC 60 Hz		0.68 (6.0)	1.0 (8.8)	1.4 (12.3)	2.2 (19.4)	3.7 (32)	6.8 (60)	13.5 (119)		
	Single-Phase 220 VAC 230 VAC	1200 r/min	50 Hz	1.0 (8.8)	1.5 (13.2)	2.1 (18.5)	3.4 (30)	5.6 (49)	10.3 (91)	20.5 (181)	
		1450 r/min	60 Hz	1.0 (8.8)	1.5 (13.2)	2.1 (18.5)	3.4 (30)	5.6 (49)	10.3 (91)	20.5 (181)	
Starting		90 r/min	50/60 Hz	0.20 (1.77)	0.30 (2.6)	0.40 (3.5)	0.66 (5.8)	1.1 (9.7)	2.0 (17.7)	4.0 (35)	
		220 VAC 50/60 Hz	0.55 (4.8)	0.83 (7.3)	1.1 (9.7)	1.8 (15.9)	3.0 (26)	5.5 (48)	11.0 (97)		
220 VAC 50/60 Hz	0.60 (5.3)	0.90 (7.9)	1.2 (10.6)	2.0 (17.7)	3.3 (29)	6.0 (53)	12.0 (106)				
Permissible Inertia J [$\times 10^{-4}$ kg·m ² (oz·in ²)]			100 (550)	225 (1230)	400 (2200)	900 (4900)	2500 (13700)	10000 (55000)	40000 (220000)		
When Instantaneous Stop is Performed			28 (153)	63 (340)	112 (610)	252 (1380)	700 (3800)	2800 (15300)	11200 (61000)		
Permissible Radial Load [N (lb.)]	Hollow Shaft*2	10 mm (0.39 in.) from Installation Surface	311 (69)	400 (90)	488 (109)	622 (139)	799 (179)	888 (199)	978 (220)		
		20 mm (0.79 in.) from Installation Surface	265 (59)	341 (76)	417 (93)	531 (119)	682 (153)	758 (170)	836 (188)		
	Solid Shaft	10 mm (0.39 in.) from Output Shaft End	304 (68)	390 (87)	477 (107)	607 (136)	781 (175)	868 (195)	956 (210)		
		20 mm (0.79 in.) from Output Shaft End	390 (87)	501 (112)	613 (137)	780 (175)	1003 (220)	1114 (250)	1228 (270)		
Permissible Axial Load [N (lb.)]			88 (19.8)	108 (24)	137 (30)	177 (39)	226 (50)	245 (55)	275 (61)		

*1 The rotation direction is as seen from the gear flange surface.

*2 The radial load at each distance can be calculated with a formula. Permissible radial load calculation for hollow shaft type → Page 25

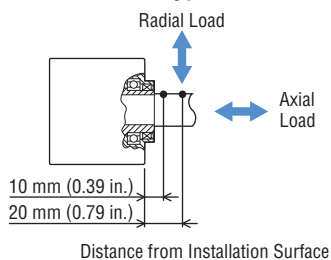
● 90 r/min, 1200 r/min, 1400 r/min, 1450 r/min, and 1600 r/min represent the motor shaft speed.

◇ Gear Flange Position

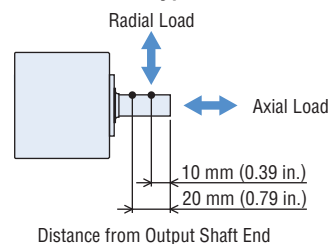


◇ Load Position

● Hollow Shaft Type



● Solid Shaft Type



● A number indicating the gear ratio is specified where the box □ is located within the product name.

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

Specifications – Continuous Rating*

● 40 W (1/19 HP)



Product Name			Output Power [W (HP)]	Voltage [VAC]	Frequency [Hz]	Current [A]	Power Consumption [W]	Capacitor [μF]	Motor Overheat Protection Device	Electromagnetic Brake (Power off Activated Type) Static Friction Torque [mN·m (oz·in)]	
Hollow Shaft Type	Solid Shaft Type	Speed Controller									
SCM540KJAM-5H □ B	SCM540KJAM-5L □ B	DSCD40JAM	40 (1/19)	Single-Phase 100	50	1.1	92	11	TP	200 (28)	
					60	1.1	101				
SCM540KJCM-5H □ B	SCM540KJCM-5L □ B	DSCD40JCM		Single-Phase 200	50	0.57	94	3.0	TP		200 (28)
					60	0.57	100				
SCM540KUAM-5H □ B	SCM540KUAM-5L □ B	DSCD40UAM		Single-Phase 110	60	1.1	107	9.0	TP		200 (28)
					60	1.1	107				
SCM540KECM-5H □ B	SCM540KECM-5L □ B	DSCD40ECM		Single-Phase 220	50	0.55	96	2.3	TP		200 (28)
					60	0.55	104				
					50	0.55	99				
					60	0.55	105				

*When the deceleration control is set ON, the rated specifications differ. For details, refer to "Common Specifications – Permissible Continuous Operation Time While Deceleration Control is ON" (→ Page 50).

Description of deceleration control → Page 45

TP: This indicates that there is a built-in thermal protector (automatic return type).

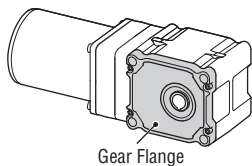
Gear Ratio			10	15	20	30	50	100	200	
Rotation Direction*1			Same direction as the motor						Opposite direction to the motor	
Variable Speed Range [r/min]	High Speed	1400 r/min (50 Hz)	140	93	70	46	28	14	7	
		1600 r/min (60 Hz)	160	106	80	53	32	16	8	
	Low Speed	300 r/min ("Deceleration Control" ON)	30	20	15	10	6	3	1.5	
		90 r/min ("Deceleration Control" OFF)	9	6	4.5	3	1.8	0.9	0.5	
When "Deceleration Control" is ON Permissible Torque Starting Torque [N·m (lb·in)]			50 Hz 60 Hz	0.7 (6.1)	1.1 (9.7)	1.4 (12.3)	2.1 (18.5)	3.5 (30)	7.7 (68)	15.4 (136)
When "Deceleration Control" is OFF Permissible Torque Starting Torque [N·m (lb·in)]	Single-Phase 100 VAC 200 VAC	1200 r/min	50 Hz	1.6 (14.1)	2.4 (21)	3.2 (28)	4.8 (42)	8.0 (70)	17.6 (155)	35.2 (310)
		1450 r/min	100 VAC 60 Hz	1.5 (13.2)	2.3 (20)	3.0 (26)	4.5 (39)	7.5 (66)	16.5 (146)	33.0 (290)
			200 VAC 60 Hz	1.6 (14.1)	2.4 (21)	3.2 (28)	4.8 (42)	8.0 (70)	17.6 (155)	35.2 (310)
		90 r/min	100 VAC 50/60 Hz	0.40 (3.5)	0.60 (5.3)	0.80 (7.0)	1.2 (10.6)	2.0 (17.7)	4.4 (38)	8.8 (77)
			200 VAC 50/60 Hz	0.45 (3.9)	0.68 (6.0)	0.90 (7.9)	1.4 (12.3)	2.3 (20)	5.0 (44)	9.9 (87)
		Starting	100 VAC 50 Hz	0.90 (7.9)	1.4 (12.3)	1.8 (15.9)	2.7 (23)	4.5 (39)	9.9 (87)	19.8 (175)
	100 VAC 60 Hz 200 VAC 50/60 Hz		0.95 (8.4)	1.4 (12.3)	1.9 (16.8)	2.9 (25)	4.8 (42)	10.5 (92)	20.9 (184)	
	Single-Phase 110 VAC 115 VAC	1450 r/min	60 Hz	1.6 (14.1)	2.4 (21)	3.2 (28)	4.8 (42)	8.0 (70)	17.6 (155)	35.2 (310)
		90 r/min	60 Hz	0.35 (3.0)	0.53 (4.6)	0.70 (6.1)	1.1 (9.7)	1.8 (15.9)	3.9 (34)	7.7 (68)
		Starting	110 VAC 60 Hz	0.90 (7.9)	1.4 (12.3)	1.8 (15.9)	2.7 (23)	4.5 (39)	9.9 (87)	19.8 (175)
	115 VAC 60 Hz		0.95 (8.4)	1.4 (12.3)	1.9 (16.8)	2.9 (25)	4.8 (42)	10.5 (92)	20.9 (184)	
	Single-Phase 220 VAC 230 VAC	1200 r/min	50 Hz	1.6 (14.1)	2.4 (21)	3.2 (28)	4.8 (42)	8.0 (70)	17.6 (155)	35.2 (310)
		1450 r/min	60 Hz	1.6 (14.1)	2.4 (21)	3.2 (28)	4.8 (42)	8.0 (70)	17.6 (155)	35.2 (310)
		90 r/min	50 Hz	0.33 (2.9)	0.49 (4.3)	0.65 (5.7)	0.98 (8.6)	1.6 (14.1)	3.6 (31)	7.2 (63)
			60 Hz	0.35 (3.0)	0.53 (4.6)	0.70 (6.1)	1.1 (9.7)	1.8 (15.9)	3.9 (34)	7.7 (68)
	Starting	50/60 Hz	0.95 (8.4)	1.4 (12.3)	1.9 (16.8)	2.9 (25)	4.8 (42)	10.5 (92)	20.9 (184)	
Permissible Inertia J [$\times 10^{-4}$ kg·m ² (oz·in ²)]			200 (1090)	450 (2500)	800 (4400)	1800 (9800)	5000 (27000)	20000 (109000)	80000 (440000)	
Permissible Radial Load [N (lb.)]	Hollow Shaft*2	When Instantaneous Stop is Performed		59 (320)	132.8 (730)	236 (1290)	531 (2900)	1475 (8100)	5900 (32000)	23600 (129000)
		10 mm (0.39 in.) from Installation Surface	415 (93)	554 (124)	692 (155)	923 (200)	1112 (250)	1196 (260)	1291 (290)	
	20 mm (0.79 in.) from Installation Surface	363 (81)	484 (108)	605 (136)	806 (181)	971 (210)	1045 (230)	1127 (250)		
	Solid Shaft	10 mm (0.39 in.) from Output Shaft End	378 (85)	504 (113)	630 (141)	840 (189)	1011 (220)	1089 (240)	1174 (260)	
		20 mm (0.79 in.) from Output Shaft End	481 (108)	641 (144)	802 (180)	1069 (240)	1287 (280)	1385 (310)	1495 (330)	
	Permissible Axial Load [N (lb.)]			108 (24)	147 (33)	186 (41)	245 (55)	294 (66)	324 (72)	343 (77)

*1 The rotation direction is as seen from the gear flange surface.

*2 The radial load at each distance can be calculated with a formula. Permissible radial load calculation for hollow shaft type → Page 25

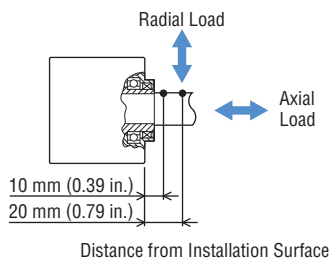
● 90 r/min, 1200 r/min, 1400 r/min, 1450 r/min, and 1600 r/min represent the motor shaft speed.

◇ Gear Flange Position

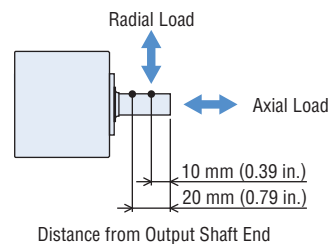


◇ Load Position

● Hollow Shaft Type



● Solid Shaft Type



● A number indicating the gear ratio is specified where the box □ is located within the product name.

Specifications – Continuous Rating*

● 90 W (1/8 HP)



Product Name			Output Power [W (HP)]	Voltage [VAC]	Frequency [Hz]	Current [A]	Power Consumption [W]	Capacitor [μF]	Motor Overheat Protection Device	Electromagnetic Brake (Power off Activated Type)
Hollow Shaft Type	Solid Shaft Type	Speed Controller								Static Friction Torque [mN·m (oz·in)]
SCM590KJAM-5H □B	SCM590KJAM-5L □B	DSCD90JAM	90 (1/8)	Single-Phase 100	50	2.4	195	28	TP	500 (71)
					60	2.6	217			
SCM590KJCM-5H □B	SCM590KJCM-5L □B	DSCD90JCM		Single-Phase 200	50	1.2	198	7.0	TP	500 (71)
					60	1.3	221			
SCM590KUAM-5H □B	SCM590KUAM-5L □B	DSCD90UAM		Single-Phase 110	60	2.4	224	20	TP	500 (71)
					Single-Phase 115	2.5	227			
SCM590KECM-5H □B	SCM590KECM-5L □B	DSCD90ECM		Single-Phase 220	50	1.2	201	6.0	TP	500 (71)
					60	1.3	226			
					50	1.2	204			
					60	1.3	228			

*When the deceleration control is set ON, the rated specifications differ. For details, refer to "Common Specifications – Permissible Continuous Operation Time While Deceleration Control is ON" (→ Page 50).

Description of deceleration control → Page 45

TP: This indicates that there is a built-in thermal protector (automatic return type).

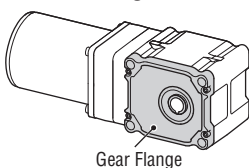
Gear Ratio			10	15	20	30	50	100	200	
Rotation Direction*1			Same direction as the motor						Opposite direction to the motor	
Variable Speed Range [r/min]	High Speed	1400 r/min (50 Hz)	140	93	70	46	28	14	7	
		1600 r/min (60 Hz)	160	106	80	53	32	16	8	
	Low Speed	300 r/min ("Deceleration Control" ON)	30	20	15	10	6	3	1.5	
		90 r/min ("Deceleration Control" OFF)	9	6	4.5	3	1.8	0.9	0.5	
When "Deceleration Control" is ON Permissible Torque Starting Torque [N·m (lb·in)]			50 Hz 60 Hz	2.2 (19.4)	3.4 (30)	4.5 (39)	6.7 (59)	11.2 (99)	22.4 (198)	44.8 (390)
When "Deceleration Control" is OFF Permissible Torque Starting Torque [N·m (lb·in)]	Single-Phase 100 VAC 200 VAC	1200 r/min	50 Hz	4.1 (36)	6.1 (53)	8.3 (73)	12.7 (112)	20.6 (182)	39.2 (340)	53.9 (470)
		1450 r/min	60 Hz	4.1 (36)	6.1 (53)	8.3 (73)	12.7 (112)	20.6 (182)	39.2 (340)	53.9 (470)
		90 r/min	100 VAC 50/60 Hz	0.77 (6.8)	1.2 (10.6)	1.5 (13.2)	2.3 (20)	3.9 (34)	7.7 (68)	15.4 (136)
			200 VAC 60 Hz	0.84 (7.4)	1.3 (11.5)	1.7 (15.0)	2.5 (22)	4.2 (37)	8.4 (74)	16.8 (148)
		Starting	100 VAC 50/60 Hz	3.3 (29)	4.9 (43)	6.6 (58)	9.9 (87)	16.5 (146)	32.9 (290)	53.9 (470)
			200 VAC 50 Hz	3.4 (30)	5.0 (44)	6.7 (59)	10.1 (89)	16.8 (148)	33.6 (290)	53.9 (470)
	200 VAC 60 Hz		3.6 (31)	5.4 (47)	7.1 (62)	10.7 (94)	17.9 (158)	35.7 (310)	53.9 (470)	
	Single-Phase 110 VAC 115 VAC	1450 r/min	60 Hz	4.1 (36)	6.1 (53)	8.3 (73)	12.7 (112)	20.6 (182)	39.2 (340)	53.9 (470)
		90 r/min	60 Hz	0.60 (5.3)	0.89 (7.8)	1.2 (10.6)	1.8 (15.9)	3.0 (26)	6.0 (53)	11.9 (105)
			110 VAC 60 Hz	2.8 (24)	4.2 (37)	5.6 (49)	8.4 (74)	14.0 (123)	28.0 (240)	53.9 (470)
	115 VAC 60 Hz	3.1 (27)	4.6 (40)	6.2 (54)	9.2 (81)	15.4 (136)	30.8 (270)	53.9 (470)		
	Single-Phase 220 VAC 230 VAC	1200 r/min	50 Hz	4.1 (36)	6.1 (53)	8.3 (73)	12.7 (112)	20.6 (182)	39.2 (340)	53.9 (470)
1450 r/min		60 Hz	4.1 (36)	6.1 (53)	8.3 (73)	12.7 (112)	20.6 (182)	39.2 (340)	53.9 (470)	
90 r/min		50/60 Hz	0.67 (5.9)	1.0 (8.8)	1.3 (11.5)	2.0 (17.7)	3.3 (29)	6.7 (59)	13.3 (117)	
		220 VAC 50 Hz	3.4 (30)	5.1 (45)	6.9 (61)	10.3 (91)	17.2 (152)	34.3 (300)	53.9 (470)	
		220 VAC 60 Hz	3.5 (30)	5.3 (46)	7.0 (61)	10.5 (92)	17.5 (154)	35.0 (300)	53.9 (470)	
	230 VAC 50 Hz	3.6 (31)	5.5 (48)	7.3 (64)	10.9 (96)	18.2 (161)	36.4 (320)	53.9 (470)		
230 VAC 60 Hz	3.7 (32)	5.6 (49)	7.4 (65)	11.1 (98)	18.6 (164)	37.1 (320)	53.9 (470)			
Permissible Inertia J [$\times 10^{-4}$ kg·m ² (oz·in ²)]			200 (1090)	450 (2500)	800 (4400)	1800 (9800)	5000 (27000)	20000 (109000)	80000 (440000)	
Permissible Radial Load [N (lb.)]	Hollow Shaft*2	When Instantaneous Stop is Performed		39 (210)	87.8 (480)	156 (850)	351 (1920)	975 (5300)	3900 (21000)	15600 (85000)
		10 mm (0.39 in.) from Installation Surface	415 (93)	554 (124)	692 (155)	923 (200)	1112 (250)	1196 (260)	1291 (290)	
	20 mm (0.79 in.) from Installation Surface	363 (81)	484 (108)	605 (136)	806 (181)	971 (210)	1045 (230)	1127 (250)		
	Solid Shaft	10 mm (0.39 in.) from Output Shaft End	378 (85)	504 (113)	630 (141)	840 (189)	1011 (220)	1089 (240)	1174 (260)	
20 mm (0.79 in.) from Output Shaft End		481 (108)	641 (144)	802 (180)	1069 (240)	1287 (280)	1385 (310)	1495 (330)		
Permissible Axial Load [N (lb.)]			108 (24)	147 (33)	186 (41)	245 (55)	294 (66)	324 (72)	343 (77)	

*1 The rotation direction is as seen from the gear flange surface.

*2 The radial load at each distance can be calculated with a formula. Permissible radial load calculation for hollow shaft type → Page 25

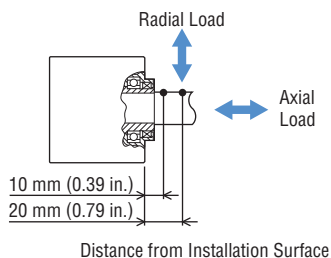
● 90 r/min, 1200 r/min, 1400 r/min, 1450 r/min, and 1600 r/min represent the motor shaft speed.

◇ Gear Flange Position

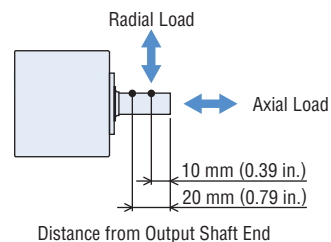


◇ Load Position

● Hollow Shaft Type



● Solid Shaft Type



● A number indicating the gear ratio is specified where the box □ is located within the product name.

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

Common Specifications

Item	Specifications	
Speed Setting Method	The speed of the motor output shaft can be set using any of the following methods: <ul style="list-style-type: none"> Using operation panel Up to four types of operation data can be set. Using an external speed potentiometer Using external DC voltage: 0 to 5 VDC, or 0 to 10 VDC 	
Acceleration Time and Deceleration Time Setting Range	0.2 to 15.0 s (0.0~15.0 s: can be set when the "deceleration control" is OFF.) The motor acceleration time and deceleration time vary depending on the load condition.	
Functions	Monitor Mode	Speed, Operation Data No., Alarm Code, Warning Code, I/O Monitor
	Data Mode	Speed, Accelerating Time, Decelerating Time, Initialization
	Parameter Mode	Speed Reduction Ratio, Speed Increasing Ratio, Lowest Digit Display Fixed, Prevention of Operation at Power-on Alarm, External Speed Command Input, External Speed Command Voltage Selection, External Speed Command OffSet, Speed Upper and Lower Limit, Deceleration Control, Brake Type, Input Function Selection, Output Function Selection, Motor Lock Detection Time, Motor Rotation Direction, Initialization
	Test Mode	JOG Operation, Electromagnetic Brake Release
Other Function	Prohibiting Data Editing	
Control Power Supply	24 VDC±10% 0.15 A min.	
Input Signals	Photocoupler Input, Input Resistance 4.7 kΩ Signal assignment to IN0 to IN5 inputs (6 points) is possible as desired. []: Initial Setting [FWD], [REV], [MO], [M1], [ALARM-RESET], [FREE], EXT-ERROR Source input or sink input can be switched using the selection switch. Factory setting: Sink Input	
Output Signals	Photocoupler and Open-Collector Output, External power supply: 4.5 to 30 VDC, 40 mA max. Signal assignment to OUT0 and OUT1 outputs (2 points) is possible as desired. []: Initial setting [SPEED-OUT], [ALARM-OUT], TH-OUT, WNG Source output or sink output can be switched by changing the external wiring.	
Protective Function	When any of the following protective functions is activated, the output to the motor is cut off, and the electromagnetic brake is activated to stop the motor. Then the ALARM output will be turned off. At the same, the alarm code will be displayed on the control panel and the ALARM LED will be lit. Alarm Types: Motor Overheat, Motor Lock, Overspeed, EEPROM Error, Prevention of Operation at Power-On, External Stop	
Permissible Continuous Operation Time	25 W (1/30 HP) 40 W (1/19 HP)	Permissible Continuous Operation Time: 1 minute Operation Duty: 50% max. (e.g. Operation: 1 minute, Stop: 1 minute)
While Deceleration Control is ON	90 W (1/8 HP)	Permissible Continuous Operation Time: 1 minute Operation Duty: 33% max. (e.g. Operation: 1 minute, Stop: 2 minutes)
Maximum Extension Length	Between the motor and the speed controller: 10.5 m (34.4 ft.) (Including 0.5 m (1.6 ft.) motor cable)	

General Specifications

Item	Motor	Speed Controller
Insulation Resistance	100 MΩ or more when 500 VDC megger is applied between the windings and the case after continuous operation under normal ambient temperature and humidity.	100 MΩ or more when 500 VDC megger is applied between the following places after continuous operation under normal ambient temperature and humidity: <ul style="list-style-type: none"> Main Circuit Terminal - Control Circuit Terminal Main Circuit Terminal - Case Main Circuit Terminal - FG
Dielectric Strength	Sufficient to withstand 1.5 kVAC at 50 Hz or 60 Hz applied between the windings and the case for 1 minute after continuous operation under normal ambient temperature and humidity.	Sufficient to withstand the following for 1 minute after continuous operation under normal ambient temperature and humidity: <ul style="list-style-type: none"> Main Circuit Terminal - Control Circuit Terminal 1.9 kVAC at 50 Hz or 60 Hz Main Circuit Terminal - Case 1.9 kVAC at 50 Hz or 60 Hz Main Circuit Terminal - FG 1.5 kVAC at 50 Hz or 60 Hz
Temperature Rise	The temperature rise of the windings is 80°C (176°F) or less measured by the resistance change method after no-load continuous operation under normal ambient temperature and humidity.	—
Overheat Protection Device	Thermal Protector Built-in (Automatic Return Type) Open: 130±5°C (266±9°F) Close: 85±20°C (185±36°F)	—
Operating Environment	Ambient Temperature	0 to +40°C (+32 to +104°F) (Non-freezing)
	Ambient Humidity	85% or less (Non-condensing)
	Altitude	Up to 1000 m (3300 ft.) above sea level
	Surrounding Atmosphere	No corrosive gases or dust. The product should not be exposed to water, oil or other liquids. Cannot be used in radioactive materials, magnetic field, vacuum or other special environments.
	Vibration	Not subject to continuous vibrations or excessive impact. In conformance with JIS C 60068-2-6 "Sine-wave vibration test method" Frequency Range: 10 to 55 Hz, Pulsating Amplitude: 0.15 mm (0.006 in.) Sweep Direction: 3 Directions (X, Y, Z), Number of Sweeps: 20 times
Storage Condition*	Ambient Temperature	-10 to +60°C [-14 to +140°F] (Non-freezing)
	Ambient Humidity	85% or less (Non-condensing)
	Altitude	Up to 1000 m (3300 ft.) above sea level
	Surrounding Atmosphere	No corrosive gases or dust. The product should not be exposed to water, oil or other liquids. Cannot be used in radioactive materials, magnetic field, vacuum or other special environments.
Thermal Class	130 (B)	—
Degree of Protection	IP20	IP20

*The storage condition applies to short periods such as the period during transportation.

Note

● Do not measure insulation resistance or perform the dielectric voltage test while the motor and speed controller are connected.

How to Read Speed – Torque Characteristics

→ Page 17

Speed – Torque Characteristics (Reference values)

→ Page 17 to 19

Dimensions [Unit: mm (in.)]

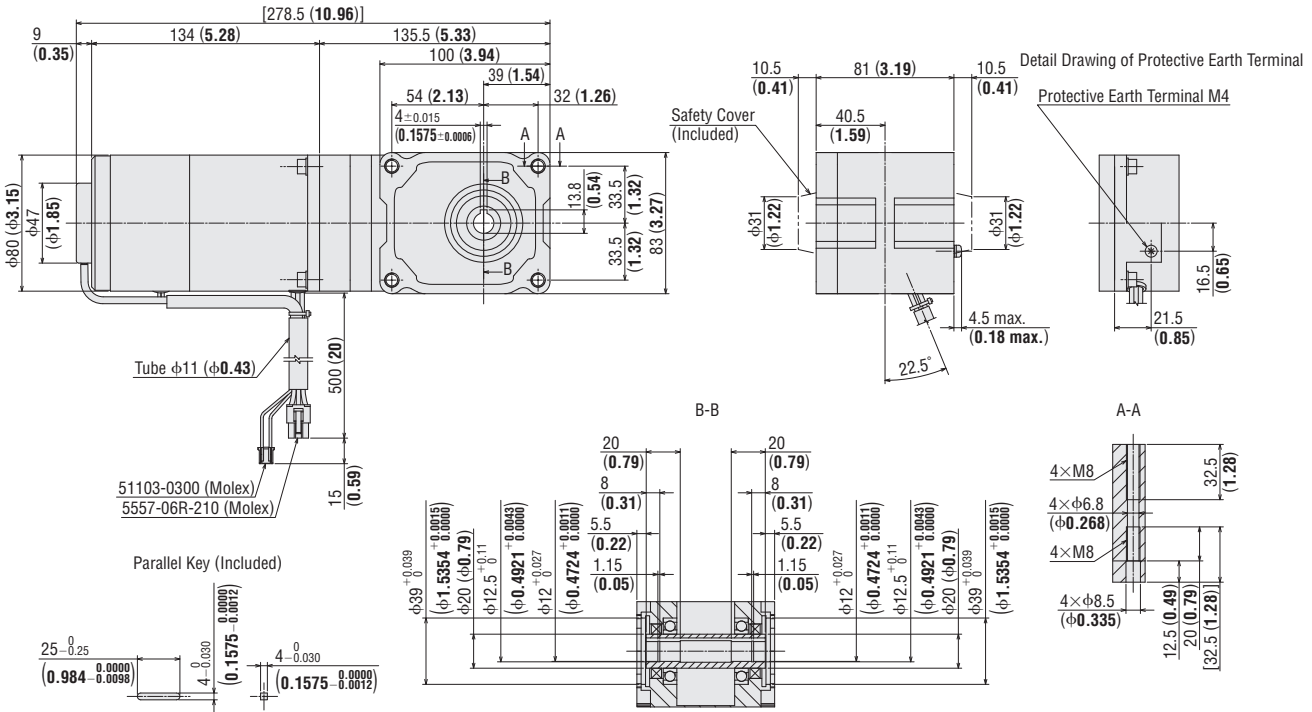
- "Installation screws" are included. Dimensions for installation screws → Page 24
- A number indicating the gear ratio is specified where the box □ is located within the product name.

● 25 W (1/30 HP)

◇ Right-Angle Hollow Shaft Hypoid JH Gear

2D & 3D CAD

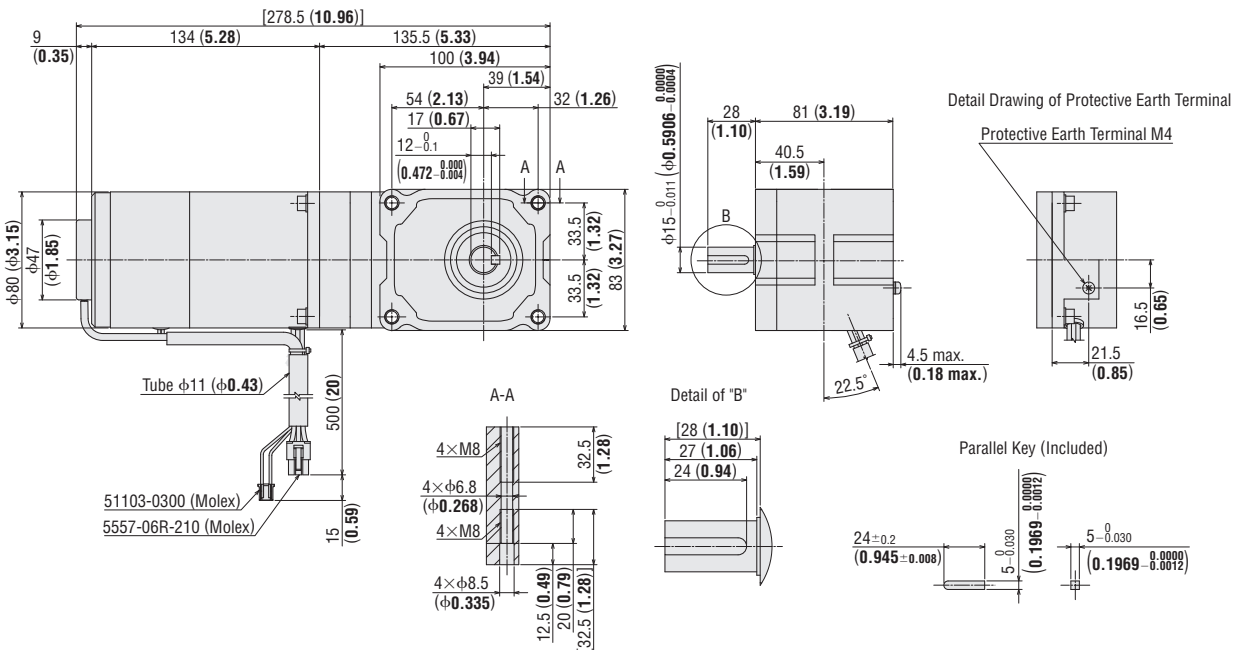
Product Name	Motor Product Name	Gearhead Product Name	Mass kg (lb.)	2D CAD
SCM425KJAM-4H□B	SCM425KJAM	4H□B	4.3 (9.5)	A1686
SCM425KJCM-4H□B	SCM425KJCM			
SCM425KUAM-4H□B	SCM425KUAM			
SCM425KECM-4H□B	SCM425KECM			



◇ Right-Angle Solid Shaft Hypoid JL Gear

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Mass kg (lb.)	2D CAD
SCM425KJAM-4L□B	SCM425KJAM	4L□B	4.3 (9.5)	A1687
SCM425KJCM-4L□B	SCM425KJCM			
SCM425KUAM-4L□B	SCM425KUAM			
SCM425KECM-4L□B	SCM425KECM			

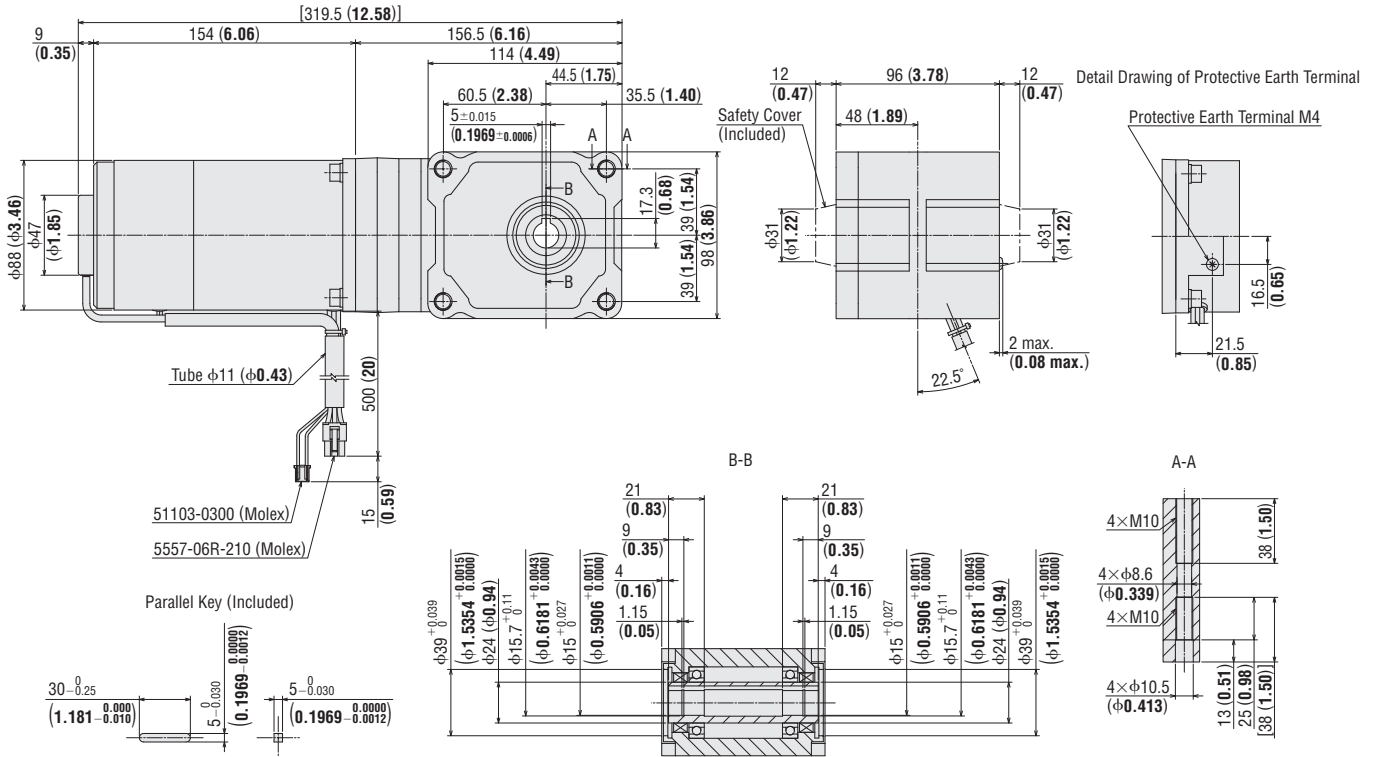


● 40 W (1/19 HP)

◇ Right-Angle Hollow Shaft Hypoid **JH** Gear

2D & 3D CAD

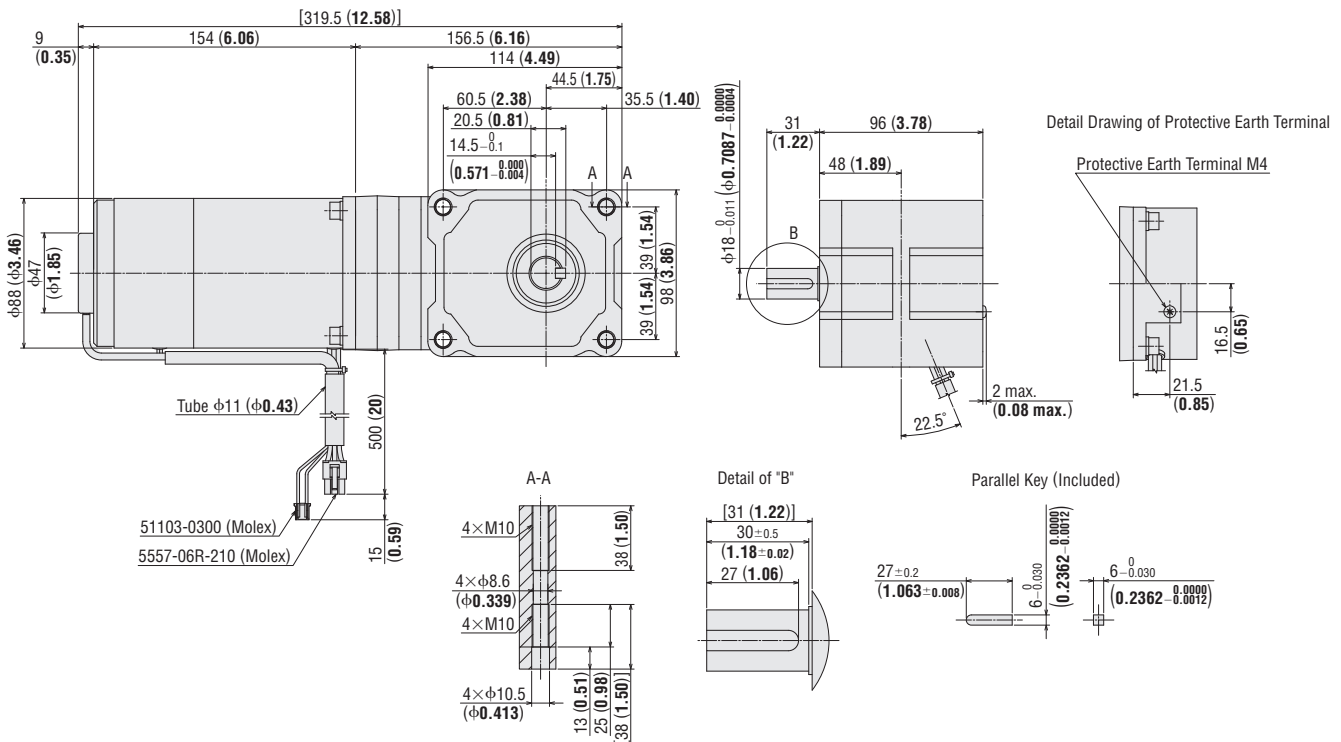
Product Name	Motor Product Name	Gearhead Product Name	Mass kg (lb.)	2D CAD
SCM540KJAM-5H□B	SCM540KJAM	5H□B	6.2 (13.6)	A1688
SCM540KJCM-5H□B	SCM540KJCM			
SCM540KUAM-5H□B	SCM540KUAM			
SCM540KECM-5H□B	SCM540KECM			



◇ Right-Angle Solid Shaft Hypoid **JL** Gear

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Mass kg (lb.)	2D CAD
SCM540KJAM-5L□B	SCM540KJAM	5L□B	6.2 (13.6)	A1689
SCM540KJCM-5L□B	SCM540KJCM			
SCM540KUAM-5L□B	SCM540KUAM			
SCM540KECM-5L□B	SCM540KECM			

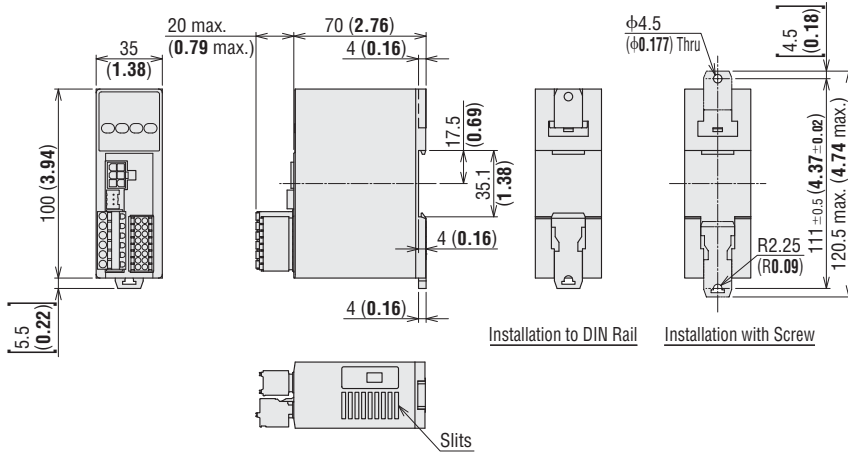


● Speed Controller

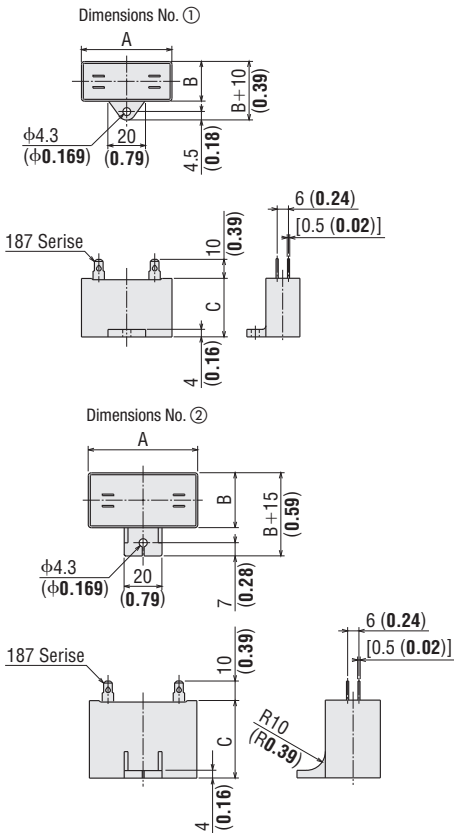
DSC-MU

Mass: 0.2 kg (0.44 lb.)

2D CAD A1303 3D CAD



◇ Capacitor (Included with the speed controller)



● Capacitor Dimensions [Unit: mm (in.)]

Speed Controller Product Name	Capacitor					Dimension No.	
	Product Name	A	B	C	Mass g (oz.)		
DSCD25JAM	CH80CFAUL2	48 (1.89)	21 (0.83)	31 (1.22)	41 (1.45)	①	
DSCD25JCM	CH20BFAUL	48 (1.89)	19 (0.75)	29 (1.14)	36 (1.27)		
DSCD25UAM	CH65CFAUL2	48 (1.89)	19 (0.75)	29 (1.14)	35 (1.24)		
DSCD25ECM	CH15BFAUL	38 (1.50)	21 (0.83)	31 (1.22)	37 (1.31)		
DSCD40JAM	CH110CFAUL2	58 (2.28)	21 (0.83)	31 (1.22)	49 (1.73)		
DSCD40JCM	CH30BFAUL	58 (2.28)	21 (0.83)	31 (1.22)	50 (1.77)		
DSCD40UAM	CH90CFAUL2	48 (1.89)	22.5 (0.89)	31.5 (1.24)	45 (1.59)		
DSCD40ECM	CH23BFAUL	48 (1.89)	21 (0.83)	31 (1.22)	43 (1.52)		
DSCD90JAM	CH280CFAUL2	58 (2.28)	35 (1.38)	50 (1.97)	140 (4.9)		②
DSCD90JCM	CH70BFAUL	58 (2.28)	35 (1.38)	50 (1.97)	138 (4.9)		
DSCD90UAM	CH200CFAUL2	58 (2.28)	29 (1.14)	41 (1.61)	91 (3.2)		
DSCD90ECM	CH60BFAUL	58 (2.28)	29 (1.14)	41 (1.61)	92 (3.2)		

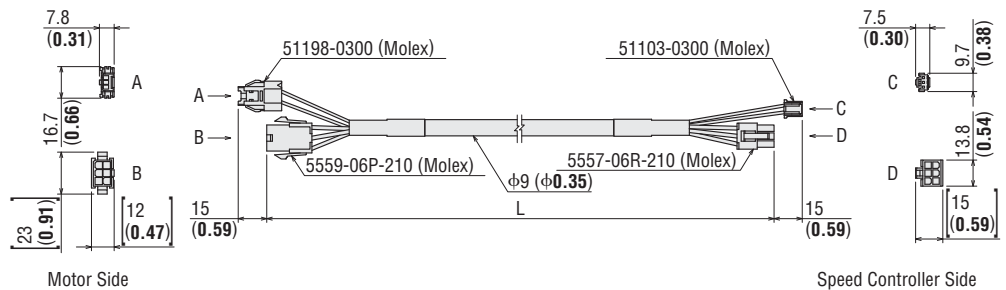
● A capacitor and a capacitor cap are included with the speed controller product.
A capacitor cap is not included with the capacitor product.

● Connection Cable

Product Name	Length L [m (ft.)]
CC01SCM	1 (3.3)
CC02SCM	2 (6.6)
CC03SCM	3 (9.8)
CC05SCM	5 (16.4)
CC10SCM	10 (32.8)

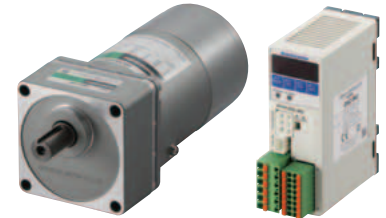
● Flexible Connection Cable

Product Name	Length L [m (ft.)]
CC01SCMR	1 (3.3)
CC02SCMR	2 (6.6)
CC03SCMR	3 (9.8)
CC05SCMR	5 (16.4)
CC10SCMR	10 (32.8)



Electromagnetic Brake Type

Parallel Shaft Gearhead **GV** Gear



Parallel Shaft Gearhead **GV** Gear

Product Line

● Parallel Shaft Gearhead **GV** Gear

Price includes motor and gearhead.



Output Power	Power Supply Voltage	Product Name	Gear Ratio	List Price
6 W (1/125 HP)	Single-Phase 110/115 VAC	SCM26UAM -□	7.5, 9, 12.5, 15, 18	\$222.00
			25, 30, 36	\$229.00
			50, 60, 75, 90, 100, 120, 150, 180	\$237.00
	Single-Phase 220/230 VAC	SCM26ECM -□	250, 300, 360	\$272.00
			7.5, 9, 12.5, 15, 18	\$224.00
			25, 30, 36	\$231.00
15 W (1/50 HP)	Single-Phase 110/115 VAC	SCM315UAM -□	50, 60, 75, 90, 100, 120, 150, 180	\$239.00
			250, 300, 360	\$274.00
			7.5, 9, 12.5, 15, 18	\$232.00
	Single-Phase 220/230 VAC	SCM315ECM -□	25, 30, 36	\$239.00
			50, 60, 75, 90, 100, 120, 150, 180	\$248.00
			250, 300, 360	\$280.00
Single-Phase 110/115 VAC	DSCD6UAM	7.5, 9, 12.5, 15, 18	\$234.00	
		25, 30, 36	\$241.00	
		50, 60, 75, 90, 100, 120, 150, 180	\$250.00	
Single-Phase 220/230 VAC	DSCD6ECM	250, 300, 360	\$282.00	
		7.5, 9, 12.5, 15, 18	\$234.00	
		25, 30, 36	\$241.00	

● Speed Controller

Price includes speed controller, capacitor and capacitor cap.



Output Power	Power Supply Voltage	Product Name	List Price
6 W (1/125 HP)	Single-Phase 110/115 VAC	DSCD6UAM	\$131.00
	Single-Phase 220/230 VAC	DSCD6ECM	
15 W (1/50 HP)	Single-Phase 110/115 VAC	DSCD15UAM	\$132.00
	Single-Phase 220/230 VAC	DSCD15ECM	

● A number indicating the gear ratio is specified where the box □ is located within the product name.

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Parallel Shaft/
Round Shaft

Electromagnetic Brake

Connection and
Operation

Cables
Accessories

Output Power	Power Supply Voltage	Product Name	Gear Ratio	List Price
25 W (1/30 HP)	Single-Phase 110/115 VAC	SCM425UAM -□	7.5, 9, 12.5, 15, 18	\$265.00
			25, 30, 36	\$272.00
			50, 60, 75, 90, 100, 120, 150, 180	\$280.00
	Single-Phase 220/230 VAC	SCM425ECM -□	250, 300, 360	\$315.00
			7.5, 9, 12.5, 15, 18	\$269.00
			25, 30, 36	\$276.00
40 W (1/19 HP)	Single-Phase 110/115 VAC	SCM540UAM -□	50, 60, 75, 90, 100, 120, 150, 180	\$284.00
			250, 300, 360	\$319.00
			7.5, 9, 12.5, 15, 18	\$308.00
	Single-Phase 220/230 VAC	SCM540ECM -□	25, 30, 36	\$316.00
			50, 60, 75, 90, 100, 120, 150, 180	\$323.00
			250, 300	\$388.00
60 W (1/12 HP)	Single-Phase 110/115 VAC	SCM560UAM -□	7.5, 9, 12.5, 15, 18	\$311.00
			25, 30, 36	\$319.00
			50, 60, 75, 90, 100, 120, 150, 180	\$326.00
	Single-Phase 220/230 VAC	SCM560ECM -□	250, 300	\$391.00
			7.5, 9, 12.5, 15, 18	\$366.00
			25, 30, 36, 50, 60, 75, 90, 100	\$377.00
90 W (1/8 HP)	Single-Phase 110/115 VAC	SCM590UAM -□	120, 150, 180	\$387.00
			250, 300	\$421.00
			7.5, 9, 12.5, 15, 18	\$371.00
	Single-Phase 220/230 VAC	SCM590ECM -□	25, 30, 36, 50, 60, 75, 90, 100	\$382.00
			120, 150, 180	\$392.00
			250, 300	\$426.00
25 W (1/30 HP)	Single-Phase 110/115 VAC	DSCD25UAM	7.5, 9, 12.5, 15, 18	\$384.00
			25, 30, 36, 50, 60	\$404.00
			75, 90, 100, 120, 150, 180	\$414.00
	Single-Phase 220/230 VAC	DSCD25ECM	7.5, 9, 12.5, 15, 18	\$389.00
			25, 30, 36, 50, 60	\$409.00
			75, 90, 100, 120, 150, 180	\$419.00

Output Power	Power Supply Voltage	Product Name	List Price
25 W (1/30 HP)	Single-Phase 110/115 VAC	DSCD25UAM	\$132.00
	Single-Phase 220/230 VAC	DSCD25ECM	
40 W (1/19 HP)	Single-Phase 110/115 VAC	DSCD40UAM	\$132.00
	Single-Phase 220/230 VAC	DSCD40ECM	
60 W (1/12 HP)	Single-Phase 110/115 VAC	DSCD60UAM	\$133.00
	Single-Phase 220/230 VAC	DSCD60ECM	
90 W (1/8 HP)	Single-Phase 110/115 VAC	DSCD90UAM	\$134.00
	Single-Phase 220/230 VAC	DSCD90ECM	

● Connection Cables



Length	Product Name	List Price
1 m (3.3 ft.)	CC01SCM	\$47.00
2 m (6.6 ft.)	CC02SCM	\$51.00
3 m (9.8 ft.)	CC03SCM	\$61.00
5 m (16.4 ft.)	CC05SCM	\$80.00
10 m (32.8 ft.)	CC10SCM	\$128.00

● Flexible Connection Cables



Length	Product Name	List Price
1 m (3.3 ft.)	CC01SCMR	\$92.00
2 m (6.6 ft.)	CC02SCMR	\$102.00
3 m (9.8 ft.)	CC03SCMR	\$121.00
5 m (16.4 ft.)	CC05SCMR	\$159.00
10 m (32.8 ft.)	CC10SCMR	\$255.00

■ Included

● Motor

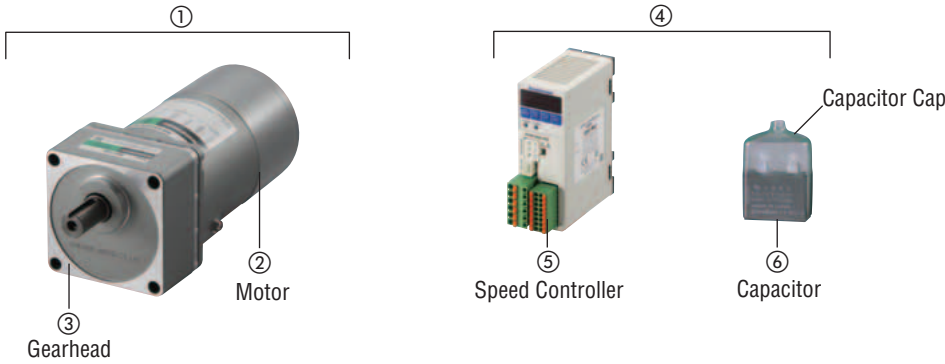
Type	Parallel Key	Installation Screws	Operating Manual
Parallel Shaft Gearhead GV Gear	1 pc.	1 Set	1 Copy

● Speed Controller

Capacitor	Capacitor Cap	Operating Manual
1 pc.	1 pc.	1 Copy

● A number indicating the gear ratio is specified where the box □ is located within the product name.

List of Motor and Speed Controller Combinations



Output Power	Power Supply Voltage	Speed Control Motor			Speed Controller			
		Product Name	Component Product Name		Product Name	Component Product Name		
		①	②	③	④	⑤	⑥	
6 W (1/125 HP)	Single-Phase 100 VAC	SCM26JAM -□	SCM26GV-JAM		2GV□B	DSCD6JAM	CH35FAUL2	
	Single-Phase 200 VAC	SCM26JCM -□	SCM26GV-JCM				DSCD6JCM	CH08BFAUL
	Single-Phase 110/115 VAC	SCM26UAM -□	SCM26GV-UAM				DSCD6UAM	CH25FAUL2
	Single-Phase 220/230 VAC	SCM26ECM -□	SCM26GV-ECM				DSCD6ECM	CH06BFAUL
15 W (1/50 HP)	Single-Phase 100 VAC	SCM315JAM -□	SCM315GV-JAM		3GV□B	DSCD15JAM	CH55FAUL2	
	Single-Phase 200 VAC	SCM315JCM -□	SCM315GV-JCM				DSCD15JCM	CH15BFAUL
	Single-Phase 110/115 VAC	SCM315UAM -□	SCM315GV-UAM				DSCD15UAM	CH45FAUL2
	Single-Phase 220/230 VAC	SCM315ECM -□	SCM315GV-ECM				DSCD15ECM	CH10BFAUL
25 W (1/30 HP)	Single-Phase 100 VAC	SCM425JAM -□	SCM425GV-JAM		4GV□B	DSCD25JAM	CH80CFAUL2	
	Single-Phase 200 VAC	SCM425JCM -□	SCM425GV-JCM				DSCD25JCM	CH20BFAUL
	Single-Phase 110/115 VAC	SCM425UAM -□	SCM425GV-UAM				DSCD25UAM	CH65CFAUL2
	Single-Phase 220/230 VAC	SCM425ECM -□	SCM425GV-ECM				DSCD25ECM	CH15BFAUL
40 W (1/19 HP)	Single-Phase 100 VAC	SCM540JAM -□	SCM540GV-JAM		5GV□B	DSCD40JAM	CH110CFAUL2	
	Single-Phase 200 VAC	SCM540JCM -□	SCM540GV-JCM				DSCD40JCM	CH30BFAUL
	Single-Phase 110/115 VAC	SCM540UAM -□	SCM540GV-UAM				DSCD40UAM	CH90CFAUL2
	Single-Phase 220/230 VAC	SCM540ECM -□	SCM540GV-ECM				DSCD40ECM	CH23BFAUL
60 W (1/12 HP)	Single-Phase 100 VAC	SCM560JAM -□	SCM560GVH-JAM		5GVH□B	DSCD60JAM	CH180CFAUL2	
	Single-Phase 200 VAC	SCM560JCM -□	SCM560GVH-JCM				DSCD60JCM	CH40BFAUL
	Single-Phase 110/115 VAC	SCM560UAM -□	SCM560GVH-UAM				DSCD60UAM	CH120CFAUL2
	Single-Phase 220/230 VAC	SCM560ECM -□	SCM560GVH-ECM				DSCD60ECM	CH30BFAUL
90 W (1/8 HP)	Single-Phase 100 VAC	SCM590JAM -□	SCM590GVR-JAM		5GVR□B	DSCD90JAM	CH280CFAUL2	
	Single-Phase 200 VAC	SCM590JCM -□	SCM590GVR-JCM				DSCD90JCM	CH70BFAUL
	Single-Phase 110/115 VAC	SCM590UAM -□	SCM590GVR-UAM				DSCD90UAM	CH200CFAUL2
	Single-Phase 220/230 VAC	SCM590ECM -□	SCM590GVR-ECM				DSCD90ECM	CH60BFAUL

- A capacitor and a capacitor cap are included with the speed controller product (product name ④).
- A capacitor cap is not included with the capacitor product (product name ⑥).
- A number indicating the gear ratio is specified where the box □ is located within the product name.

Deceleration Control Function Integrated with the Electromagnetic Brake Type

The electromagnetic brake type features a deceleration control function which allows speed control during vertical operation and gravitational operation.

"What is the Deceleration Control Function?"

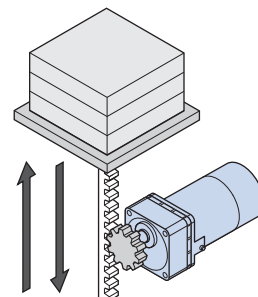
It is a function that applies brake current automatically to regulate the speed when the motor rotates faster than the setting speed. Even when force is applied in the direction of the motor output shaft's rotation due to vertical operation or an inertial load, the motor can be controlled to meet the setting speed.

"Deceleration Control" ON (Factory setting): Applicable for vertical operation, gravitational operation, horizontal operation, position holding.

"Deceleration Control" OFF: Applicable for horizontal operation, position holding. (Variable speed range is expanded.)

- Specification values and permissible torque values will differ based on whether the deceleration control is ON or OFF.

Item	"Deceleration Control" Parameter ON (Factory Setting)	"Deceleration Control" Parameter OFF
Deceleration Control Function	Enabled	Disabled
Variable Speed Range	300 to 1400 r/min (50 Hz) 300 to 1600 r/min (60 Hz)	90 to 1400 r/min (50 Hz) 90 to 1600 r/min (60 Hz)
Acceleration Time/ Deceleration Time Range	0.2 to 15.0 seconds	0.0 to 15.0 seconds



Specifications - Continuous Rating

Single-Phase 100 VAC, Single-Phase 200 VAC



Product Name		Maximum Output Power W (HP)	Voltage VAC	Frequency Hz	Variable Speed Range* r/min	Current A	Power Consumption W	Capacitor μF	Motor Overheat Protection Device	Electromagnetic Brake (Power off Activated Type)
Parallel Shaft Gearhead GV Gear	Speed Controller									Static Friction Torque mN·m (oz-in)
SCM26JAM -□	DSCD6JAM	6 (1/125)	Single-Phase 100	50	300 (90) to 1400	0.29	26	3.5	ZP	30 (4.2)
				60	300 (90) to 1600					
SCM26JCM -□	DSCD6JCM		Single-Phase 200	50	300 (90) to 1400	0.140	27			
				60	300 (90) to 1600					
SCM315JAM -□	DSCD15JAM	15 (1/50)	Single-Phase 100	50	300 (90) to 1400	0.50	42	5.5	TP	80 (11.3)
				60	300 (90) to 1600		45			
SCM315JCM -□	DSCD15JCM		Single-Phase 200	50	300 (90) to 1400	0.25	42			
				60	300 (90) to 1600		45			
SCM425JAM -□	DSCD25JAM	25 (1/30)	Single-Phase 100	50	300 (90) to 1400	0.75	62	8.0	TP	100 (14.2)
				60	300 (90) to 1600		66			
SCM425JCM -□	DSCD25JCM		Single-Phase 200	50	300 (90) to 1400	0.38	67			
				60	300 (90) to 1600		2.0			
SCM540JAM -□	DSCD40JAM	40 (1/19)	Single-Phase 100	50	300 (90) to 1400	1.1	92	11	TP	200 (28)
				60	300 (90) to 1600		101			
SCM540JCM -□	DSCD40JCM		Single-Phase 200	50	300 (90) to 1400	0.57	94			
				60	300 (90) to 1600		100			
SCM560JAM -□	DSCD60JAM	60 (1/12)	Single-Phase 100	50	300 (90) to 1400	1.6	128	18	TP	500 (71)
				60	300 (90) to 1600		140			
SCM560JCM -□	DSCD60JCM		Single-Phase 200	50	300 (90) to 1400	0.76	128			
				60	300 (90) to 1600		0.78			
SCM590JAM -□	DSCD90JAM	90 (1/8)	Single-Phase 100	50	300 (90) to 1400	2.4	195	28	TP	
				60	300 (90) to 1600		2.6			
SCM590JCM -□	DSCD90JCM		Single-Phase 200	50	300 (90) to 1400	1.2	198			
				60	300 (90) to 1600		1.3			

*The value in parenthesis () can be set when the deceleration control is OFF.

● When the deceleration control is set ON, the rated specifications differ. For details, refer to "Common Specifications - Permissible Continuous Operation Time While Deceleration Contr (→ Page 60).

● The values in the table are characteristics for the motor only. The valuable speed ranges shown are under no load conditions.

ZP: This indicates that it is impedance protected.

TP: This indicates that there is a built-in thermal protector (automatic return type).

● A number indicating the gear ratio is specified where the box □ is located within the product name.

● Single-Phase 110/115 VAC, Single-Phase 220/230 VAC



Product Name		Maximum Output Power W (HP)	Voltage VAC	Frequency Hz	Variable Speed Range* r/min	Current A	Power Consumption W	Capacitor μF	Motor Overheat Protection Device	Electromagnetic Brake (Power off Activated Type)					
Parallel Shaft Gearhead GV Gear	Speed Controller									Static Friction Torque mN·m (oz-in)					
SCM26UAM -□	DSCD6UAM	6 (1/125)	Single-Phase 110	60	300 (90) to 1600	0.28	29	2.5	ZP	30 (4.2)					
			Single-Phase 115												
SCM26ECM -□	DSCD6ECM		Single-Phase 220	50	300 (90) to 1400	0.135	29	0.6	ZP						
			Single-Phase 230	60	300 (90) to 1600										
SCM315UAM -□	DSCD15UAM	15 (1/50)	Single-Phase 110	60	300 (90) to 1600					0.48	46	4.5	TP	80 (11.3)	
			Single-Phase 115												
SCM315ECM -□	DSCD15ECM		Single-Phase 220	50	300 (90) to 1400	0.23	43	1.0	TP						
			Single-Phase 230	60	300 (90) to 1600										
SCM425UAM -□	DSCD25UAM	25 (1/30)	Single-Phase 110	60	300 (90) to 1600					0.75	58	6.5	TP	100 (14.2)	
			Single-Phase 115												
SCM425ECM -□	DSCD25ECM		Single-Phase 220	50	300 (90) to 1400	0.37	70	1.5	TP						
			Single-Phase 230	60	300 (90) to 1600										
SCM540UAM -□	DSCD40UAM	40 (1/19)	Single-Phase 110	60	300 (90) to 1600					1.1	107	9.0	TP	200 (28)	
			Single-Phase 115												
SCM540ECM -□	DSCD40ECM		Single-Phase 220	50	300 (90) to 1400	0.55	96	2.3	TP						
			Single-Phase 230	60	300 (90) to 1600										
SCM560UAM -□	DSCD60UAM	60 (1/12)	Single-Phase 110	60	300 (90) to 1600					1.5	144	12	TP	500 (71)	
			Single-Phase 115												
SCM560ECM -□	DSCD60ECM		Single-Phase 220	50	300 (90) to 1400	0.71	129	3.0	TP						
			Single-Phase 230	60	300 (90) to 1600										
SCM590UAM -□	DSCD90UAM	90 (1/8)	Single-Phase 110	60	300 (90) to 1600					2.4	224	20	TP		
			Single-Phase 115												
SCM590ECM -□	DSCD90ECM		Single-Phase 220	50	300 (90) to 1400	1.2	201	6.0	TP						
			Single-Phase 230	60	300 (90) to 1600										
			50	300 (90) to 1400	1.3					226					
			60	300 (90) to 1600											

*The value in parenthesis () can be set when the deceleration control is OFF.

● When the deceleration control is set ON, the rated specifications differ. For details, refer to "Common Specifications - Permissible Continuous Operation Time While Deceleration Control is ON" (→ Page 60).

● The values in the table are characteristics for the motor only. The valuable speed ranges shown are under no load conditions.

ZP: This indicates that it is impedance protected.

TP: This indicates that there is a built-in thermal protector (automatic return type).

● A number indicating the gear ratio is specified where the box □ is located within the product name.

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Electromagnetic Brake

Right-Angle Shaft

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

Common Specifications

Item	Specifications	
Speed Setting Method	The speed of the motor output shaft can be set using any of the following methods: <ul style="list-style-type: none"> Using operation panel Up to four types of operation data can be set. Using an external speed potentiometer Using external DC voltage: 0 to 5 VDC, or 0 to 10 VDC 	
Acceleration Time and Deceleration Time Setting Range	0.2 to 15.0 s (0.0~15.0 s): can be set when the deceleration control is OFF.) The motor acceleration time and deceleration time vary depending on the load condition.	
Functions	Monitor Mode	Speed, Operation Data No., Alarm Code, Warning Code, I/O Monitor
	Data Mode	Speed, Accelerating Time, Decelerating Time, Initialization
	Parameter Mode	Speed Reduction Ratio, Speed Increasing Ratio, Lowest Digit Display Fixed, Prevention of Operation at Power-on Alarm, External Speed Command Input, External Speed, Command Voltage, Selection, External Speed Command OffSet, Speed Upper and Lower Limit, Deceleration Control, Brake Type, Input Function, Selection, Output Function Selection, Motor Lock Detection Time, Motor Rotation Direction, Initialization
	Test Mode	JOG Operation, Electromagnetic Brake Release
Other Function	Prohibiting Data Editing	
Control Power Supply	24 VDC ± 10% 0.15 A min.	
Input Signals	Photocoupler Input, Input Resistance: 4.7 kΩ Signal assignment to IN0 to IN5 inputs (6 points) is possible as desired. []: Initial Setting [FWD], [REV], [MO], [M1], [ALARM-RESET], [FREE], EXT-ERROR Source input or sink input can be switched using the selection switch. Factory setting: Sink Input	
Output Signals	Photocoupler and Open-Collector Output, External power supply: 4.5 to 30 VDC, 40 mA max. Signal assignment to OUT0 and OUT1 outputs (2 points) is possible as desired. []: Initial setting [SPEED-OUT], [ALARM-OUT], TH-OUT, WNG Source output or sink output can be switched by changing the external wiring.	
Protective Function	When any of the following protective functions is activated, the output to the motor is cut off, and the electromagnetic brake is activated to stop the motor. Then the ALARM output will be turned off. At the same, the alarm code will be displayed on the operation panel and the ALARM LED will be lit. Alarm Types: Motor Overheat, Motor Lock, Overspeed, EEPROM Error, Prevention of Operation at Power-On, External Stop	
Permissible Continuous Operation Time	6 W (1/125 HP)	Permissible Continuous Operation Time: Continuous Operation Duty: Continuous
	15 W (1/50 HP)	Permissible Continuous Operation Time: 1 minute Operation Duty: 50% max. (e.g. Operation: 1 minute, Stop: 1 minute)
Operation Time While Deceleration	25 W (1/30 HP) 40 W (1/19 HP)	
Control is ON	60 W (1/12 HP)	Allowed Time of Continuous Operation: 1 minute Operation Duty: 33% max. (e.g. Operation: 1 minute, Stop: 2 minutes)
	90 W (1/8 HP)	
Maximum Extension Length	Between the motor and the speed controller: 10 m (32.8 ft.)	

General Specifications

Item	Motor	Speed Controller
Insulation Resistance	100 MΩ or more when 500 VDC megger is applied between the windings and the case after continuous operation under normal ambient temperature and humidity.	100 MΩ or more when 500 VDC megger is applied between the following places after continuous operation under normal ambient temperature and humidity: <ul style="list-style-type: none"> Main Circuit Terminal - Control Circuit Terminal Main Circuit Terminal - Case Main Circuit Terminal - FG
Dielectric Strength	Sufficient to withstand 1.5 kVAC at 50 Hz or 60 Hz applied between the windings and the case for 1 minute after continuous operation under normal ambient temperature and humidity.	Sufficient to withstand the following for 1 minute after continuous operation under normal ambient temperature and humidity: <ul style="list-style-type: none"> Main Circuit Terminal - Control Circuit Terminal 1.9 kVAC at 50 Hz or 60 Hz Main Circuit Terminal - Case 1.9 kVAC at 50 Hz or 60 Hz Main Circuit Terminal - FG 1.5 kVAC at 50 Hz or 60 Hz
Temperature Rise	The temperature rise of the windings is 80°C (176°F) or less measured by the resistance change method after no-load continuous operation under normal ambient temperature and humidity.	—
Overheat Protection Device	6 W (1/125 HP) Type: Impedance Protected Others: Thermal Protector Built-in (Automatic Return Type) Open: 130 ± 5°C (266 ± 9°F) Close: 85 ± 20°C (185 ± 36°F)	—
Operating Environment	Ambient Temperature	0 to +40 °C (+32 to +104°F) (Non-freezing)
	Ambient Humidity	85% or less (Non-condensing)
	Altitude	Up to 1000 m (3300 ft.) above sea level
	Surrounding Atmosphere	No corrosive gases or dust. The product should not be exposed to water, oil or other liquids. Cannot be used in radioactive materials, magnetic field, vacuum or other special environments.
	Vibration	Not subject to continuous vibrations or excessive impact. In conformance with JIS C 60068-2-6 "Sine-wave vibration test method" Frequency Range: 10 to 55 Hz, Pulsating Amplitude: 0.15 mm (0.006 in.) Sweep Direction: 3 Directions (X, Y, Z), Number of Sweeps: 20 times
Storage Condition*	Ambient Temperature	-25 to +70°C (-13 to +158°F) (Non-freezing)
	Ambient Humidity	85% or less (Non-condensing)
	Altitude	Up to 3000 m (10000 ft.) above sea level
	Surrounding Atmosphere	No corrosive gases or dust. The product should not be exposed to water, oil or other liquids. Cannot be used in radioactive materials, magnetic field, vacuum or other special environments.
Thermal Class	130 (B)	—
Degree of Protection	IP20	IP20

*The storage condition applies to short periods such as the period during transportation.

Note

● Do not measure insulation resistance or perform the dielectric voltage test while the motor and speed controller are connected.

Output Shaft Speed, Permissible Torque and Starting Torque while Deceleration Control is ON (Factory setting)

Description of deceleration control → Page 57

Output Shaft Rotation Speed

● Motor Shaft Speed

Low Speed: 300 r/min, High Speed at 50 Hz: 1400 r/min, High Speed at 60 Hz: 1600 r/min

Unit: r/min

Gear Ratio	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360	
High Speed	50 Hz	186	155	112	93	77	56	46	38	28	23	18.6	15.5	14	11.6	9.3	7.7	5.6	4.6	3.8
	60 Hz	213	177	128	106	88	64	53	44	32	26	21	17.7	16	13.3	10.6	8.8	6.4	5.3	4.4
Low Speed	40	33	24	20	16	12	10	8.3	6	5	4	3.3	3	2.5	2	1.6	1.2	1	0.83	

Permissible Torque and Starting Torque

- When within the variable speed range (50 Hz: 300~1400 r/min, 60 Hz: 300~1600 r/min), permissible torque and starting torque are a constant value.
- During horizontal operation, even when deceleration control is ON, the value is the same as when deceleration control is OFF. Permissible torque and starting torque while deceleration control is OFF → Page 62
- A colored background indicates gear shaft rotation in the same direction as the motor shaft, while the others rotate in the opposite direction.
- A number indicating the gear ratio is specified where the box is located within the product name.

Unit: N·m (lb·in)

Gear Ratio	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
Product Name																			
SCM26JAM - <input type="checkbox"/>	0.20	0.24	0.34	0.41	0.49	0.68	0.77	0.93	1.3	1.5	1.9	2.3	2.6	3.1	3.6	4.4	6	6	6
SCM26JCM - <input type="checkbox"/>																			
SCM26UAM - <input type="checkbox"/>	(1.77)	(2.1)	(2.1)	(3.6)	(4.3)	(6.0)	(6.8)	(8.2)	(11.5)	(13.2)	16.8)	(20)	(23)	(27)	(31)	(38)	(53)	(53)	(53)
SCM26ECM - <input type="checkbox"/>																			
SCM315JAM - <input type="checkbox"/>	0.34	0.41	0.56	0.68	0.81	1.1	1.3	1.5	2.2	2.6	3.2	3.9	4.3	5.2	6.1	7.3	10	10	10
SCM315JCM - <input type="checkbox"/>																			
SCM315UAM - <input type="checkbox"/>	(3.0)	(3.6)	(4.9)	(6.0)	(7.1)	(9.7)	(11.5)	(13.2)	(19.4)	(23)	(28)	(34)	(38)	(46)	(53)	(64)	(88)	(88)	(88)
SCM315ECM - <input type="checkbox"/>																			
SCM425JAM - <input type="checkbox"/>	0.54	0.65	0.90	1.1	1.3	1.8	2.1	2.5	3.4	4.1	5.2	6.2	6.9	8.3	9.7	11.7	16	16	16
SCM425JCM - <input type="checkbox"/>																			
SCM425UAM - <input type="checkbox"/>	(4.7)	(5.7)	(7.9)	(9.7)	(11.5)	(15.9)	(18.5)	(22)	(30)	(36)	(46)	(54)	(61)	(73)	(85)	(103)	(141)	(141)	(141)
SCM425ECM - <input type="checkbox"/>																			
SCM540JAM - <input type="checkbox"/>	0.95	1.1	1.6	1.9	2.3	3.0	3.6	4.3	6.0	7.2	9.0	10.8	12.0	13.6	17.0	20.4	28.4	30	-
SCM540JCM - <input type="checkbox"/>																			
SCM540UAM - <input type="checkbox"/>	(8.4)	(9.7)	(14.1)	(16.8)	(20)	(26)	(31)	(38)	(53)	(63)	(79)	(95)	(106)	(120)	(150)	(180)	(250)	(260)	(260)
SCM540ECM - <input type="checkbox"/>																			
SCM560JAM - <input type="checkbox"/>	1.4	1.7	2.4	2.8	3.4	4.5	5.4	6.5	9.0	10.8	13.5	16.3	18.1	20.4	25.5	30	30	30	-
SCM560JCM - <input type="checkbox"/>																			
SCM560UAM - <input type="checkbox"/>	(12.3)	(15.0)	(21)	(24)	(30)	(39)	(47)	(57)	(79)	(95)	(119)	(144)	(160)	(180)	(220)	(260)	(260)	(260)	(260)
SCM560ECM - <input type="checkbox"/>																			
SCM590JAM - <input type="checkbox"/>	2.2	2.6	3.6	4.3	5.0	6.9	8.3	9.9	13.8	16.5	19.4	23.3	25.9	31.1	38.9	40	-	-	-
SCM590JCM - <input type="checkbox"/>																			
SCM590UAM - <input type="checkbox"/>	(19.4)	(23)	(31)	(38)	(44)	(61)	(73)	(87)	(122)	(146)	(171)	(200)	(220)	(270)	(340)	(350)			
SCM590ECM - <input type="checkbox"/>																			

Output Shaft Speed, Permissible Torque and Starting Torque while Deceleration Control is OFF

Description of deceleration control → Page 57

Output Shaft Rotation Speed

- Motor Shaft Speed

Low Speed: 90 r/min, High Speed at 50 Hz: 1400 r/min, High Speed at 60 Hz: 1600 r/min

Unit: r/min

Gear Ratio		7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
High Speed	50 Hz	186	155	112	93	77	56	46	38	28	23	18.6	15.5	14	11.6	9.3	7.7	5.6	4.6	3.8
	60 Hz	213	177	128	106	88	64	53	44	32	26	21	17.7	16	13.3	10.6	8.8	6.4	5.3	4.4
Low Speed		12	10	7.2	6	5	3.6	3	2.5	1.8	1.5	1.2	1	0.9	0.75	0.6	0.5	0.36	0.3	0.25

Permissible Torque and Starting Torque

- A colored background indicates gear shaft rotation in the same direction as the motor shaft, while the others rotate in the opposite direction.
- A number indicating the gear ratio is specified where the box is located within the product name.

- Single-Phase 100 VAC

Unit: N·m (lb·in)

Product Name	Gear Ratio		7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360		
	Motor Shaft Speed r/min																						
SCM26JAM- 	Permissible	1200	50 Hz	0.34 (3.0)	0.41 (3.6)	0.56 (4.9)	0.68 (6.0)	0.81 (7.1)	1.1 (9.7)	1.3 (11.5)	1.5 (13.2)	2.2 (19.4)	2.6 (23)	3.2 (28)	3.9 (34)	4.3 (38)	5.2 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	
		1450	60 Hz	0.30 (2.6)	0.36 (3.1)	0.51 (4.5)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	3.9 (34)	4.6 (40)	5.5 (48)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)
		90	50 Hz	0.34 (3.0)	0.41 (3.6)	0.56 (4.9)	0.68 (6.0)	0.81 (7.1)	1.1 (9.7)	1.3 (11.5)	1.5 (13.2)	2.2 (19.4)	2.6 (23)	3.2 (28)	3.9 (34)	4.3 (38)	5.2 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)
	Starting	60 Hz	0.30 (2.6)	0.36 (3.1)	0.51 (4.5)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	3.9 (34)	4.6 (40)	5.5 (48)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	
		50 Hz	0.30 (2.6)	0.36 (3.1)	0.51 (4.5)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	3.9 (34)	4.6 (40)	5.5 (48)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	
		60 Hz	0.27 (2.3)	0.32 (2.8)	0.45 (3.9)	0.54 (4.7)	0.65 (5.7)	0.90 (7.9)	1.0 (8.8)	1.2 (10.6)	1.7 (15.0)	2.1 (18.5)	2.6 (23)	3.1 (27)	3.4 (30)	4.1 (36)	4.9 (43)	5.8 (51)	6 (53)	6 (53)	6 (53)	6 (53)	
SCM315JAM- 	Permissible	1200	50 Hz	0.84 (7.4)	1.0 (8.8)	1.4 (12.3)	1.7 (15.0)	2.0 (17.7)	2.8 (24)	3.2 (28)	3.9 (34)	5.4 (47)	6.5 (57)	8.1 (71)	9.7 (85)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)		
		1450	60 Hz	0.78 (6.9)	0.93 (8.2)	1.3 (11.5)	1.6 (14.1)	1.9 (16.8)	2.6 (23)	3.0 (26)	3.6 (31)	4.9 (43)	5.9 (52)	7.4 (65)	8.9 (78)	9.9 (87)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	
		90	50 Hz	0.35 (3.0)	0.42 (3.7)	0.59 (5.2)	0.70 (6.1)	0.84 (7.4)	1.2 (10.6)	1.3 (11.5)	1.6 (14.1)	2.2 (19.4)	2.7 (23)	3.4 (30)	4.0 (35)	4.5 (39)	5.4 (47)	6.3 (55)	7.6 (67)	10 (88)	10 (88)	10 (88)	10 (88)
	Starting	60 Hz	0.36 (3.1)	0.44 (3.8)	0.61 (5.3)	0.73 (6.4)	0.87 (7.6)	1.2 (10.6)	1.4 (12.3)	1.7 (15.0)	2.3 (20)	2.8 (24)	3.5 (30)	4.2 (37)	4.6 (40)	5.6 (49)	6.6 (58)	7.9 (69)	10 (88)	10 (88)	10 (88)	10 (88)	
		50 Hz	0.59 (5.2)	0.71 (6.2)	0.99 (8.7)	1.2 (10.6)	1.4 (12.3)	2.0 (17.7)	2.3 (20)	2.7 (23)	3.8 (33)	4.5 (39)	5.7 (50)	6.8 (60)	7.6 (67)	9.1 (80)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)		
		60 Hz	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.5 (13.2)	2.0 (17.7)	2.3 (20)	2.8 (24)	3.9 (34)	4.6 (40)	5.8 (51)	7.0 (61)	7.7 (68)	9.3 (82)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)		
SCM425JAM- 	Permissible	1200	50 Hz	1.4 (12.3)	1.7 (15.0)	2.3 (20)	2.8 (24)	3.3 (29)	4.6 (40)	5.3 (46)	6.3 (55)	8.8 (77)	10.6 (93)	13.2 (116)	15.9 (140)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)		
		1450	60 Hz	1.4 (12.3)	1.6 (14.1)	2.3 (20)	2.7 (23)	3.2 (28)	4.5 (39)	5.2 (46)	6.2 (54)	8.6 (76)	10.3 (91)	12.9 (114)	15.5 (137)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	
		90	50 Hz	0.37 (3.2)	0.45 (3.9)	0.62 (5.4)	0.74 (6.5)	0.89 (7.8)	1.2 (10.6)	1.4 (12.3)	1.7 (15.0)	2.4 (21)	2.8 (24)	3.5 (30)	4.3 (38)	4.7 (41)	5.7 (50)	6.7 (59)	8.0 (70)	11.1 (98)	13.4 (118)	16 (141)	
	Starting	60 Hz	0.88 (7.7)	1.1 (9.7)	1.5 (13.2)	1.8 (15.9)	2.1 (18.5)	2.9 (25)	3.4 (30)	4.0 (35)	5.6 (49)	6.7 (59)	8.4 (74)	10.1 (89)	11.2 (99)	13.4 (118)	15.8 (139)	16 (141)	16 (141)	16 (141)	16 (141)		
		50 Hz	0.91 (8.0)	1.1 (9.7)	1.5 (13.2)	1.8 (15.9)	2.2 (19.4)	3.0 (26)	3.5 (30)	4.2 (37)	5.8 (51)	7.0 (61)	8.7 (76)	10.4 (92)	11.6 (102)	13.9 (123)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)		
		60 Hz	0.91 (8.0)	1.1 (9.7)	1.5 (13.2)	1.8 (15.9)	2.2 (19.4)	3.0 (26)	3.5 (30)	4.2 (37)	5.8 (51)	7.0 (61)	8.7 (76)	10.4 (92)	11.6 (102)	13.9 (123)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)		
SCM540JAM- 	Permissible	1200	50 Hz	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.2 (46)	6.9 (61)	8.3 (73)	9.9 (87)	13.8 (122)	16.5 (146)	20.6 (182)	24.8 (210)	27.5 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)		
		1450	60 Hz	2.0 (17.7)	2.4 (21)	3.4 (30)	4.1 (36)	4.9 (43)	6.5 (57)	7.7 (68)	9.3 (82)	12.9 (114)	15.5 (137)	19.4 (171)	23.2 (200)	25.8 (220)	29.2 (250)	30 (260)	30 (260)	30 (260)	30 (260)		
		90	50 Hz	0.54 (4.7)	0.65 (5.7)	0.90 (7.9)	1.1 (9.7)	1.3 (11.5)	1.7 (15.0)	2.1 (18.5)	2.5 (22)	3.4 (30)	4.1 (36)	5.2 (46)	6.2 (54)	6.9 (61)	7.8 (69)	9.7 (85)	11.7 (103)	16.2 (143)	19.4 (171)		
	Starting	60 Hz	1.2 (10.6)	1.5 (13.2)	2.0 (17.7)	2.4 (21)	2.9 (25)	3.9 (34)	4.6 (40)	5.6 (49)	7.7 (68)	9.3 (82)	11.6 (102)	13.9 (123)	15.5 (137)	17.5 (154)	21.9 (193)	26.2 (230)	30 (260)	30 (260)			
		50 Hz	1.3 (11.5)	1.5 (13.2)	2.1 (18.5)	2.6 (23)	3.1 (27)	4.1 (36)	4.9 (43)	5.9 (52)	8.2 (72)	9.8 (86)	12.3 (108)	14.7 (130)	16.3 (144)	18.5 (163)	23.1 (200)	27.7 (240)	30 (260)	30 (260)			
		60 Hz	1.3 (11.5)	1.5 (13.2)	2.1 (18.5)	2.6 (23)	3.1 (27)	4.1 (36)	4.9 (43)	5.9 (52)	8.2 (72)	9.8 (86)	12.3 (108)	14.7 (130)	16.3 (144)	18.5 (163)	23.1 (200)	27.7 (240)	30 (260)	30 (260)			
SCM560JAM- 	Permissible	1200	50 Hz	3.3 (29)	4.0 (35)	5.5 (48)	6.6 (58)	7.9 (69)	10.5 (92)	12.6 (111)	15.2 (134)	21.1 (186)	25.3 (220)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)			
		1450	60 Hz	3.0 (26)	3.6 (31)	5.1 (45)	6.1 (53)	7.3 (64)	9.7 (85)	11.6 (102)	13.9 (123)	19.4 (171)	23.2 (200)	29.0 (250)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)		
		90	50 Hz	0.74 (6.5)	0.89 (7.8)	1.2 (10.6)	1.5 (13.2)	1.8 (15.9)	2.4 (21)	2.8 (24)	3.4 (30)	4.7 (41)	5.7 (50)	7.1 (62)	8.5 (75)	9.5 (84)	10.7 (94)	13.4 (118)	16.0 (141)	22.3 (197)	26.7 (230)		
	Starting	60 Hz	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.2 (46)	6.9 (61)	8.3 (73)	9.9 (87)	13.8 (122)	16.5 (146)	20.6 (182)	24.8 (210)	27.5 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)			
		50 Hz	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.2 (46)	6.9 (61)	8.3 (73)	9.9 (87)	13.8 (122)	16.5 (146)	20.6 (182)	24.8 (210)	27.5 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)			
		60 Hz	2.2 (19.4)	2.7 (23)	3.7 (32)	4.5 (39)	5.3 (46)	7.1 (62)	8.5 (75)	10.2 (90)	14.2 (125)	17.0 (150)	21.3 (188)	25.5 (220)	28.4 (250)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)			
SCM590JAM- 	Permissible	1200	50 Hz	4.9 (43)	5.9 (52)	8.2 (72)	9.9 (87)	11.3 (100)	15.7 (138)	18.8 (166)	22.6 (200)	31.4 (270)	37.7 (330)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)			
		1450	60 Hz	4.9 (43)	5.8 (51)	8.1 (71)	9.7 (85)	11.1 (98)	15.5 (137)	18.6 (164)	22.3 (197)	31.0 (270)	37.2 (320)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)		
	Starting	90	50 Hz	0.74 (6.5)	0.89 (7.8)	1.2 (10.6)	1.5 (13.2)	1.7 (15.0)	2.4 (21)	2.8 (24)	3.4 (30)	4.7 (41)	5.7 (50)	6.7 (59)	8.0 (70)	8.9 (78)	10.7 (94)	13.4 (118)	16 (141)	—			
		60 Hz	3.2 (28)	3.8 (33)	5.3 (46)	6.3 (55)	7.3 (64)	10.1 (89)	12.1 (107)	14.6 (129)	20.2 (178)	24.3 (210)	28.6 (250)	34.3 (300)	38.1 (330)	40 (350)	40 (350)	40 (350)	—	—			

Output Shaft Speed, Permissible Torque and Starting Torque while Deceleration Control is OFF

Description of deceleration control → Page 57

● Single-Phase 200 VAC

Unit: N·m (lb·in)

Product Name	Gear Ratio		7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360		
	Motor Shaft Speed r/min																						
SCM26JCM-□	Permissible	1200	50 Hz	0.30 (2.6)	0.36 (3.1)	0.50 (4.4)	0.59 (5.2)	0.71 (6.2)	0.99 (8.7)	1.1 (9.7)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.8 (24)	3.4 (30)	3.8 (33)	4.5 (39)	5.3 (46)	6 (53)	6 (53)	6 (53)	6 (53)	
		1450	60 Hz	0.31 (2.7)	0.37 (3.2)	0.52 (4.6)	0.62 (5.4)	0.75 (6.6)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	2.0 (17.7)	2.4 (21)	3.0 (26)	3.6 (31)	4.0 (35)	4.7 (41)	5.6 (49)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)
		90	50 Hz	0.34 (3.0)	0.41 (3.6)	0.56 (4.9)	0.68 (6.0)	0.81 (7.1)	1.1 (9.7)	1.3 (11.5)	1.5 (13.2)	2.2 (19.4)	2.6 (23)	3.2 (28)	3.9 (34)	4.3 (38)	5.2 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)
	Starting	60 Hz	0.31 (2.7)	0.37 (3.2)	0.52 (4.6)	0.62 (5.4)	0.75 (6.6)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	2.0 (17.7)	2.4 (21)	3.0 (26)	3.6 (31)	4.0 (35)	4.7 (41)	5.6 (49)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	
		Starting		0.30 (2.6)	0.36 (3.1)	0.51 (4.5)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	3.9 (34)	4.6 (40)	5.5 (48)	6 (53)	6 (53)	6 (53)	6 (53)	
		Starting		0.30 (2.6)	0.36 (3.1)	0.51 (4.5)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	3.9 (34)	4.6 (40)	5.5 (48)	6 (53)	6 (53)	6 (53)	6 (53)	
SCM315JCM-□	Permissible	1200	50 Hz	0.84 (7.4)	1.0 (8.8)	1.4 (12.3)	1.7 (15.0)	2.0 (17.7)	2.8 (24)	3.2 (28)	3.9 (34)	5.4 (47)	6.5 (57)	8.1 (71)	9.7 (85)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	
		1450	60 Hz	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)
		90	50 Hz	0.38 (3.3)	0.45 (3.9)	0.63 (5.5)	0.76 (6.7)	0.91 (8.0)	1.3 (11.5)	1.4 (12.3)	1.7 (15.0)	2.4 (21)	2.9 (25)	3.6 (31)	4.3 (38)	4.8 (42)	5.8 (51)	6.8 (60)	8.2 (72)	10 (88)	10 (88)	10 (88)	10 (88)
	Starting	60 Hz	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	
		Starting		0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.5 (13.2)	2.0 (17.7)	2.3 (20)	2.8 (24)	3.3 (29)	4.6 (40)	5.3 (46)	6.3 (55)	8.8 (77)	10.6 (93)	13.2 (116)	15.9 (140)	16 (141)	16 (141)	16 (141)	16 (141)
		Starting		0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.5 (13.2)	2.0 (17.7)	2.3 (20)	2.8 (24)	3.3 (29)	4.6 (40)	5.3 (46)	6.3 (55)	8.8 (77)	10.6 (93)	13.2 (116)	15.9 (140)	16 (141)	16 (141)	16 (141)	16 (141)
SCM425JCM-□	Permissible	1200	50 Hz	1.4 (12.3)	1.6 (14.1)	2.3 (20)	2.7 (23)	3.2 (28)	4.5 (39)	5.2 (46)	6.2 (54)	8.6 (76)	10.3 (91)	12.9 (114)	15.5 (137)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	
		1450	60 Hz	1.4 (12.3)	1.6 (14.1)	2.3 (20)	2.7 (23)	3.2 (28)	4.5 (39)	5.2 (46)	6.2 (54)	8.6 (76)	10.3 (91)	12.9 (114)	15.5 (137)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)
		90	50 Hz	0.37 (3.2)	0.45 (3.9)	0.62 (5.4)	0.74 (6.5)	0.89 (7.8)	1.2 (10.6)	1.4 (12.3)	1.7 (15.0)	2.4 (21)	2.8 (24)	3.5 (30)	4.3 (38)	4.7 (41)	5.7 (50)	6.7 (59)	8.0 (70)	11.1 (98)	13.4 (118)	16 (141)	16 (141)
	Starting	60 Hz	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10.3 (91)	12.4 (109)	14.6 (129)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	
		Starting		0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10.3 (91)	12.4 (109)	14.6 (129)	16 (141)	16 (141)	16 (141)	16 (141)	
		Starting		0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10.3 (91)	12.4 (109)	14.6 (129)	16 (141)	16 (141)	16 (141)	16 (141)	
SCM540JCM-□	Permissible	1200	50 Hz	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.2 (46)	6.9 (61)	8.3 (73)	9.9 (87)	13.8 (122)	16.5 (146)	20.6 (182)	24.8 (210)	27.5 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—	
		1450	60 Hz	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.2 (46)	6.9 (61)	8.3 (73)	9.9 (87)	13.8 (122)	16.5 (146)	20.6 (182)	24.8 (210)	27.5 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—	
		90	50 Hz	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.5 (13.2)	1.9 (16.8)	2.3 (20)	2.8 (24)	3.9 (34)	4.6 (40)	5.8 (51)	7.0 (61)	7.7 (68)	8.7 (76)	10.9 (96)	13.1 (115)	18.2 (161)	21.9 (193)	—	
	Starting	60 Hz	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.2 (46)	6.9 (61)	8.3 (73)	9.9 (87)	13.8 (122)	16.5 (146)	20.6 (182)	24.8 (210)	27.5 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—		
		Starting		1.3 (11.5)	1.5 (13.2)	2.1 (18.5)	2.6 (23)	3.1 (27)	4.1 (36)	4.9 (43)	5.9 (52)	8.2 (72)	9.8 (86)	12.3 (108)	14.7 (130)	16.3 (144)	18.5 (163)	23.1 (200)	27.7 (240)	30 (260)	30 (260)	—	
		Starting		1.3 (11.5)	1.5 (13.2)	2.1 (18.5)	2.6 (23)	3.1 (27)	4.1 (36)	4.9 (43)	5.9 (52)	8.2 (72)	9.8 (86)	12.3 (108)	14.7 (130)	16.3 (144)	18.5 (163)	23.1 (200)	27.7 (240)	30 (260)	30 (260)	—	
SCM560JCM-□	Permissible	1200	50 Hz	3.3 (29)	4.0 (35)	5.5 (48)	6.6 (58)	7.9 (69)	10.5 (92)	12.6 (111)	15.2 (134)	21.1 (186)	25.3 (220)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—	
		1450	60 Hz	2.9 (25)	3.5 (30)	4.8 (42)	5.8 (51)	7.0 (61)	9.2 (81)	11.1 (98)	13.3 (117)	18.5 (163)	22.2 (196)	27.7 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—	
		90	50 Hz	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.5 (13.2)	1.9 (16.8)	2.3 (20)	2.8 (24)	3.9 (34)	4.6 (40)	5.8 (51)	7.0 (61)	7.7 (68)	8.7 (76)	10.9 (96)	13.1 (115)	18.2 (161)	21.9 (193)	—	
	Starting	60 Hz	2.9 (25)	3.5 (30)	4.8 (42)	5.8 (51)	7.0 (61)	9.2 (81)	11.1 (98)	13.3 (117)	18.5 (163)	22.2 (196)	27.7 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—	
		Starting		0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.5 (13.2)	1.9 (16.8)	2.3 (20)	2.8 (24)	3.9 (34)	4.6 (40)	5.8 (51)	7.0 (61)	7.7 (68)	8.7 (76)	10.9 (96)	13.1 (115)	18.2 (161)	21.9 (193)	—	
		Starting		0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.5 (13.2)	1.9 (16.8)	2.3 (20)	2.8 (24)	3.9 (34)	4.6 (40)	5.8 (51)	7.0 (61)	7.7 (68)	8.7 (76)	10.9 (96)	13.1 (115)	18.2 (161)	21.9 (193)	—	
SCM590JCM-□	Permissible	1200	50 Hz	4.9 (43)	5.9 (52)	8.2 (72)	9.9 (87)	11.3 (100)	15.7 (138)	18.8 (166)	22.6 (200)	31.4 (270)	37.7 (330)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	—		
		1450	60 Hz	4.9 (43)	5.9 (52)	8.2 (72)	9.9 (87)	11.3 (100)	15.7 (138)	18.8 (166)	22.6 (200)	31.4 (270)	37.7 (330)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	—		
		90	50 Hz	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.6 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.3 (64)	8.7 (76)	9.7 (85)	11.7 (103)	14.6 (129)	17.5 (154)	—	—		
	Starting	60 Hz	4.9 (43)	5.9 (52)	8.2 (72)	9.9 (87)	11.3 (100)	15.7 (138)	18.8 (166)	22.6 (200)	31.4 (270)	37.7 (330)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	—		
		Starting		0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.6 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.3 (64)	8.7 (76)	9.7 (85)	11.7 (103)	14.6 (129)	17.5 (154)	—	—		
		Starting		0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.6 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.3 (64)	8.7 (76)	9.7 (85)	11.7 (103)	14.6 (129)	17.5 (154)	—	—		

● Single-Phase 110/115 VAC

Unit: N·m (lb·in)

Product Name	Gear Ratio		7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
	Motor Shaft Speed r/min																				
SCM26UAM-□	Permissible	1450	0.34 (3.0)	0.41 (3.6)	0.56 (4.9)	0.68 (6.0)	0.81 (7.1)	1.1 (9.7)	1.3 (11.5)	1.5 (13.2)	2.2 (19.4)	2.6 (23)	3.2 (28)	3.9 (34)	4.3 (38)	5.2 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)
		90	0.26 (2.3)	0.31 (2.7)	0.43 (3.8)	0.51 (4.5)	0.62 (5.4)	0.86 (7.6)	0.98 (8.6)	1.2 (10.6)	1.6 (14.1)	2.0 (17.7)	2.5 (22)	2.9 (25)	3.3 (29)	3.9 (34)	4.6 (40)	5.5 (48)	6 (53)	6 (53)	6 (53)
		Starting		0.27 (2.3)	0.32 (2.8)	0.45 (3.9)	0.54 (4.7)	0.65 (5.7)	0.90 (7.9)	1.0 (8.8)	1.2 (10.6)	1.7 (15.0)	2.1 (18.5)	2.6 (23)	3.1 (27)	3.4 (30)	4.1 (36)	4.9 (43)	5.8 (51)	6 (53)	6 (53)
SCM315UAM-□	Permissible	1450	110 V	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)
		115 V	0.84 (7.4)	1.0 (8.8)	1.4 (12.3)	1.7 (15.0)	2.0 (17.7)	2.8 (24)	3.2 (28)	3.9 (34)	5.4 (47)	6.5 (57)	8.1 (71)	9.7 (85)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)
		90	0.30 (2.6)	0.36 (3.1)	0.51 (4.5)	0.61 (5.3)	0.73 (6.4)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.9 (25)	3.5 (30)	3.9 (34)	4.6 (40)	5.5 (48)	6.6 (58)	9.1 (80)	10 (88)	10 (88)
	Starting	110 V	0.57 (5.0)	0.68 (6.0)	0.95 (8.4)	1.1 (9.7)	1.4 (12.3)	1.9 (16.8)	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.4 (47)	6.5 (57)	7.2 (63)	8.7 (76)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)

Output Shaft Speed, Permissible Torque and Starting Torque while Deceleration Control is OFF

Description of deceleration control → Page 57

● Single-Phase 220/230 VAC

Unit: N·m (lb·in)

Product Name	Gear Ratio																						
	Motor Shaft Speed r/min		7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360		
SCM26ECM-□	Permissible	1200	220 V 50 Hz	0.28 (2.4)	0.34 (3.0)	0.47 (4.1)	0.57 (5.0)	0.68 (6.0)	0.95 (8.4)	1.1 (9.7)	1.3 (11.5)	1.8 (15.9)	2.2 (19.4)	2.7 (23)	3.3 (29)	3.6 (31)	4.3 (38)	5.1 (45)	6 (53)	6 (53)	6 (53)	6 (53)	
			230 V 50 Hz	0.31 (2.7)	0.37 (3.2)	0.52 (4.6)	0.62 (5.4)	0.75 (6.6)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	2.0 (17.7)	2.4 (21)	3.0 (26)	3.6 (31)	4.0 (35)	4.7 (41)	5.6 (49)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)
		1450	220 V 60 Hz	0.31 (2.7)	0.37 (3.2)	0.52 (4.6)	0.62 (5.4)	0.75 (6.6)	1.0 (8.8)	1.2 (10.6)	1.4 (12.3)	2.0 (17.7)	2.4 (21)	3.0 (26)	3.6 (31)	4.0 (35)	4.7 (41)	5.6 (49)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)
			230 V 60 Hz	0.34 (3.0)	0.41 (3.6)	0.56 (4.9)	0.68 (6.0)	0.81 (7.1)	1.1 (9.7)	1.3 (11.5)	1.5 (13.2)	2.2 (19.4)	2.6 (23)	3.2 (28)	3.9 (34)	4.3 (38)	5.2 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)
		90	220 V 50/60Hz	0.27 (2.3)	0.32 (2.8)	0.45 (3.9)	0.54 (4.7)	0.65 (5.7)	0.90 (7.9)	1.0 (8.8)	1.2 (10.6)	1.7 (15.0)	2.1 (18.5)	2.6 (23)	3.1 (27)	3.4 (30)	4.1 (36)	4.9 (43)	5.8 (51)	6 (53)	6 (53)	6 (53)	6 (53)
			230 V 50 Hz	0.25 (2.2)	0.30 (2.6)	0.42 (3.7)	0.50 (4.4)	0.60 (5.3)	0.83 (7.3)	0.95 (8.4)	1.1 (9.7)	1.6 (14.1)	1.9 (16.8)	2.4 (21)	2.9 (25)	3.2 (28)	3.8 (33)	4.5 (39)	5.4 (47)	6 (53)	6 (53)	6 (53)	6 (53)
	Starting	230 V 60 Hz	0.26 (2.3)	0.32 (2.8)	0.44 (3.8)	0.53 (4.6)	0.63 (5.5)	0.88 (7.7)	1.0 (8.8)	1.2 (10.6)	1.7 (15.0)	2.0 (17.7)	2.5 (22)	3.0 (26)	3.4 (30)	4.0 (35)	4.7 (41)	5.7 (50)	6 (53)	6 (53)	6 (53)	6 (53)	
		220 V 50/60Hz	0.30 (2.6)	0.36 (3.1)	0.50 (4.4)	0.59 (5.2)	0.71 (6.2)	0.99 (8.7)	1.1 (9.7)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.8 (24)	3.4 (30)	3.8 (33)	4.5 (39)	5.3 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	
		230 V 50 Hz	0.30 (2.6)	0.36 (3.1)	0.50 (4.4)	0.59 (5.2)	0.71 (6.2)	0.99 (8.7)	1.1 (9.7)	1.4 (12.3)	1.9 (16.8)	2.3 (20)	2.8 (24)	3.4 (30)	3.8 (33)	4.5 (39)	5.3 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	
230 V 60 Hz	0.34 (3.0)	0.41 (3.6)	0.56 (4.9)	0.68 (6.0)	0.81 (7.1)	1.1 (9.7)	1.3 (11.5)	1.5 (13.2)	2.2 (19.4)	2.6 (23)	3.2 (28)	3.9 (34)	4.3 (38)	5.2 (46)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)	6 (53)		
SCM315ECM-□	Permissible	1200	50 Hz	0.84 (7.4)	1.0 (8.8)	1.4 (12.3)	1.7 (15.0)	2.0 (17.7)	2.8 (24)	3.2 (28)	3.9 (34)	5.4 (47)	6.5 (57)	8.1 (71)	9.7 (85)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	
			220 V 60 Hz	0.74 (6.5)	0.89 (7.8)	1.2 (10.6)	1.5 (13.2)	1.8 (15.9)	2.5 (22)	2.8 (24)	3.4 (30)	4.7 (41)	5.7 (50)	7.1 (62)	8.5 (75)	9.5 (84)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)
		1450	230 V 60 Hz	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)
			90	0.27 (2.3)	0.32 (2.8)	0.45 (3.9)	0.54 (4.7)	0.65 (5.7)	0.90 (7.9)	1.0 (8.8)	1.2 (10.6)	1.7 (15.0)	2.1 (18.5)	2.6 (23)	3.1 (27)	3.4 (30)	4.1 (36)	4.9 (43)	5.8 (51)	8.1 (71)	9.7 (85)	10 (88)	10 (88)
		Starting	220 V 50/60Hz	0.45 (3.9)	0.54 (4.7)	0.75 (6.6)	0.90 (7.9)	1.1 (9.7)	1.5 (13.2)	1.7 (15.0)	2.1 (18.5)	2.9 (25)	3.5 (30)	4.3 (38)	5.2 (46)	5.8 (51)	6.9 (61)	8.1 (71)	9.8 (86)	10 (88)	10 (88)	10 (88)	10 (88)
			230 V 50 Hz	0.49 (4.3)	0.58 (5.1)	0.81 (7.1)	0.97 (8.5)	1.2 (10.6)	1.6 (14.1)	1.9 (16.8)	2.2 (19.4)	3.1 (27)	3.7 (32)	4.6 (40)	5.6 (49)	6.2 (54)	7.4 (65)	8.7 (76)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)
	230 V 60 Hz	0.55 (4.8)	0.66 (5.8)	0.91 (8.0)	1.1 (9.7)	1.3 (11.5)	1.8 (15.9)	2.1 (18.5)	2.5 (22)	3.5 (30)	4.2 (37)	5.2 (46)	6.3 (55)	7.0 (61)	8.4 (74)	9.8 (86)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)	
	SCM425ECM-□	Permissible	1200	50 Hz	1.4 (12.3)	1.7 (15.0)	2.3 (20)	2.8 (24)	3.3 (29)	4.6 (40)	5.3 (46)	6.3 (55)	8.8 (77)	10.6 (93)	13.2 (116)	15.9 (140)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)
				1450	60 Hz	1.4 (12.3)	1.7 (15.0)	2.3 (20)	2.8 (24)	3.3 (29)	4.6 (40)	5.3 (46)	6.3 (55)	8.8 (77)	10.6 (93)	13.2 (116)	15.9 (140)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)
90			220 V 50/60Hz	0.27 (2.3)	0.32 (2.8)	0.45 (3.9)	0.54 (4.7)	0.65 (5.7)	0.90 (7.9)	1.0 (8.8)	1.2 (10.6)	1.7 (15.0)	2.1 (18.5)	2.6 (23)	3.1 (27)	3.4 (30)	4.1 (36)	4.9 (43)	5.8 (51)	8.1 (71)	9.7 (85)	11.7 (103)	16 (141)
			230 V 50 Hz	0.49 (4.3)	0.58 (5.1)	0.81 (7.1)	0.97 (8.5)	1.2 (10.6)	1.6 (14.1)	1.9 (16.8)	2.2 (19.4)	3.1 (27)	3.7 (32)	4.6 (40)	5.6 (49)	6.2 (54)	7.4 (65)	8.7 (76)	10 (88)	10 (88)	10 (88)	10 (88)	10 (88)
Starting			230 V 60 Hz	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10.3 (91)	12.4 (109)	14.6 (129)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)
			220 V 50/60Hz	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10.3 (91)	12.4 (109)	14.6 (129)	16 (141)	16 (141)	16 (141)	16 (141)	16 (141)
SCM540ECM-□		Permissible	1200	50 Hz	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.2 (46)	6.9 (61)	8.3 (73)	9.9 (87)	13.8 (122)	16.5 (146)	20.6 (182)	24.8 (210)	27.5 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—
				1450	60 Hz	2.2 (19.4)	2.6 (23)	3.6 (31)	4.3 (38)	5.2 (46)	6.9 (61)	8.3 (73)	9.9 (87)	13.8 (122)	16.5 (146)	20.6 (182)	24.8 (210)	27.5 (240)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)
			90	50 Hz	0.44 (3.8)	0.53 (4.6)	0.73 (6.4)	0.88 (7.7)	1.1 (9.7)	1.4 (12.3)	1.7 (15.0)	2.0 (17.7)	2.8 (24)	3.4 (30)	4.2 (37)	5.0 (44)	5.6 (49)	6.3 (55)	7.9 (69)	9.5 (84)	13.2 (116)	15.8 (139)	—
	60 Hz			0.47 (4.1)	0.57 (5.0)	0.79 (6.9)	0.95 (8.4)	1.1 (9.7)	1.5 (13.2)	1.8 (15.9)	2.2 (19.4)	3.0 (26)	3.6 (31)	4.5 (39)	5.4 (47)	6.0 (53)	6.8 (60)	8.5 (75)	10.2 (90)	14.2 (125)	17 (150)	—	—
	Starting		1.3 (11.5)	1.5 (13.2)	2.1 (18.5)	2.6 (23)	3.1 (27)	4.1 (36)	4.9 (43)	5.9 (52)	8.2 (72)	9.8 (86)	12.3 (108)	14.7 (130)	16.3 (144)	18.5 (163)	23.1 (200)	27.7 (240)	30 (260)	30 (260)	30 (260)	—	—
			220 V 50/60Hz	0.81 (7.1)	0.97 (8.5)	1.4 (12.3)	1.6 (14.1)	1.9 (16.8)	2.7 (23)	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.7 (68)	9.3 (82)	10.3 (91)	12.4 (109)	14.6 (129)	16 (141)	16 (141)	16 (141)	16 (141)	—
	SCM560ECM-□	Permissible	1200	50 Hz	3.3 (29)	4.0 (35)	5.5 (48)	6.6 (58)	7.9 (69)	10.5 (92)	12.6 (111)	15.2 (134)	21.1 (186)	25.3 (220)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—
				1450	220 V 60 Hz	3.1 (27)	3.7 (32)	5.2 (46)	6.2 (54)	7.5 (66)	9.9 (87)	11.9 (105)	14.2 (125)	19.8 (175)	23.7 (200)	29.7 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)
			90	230 V 60 Hz	3.3 (29)	4.0 (35)	5.5 (48)	6.6 (58)	7.9 (69)	10.5 (92)	12.6 (111)	15.2 (134)	21.1 (186)	25.3 (220)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	30 (260)	—
220 V 50 Hz				0.54 (4.7)	0.65 (5.7)	0.90 (7.9)	1.1 (9.7)	1.3 (11.5)	1.7 (15.0)	2.1 (18.5)	2.5 (22)	3.4 (30)	4.1 (36)	5.2 (46)	6.2 (54)	6.9 (61)	7.8 (69)	9.7 (85)	11.7 (103)	16.2 (143)	19.4 (171)	—	—
Starting			220 V 60 Hz	0.51 (4.5)	0.61 (5.3)	0.84 (7.4)	1.0 (8.8)	1.2 (10.6)	1.6 (14.1)	1.9 (16.8)	2.3 (20)	3.2 (28)	3.9 (34)	4.8 (42)	5.8 (51)	6.5 (57)	7.3 (64)	9.1 (81)	10.9 (96)	15.2 (134)	18.2 (161)	—	—
			230 V 50 Hz	0.57 (5.0)	0.69 (6.1)	0.96 (8.4)	1.1 (9.7)	1.4 (12.3)	1.8 (15.9)	2.2 (19.4)	2.6 (23)	3.7 (32)	4.4 (38)	5.5 (48)	6.6 (58)	7.3 (64)	8.3 (73)	10.3 (91)	12.4 (109)	17.2 (152)	20.7 (183)	—	—
SCM590ECM-□		Permissible	1200	50 Hz	3.3 (29)	4.0 (35)	5.5 (48)	6.6 (58)	7.6 (67)	10.5 (92)	12.6 (111)	15.2 (134)	21.1 (186)	25.3 (220)	29.8 (260)	35.7 (310)	39.7 (350)	40 (350)	40 (350)	40 (350)	40 (350)	—	—
				1450	60 Hz	4.9 (43)	5.9 (52)	8.2 (72)	9.9 (87)	11.3 (100)	15.7 (138)	18.8 (166)	22.6 (200)	31.4 (270)	37.7 (330)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	—
			90	0.64 (5.6)	0.77 (6.8)	1.1 (9.7)	1.3 (11.5)	1.5 (13.2)	2.0 (17.7)	2.5 (22)	2.9 (25)	4.1 (36)	4.9 (43)	5.8 (51)	6.9 (61)	7.7 (68)	9.2 (81)	11.5 (101)	13.9 (123)	—	—	—	—
	220 V 50 Hz			3.3 (29)	4.0 (35)	5.5 (48)	6.6 (58)	7.6 (67)	10.5 (92)	12.6 (111)	15.2 (134)	21.1 (186)	25.3 (220)	29.8 (260)	35.7 (310)	39.7 (350)	40 (350)	40 (350)	40 (350)	40 (350)	—	—	—
	Starting		220 V 60 Hz	3.4 (30)	4.1 (36)	5.6 (49)	6.8 (60)	7.7 (68)	10.8 (95)	12.9 (114)	15.5 (137)	21.5 (190)	25.8 (220)	30.4 (260)	36.5 (320)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	—	—	—
			230 V 50 Hz	3.5 (30)	4.2 (37)	5.9 (52)	7.0 (61)	8.0 (70)	11.2 (99)	13.4 (118)	16.1 (142)	22.4 (198)	26.8 (230)	31.6 (270)	37.9 (330)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	—	—	—
	230 V 60 Hz	3.6 (31)	4.3 (38)	6.0 (53)	7.2 (63)	8.2 (72)	11.4 (100)	13.7 (121)	16.4 (145)	22.8 (200)	27.3 (240)	32.2 (280)	38.6 (340)	40 (350)	40 (350)	40 (350)	40 (350)	40 (350)	—	—	—	—	

■ Permissible Radial Load and Permissible Axial Load

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■ Gearhead Efficiency

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■ Permissible Inertia J

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■ How to Read Speed - Torque Characteristics

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■ Speed - Torque Characteristics (Reference values)

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Dimensions [Unit: mm (in.)]

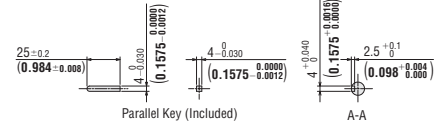
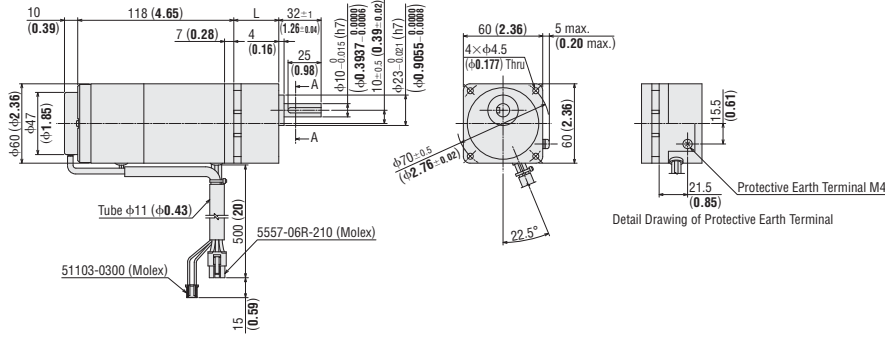
- "Installation screws" are included. Dimensions for installation screws → Page 43
- A number indicating the gear ratio is specified where the box □ is located within the product name.

Parallel Shaft Gearhead **GV** Gear

◇ 6 W (1/125 HP)

2D & 3D CAD

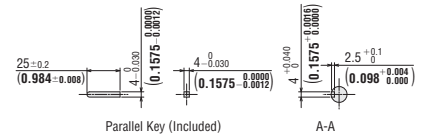
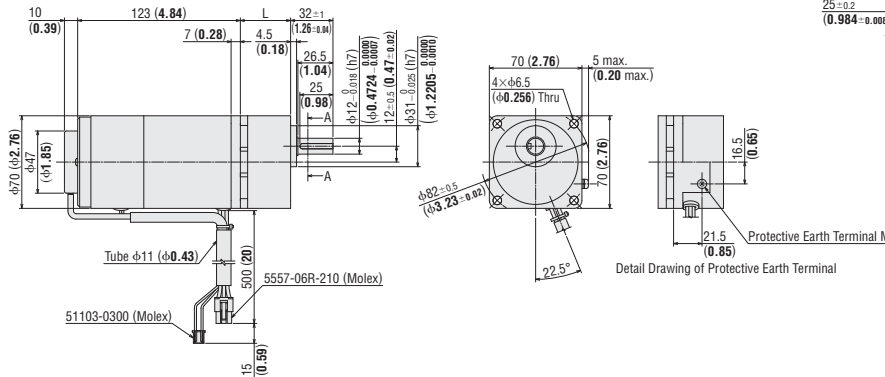
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM26JAM -□	SCM26GV-JAM	2GV□B	7.5 to 25	34 (1.34)	1.5 (3.3)	A1297A
SCM26JCM -□	SCM26GV-JCM		30 to 120	38 (1.50)	1.5 (3.3)	A1297B
SCM26UAM -□	SCM26GV-UAM		150 to 360	43 (1.69)	1.6 (3.5)	A1297C
SCM26ECM -□	SCM26GV-ECM					



◇ 15 W (1/50 HP)

2D & 3D CAD

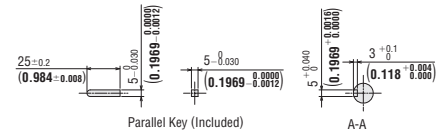
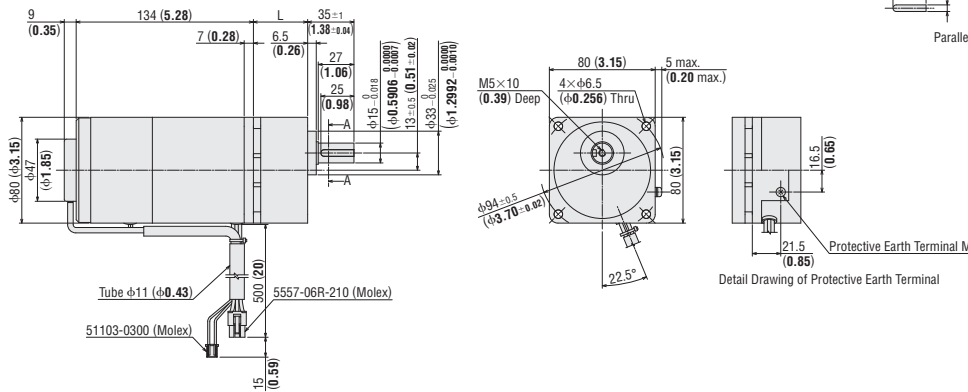
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM315JAM -□	SCM315GV-JAM	3GV□B	7.5 to 25	38 (1.50)	2.0 (4.4)	A1298A
SCM315JCM -□	SCM315GV-JCM		30 to 120	43 (1.69)	2.1 (4.6)	A1298B
SCM315UAM -□	SCM315GV-UAM		150 to 360	48 (1.89)	2.2 (4.8)	A1298C
SCM315ECM -□	SCM315GV-ECM					



◇ 25 W (1/30 HP)

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM425JAM -□	SCM425GV-JAM	4GV□B	7.5 to 25	41 (1.61)	3.0 (6.6)	A1299A
SCM425JCM -□	SCM425GV-JCM		30 to 120	46 (1.81)	3.1 (6.8)	A1299B
SCM425UAM -□	SCM425GV-UAM		150 to 360	51 (2.01)	3.2 (7.0)	A1299C
SCM425ECM -□	SCM425GV-ECM					



Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

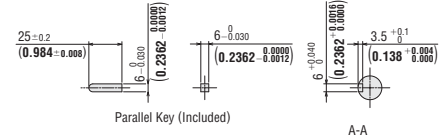
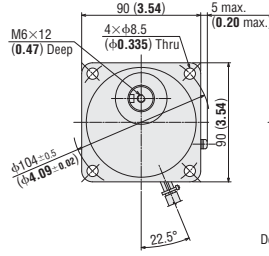
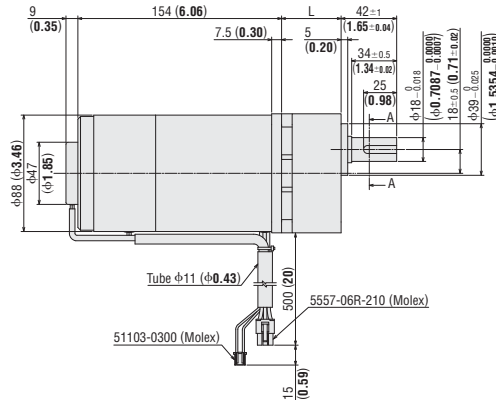
Connection and
Operation

Cables
Accessories

◇ 40 W (1/19 HP)

2D & 3D CAD

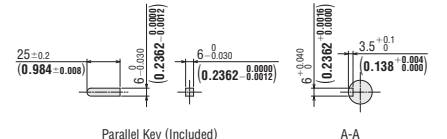
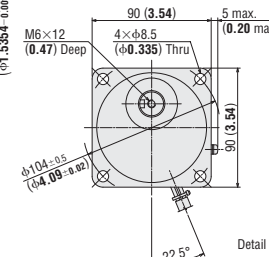
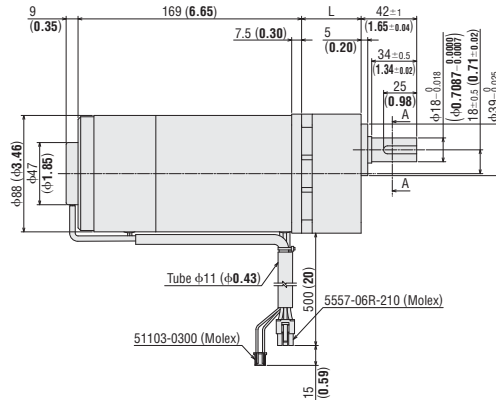
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM540JAM -□	SCM540GV-JAM	5GV□B	7.5 to 18	45 (1.77)	4.2 (9.2)	A1300A
SCM540JCM -□	SCM540GV-JCM		25 to 100	58 (2.28)	4.5 (9.9)	A1300B
SCM540UAM -□	SCM540GV-UAM		120 to 300	64 (2.52)	4.6 (10.1)	A1300C
SCM540ECM -□	SCM540GV-ECM					



◇ 60 W (1/12 HP)

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM560JAM -□	SCM560GVH-JAM	5GVH□B	7.5 to 18	45 (1.77)	4.8 (10.6)	A1301A
SCM560JCM -□	SCM560GVH-JCM		25 to 100	58 (2.28)	5.1 (11.2)	A1301B
SCM560UAM -□	SCM560GVH-UAM		120 to 300	64 (2.52)	5.2 (11.4)	A1301C
SCM560ECM -□	SCM560GVH-ECM					

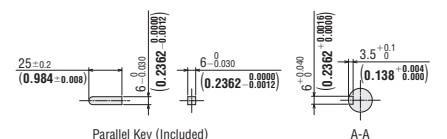
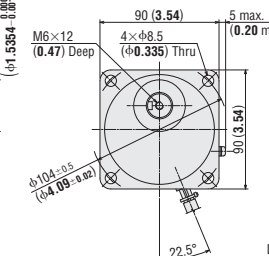
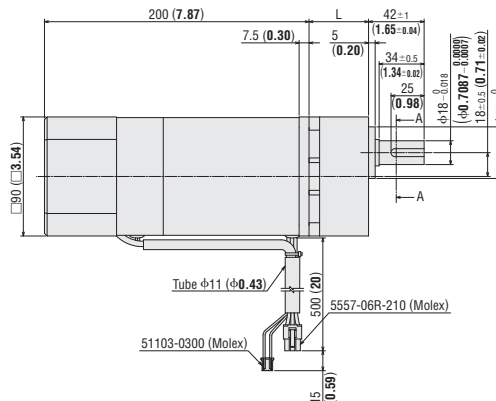


◇ 90 W (1/8 HP)

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg (lb.)	2D CAD
SCM590JAM -□	SCM590GVR-JAM	5GVR□B	7.5 to 15	45 (1.77)	5.0 (11.0)	A1302A
SCM590JCM -□	SCM590GVR-JCM		18 to 36	58 (2.28)	5.4 (11.9)	A1302B
SCM590UAM -□	SCM590GVR-UAM		50 to 180	70 (2.76)	5.5* (12.1)	A1302C
SCM590ECM -□	SCM590GVR-ECM					

*The mass of the product with gear ratios of 50 and 60 is 5.4 kg. (11.9 lb.)

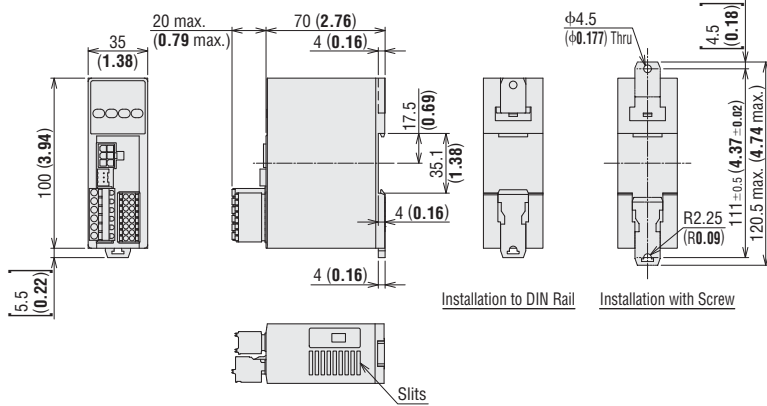


● Speed Controller

DSC-MU

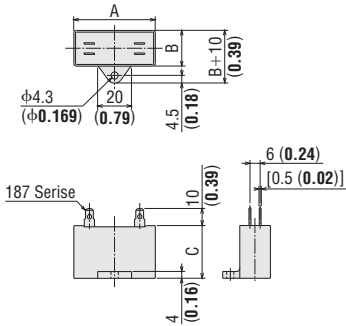
Mass: 0.2 kg (0.44 lb.)

2D CAD A1303 3D CAD

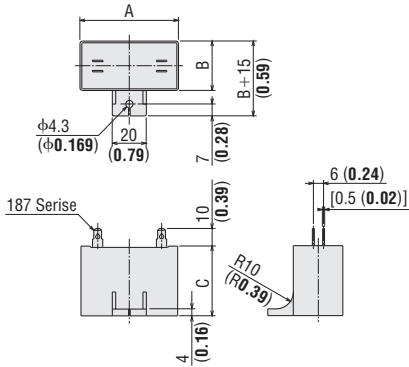


◇ Capacitor (Included with the speed controller)

Dimensions No. ①



Dimensions No. ②



● Capacitor Dimensions [Unit: mm (in.)]

Speed Controller Product Name	Product Name	Capacitor			Mass g (oz.)	Dimension No.
		A	B	C		
DSCD6JAM	CH35FAUL2	31 (1.22)	17 (0.67)	27 (1.06)	22 (0.78)	①
DSCD6JCM	CH08BFAUL	31 (1.22)	17 (0.67)	27 (1.06)	23 (0.81)	
DSCD6UAM	CH25FAUL2	31 (1.22)	17 (0.67)	27 (1.06)	21 (0.74)	
DSCD6ECM	CH06BFAUL	31 (1.22)	14.5 (0.57)	23.5 (0.93)	18 (0.64)	
DSCD15JAM	CH55FAUL2	38 (1.50)	21 (0.83)	31 (1.22)	35 (1.24)	
DSCD15JCM	CH15BFAUL	38 (1.50)	21 (0.83)	31 (1.22)	37 (1.31)	
DSCD15UAM	CH45FAUL2	37 (1.46)	18 (0.71)	27 (1.06)	26 (0.92)	
DSCD15ECM	CH10BFAUL	37 (1.46)	18 (0.71)	27 (1.06)	27 (0.95)	
DSCD25JAM	CH80CFAUL2	48 (1.89)	21 (0.83)	31 (1.22)	41 (1.45)	
DSCD25JCM	CH20BFAUL	48 (1.89)	19 (0.75)	29 (1.14)	36 (1.27)	
DSCD25UAM	CH65CFAUL2	48 (1.89)	19 (0.75)	29 (1.14)	35 (1.24)	②
DSCD25ECM	CH15BFAUL	38 (1.50)	21 (0.83)	31 (1.22)	37 (1.31)	
DSCD40JAM	CH110CFAUL2	58 (2.28)	21 (0.83)	31 (1.22)	49 (1.73)	
DSCD40JCM	CH30BFAUL	58 (2.28)	21 (0.83)	31 (1.22)	50 (1.77)	
DSCD40UAM	CH90CFAUL2	48 (1.89)	22.5 (0.89)	31.5 (1.24)	45 (1.59)	
DSCD40ECM	CH23BFAUL	48 (1.89)	21 (0.83)	31 (1.22)	43 (1.52)	
DSCD60JAM	CH180CFAUL2	58 (2.28)	29 (1.14)	41 (1.61)	92 (3.2)	
DSCD60JCM	CH40BFAUL	58 (2.28)	23.5 (0.93)	37 (1.46)	73 (2.6)	
DSCD60UAM	CH120CFAUL2	58 (2.28)	22 (0.87)	35 (1.38)	60 (2.1)	
DSCD60ECM	CH30BFAUL	58 (2.28)	21 (0.83)	31 (1.22)	50 (1.77)	
DSCD90JAM	CH280CFAUL2	58 (2.28)	35 (1.38)	50 (1.97)	140 (4.9)	②
DSCD90JCM	CH70BFAUL	58 (2.28)	35 (1.38)	50 (1.97)	138 (4.9)	
DSCD90UAM	CH200CFAUL2	58 (2.28)	29 (1.14)	41 (1.61)	91 (3.2)	
DSCD90ECM	CH60BFAUL	58 (2.28)	29 (1.14)	41 (1.61)	92 (3.2)	

● A capacitor and a capacitor cap are included with the speed controller product.

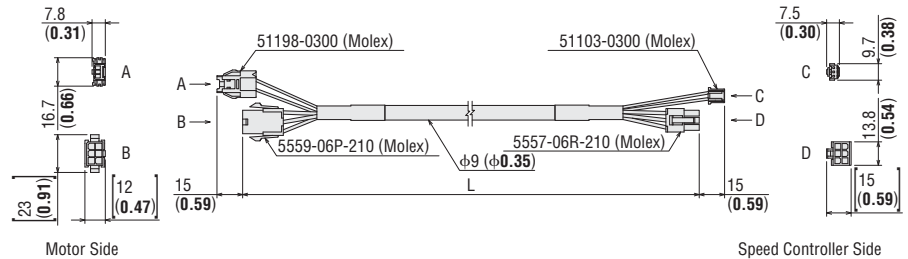
A capacitor cap is not included with the capacitor product.

● Connection Cable

Product Name	Length L [m (ft.)]
CC01SCM	1 (3.3)
CC02SCM	2 (6.6)
CC03SCM	3 (9.8)
CC05SCM	5 (16.4)
CC10SCM	10 (32.8)

● Flexible Connection Cable

Product Name	Length L [m (ft.)]
CC01SCMR	1 (3.3)
CC02SCMR	2 (6.6)
CC03SCMR	3 (9.8)
CC05SCMR	5 (16.4)
CC10SCMR	10 (32.8)



Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

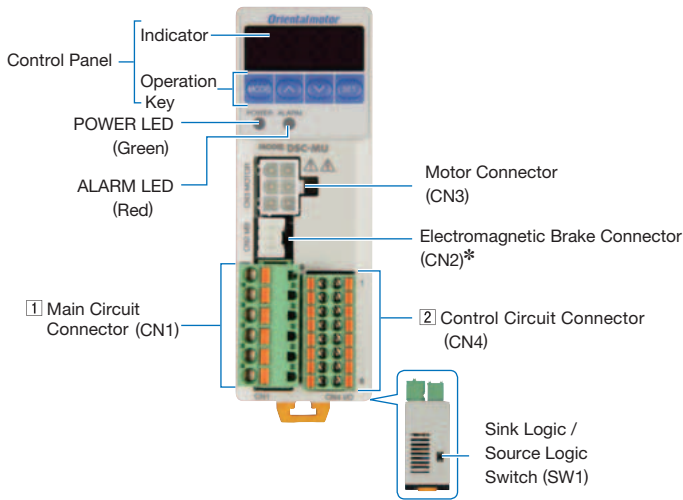
Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

■ Connection and Operation

● Names and Functions of Speed Controller Parts



Name		Description
Control Panel	Indicator (4 digit LED)	Displays speed, parameters, alarms, etc.
	Operation Key	Switches operating mode, sets operating data and changes parameters.
POWER LED (Green)		Lights when the AC power supply is provided to the speed controller.
ALARM LED (Red)		Lights when an alarm is generated.
Motor Connector (CN3)		Connects to the motor connector.
Electromagnetic Brake Connector (CN2)*		Connects to the electromagnetic brake connector.
Main Circuit Connector (CN1)		Connects to the AC power supply, capacitor and FG.
Control Circuit Connector (CN4)		Connects the DC power supply for control and I/O signal.
Source Logic/ Sink Logic Switch		Switches between the source logic and sink logic for the input signal.

*Only the electromagnetic brake type is connected.

1 Main Circuit Connector (CN1)

Pin No.	Contents	Description
1	Capacitor	Connects the capacitor
2		
3	N.C.	Not connected.
4	AC Power Supply	Connects to the live side.
5		Connects to the neutral side.
6		Connects to the ground wire.

2 Control Circuit Connector (CN4)

Pin No.	Signal Name	Function*1	Description
1	+24 V	DC Power Supply for Control	Connects the 24 VDC power supply for control circuit.
2	0 V (GND)		
3	IN0	[FWD]	The motor rotates in the forward direction while this signal is being "ON."*2
4	IN1	[REV]	The motor rotates in the reverse direction while this signal is being "ON."*2
5	IN2	[M0]	These signals are used to select the operation data.
6	IN3	[M1]	
7	IN4	[ALARM-RESET]	This signal is used to reset the alarm.
8	IN5	[FREE]	If the FREE input is turned ON while the motor is operated, the motor will coast to a stop. If the FWD input or REV input is turned ON while the FREE input is being ON, the motor will not rotate. For electromagnetic brake type, if the FREE input is turned "ON," the electromagnetic brake will be released.
9	VH	External Speed Setting Input	Connects when speed is set externally using the external speed potentiometer or external DC voltage.
10	VM		
11	VL		
12	N.C.	—	Not connected.
13	OUT0+	[SPEED-OUT]	12 pulses are output with each revolution of the motor output.
14	OUT0-		
15	OUT1+	[ALARM-OUT]	This signal will be output when an alarm generates. (Normally closed)
16	OUT1-		

*1 Text inside the [] represents the factory default function assignment. The following signals can be assigned as necessary to 6 input signal terminals (IN0 to IN5) and 2 output signal terminals (OUT0, OUT1).

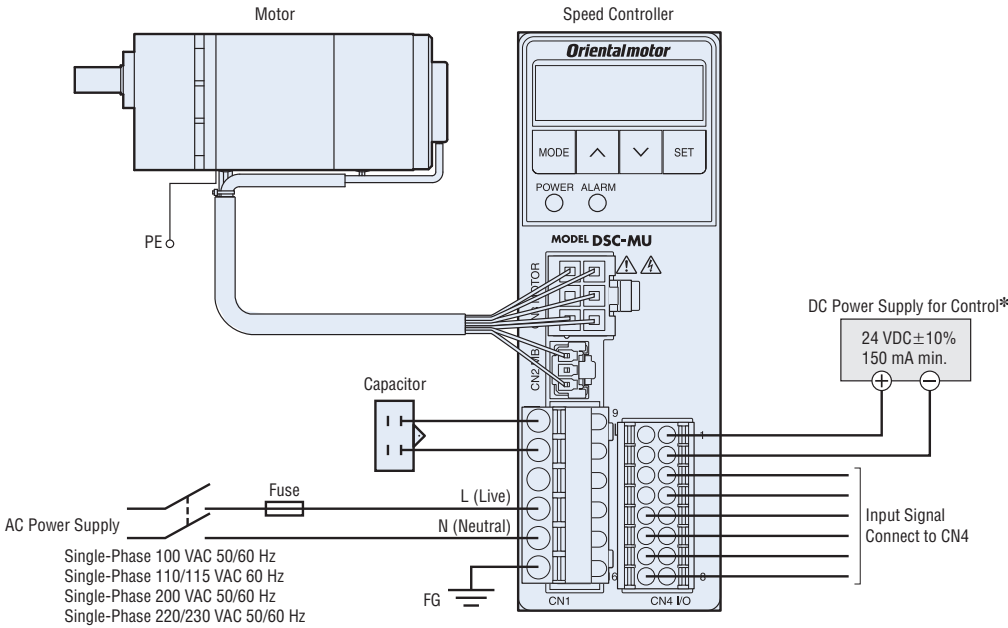
6 of the 7 input signals (FWD, REV, M0, M1, ALARM-RESET, FREE, EXT-ERROR)

2 of the 4 output signals (SPEED-OUT, ALARM-OUT, TH-OUT, WNG)

*2 Rotation direction varies depending on the gear ratio of the gearhead and the parameter settings.

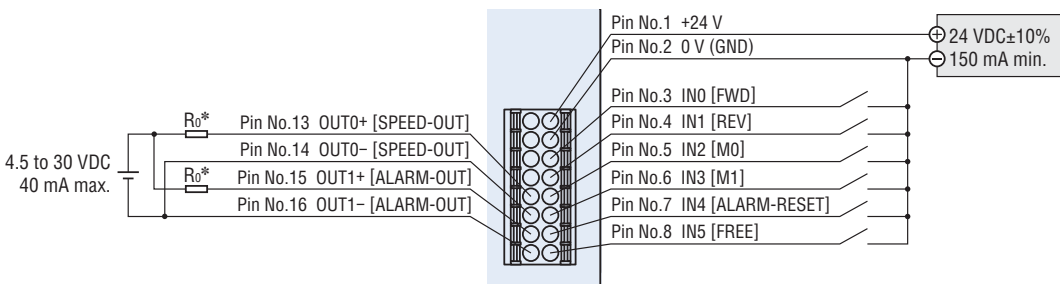
● Connection Diagram

The figure shows a connection example for the electromagnetic brake type. Always connect the DC power supply for control when operating the motor in addition to the AC power supply.



◇ Example of I/O Signal (CN4) Connection

The figure shows a connection example when operating with a contact switch, such as switches and relays with sink logic setting.



*Recommend Resistance Value
24 VDC: 680 Ω to 4.7 kΩ (2 W) 5 VDC: 150 Ω to 1 kΩ (0.5 W)

Note

- Connect a limiting resistor R0 that corresponds to the power supply used, so that the current that flows with the output signals does not exceed 40 mA.

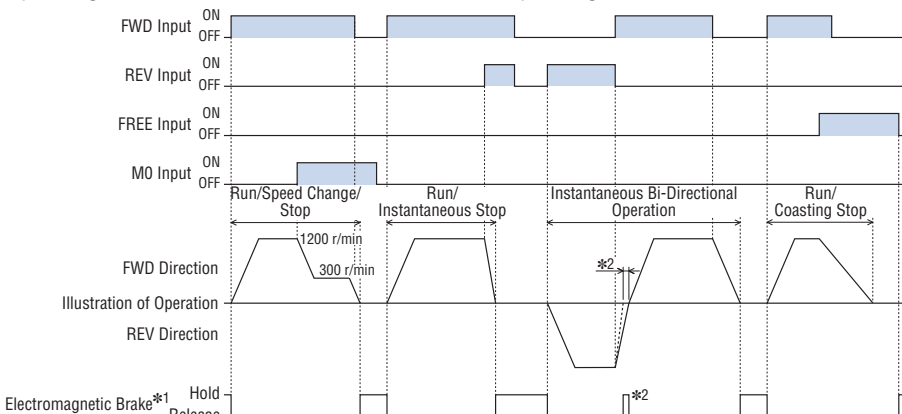
◇ Rating of Fuse

For overcurrent protection, be sure to insert a fuse into the power supply line.

Fuse Rating	Single-Phase 100/110/115 VAC	216 Series (Littelfuse, Inc.) 10 A or equivalent
	Single-Phase 200/220/230 VAC	216 Series (Littelfuse, Inc.) 6.3 A or equivalent

● Timing Chart

Operating data No.0 has been set to 1200 r/min and operating data No.1 has been set to 300 r/min.



- After setting the speed, when the FWD or REV input is set to ON, the motor is rotated at the set speed.
- During motor operation, when the signal that is ON (either FWD or REV input) is turned OFF, the motor will perform a deceleration stop within the set deceleration time.
- If the FWD input and REV input are turned ON simultaneously, the motor will stop instantaneously.
- For electromagnetic brake types, the motor stops and the brake is simultaneously activated.

*1 Only for electromagnetic brake type.

*2 Only for electromagnetic brake type. Holds while "deceleration control" parameter is ON, and time lag occurs during motor standstill (approx. 0.1 seconds).

Does not hold when "deceleration control" parameter is OFF. There is no time lag, either.

Note

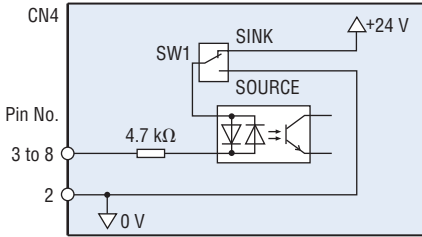
- The duration of ON for each signal must be 10 ms or more.

I/O Signal Circuits

Sink logic or source logic can be selected according to the external control device the customer is using.

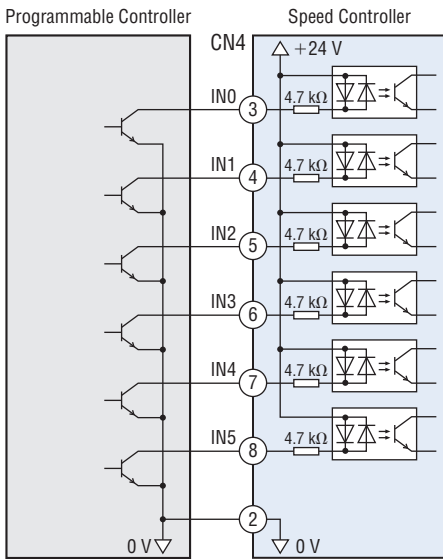
Input Circuit

IN0~IN5

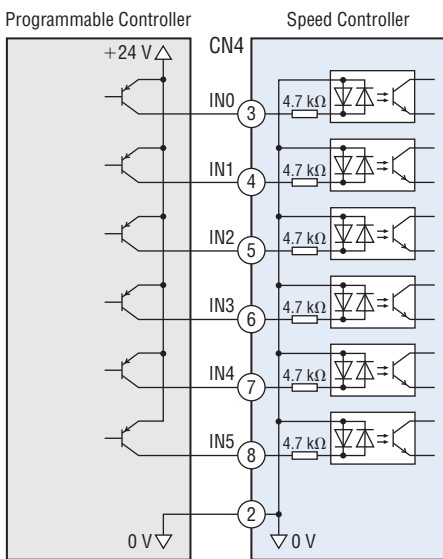


Connection to Programmable Controller

Sink Logic

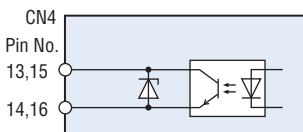


Source Logic



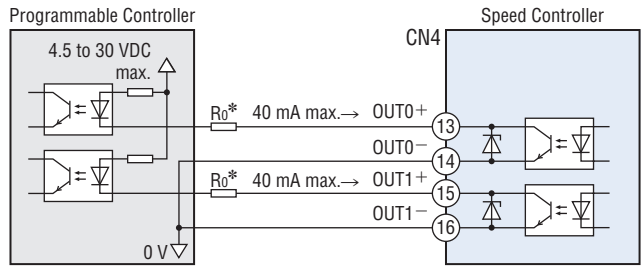
Output Circuit

OUT0, OUT1

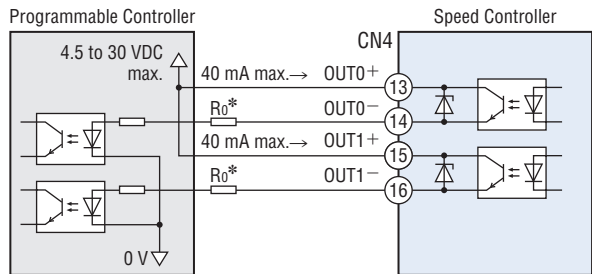


Connection to Programmable Controller

Sink Logic



Source Logic



*Recommended Resistance Value

24 VDC: 680 Ω to 4.7 kΩ (2 W) 5 VDC: 150 Ω to 1 kΩ (0.5 W)

Note

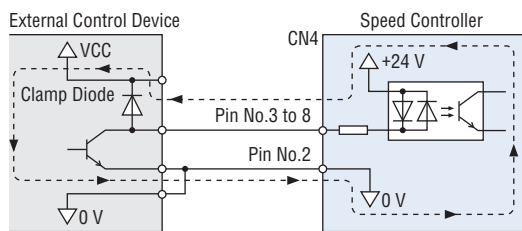
● Maintain the current value of OUT0 and OUT1 at 40 mA or less. If this current value is exceeded, connect the limiting resistor R0.

When an External Control Device with a Built-in Clamp Diode is Used

If an external control device with a built-in clamp diode is connected and the external control device is turned off when the speed controller power is on, current may flow in and rotate the motor. Also, depending on the external control device used with the speed controller, the motor may rotate even when the power supply is set to ON and OFF simultaneously. Use the following procedure to turn the power ON or OFF.

When turning the power off: Speed controller → External control device

When turning the power on: External control device → Speed controller

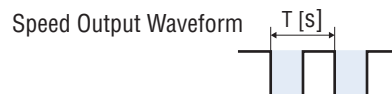


Speed Output

Pulse signals of 12 pulses are output at every rotation of the motor output shaft in synchronization with the motor operation. If the speed output frequency is measured, the motor speed can be calculated.

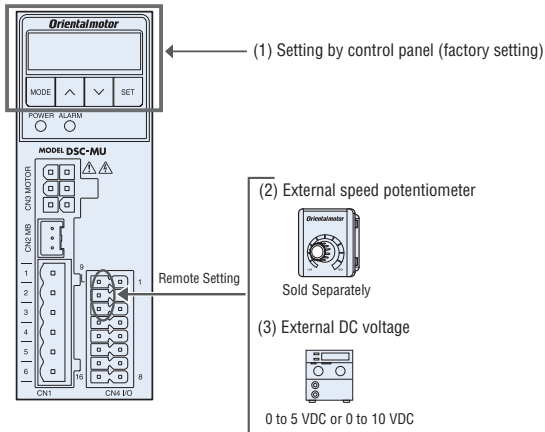
$$\text{Motor Shaft Speed [r/min]} = \frac{\text{Speed Output Frequency [Hz]}}{12} \times 60$$

$$\text{Speed Output Frequency [Hz]} = \frac{1}{T [\text{s}]}$$



● Speed Setting Method

The following 3 methods for setting speed can be used.



◇ Setting by Control Panel

Up to 4 operating data can be set.

By switching the M0 and M1 inputs between ON and OFF, the pattern can be selected and the motor will operate.

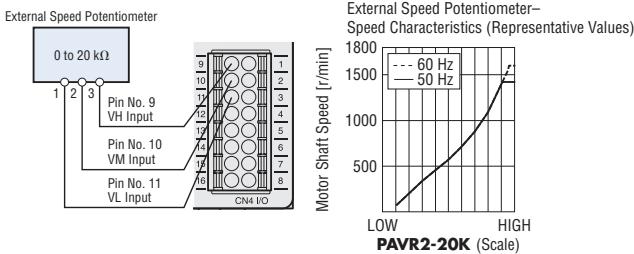
Operation Data No.	M1	M0	Description
0	OFF	OFF	Setting by control panel or remote setting*
1	OFF	ON	Setting by control panel
2	ON	OFF	
3	ON	ON	

*When the "external speed command input" parameter is set to "ON (enable)" (initial setting: OFF), the rotation speed can be set using an external speed potentiometer or external DC voltage.

◇ Setting by External Speed Potentiometer

Connect the external speed potentiometer to CN4.

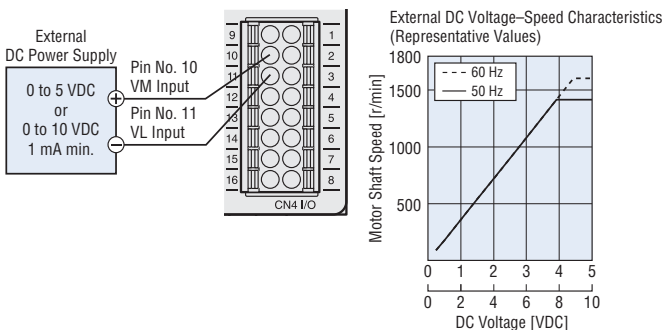
"External speed command voltage selection" parameter setting:
"0-5" (Initial value)



◇ Setting by External DC Voltage

Connect the external DC power supply (0 to 5 VDC or 0 to 10 VDC) to CN4.

"External speed command voltage selection" parameter setting:
0 to 5 VDC "0-5" (Initial value)
0 to 10 VDC "0-10"



Note

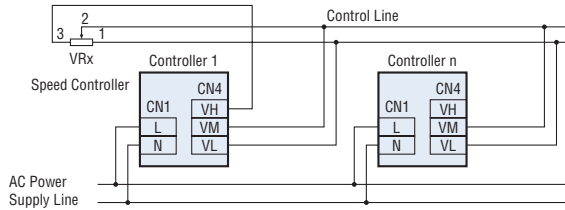
● Ensure that the external DC voltage is 10 VDC or less. When connecting the external DC voltage, ensure that the polarity is correct. Otherwise, it may damage the speed controller.

● Parallel-Motor Control

Multiple motors can be operated at the same speed using 1 external speed potentiometer or external DC voltage.

◇ Using an External Speed Potentiometer

Parallel-motor operation using the external speed potentiometer (VRx) should be performed with a maximum of 20 speed controllers.



● The Calculation Method of the Resistance Value (VRx) when the Number of Speed Controllers Connected is n

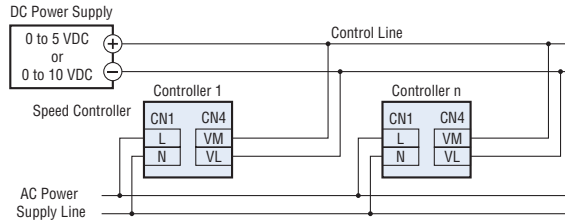
Resistance Value (VRx)=20/n (kΩ), Permissible Loss=n/20 (W)

Example: When two speed controllers are connected

Resistance value (VRx)=20/2=10 (kΩ), Permissible loss=2/20=1/10 (W)

◇ Using External DC Voltage

The number of connected units will be limited depending on the current capacity of the external DC power supply.



● The Calculation Method of the Current Capacity of the External DC Power Supply (I) when the Number of Speed Controllers Connected is n

Current Capacity (I)=1×n (mA)

Example: When two speed controllers are connected

Current capacity (I)=1×2=2 (mA)

● Repetitive Operation Cycle

When the motor is operated repeatedly in short cycles, use the cycles below as a reference, and ensure that the motor's external temperature is at 90°C (194°F) or less.

Instantaneous Stop	6 W to 40 W (1/125 HP to 1/19 HP)	When operation and instantaneous stops are repeated 2 seconds min., operating duty 50% max. (Example: 1 second operating, 1 second stopped)
	60 W, 90 W (1/12 HP, 1/8 HP)	When operation and instantaneous stops are repeated 4 seconds min., operating duty 50% max. (Example: 2 seconds operating, 2 seconds stopped)
Instantaneous Bi-Directional Operation	6 W to 40 W (1/125 HP to 1/19 HP)	When rotation direction is repeatedly switched during operation Switch once every 2 seconds min.
	60 W, 90 W (1/12 HP, 1/8 HP)	When rotation direction is repeatedly switched during operation Switch once every 4 seconds min.

● On the electromagnetic brake type, continuous operation conditions occur when the "deceleration control" parameter is set to ON. Check the electromagnetic brake type "Common Specifications - Permissible Continuous Operation Time While Deceleration Control is ON" (→ Page 50)

● Brake Current

When performing an instantaneous stop, bi-directional operation or vertical operation*, the large brake current flows for approximately 0.4 seconds on a half-wave rectified AC power supply line.

When performing these kinds of operations, select the equipment breaker and AC power supply capacitance by referring to the table's braking current (peak value).

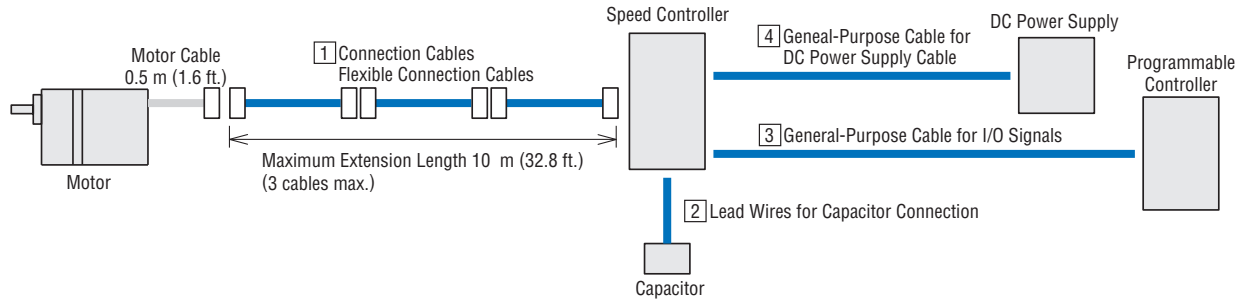
Motor Output Power	Brake Current (Peak Value)	
	Single-Phase 100/110/115 VAC	Single-Phase 200/220/230 VAC
6 W (1/125 HP)	2 A	1 A
15 W (1/50 HP)	4 A	3 A
25 W (1/30 HP)	8 A	4 A
40 W (1/19 HP)	12 A	7 A
60 W (1/12 HP)	21 A	10 A
90 W (1/8 HP)	29 A	13 A

*Only for electromagnetic brake type.

Cables and Accessories (Sold Separately)

Cables

Cable System Configuration



1 Connection Cables / Flexible Connection Cables

These cables are used to connect the motor and the speed controller. When extending the cables, the overall length of the cables should not exceed 10 m (32.8 ft.) (maximum of 3 connected cables). Use the flexible connection cable in applications where the cable is bent and flexed.

Product Line

Connection Cables for Standard Type (CC_SC)

Product Name	Length L [m (ft.)]	List Price
CC01SC	1 (3.3)	\$35.00
CC02SC	2 (6.6)	\$39.00
CC03SC	3 (9.8)	\$49.00
CC05SC	5 (16.4)	\$68.00
CC10SC	10 (32.8)	\$116.00



Connection Cables for Electromagnetic Brake Type (CC_SCM)

Product Name	Length L [m (ft.)]	List Price
CC01SCM	1 (3.3)	\$47.00
CC02SCM	2 (6.6)	\$51.00
CC03SCM	3 (9.8)	\$61.00
CC05SCM	5 (16.4)	\$80.00
CC10SCM	10 (32.8)	\$128.00



Flexible Connection Cables for Standard Type (CC_SCR)

Product Name	Length L [m (ft.)]	List Price
CC01SCR	1 (3.3)	\$68.00
CC02SCR	2 (6.6)	\$78.00
CC03SCR	3 (9.8)	\$97.00
CC05SCR	5 (16.4)	\$135.00
CC10SCR	10 (32.8)	\$231.00



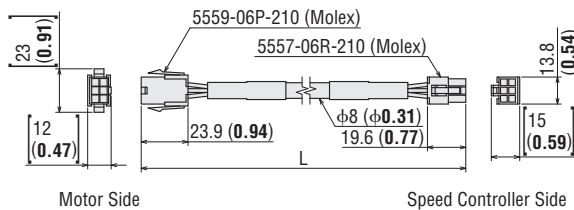
Flexible Connection Cables for Electromagnetic Brake Type (CC_SCMR)

Product Name	Length L [m (ft.)]	List Price
CC01SCMR	1 (3.3)	\$92.00
CC02SCMR	2 (6.6)	\$102.00
CC03SCMR	3 (9.8)	\$121.00
CC05SCMR	5 (16.4)	\$159.00
CC10SCMR	10 (32.8)	\$255.00

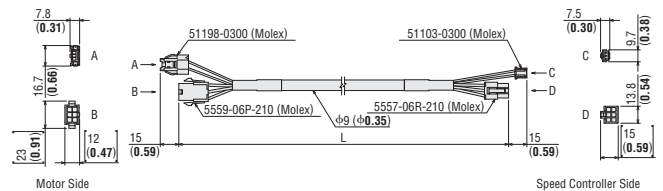


Dimensions [Unit: mm (in.)]

For Standard Type



For Electromagnetic Brake Type

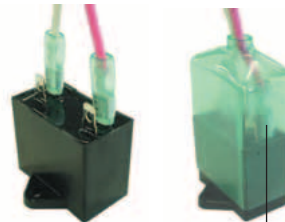
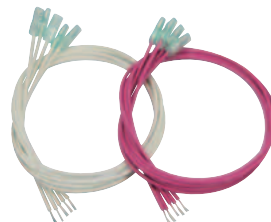


2 Lead Wires for Capacitor Connection

Includes lead wire with a terminal that can be connected to the capacitor terminal as it is.

Product Line

Product Name	Set Content	List Price
LCCN0510	White: 5 pcs. Red: 5 pcs.	\$14.00



Use with the capacitor cap

Application example

3 Cables for I/O Signals

General-purpose multi-core cables provide convenient connection between a speed controller and host controller.

General-Purpose Type

- Employs a double shield cable (Core wire: AWG24)
- Separated wires on both sides
- Equips ground wire with round terminal for easy shield grounding



Product Line

Product Name	Length L [m (ft.)]	List Price
CC16D005B-1	0.5 (1.6)	\$22.00
CC16D010B-1	1 (3.3)	\$25.00
CC16D015B-1	1.5 (4.9)	\$28.00
CC16D020B-1	2 (6.6)	\$31.00

- The available I/O signal cable general-purpose types are those with 6 cores (**CC06D□B-1**), 10 cores (**CC10D□B-1**) and 12 cores (**CC12D□B-1**). Select the cable with most suitable number of cores according to the function you will use. For details on the products, contact with Oriental Motor sales office.

4 Cables for DC Power Supply

These cables connect the speed controller and DC power supply.

Product Line

Product Name	Length L [m (ft.)]	List Price
CC02D005-3	0.5 (1.6)	\$14.00
CC02D010-3	1 (3.3)	\$16.00
CC02D015-3	1.5 (4.9)	\$18.00
CC02D020-3	2 (6.6)	\$20.00
CC02D050-3	5 (16.4)	\$23.00




Features	System Configuration Product Number	Right-Angle Shaft	Standard	Right-Angle Shaft	Electromagnetic Brake	Connection and Operation	Cables Accessories
			Parallel Shaft/ Round Shaft		Parallel Shaft/ Round Shaft		

Flexible Couplings

These products are clamp type couplings to connect a motor or gearhead shaft to the shaft of the equipment. Once the motor or gearhead is determined, the proper coupling can be selected.

● Couplings can also be used with round shaft types. Select a coupling with the same inner diameter size as the motor shaft diameter.



Series		MCL
Appearance of the Products		
Coupling Type		Jaw
Features		3 piece structure of polyurethane elastic body and aluminum alloy hub. The elastic body allows misalignment. Improve installation work because elastic body and hub can be easily separated. It is suitable for gearmotor that are used as source of power since the permissible transmission torque is large.
Characteristics*2	Torque	◎
	Torsional Rigidity	△
	Permissible Misalignment	○
	Vibration Absorption	○
Connection Method		Clamp Type
Materials	Hub	Aluminum Alloy
	Sleeve/Vibration Absorption	Polyurethane

*1 Made by NBK Nabeya Bi-tech Kaisha

*2 Evaluation of the characteristics are as follows;

◎: Excellent ○: Good △: Slightly inferior

● MCL Couplings

◇ Right-Angle Solid Shaft Hypoid JL Gear

Applicable Product	Load Type	Coupling Type	List Price
SCM425K ◇-4L□ B	Uniform Load	MCL40	\$88.00
	Impact Load	MCL55	\$113.00
SCM540K ◇-5L□ B	Uniform Load	MCL55	\$113.00
	Impact Load	MCL65	\$171.00

● Either **JA**, **JC**, **UA**, or **EC** indicating the power supply voltage is specified where the box **□** is located within the applicable product name.

A code **M** indicating that the product is with an electromagnetic brake is specified where the box **◇** is located within the applicable product name.

A number indicating the gear ratio is specified where the box **□** is located within the applicable product name.

◇ Parallel Shaft Gearhead **GV** Gear

Applicable Product	Load Type	Coupling Type	List Price
SCM26	Uniform Load	MCL30	\$60.00
	Impact Load		
SCM315	Uniform Load	MCL30	\$60.00
	Impact Load	MCL40	\$88.00
SCM425	Uniform Load	MCL40	\$88.00
	Impact Load	MCL55	\$171.00
SCM540 SCM560 SCM590	Uniform Load	MCL55	\$171.00
	Impact Load		

Capacitor Mounting Bracket

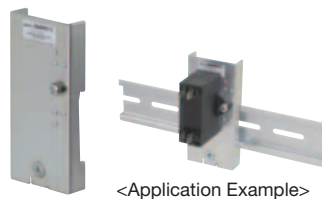
Allows you to connect capacitors on DIN rails.

Material: SPCC

Surface treatment: Trivalent chromate

◇ Product Name: **PADP01C**

List Price: \$8.00



Speed Controller Mounting Bracket

It can be mounted directly on the wall.

Material: SPCC

Surface treatment: Electroless nickel plating

● By pulling the lever on the back of the speed controller up and down, it can also be installed using the lever mounting hole.

◇ Product Name: **MAFP02**

List Price: \$8.00



Torque Arms

Prevents the gearhead from spinning due to reaction force from the driven shaft when a right-angle hollow shaft hypoid **JH** gear is installed.

Product Line

Product Name	List Price	Applicable Product	Main Specifications
TAF2S-12-NS	\$24.00	SCM425K ◊-4H □	Material: SS400
TAF2S-15-NS	\$25.00	SCM540K ◊-5H □ SCM590K ◊-5H □	Surface Treatment: Trivalent Chromate

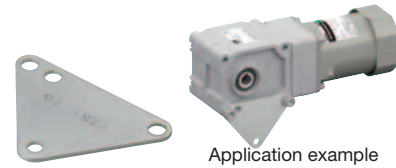
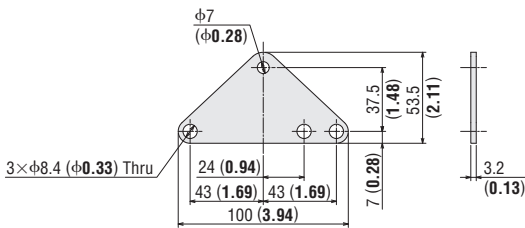
- Either **JA**, **JC**, **UA**, or **EC** indicating the power supply voltage is specified where the box **■** is located within the applicable product name.
- A code **M** indicating that the product is with an electromagnetic brake is specified where the box **□** is located within the applicable product name.
- A number indicating the gear ratio is specified where the box **□** is located within the applicable product name.

Dimensions [Unit: mm (in.)]

◊TAF2S-12-NS

Mass: 75 g (2.6 oz.)

2D CAD A1608 3D CAD



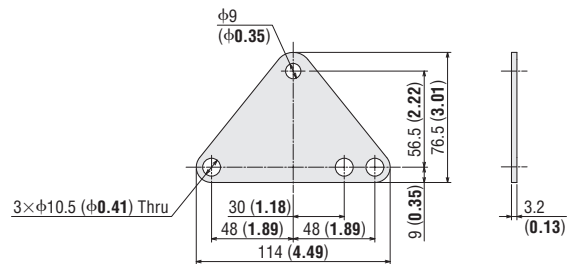
TAF2S-15-NS

Application example

◊TAF2S-15-NS

Mass: 125 g (4.4 oz.)

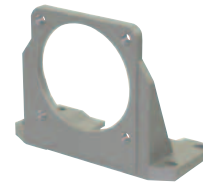
2D CAD A1609 3D CAD



Motor and Gearhead Mounting Brackets

These dedicated mounting brackets are for mounting motors and gearheads.

Product Name	List Price	Applicable Product
SOL2M4F	\$22.00	SCM26 Round Shaft Type SCM26 Parallel Shaft Gearhead GV Gear
SOL3M5F	\$26.00	SCM315 Round Shaft Type
SOL3M6F	\$25.00	SCM315 Parallel Shaft Gearhead GV Gear
SOL4M5F	\$28.00	SCM425 Round Shaft Type
SOL4M6F	\$27.00	SCM425 Parallel Shaft Gearhead GV Gear
SOL5M6F	\$30.00	SCM540, SCM560, SCM590 Round Shaft Type
SOL5M8F	\$29.00	SCM540, SCM560, SCM590 Parallel Shaft Gearhead GV Gear



External Speed Potentiometer

Features

- Potentiometer which allows the adjustment of rotation speed and torque.
- Easy installation
Simply insert the potentiometer into the mounting hole. No tools are required. It can be removed.
- Easy wiring
A terminal block is employed. Lead wire connection or soldering is not required.
The efficiency of wiring is improved.



(Front)



(Back)

Product Line

Product Name	List Price
PAVR2-20K	\$23.00

The following items are included in each product.
External speed potentiometer, operating manual

Note

- The external speed potentiometer (**PAVR2-20K**) cannot be used together with a general purpose cable for I/O signals.

Specifications

Resistance : 0 to 20 kΩ
Rate power : 0.05 W
Resistance change characteristics : B curve

Applicable Lead Wire Size

AWG22 to 18 (0.3 to 0.75 mm²)

Features

System Configuration
Product Number

Right-Angle Shaft

Standard

Parallel Shaft/
Round Shaft

Right-Angle Shaft

Electromagnetic Brake

Parallel Shaft/
Round Shaft

Connection and
Operation

Cables
Accessories

Basic Speed Controller

AC Speed Control Motor

US2 Series



Designed using the same base motor in our **DSC** Series, the **US2** combines easy to use functions with stylish design, making speed control possible with its simple wiring, intuitive interface and powerful functions. The **US2** is our simplest, most effective Speed Controller.

● Features

- Intuitive “Turn and Click” operation.
- A built-in capacitor and simple wiring.
- Setting of acceleration and deceleration time allows for smooth start and stop operation.
- Speed regulation (at load) of $\pm 1\%$ * (reference value)
- Uses **KII** Series motor with built-in high-performance gears

*0 to permissible torque 1000 r/min

Specifications are subject to change without notice. This catalog was published in October, 2019.

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