

Orientalmotor

Speed Control Motor and Controller Package

US2 Series

US2 S E R I E S



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Speed Control Motor and Controller Package

US2 Series

Output Power: 6 W ~ 90 W

Advanced speed control motor. Sophistication and high performance with greater usability.

One-class higher performance and reliability by advanced D-loop.

Easy-to-use functions and stylish look.

US2 Series, fully-redesigned from the **US** Series, has been greatly advanced in all aspects.

We strongly recommend this product to all the customers who uses speed control motors.



D-loop uses the AC motor for speed control and the speed controller implementing unique technology only from ORIENTAL MOTOR.

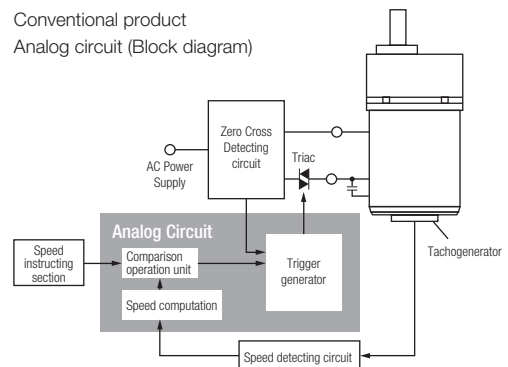
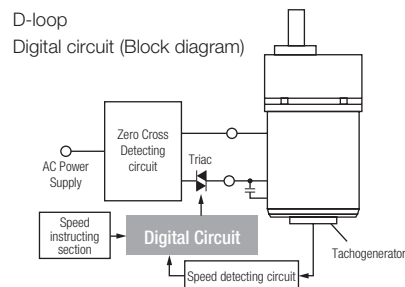
D-loop provides high reliability using closed loop control and compactness of the speed controller from the digitized phase control circuit.

Digitization of control circuit

Digitization applied to most of the conventional analog circuit, which was then incorporated into the CPU, resulting in significant reduction of the circuit volume. This enables us to achieve compactness and competitive prices.

In addition, using the digitization, the deviation between the speed command value and the speed detection value can become closer to zero, improving the speed variation from -5% to $\pm 1\%$ (reference)*.

* Between 0 and the permissible torque 1000 r/min





Easy operation

With the digital display panel and setting dial installed, you can intuitively operate the motor, like "turn as needed and push".

The operation setting is simple to use without using manual.



Turn the dial to set desired value and the speed.

Variable Speed Range
50 Hz: 90~1400 r/min
60 Hz: 90~1600 r/min



[Start/Stop]

You can switch start/stop or rotation direction by just one switch operation.

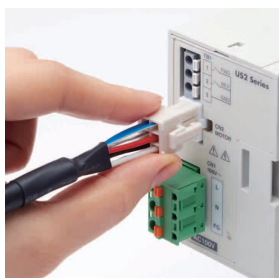
No external switch is required.



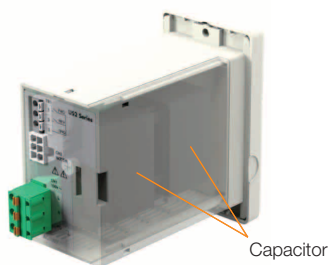
[Switching the Rotation Direction]

Simple wiring

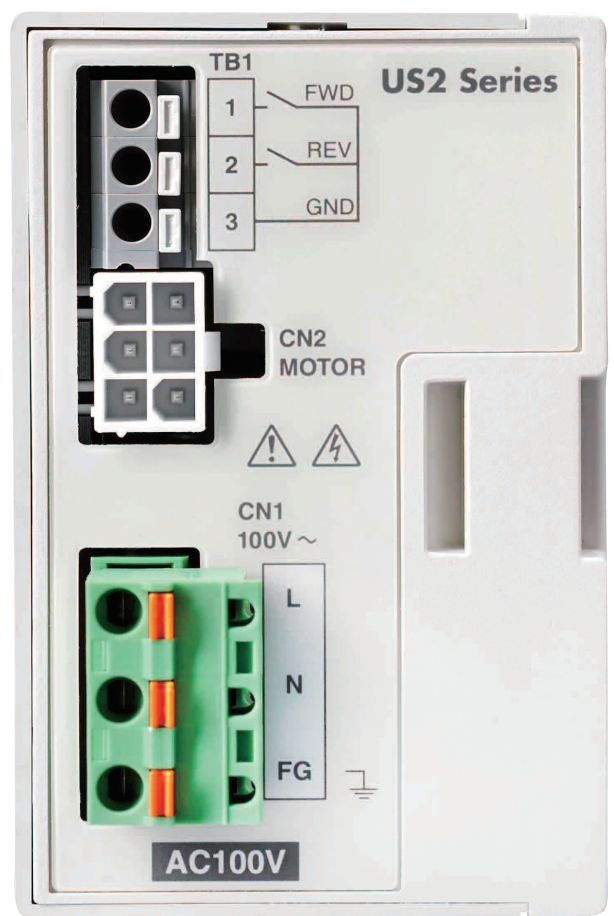
Simply connect the motor with the speed controller and the power supply, the controller will start right away.
The connectors and built-in capacitor of the speed controller save you from wiring problem.



Simple connection using the connector between the motor and the speed controller.
The distance between the motor and the speed controller can be extended up to 10.5 m.



The built-in capacitor do not require wire connection, hence saving space.



Advanced performance

Varies of improvements have been implemented including portions not clearly distinguished from the appearance.

This series adopts the motor gearhead with high permissible torque and high strength.

D-loop achieves stable operation with small speed fluctuation.

Less noise makes the system configuration simple.

You will realize certain advancement once using the product.

Motor gearhead with high permissible torque and high strength

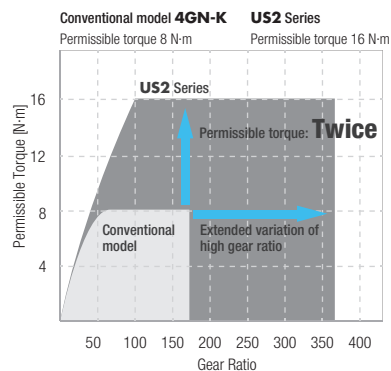
This series uses the motor and gearhead of the **KII** Series.

The gearhead has been strengthened by using a case with its rigidity enhanced with our unique side plate and heat-treated gear.

Parallel Shaft Combination Type “For Gearhead with holding angle of 80 mm”



- ① Permissible Radial Load 450 N
(10 mm from the tip of the output shaft)
- ② Permissible Axial Load 100 N

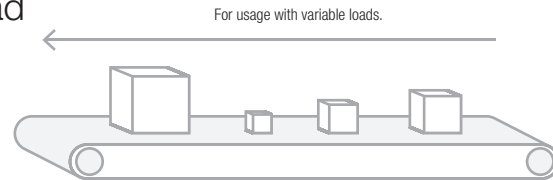


Rated Life of Gearheads

10000 hours (Twice the hours of the conventional product)

Stable operation even with fluctuated load

The rate generator installed in the AC motor always check the speed, thus maintaining the set speed even when the load fluctuates. In addition, digitization of the control circuit has improved the speed regulation from -5% to $\pm 1\%$ (reference value).



Speed Regulation (For load) $\pm 1\%$ ※ (Reference value)

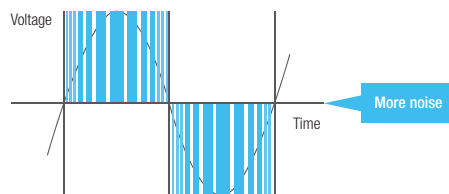
※Between 0 and the permissible torque 1000 r/min

Simple system configuration with low noises

The motor and speed controller used for the **US2** Series can emit little inherent noises.

No peripherals require to reduce noise, hence able to achieve space saving and reduce installation work and cost.

Inverter + Three-Phase motor [PWM control]

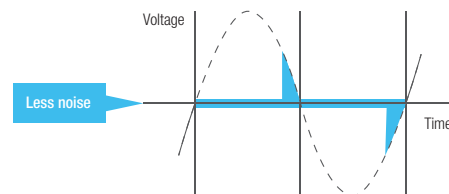


Controlled voltage and frequency 300 times of switching per cycle

[Condition] ● Carrier frequency: 15 kHz

● Set frequency: 50 Hz

US2 Series [Phase control]



Controlled voltage 2 times of switching per cycle

[Condition] ● Power supply frequency: 50 Hz



Actual size

Useful functions

Open the front panel, you can set variety of functions.

For example, you can easily start or stop the motor,
or lock data setting to prevent the set speed from changing.

Useful functions will support customers from every perspective.

1 Main Functions

The functions can be set with the FUNCTION key.

Indication

You can set the display settings of the gear output shaft speed
and conveyor transportation speed.

Selection of moving direction

You can select which one to use for operation: the switch on the
front panel or external instructions.

Data protection (Lock)

The data setting can be locked to prevent the set speed from
changing.

2 Smooth operation when starting/stopping

Acceleration/deceleration time can be set with the use of
acceleration/deceleration time potentiometer.

**Setting time: 0.1 ~ 15.0 seconds (By factory default, fixed
to 1 second)**

※ The acceleration/deceleration time potentiometer must be
enabled in advance by the FUNCTION key.

● The instantaneous stop function is not available.

3 Protection of Speed Controller

When overheating, connection failure, or locking occurs in the
motor, an alarm is displayed to protect the motor speed controller.

Lineup



Parallel Shaft Combination Type
Maximum Permissible Torque 40 N·m

Output Power 6 W/15 W/25 W/40 W/60 W/90 W

Power Supply Single-Phase 110 VAC/115 VAC
Voltage Single-Phase 220 VAC/230 VAC



Round Shaft Type
Maximum Permissible Torque 0.73 N·m

Output Power 6 W/15 W/25 W/40 W/60 W/90 W

Power Supply Single-Phase 110 VAC/115 VAC
Voltage Single-Phase 220 VAC/230 VAC

● For price and leadtime, please contact the nearest Oriental Motor sales office.

A motor and a gearhead pre-assembled

The combination type comes with a motor and a gearhead pre-assembled, providing the following advantages.

MERIT

01. Easy installation of Motor/Gearhead to Equipment

Do not require hands-on support when installing both motor and gearhead.

02. Do not worry about motor pinion shaft been damaged

The motor pinion shaft will not be damage accidentally at the time of installation, thus no noise emitted from the gear teeth.

03. The gearhead can be replaced. (For Parallel Shaft Combination Type)

For the parallel shaft combination type, the gearhead can be easily replaced when changing the gear ratio.

System Configuration

Parallel Shaft Combination Type


Connection Cable (Sold separately)

Connection cables are sold separately. When extending the distance between the motor and the speed controller by 4 m or more and when repeatedly bending the cables, use connection cables sold separately or a flexible extension cables.

Connection Cable


Flexible Connection Cable

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US2 Series


Combination Type (Motor/Gearhead)



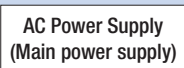
Connection Cable (Included/Sold separately*1)




Speed Controller



AC Power Supply (Main power supply)



Power Supply Cable (Included)




Maximum Extension Length: 10.5 m

(including the motor cable of 0.5 m)

*1 Products with and without (sold separately) connection cables


(1 m, 2 m, 3 m) are available.

Accessories (Sold separately)




Flexible Couplings

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Mounting Brackets

→ Page 26



Circuit Products Mounting Brackets*2

→ Page 26



Watertight and Dust-Resistant Type Front Cover*2

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*2 Circuit products mounting brackets cannot be used together with the watertight and dust-resistant type front cover.

System Configuration

US2 Series	Sold Separately			
	Connection Cable (5 m)	Mounting Bracket	Flexible Coupling	Circuit Products Mounting Bracket
US2-425EC-18-3	CC05SC	SOL4M6F	MCL401515	MADP05-15

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

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Parallel Shaft Combination Type Round Shaft Type



Parallel Shaft Combination Type

Types

Combination Type

The combination type comes with a motor and a gearhead pre-assembled.
The combination of the motor and the gearhead can be changed.
They are also available separately. You can remove the gearhead to change the installation position by 90°.

- Connection cable included: The price includes the prices of the motor, geared, speed controller, connection cable (1 m, 2 m and 3 m).
- Connection cable sold separately: The price includes the prices of the motor, gearhead, and speed controller. Connection cables are sold separately, and available with the combination type or the round shaft type.

Parallel Shaft Combination Type

Output Power	Power Supply Voltage	Product Name	Gear Ratio
6 W	Single-Phase 110/115 VAC	US2-26UA -□□	5, 6, 7.5, 9, 12.5, 15, 18
			25, 30, 36
			50, 60, 75, 90, 100, 120, 150, 180
	Single-Phase 220/230 VAC	US2-26EC -□□	250, 300, 360
			5, 6, 7.5, 9, 12.5, 15, 18
			25, 30, 36
15 W	Single-Phase 110/115 VAC	US2-315UA -□□	50, 60, 75, 90, 100, 120, 150, 180
			250, 300, 360
			5, 6, 7.5, 9, 12.5, 15, 18
	Single-Phase 220/230 VAC	US2-315EC -□□	25, 30, 36
			50, 60, 75, 90, 100, 120, 150, 180
			250, 300, 360
25 W	Single-Phase 110/115 VAC	US2-425UA -□□	5, 6, 7.5, 9, 12.5, 15, 18
			25, 30, 36
			50, 60, 75, 90, 100, 120, 150, 180
	Single-Phase 220/230 VAC	US2-425EC -□□	250, 300, 360
			5, 6, 7.5, 9, 12.5, 15, 18
			25, 30, 36
40 W	Single-Phase 110/115 VAC	US2-540UA -□□	50, 60, 75, 90, 100, 120, 150, 180
			250, 300, 360
			5, 6, 7.5, 9, 12.5, 15, 18
	Single-Phase 220/230 VAC	US2-540EC -□□	25, 30, 36
			50, 60, 75, 90, 100, 120, 150, 180
			250, 300, 360
60 W	Single-Phase 110/115 VAC	US2-560UA -□□	5, 6, 7.5, 9, 12.5, 15, 18
			25, 30, 36, 50, 60, 75, 90, 100
			120, 150, 180
	Single-Phase 220/230 VAC	US2-560EC -□□	250, 300
			5, 6, 7.5, 9, 12.5, 15, 18
			25, 30, 36, 50, 60, 75, 90, 100
90 W	Single-Phase 110/115 VAC	US2-590UA -□□	120, 150, 180
			250, 300
			5, 6, 7.5, 9, 12.5, 15, 18
	Single-Phase 220/230 VAC	US2-590EC -□□	25, 30, 36, 50, 60
			75, 90, 100, 120, 150, 180
			5, 6, 7.5, 9, 12.5, 15, 18

The following items are included in each product.

Motor, Gearhead, Speed controller, Installation screws, Parallel key, Connection cable*, Power supply cable (2 m), Operating manual, Startup guide

* Only with products supplied with a connection cable.

- A number in the box □ in the product name indicates the gear ratio. When the accessory connection cable is supplied, a number indicating the length of the cable, **-1** (1 m), **-2** (2 m), or **-3** (3 m), is specified in the box ■ in the product name.
- The product above comes with a power supply cable. Products without a power supply cable are also available. For details, please contact the nearest Oriental Motor sales office.

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●Round Shaft Type

Output Power	Power Supply Voltage	Product Name
6 W	Single-Phase 110/115 VAC	US2-26UA-A ■
	Single-Phase 220/230 VAC	US2-26EC-A ■
15 W	Single-Phase 110/115 VAC	US2-315UA-A ■
	Single-Phase 220/230 VAC	US2-315EC-A ■
25 W	Single-Phase 110/115 VAC	US2-425UA-A ■
	Single-Phase 220/230 VAC	US2-425EC-A ■
40 W	Single-Phase 110/115 VAC	US2-540UA-A ■
	Single-Phase 220/230 VAC	US2-540EC-A ■
60 W	Single-Phase 110/115 VAC	US2-560UA-A ■
	Single-Phase 220/230 VAC	US2-560EC-A ■
90 W	Single-Phase 110/115 VAC	US2-590UA-A ■
	Single-Phase 220/230 VAC	US2-590EC-A ■

The following items are included in each product.
 Motor, Speed controller, Connection cable*, Power supply cable (2 m), Operating manual, Startup guide
 * Only with products supplied with a connection cable.

- A number in the box □ in the product name indicates the gear ratio. When the accessory connection cable is supplied, a number indicating the length of the cable, **-1** (1 m), **-2** (2 m), or **-3** (3 m), is specified in the box ■ in the product name.
- The product above comes with a power supply cable. Products without a power supply cable are also available. For details, please contact the nearest Oriental Motor sales office.

●Connection Cables (Sold separately)

Product Name	Length L (m)
CC01SC	1
CC02SC	2
CC03SC	3
CC05SC	5
CC10SC	10

- Refer to page 25 for details on connection cables and flexible connection cables.

●Flexible Connection Cables (Sold separately)

Product Name	Length L (m)
CC01SCR	1
CC02SCR	2
CC03SCR	3
CC05SCR	5
CC10SCR	10

■Product Number Code

US2 - 4 25 EC - 50 - 3
 ① ② ③ ④ ⑤ ⑥

①	Series Name	US2: US2 Series
②	Motor Frame Size	2 : 60 mm 3 : 70 mm 4 : 80 mm 5 : 90 mm
③	Output Power (W)	(e.g.) 25 : 25 W
④	Power Supply Voltage	UA : Single-Phase 110/115 VAC EC : Single-Phase 220/230 VAC
⑤	Gear Ratio/Shaft Configuration	Number: Gear Ratio for Combination Type A : Round Shaft Type
⑥	Connection Cable	Number: Motor Cable is included Length -1 : 1 m -2 : 2 m -3 : 3 m None: Cable sold separately

- Examples of product names that indicate connection cable availability and length
 3 m connection cable included → **US2-425EC-50-3**
 Connection cable sold separately → **US2-425EC-50**

Specifications Continuous Rating

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



Product Name	Maximum Output Power W	Voltage VAC	Frequency Hz	Variable Speed Range r/min	Permissible Torque		Starting Torque mN·m	Current A	Power Consumption W	Motor Overheat Protection Device
					1200 r/min (50 Hz) 1450 r/min (60 Hz)	90 r/min				
					mN·m	mN·m				
US2-26UA-□■	6	Single-Phase 110	60	90~1600	50	38	40	0.31	29	ZP
		Single-Phase 115								
US2-26EC-□■		Single-Phase 220	50	90~1400	42	40	44	0.17	29	ZP
		Single-Phase 230	60	90~1600	46					
			50	90~1400	46	37	44			
		60	90~1600	50	39	50				
US2-315UA-□■	15	Single-Phase 110	60	90~1600	120	45	84	0.51	46	TP
		Single-Phase 115			125		90			
US2-315EC-□■		Single-Phase 220	50	90~1400	125	40	67	0.26	43	TP
		Single-Phase 230	60	90~1600	110		72		44	
			50	90~1400	125		81		47	
		60	90~1600	120						
US2-425UA-□■	25	Single-Phase 110	60	90~1600	205	45	125	0.78	58	TP
		Single-Phase 115					135		69	
US2-425EC-□■		Single-Phase 220	50	90~1400	205	40	110	0.40	70	TP
		Single-Phase 230	60	90~1600			120			
			50	90~1400						
		60	90~1600							
US2-540UA-□■	40	Single-Phase 110	60	90~1600	320	70	180	1.1	107	TP
		Single-Phase 115					190			
US2-540EC-□■		Single-Phase 220	50	90~1400	320	65	190	0.58	96	TP
		Single-Phase 230	60	90~1600		70			104	
			50	90~1400		65			99	
		60	90~1600	70		105				
US2-560UA-□■	60	Single-Phase 110	60	90~1600	460	80	260	1.5	144	TP
		Single-Phase 115			490		280		145	
US2-560EC-□■		Single-Phase 220	50	90~1400	490	80	280	0.74	129	TP
		Single-Phase 230	60	90~1600	460	75	290	0.77	143	
			50	90~1400	490	85	290	0.75	132	
		60	90~1600	80		300	0.77	144		
US2-590UA-□■	90	Single-Phase 110	60	90~1600	730	85	400	2.4	224	TP
		Single-Phase 115					440	2.5	227	
US2-590EC-□■		Single-Phase 220	50	90~1400	730	95	490	1.2	201	TP
		Single-Phase 230	60	90~1600			500	1.3	226	
			50	90~1400			520	1.2	204	
		60	90~1600	530			1.3	228		

● The specifications apply to the motor only. The variable speed ranges shown are under no load conditions.

ZP: These products are impedance protected.

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

● A number in the box □ in the combination type product name indicates the gear ratio. For the Round Shaft Type, **A** is entered.

When the accessory connection cable is supplied, a number indicating the length of the cable, **-1** (1 m), **-2** (2 m), or **-3** (3 m), is specified in the box ■ in the product name.

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Common Specifications

Item		Specifications
Speed Setting Methods		Digital setting by the dial (Speed can be set in 1 r/min increments)
Variable Speed Range		50 Hz: 90～1400 r/min 60 Hz: 90～1600 r/min Default: 90 r/min
Acceleration/Deceleration Time		0.1～15.0 seconds (Default: Fixed to 1.0 second) Acceleration time/deceleration time varies with the load condition of the motor.
Function	Parameters	Gear ratio, Speed up ratio, Fixed display of the lower first digit, Prohibition alarm of operation at the initial setting, Upper and lower limits of speed, Acceleration and deceleration time, External operating signals, Data initialization
	Monitoring	Rotation speed, Input signals
	Others	Locking of data editing
Input Signals		Photocoupler Input Input Resistance 2 kΩ Two input points: FWD input and REV input
Protective Functions		When the following protective functions are activated, the motor will coast to a stop, and the alarm code will appear on the control panel. Alarm types: Motor overheat, Motor lock, Improper motor connection, EEPROM error, Prohibition of operation at the initial setting
Maximum Extension Length		Motor and Speed Controller Distance 10.5 m (including 0.5 m of the 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.	The value is 100 MΩ or more when measured by a 500 VDC megger between the main circuit terminal and the input signal terminal, between the main circuit terminal and the case, and between the main circuit and FG after continuous operation under normal ambient temperature and humidity.
Dielectric Strength		No abnormality is judged even with application of 1.5 kVAC at 50 Hz or 60 Hz between the windings and the case for 1 minute after continuous operation under normal ambient temperature and humidity.	No abnormality is judged even with application of 1.9 kVAC at 50 Hz or 60 Hz between the main circuit terminal and the input signal terminal and between the main circuit terminal and the case, and 1.5 kVAC at 50 Hz or 60 Hz between the main circuit terminal and FG for 1 minute after continuous operation under normal ambient temperature and humidity.
Temperature Rise		A gearhead or equivalent heat sink*1 is connected to the motor and the winding temperature rise is measured at 80℃ or less using the resistance change method after continuous operation with no load under normal ambient temperature and humidity.	—
Overheat Protection Device		The 6 W type is impedance protected. All other motors have a built-in thermal protector (automatic return type).	—
Operating Environment	Ambient Temperature	Single-Phase 110/115 VAC, Single-Phase 220/230 VAC: -10～+40 °C (Non-freezing)	0～+50 °C (Non-freezing)
	Ambient Humidity	85% or less (Non-condensing)	
	Altitude	Up to 1000 m above sea level	
	Atmosphere	No corrosive gases or dust. Not exposed to water or oil Cannot be used in a radioactive area, magnetic field, vacuum, or other special environments.	
Storage Conditions*2	Ambient Temperature	-25～+70 °C (Non-freezing)	-25～+70 °C (Non-freezing)
	Ambient Humidity	85% or less (Non-condensing)	
	Altitude	Up to 3000 m above sea level	
	Atmosphere	No corrosive gases or dust. Not exposed to water or oil Cannot be used in a radioactive area, magnetic field, vacuum, or other special environments.	
Heat-resistant Class		130 (B)	—
Degree of Protection		IP20	IP20

*1 Heat sink size (Material: Aluminum)

Motor Output Power	Size (mm)	Thickness (mm)
6 W	115×115	5
15 W	125×125	
25 W	135×135	
40 W	165×165	
60 W	200×200	
90 W	200×200	

*2 The storage condition applies to a short period such as a period during transportation.

Note

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

Output Shaft Speed of the Combination Type

● Motor Shaft Speed

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

Unit: r/min

Gear Ratio	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
High 50 Hz	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
Speed 60 Hz	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	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 of Combination Type

● A colored background indicates gear shaft rotation in the same direction as the motor shaft. Others rotate in the opposite direction.

● Single-Phase 110/115 VAC

Unit: N·m

Product Name	Gear Ratio		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																						
US2-26UA	1450		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
	90		0.17	0.21	0.26	0.31	0.43	0.51	0.62	0.86	0.98	1.2	1.6	2.0	2.5	2.9	3.3	3.9	4.6	5.5	6	6	6
US2-315UA	1450	110 V	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
		115 V	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
	90		0.20	0.24	0.30	0.36	0.51	0.61	0.73	1.0	1.2	1.4	1.9	2.3	2.9	3.5	3.9	4.6	5.5	6.6	9.1	10	10
US2-425UA	1450		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
	90		0.20	0.24	0.30	0.36	0.51	0.61	0.73	1.0	1.2	1.4	1.9	2.3	2.9	3.5	3.9	4.6	5.5	6.6	9.1	10.9	13.1
US2-540UA	1450		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	—
	90		0.32	0.38	0.47	0.57	0.79	0.95	1.1	1.5	1.8	2.2	3.0	3.6	4.5	5.4	6.0	6.8	8.5	10.2	14.2	17.0	—
US2-560UA	1450	110 V	2.1	2.5	3.1	3.7	5.2	6.2	7.5	9.9	11.9	14.2	19.8	23.7	29.7	30	30	30	30	30	30	30	—
		115 V	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	—
	90		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	—
US2-590UA	1450		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	—	—	—	—
	90		0.38	0.46	0.57	0.69	0.96	1.1	1.3	1.8	2.2	2.6	3.7	4.4	5.2	6.2	6.9	8.3	10.3	12.4	—	—	—

● Single-Phase 220/230 VAC

Unit: N·m

Product Name	Gear Ratio		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																						
US2-26EC	1200	220 V 50 Hz	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
		230 V 50 Hz	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
	1450	220 V 60 Hz	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
		230 V 60 Hz	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
	90	220 V 50/60 Hz	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
		230 V 50 Hz	0.17	0.20	0.25	0.30	0.42	0.50	0.60	0.83	0.95	1.1	1.6	1.9	2.4	2.9	3.2	3.8	4.5	5.4	6	6	6
US2-315EC	1200	50 Hz	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
		220 V 60 Hz	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
	1450	230 V 60 Hz	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
		90	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	8.1	9.7	10
US2-425EC	1200	50 Hz	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
	1450	60 Hz	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	8.1	9.7	11.7
	90		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	8.1	9.7	11.7
US2-540EC	1200	50 Hz	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	—
	1450	60 Hz	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	—
	90	50 Hz	0.32	0.38	0.47	0.57	0.79	0.95	1.1	1.5	1.8	2.2	3.0	3.6	4.5	5.4	6.0	6.8	8.5	10.2	14.2	17.0	—
		60 Hz	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	—
US2-560EC	1200	50 Hz	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	—
		220 V 60 Hz	2.1	2.5	3.1	3.7	5.2	6.2	7.5	9.9	11.9	14.2	19.8	23.7	29.7	30	30	30	30	30	30	30	—
	1450	230 V 60 Hz	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	—
		220 V 50 Hz	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	—
	90	230 V 60 Hz	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	—
		220 V 50 Hz	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	—
US2-590EC	1200	50 Hz	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	—	—	—	—
	1450	60 Hz	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	—	—	—
		90	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	—	—	—

System Configuration

Types

Specifications and Characteristics

Dimensions

Combination List

Connection and Operation

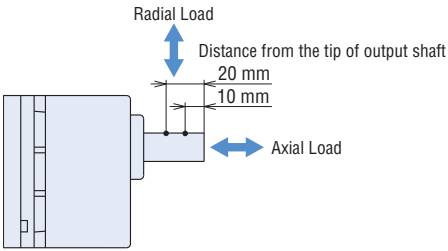
Cables

Accessories

Permissible Radial Load/Permissible Axial Load

Combination Type

Product Name	Gear Ratio	Permissible Radial Load N Distance from the tip of the gearhead output shaft		Permissible Axial Load N
		10 mm	20 mm	
US2-26	5~25	150	200	40
	30~360	200	300	
US2-315	5~25	200	300	80
	30~360	300	400	
US2-425	5~25	300	350	100
	30~360	450	550	
US2-540 US2-560	5~9	400	500	150
	12.5~18	450	600	
	25~300	500	700	
US2-590	5~9	400	500	150
	12.5~18	450	600	
	25~180	500	700	



Round Shaft Type

Product Name	Permissible Radial Load N Distance from the tip of the motor output shaft		Permissible Axial Load
	10 mm	20 mm	
US2-26	50	110	Half of motor mass or less*
US2-315	40	60	
US2-425	90	140	
US2-540	140	200	
US2-560	240	270	
US2-590			

*Avoid axial loads as much as possible.

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

Gearhead Transmission Efficiency

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																			
2GV□B, 3GV□B, 4GV□B	90%						86%						81%						
5GV□B, 5GVH□B	90%						86%						81%						
5GVR□B	90%						86%						81%						

Permissible Load Inertia J of Combination Types

Unit: ×10⁻⁴kg·m²

Gear Ratio	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	250	300	360
Product Name																					
US2-26	12	18	28	40	78	110	160	260	370	540	920	1300	1700	2000	2500	3600	5000	5000	5000	5000	5000
US2-315	20	28	45	65	120	180	260	440	630	900	1500	2100	2800	3200	4000	5700	8000	8000	8000	8000	8000
US2-425	22	32	50	72	150	220	310	550	800	1100	2200	3200	4000	5000	6200	8900	12000	12000	12000	12000	12000
US2-540 US2-560	45	65	100	150	300	420	620	1100	1600	2300	4500	6000	8000	10000	12000	17000	25000	25000	25000	25000	—
US2-590	45	65	100	150	300	420	620	1100	1600	2300	4500	6000	8000	10000	12000	17000	25000	25000	—	—	—

How to Read Speed – Torque Characteristics

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

① 50 Hz Safe-Operation Line ② 60 Hz Safe-Operation Line

The safe-operation line is the permissible line of the torque that is limited according to the permissible temperature.

Motors can be operated at a continuous rating within the safe-operation line.

The safe-operation line is determined under the most severe condition where there is no heat conduction. Therefore, the motor can be operated depending on installation conditions of the motor.

Note

● When operating beyond the safe-operation line, make sure the motor case temperature is kept at 90°C or less.

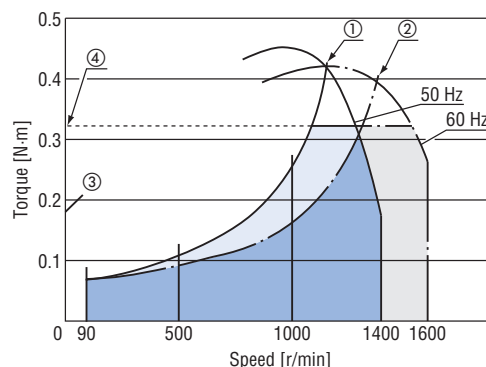
③ Starting Torque

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

④ Combination Type Permissible Torque

This refers to the permissible value of the motor torque when operating with the gearhead installed.

The permissible torque of the combination type varies according to the gear ratio. Use the motor without exceeding the value on the list of permissible torques.



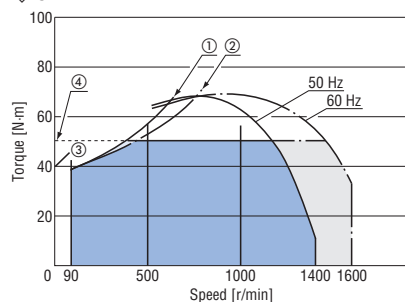
Speed – Torque Characteristics (Reference)

① 50 Hz Safe-Operation Line ② 60 Hz Safe-Operation Line ③ Starting Torque ④ Combination Type Permissible Torque

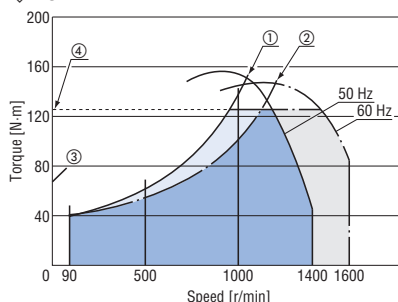
● The characteristics of each output are their representatives. (For motor only)

The permissible torque and starting torque of the motor vary according to the voltage. Check the specifications and the permissible torque of the combination type when using the motor.

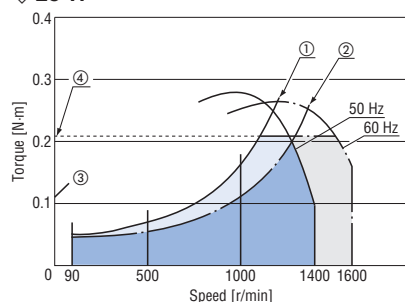
◇ 6 W



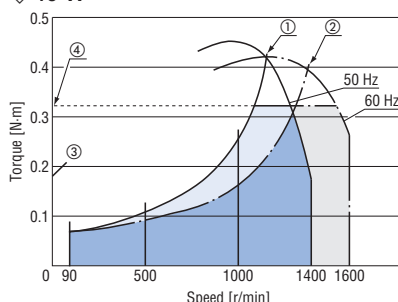
◇ 15 W



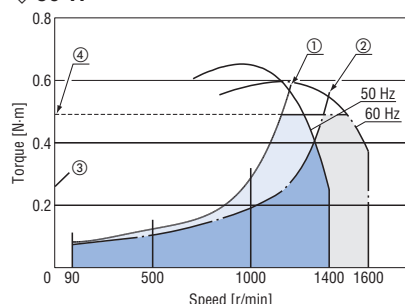
◇ 25 W



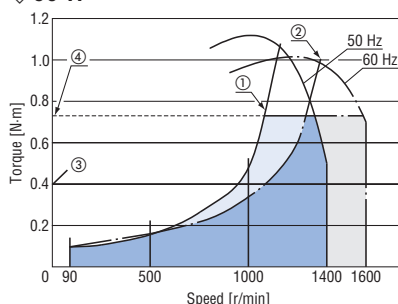
◇ 40 W



◇ 60 W



◇ 90 W



Dimensions (Unit: mm)

● "Installation screws" are included with the combination type. Dimensions of installation screws → Page 22

● A number in the box \square in the product name indicates the gear ratio.

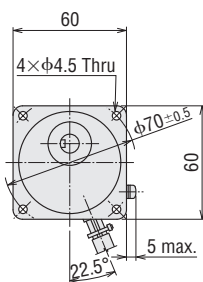
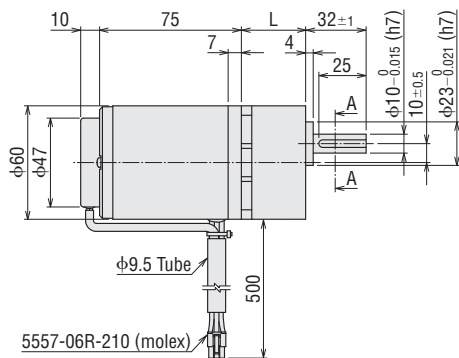
When the accessory connection cable is supplied, a number indicating the length of the cable, **-1** (1 m), **-2** (2 m), or **-3** (3 m), is specified in the box \square in the product name.

Combination Type

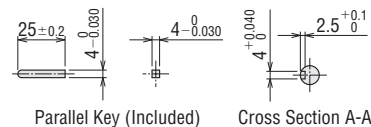
◇ 6 W

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
US2-26UA - \square	SCM26GV-UA	2GV \square B	5~25	34	1.3	A1214A
US2-26EC - \square	SCM26GV-EC		30~120	38		A1214B
			150~360	43		A1214C



Detail Drawing of Protective Earth Terminal



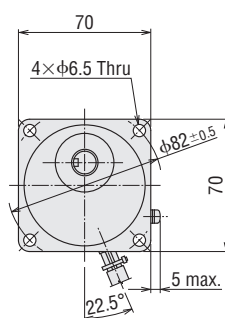
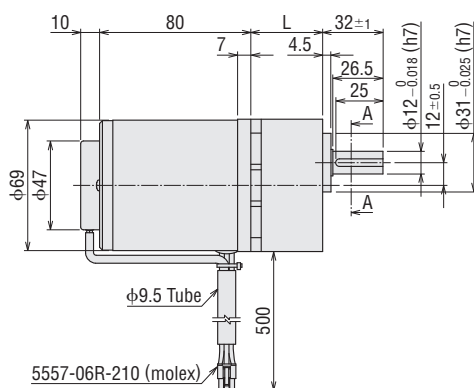
Parallel Key (Included)

Cross Section A-A

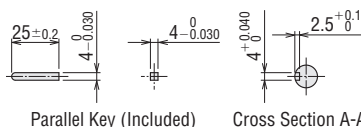
◇ 15 W

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
US2-315UA - \square	SCM315GV-UA	3GV \square B	5~25	38	1.8	A1215A
US2-315EC - \square	SCM315GV-EC		30~120	43		A1215B
			150~360	48		A1215C



Detail Drawing of Protective Earth Terminal



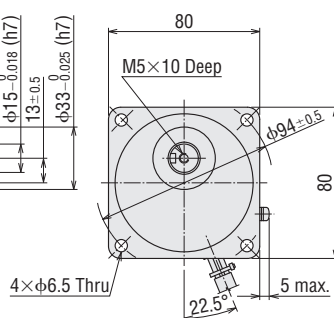
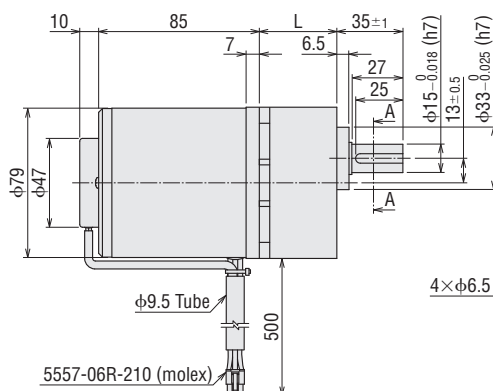
Parallel Key (Included)

Cross Section A-A

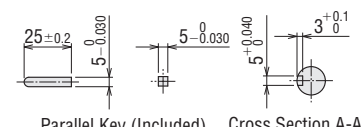
◇ 25 W

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
US2-425UA - \square	SCM425GV-UA	4GV \square B	5~25	41	2.55	A1216A
US2-425EC - \square	SCM425GV-EC		30~120	46		A1216B
			150~360	51		A1216C



Detail Drawing of Protective Earth Terminal



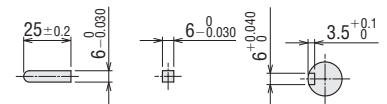
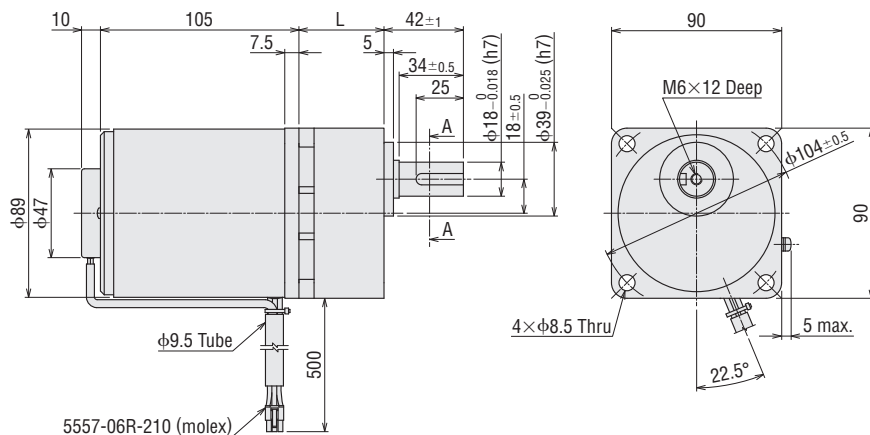
Parallel Key (Included)

Cross Section A-A

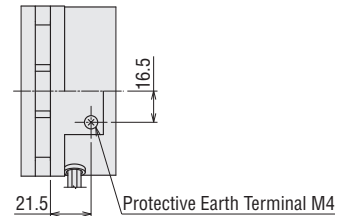
◇ 40 W

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
US2-540UA -□ US2-540EC -□	SCM540GV-UA SCM540GV-EC	5GV□B	5~18	45	4.1	A1217A
			25~100	58		A1217B
			120~300	64		A1217C



Parallel Key (Included) Cross Section A-A

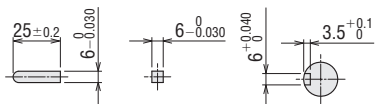
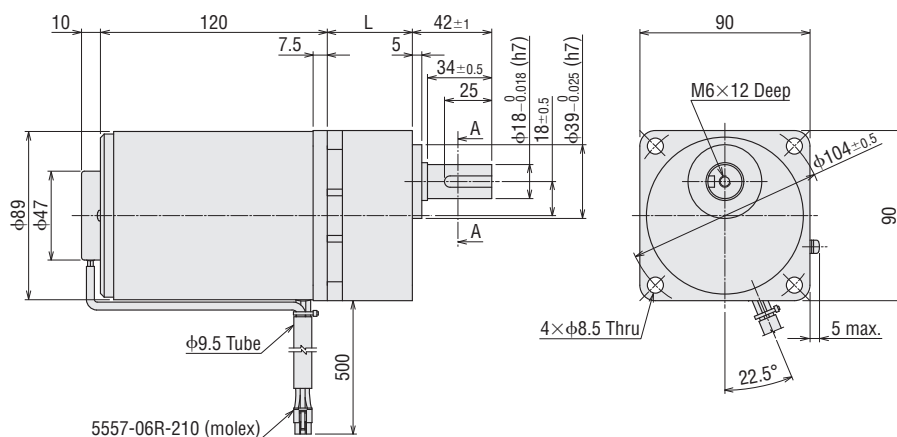


Detail Drawing of Protective Earth Terminal

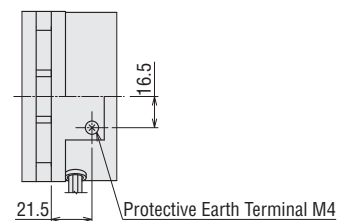
◇ 60 W

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
US2-560UA -□ US2-560EC -□	SCM560GVH-UA SCM560GVH-EC	5GVH□B	5~18	45	4.6	A1218A
			25~100	58		A1218B
			120~300	64		A1218C



Parallel Key (Included) Cross Section A-A

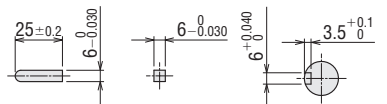
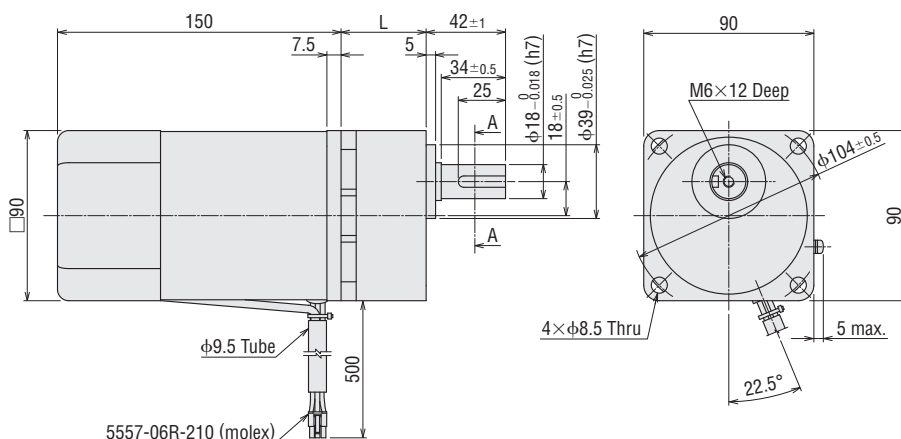


Detail Drawing of Protective Earth Terminal

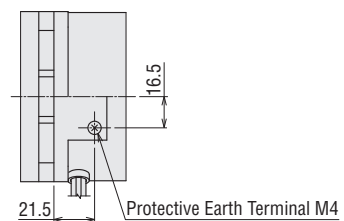
◇ 90 W

2D & 3D CAD

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L	Mass kg	2D CAD
US2-590UA -□ US2-590EC -□	SCM590GVR-UA SCM590GVR-EC	5GVR□B	5~15	45	4.8	A1219A
			18~36	58		A1219B
			50~180	70		A1219C



Parallel Key (Included) Cross Section A-A



Detail Drawing of Protective Earth Terminal

System
Configuration

Types

Parallel Shaft Combination Type/Round Shaft Type

Specifications and
Characteristics

Dimensions

Combination List

Connection and
Operation

Cables

Accessories

● Round Shaft Type

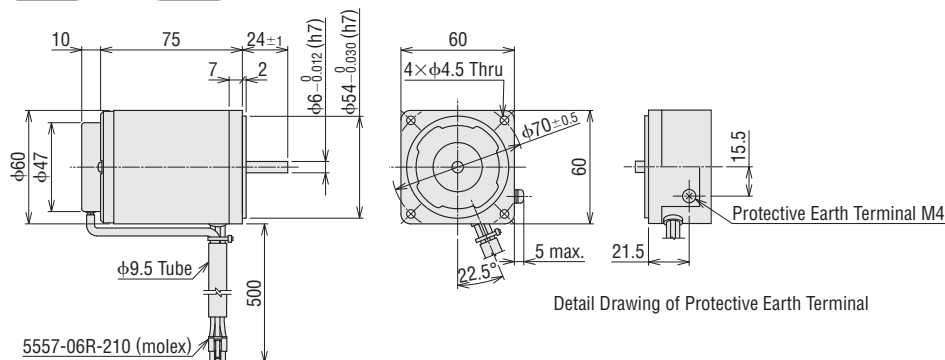
◇ 6 W

US2-26UA-A■, US2-26EC-A■

Motor: SCM26A-UA, SCM26A-EC

Mass: 0.8 kg

2D CAD A1256 **3D CAD**



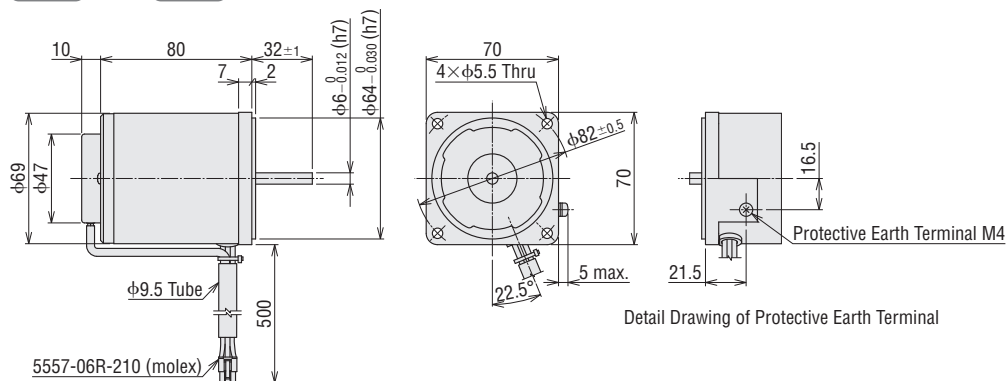
◇ 15 W

US2-315UA-A■, US2-315EC-A■

Motor: SCM315A-UA, SCM315A-EC

Mass: 1.2 kg

2D CAD A1257 **3D CAD**



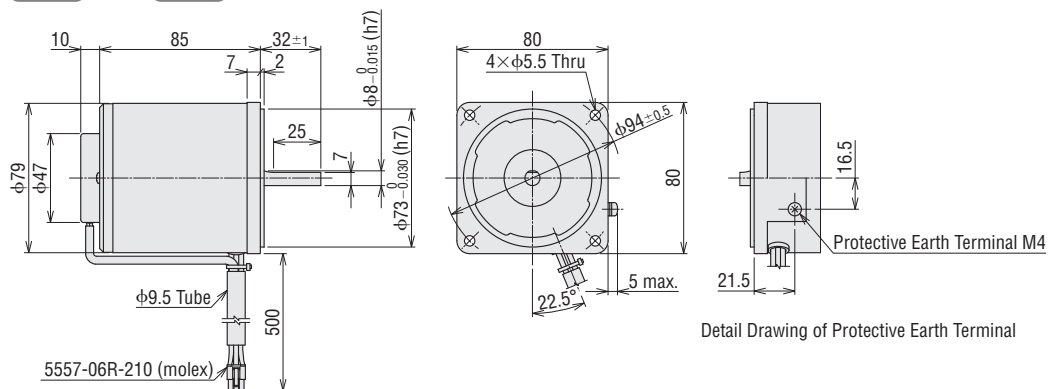
◇ 25 W

US2-425UA-A■, US2-425EC-A■

Motor: SCM425A-UA, SCM425A-EC

Mass: 1.6 kg

2D CAD A1258 **3D CAD**



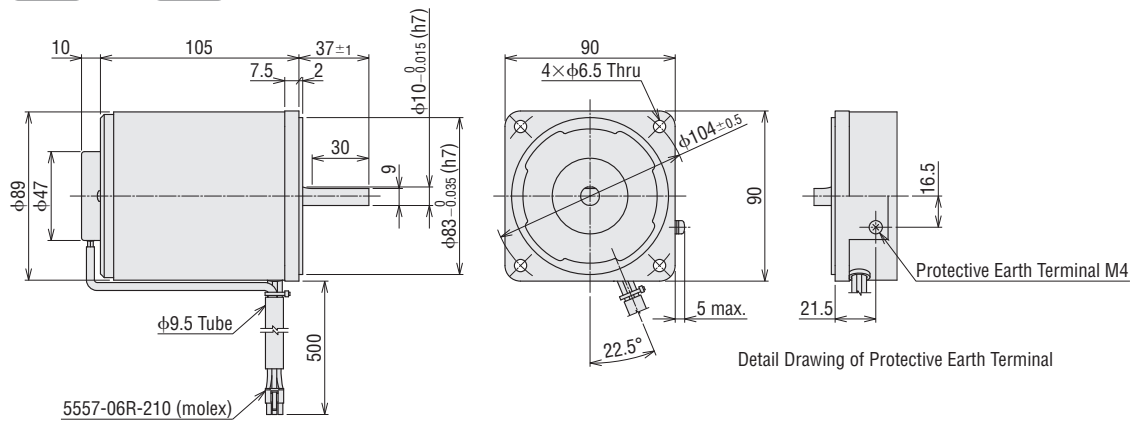
◇ 40 W

US2-540UA-A■, US2-540EC-A■

Motor: SCM540A-UA, SCM540A-EC

Mass: 2.6 kg

2D CAD A1259 **3D CAD**



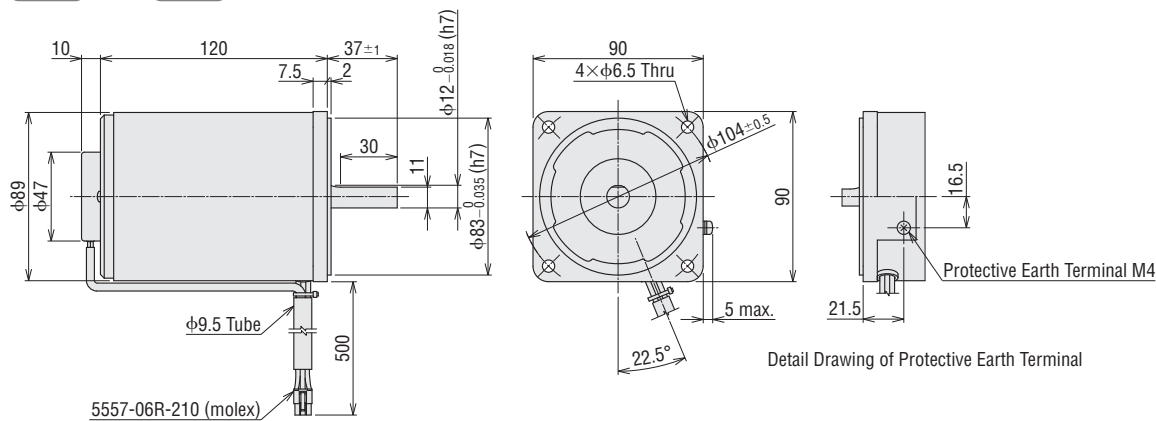
◇ 60 W

US2-560UA-A■, US2-560EC-A■

Motor: SCM560A-UA, SCM560A-EC

Mass: 3.1 kg

2D CAD A1260 **3D CAD**



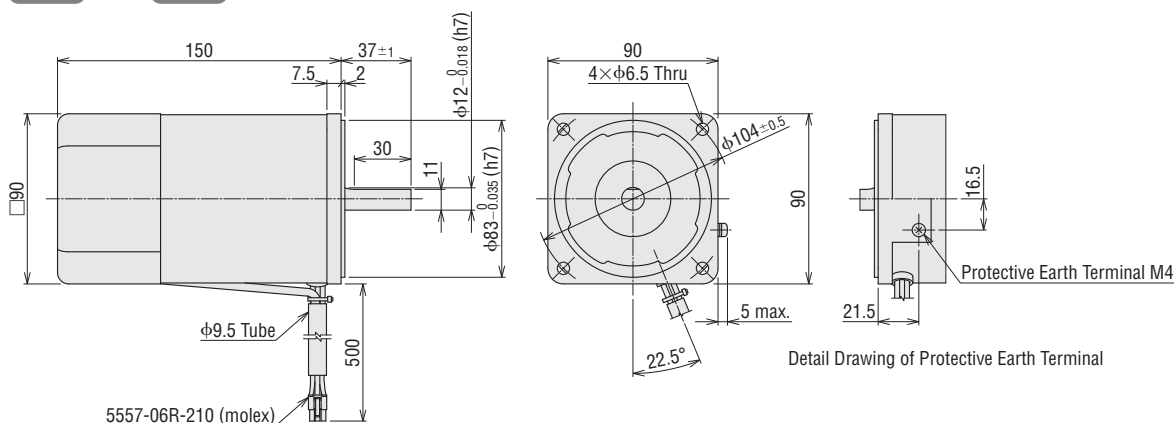
◇ 90 W

US2-590UA-A■, US2-590EC-A■

Motor: SCM590A-UA, SCM590A-EC

Mass: 3.3 kg

2D CAD A1261 **3D CAD**



System
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Cables

Accessories

● Speed Controller (Common to all types)

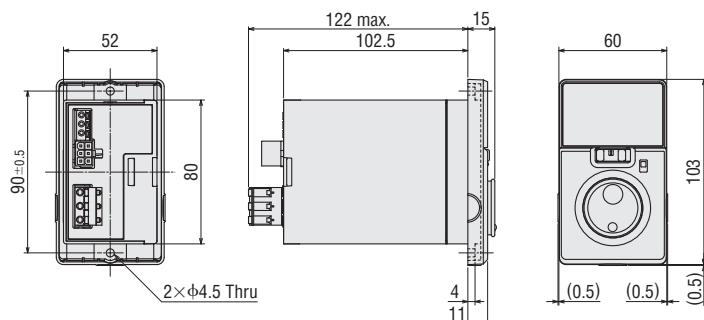
US2D6-UA, US2D6-EC, US2D15-UA, US2D15-EC,
US2D25-UA, US2D25-EC, US2D40-UA, US2D40-EC

Mass: 0.3 kg

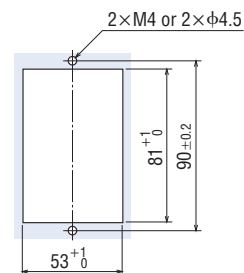
US2D60-UA, US2D60-EC, US2D90-UA, US2D90-EC

Mass: 0.4 kg

2D CAD A1430 3D CAD



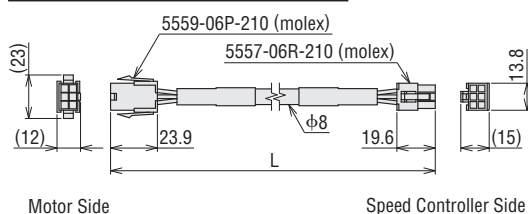
◇ Panel Cut-Out for Speed Controller



● Connection Cables (Included)

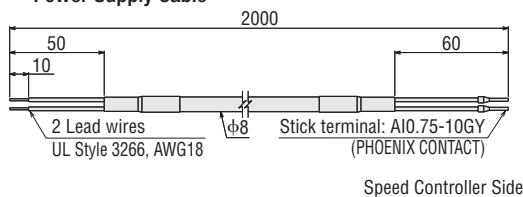
Only with types supplied with a connection cable

Cable Type	Length L (m)
1 m	1
2 m	2
3 m	3

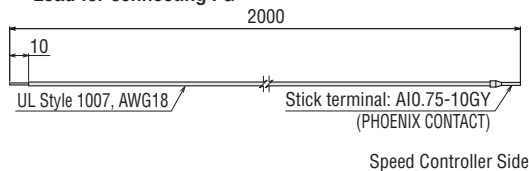


● Power Supply Cable (Included)

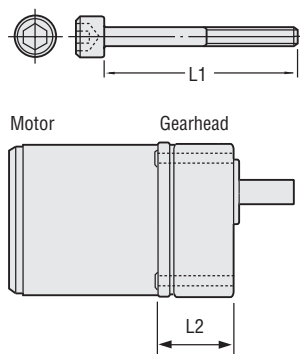
• Power Supply Cable



• Lead for connecting FG



■ Dimensions of Installation Screws



Product Name	Installation Screws		L2 (mm)
	L1 (mm)	Screw Size	
2GV5B~25B	50	M4 P0.7	41
2GV30B~120B	55		45
2GV150B~360B	60		50
3GV5B~25B	60	M6 P1.0	45
3GV30B~120B	65		50
3GV150B~360B	70		55
4GV5B~25B	60		48
4GV30B~120B	65		53
4GV150B~360B	70	M8 P1.25	58
5GV5B~18B, 5GVH5B~18B	70		52.5
5GV25B~100B, 5GVH25B~100B	85		65.5
5GV120B~300B, 5GVH120B~300B	90		71.5
5GVR5B~15B	70		52.5
5GVR18B~36B	85		65.5
5GVR50B~180B	95		77.5

● Installation screws: 4 plain washers and 4 spring washers are included.

● The installation screw material is stainless steel.

Combination List

Parallel Shaft Combination Type

Output Power	Product Name	Combination Motor Product Name*	Motor Product Name	Gearhead Product Name	Speed Controller Product Name
6 W	US2-26UA -□■	SCM26UA-□	SCM26GV-UA	2GV□B	US2D6-UA
	US2-26EC -□■	SCM26EC-□	SCM26GV-EC		US2D6-EC
15 W	US2-315UA -□■	SCM315UA-□	SCM315GV-UA	3GV□B	US2D15-UA
	US2-315EC -□■	SCM315EC-□	SCM315GV-EC		US2D15-EC
25 W	US2-425UA -□■	SCM425UA-□	SCM425GV-UA	4GV□B	US2D25-UA
	US2-425EC -□■	SCM425EC-□	SCM425GV-EC		US2D25-EC
40 W	US2-540UA -□■	SCM540UA-□	SCM540GV-UA	5GV□B	US2D40-UA
	US2-540EC -□■	SCM540EC-□	SCM540GV-EC		US2D40-EC
60 W	US2-560UA -□■	SCM560UA-□	SCM560GVH-UA	5GVH□B	US2D60-UA
	US2-560EC -□■	SCM560EC-□	SCM560GVH-EC		US2D60-EC
90 W	US2-590UA -□■	SCM590UA-□	SCM590GVR-UA	5GVR□B	US2D90-UA
	US2-590EC -□■	SCM590EC-□	SCM590GVR-EC		US2D90-EC

*For combination motors, the product name applies to the motor and gearhead combination.

Round Shaft Type

Output Power	Product Name	Motor Product Name	Speed Controller Product Name
6 W	US2-26UA-A ■	SCM26A-UA	US2D6-UA
	US2-26EC-A ■	SCM26A-EC	US2D6-EC
15 W	US2-315UA-A ■	SCM315A-UA	US2D15-UA
	US2-315EC-A ■	SCM315A-EC	US2D15-EC
25 W	US2-425UA-A ■	SCM425A-UA	US2D25-UA
	US2-425EC-A ■	SCM425A-EC	US2D25-EC
40 W	US2-540UA-A ■	SCM540A-UA	US2D40-UA
	US2-540EC-A ■	SCM540A-EC	US2D40-EC
60 W	US2-560UA-A ■	SCM560A-UA	US2D60-UA
	US2-560EC-A ■	SCM560A-EC	US2D60-EC
90 W	US2-590UA-A ■	SCM590A-UA	US2D90-UA
	US2-590EC-A ■	SCM590A-EC	US2D90-EC

● A number in the box □ in the product name indicates the gear ratio.

When the accessory connection cable is supplied, a number indicating the length of the cable, **-1** (1 m), **-2** (2 m), or **-3** (3 m), is specified in the box ■ in the product name.

System Configuration

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Connection and Operation

Names and Functions of Speed Controller Parts

Indication

Displays speed, alarm, etc.

Dial

Changes the speed and parameters.
The value is set when the dial is pressed after changes are made.


Operating Switch

Placing the switch to "RUN" rotates the motor.
Setting it to the "STAND-BY" position stops the motor.

Rotation Direction Switch

Changes the rotation direction of the motor.

Front Panel



[Front]

Input Signal Terminals

Connect to it only when operating by external signals.

Motor Connector

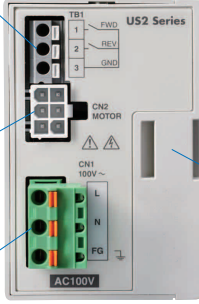
Connect the connector of the motor.

Power Connector

Connect the AC power supply.

Cable Holding Hook

The motor cables can be bundled with the included belt.



[Back]

When Front Panel is Removed

ESC Key

Go back to the previous function.


FUNCTION Key

Switch the function.

Acceleration/Deceleration Time Potentiometer

Set the acceleration/deceleration time.
Setting range: 0.1 s~15.0 s

Installation Holes (2 places)

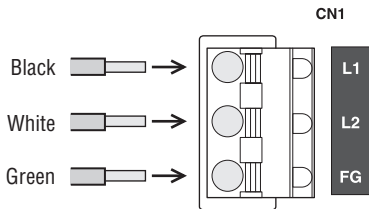


Main Power Connector (CN1)

Connect the AC power supply to CN1. Use the FG terminal to connect to a ground.
(The colors in the following figures apply when using the power supply cable.)

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

- Applicable Lead Wire Size
- AWG18~14 (0.75~2.0 mm²)



Operation with the Driver only

Run/Stop

When the operating switch is set to the "RUN" position, the motor will start.
When it is returned to the "STAND-BY" position, the motor decelerates to a stop.


Speed Setting Method

Set the motor speed by using the dial.
Setting range: 90~1400 r/min (50 Hz)
90~1600 r/min (60 Hz)

Turning the dial slowly to the right increases the speed by 1 r/min increments, while turning it to the left reduces the speed by 1 r/min increments.
Turning the dial fast produces a great variation in speed.
Pressing the dial sets the speed.

Operation with the operating switch

Setting the speed with the dial



Operating Switch



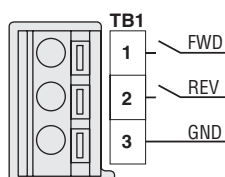
● Operation by External Signals

◇ Operating Method

- To perform run/stop by external signals, connect input signals to TB1.

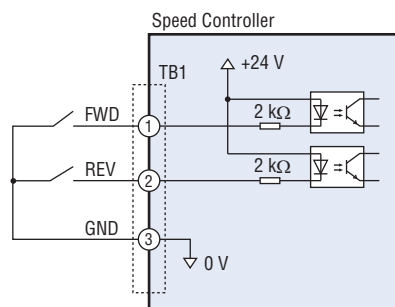
● Input Signal Terminal (TB1)

Indication	Signal Name	Description
1	FWD	Forward input
2	REV	Reverse input
3	GND	Input signal common



◇ Example for connection using switches, relays, etc.

The figure shows a connection example for the operation of the motor using relays or switches.



● Applicable Lead Wire

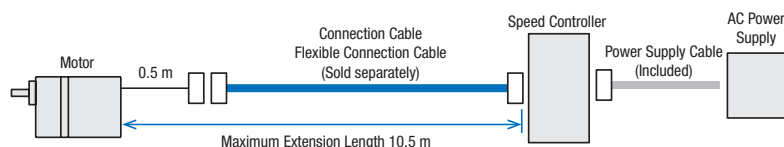
AWG24~16 (0.2~1.25 mm²)

Connection Cables/ Flexible Connection Cables (Sold separately)

This is a connection cable for connecting the motor and the speed controller.
Use the flexible connection cable in applications where the cable is bent and flexed.



● Cable System Configuration



Note

- You can connect connection cables or flexible connection cables sold separately to a product with connection cables. In this case, the total length of these cables must be within 10.5 m (including 0.5 m of the motor cable) and up to 3 cables connected.

● Types

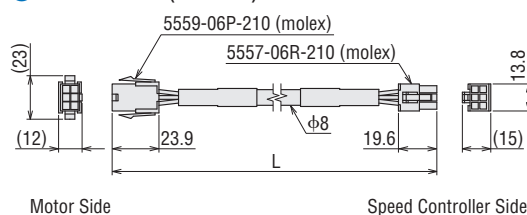
◇ Connection Cables

Product Name	Length L (m)
CC01SC	1
CC02SC	2
CC03SC	3
CC05SC	5
CC10SC	10

◇ Flexible Connection Cables

Product Name	Length L (m)
CC01SCR	1
CC02SCR	2
CC03SCR	3
CC05SCR	5
CC10SCR	10

● Dimensions (Unit: mm)



Accessories (Sold separately)

Circuit Products Mounting Brackets

Mounting brackets for installing the driver are available.

Mounting brackets have product lines for different applications such as for DIN rail installation, installation on the wall surface, and for conveyor guide installation.

Types

Material: SPCC Surface treatment: Trivalent chromate

Product Name	Application
MADP05-15	For DIN Rail Installation
MAFP04-15	For Wall Surface Installation
MAFP05V	For Conveyor Guide Installation
MAFP05H	

Note

Circuit products mounting brackets cannot be used together with the watertight and dust-resistant type front cover.



MADP05-15 <Application example>



MAFP04-15 <Application example>



MAFP05V <Application example>



MAFP05H <Application example>

Flexible Couplings

These are clamp type couplings for connecting the motor and gearhead shaft with the driven shaft.

Once the gearhead is determined, the 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.

Parallel Shaft Combination Type

Applicable Product	Load Type	Coupling Type
US2-26	Uniform load	MCL30
	Shock load	
US2-315	Uniform load	MCL30
	Shock load	MCL40
US2-425	Uniform load	MCL40
	Shock load	MCL55
US2-540 US2-560 US2-590	Uniform load	MCL55
	Shock load	



Motor and Gearhead Mounting Brackets

These dedicated mounting brackets are for mounting motors and gearheads.

Product Name	Applicable Product
SOL2M4F	US2-26 Round Shaft Type US2-26 Parallel Shaft Combination Type
SOL3M5F	US2-315 Round Shaft Type
SOL3M6F	US2-315 Parallel Shaft Combination Type
SOL4M5F	US2-425 Round Shaft Type
SOL4M6F	US2-425 Parallel Shaft Combination Type
SOL5M6F	US2-540, US2-560, US2-590 Round Shaft Type
SOL5M8F	US2-540, US2-560, US2-590 Parallel Shaft Combination Type



For details, check the Oriental Motor website or contact the Oriental Motor sales office.

■ Watertight and Dust-Resistant Type Front Cover

This cover protects the front panel of the speed controller. The degree of protection conforms to the IP64 specification.

The cover can also be used to prevent operation errors on the front panel.

● Types

Product Name

PCF12

Note

The watertight and dust-resistant type front cover cannot be used together with Circuit products mounting bracket.

● Names of Parts

Cover

Polycarbonate

Lock (×2)

Not open with either one locked

Gasket

<Application Example>

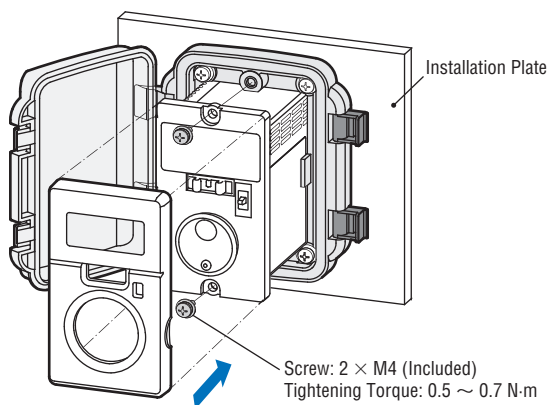
● Specifications

Degree of Protection	IP64 (Conforms to IEC 60529)	
Material	Cover	Polycarbonate
	Gasket	Polyethylene (foam)
	Frame	Polybutylene terephthalate Acrylonitrile, Butadiene, Styrene
	Lock	Polyacetal

● Installation Condition

Install the front cover to a flat and smooth metal plate.

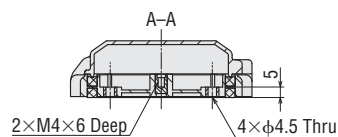
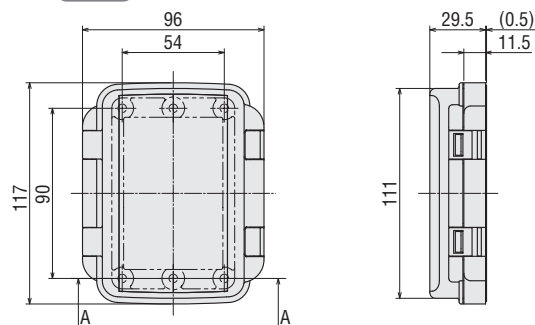
- Indoors
- Operating Ambient Temperature: 0 ~ +50°C
- Operating Ambient Humidity: 85% or less
- Not exposed to an explosive atmosphere, strong acid/strong alkali, organic solvent (chloroethane, chloromethane, cresol, etc.)
- Not exposed to radioactive materials
- Not exposed to moisture or ozone
- Not exposed to direct sunlight
- Not exposed to continuous vibration or excessive shock



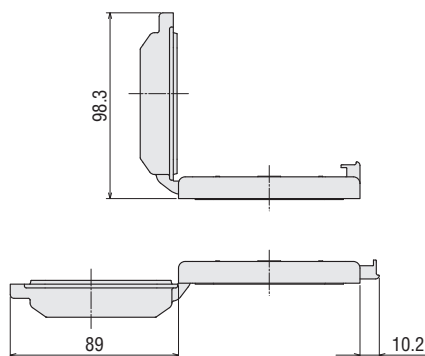
● Dimensions (Unit: mm)

Mass: 90 g

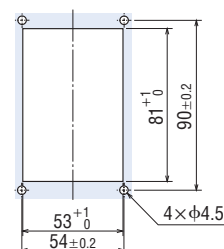
2D CAD A1353 3D CAD



● When the cover is open



◇ Installation Hole Cut-Out



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Parallel Shaft Combination Type/Round Shaft Type

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Related Products

Speed Control Motor and Controller Package

DSC Series



These are high-performance D-loop speed control motor units at an affordable prices.

This series will meet your needs, which include functions such as – "multistep speed-change operation", "speed setting from an external device", "vertical operation", and so on.

● Characteristics

- Multistep speed-change operation (4-speed gear) is available.
- Speed can be set from an external device.
- Vertical operation is available (with electromagnetic brake)
- Speed regulation (For load) $\pm 1\%$ (Reference value)
- **KII** Series motor with High-performance gear installed is used.

*Between 0 and the permissible torque at 1000 r/min



Safety Precautions

- To ensure correct operation, carefully read the Operating Manual before using it.
- The products listed in this catalogue are for industrial use and for built-in component. Do not use for any other applications.

- The factories which manufacture the products listed in this catalogue have obtained Quality Management Systems ISO9001 and Environment Management Systems ISO14001.
- The content listed in this catalogue such as performance and specifications of the products are subject to change without notice for improvements.
- The price of all products listed in this catalogue does not include the consumption tax etc.
- For details of the products, please contact the nearest dealer, sales office or the following "Order Support Center" or "Customer Support Center".
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- Rack&Pinion
- Stepper motion
- Robotic Modules
- Linear/Torque Motors
- Screw Jacks
- XYZ Gantries
- Electric Cylinders
- Geared AC Motors
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