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SPECIFICATIONS

Product Name: AC Servo Motor

Product Series Name: MINAS A7 Series

Product Model Number: MSMG (Lead Wire-type, 27-bit absolute encoder specification)

Panasonic Industry Co., Ltd.
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If you have any questions, please contact the sales office or distributor from which you made your purchase.

Panasonic

REVISIONS

Date	Rev.	Page	Description
Aug. 25, 2025	0.0	—	NEWLY ISSUED
Apr. 1, 2026	1.0	P7 Chapter 10	Add the compliant standards for the servo motor.

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Appendix Motor Dimension Drawing

Appendix Name Plate Description

1 Scope of Application

This specification document relates to the servo motor of the AC servo system manufactured and delivered by Panasonic Industry Co., Ltd.

This product is intended for use as industrial equipment. It must not be used for any other purpose (e.g., for home use).

2 Applicable Models, Specifications, Motor Dimensions

Applicable Models	Motor Rating	Other Specifications	Motor Dimensions
MSMG5AZU1□2	50 W, 100 V/200 V shared	Without oil seal With oil seal	SX-DSV0403901 (without brake) SX-DSV0403902 (with brake)
MSMG011U1□2	100 W, 100 V	Without oil seal With oil seal	↑
MSMG012U1□2	100 W, 200 V	Without oil seal With oil seal	↑
MSMG021U1□2	200 W, 100 V	Without oil seal With oil seal	SX-DSV0403903 (without brake) SX-DSV0403904 (with brake)
MSMG022U1□2	200 W, 200 V	Without oil seal With oil seal	↑
MSMG041U1□2	400 W, 100 V	Without oil seal With oil seal	↑
MSMG042U1□2	400 W, 200 V	Without oil seal With oil seal	↑
MSMG082U1□2	750 W, 200 V	Without oil seal With oil seal	SX-DSV0403905 (without brake) SX-DSV0403906 (with brake)
MSMG092U1□2	1000 W, 200 V	Without oil seal With oil seal	↑

* See the table below for what the □ symbols in the applicable model names represent.

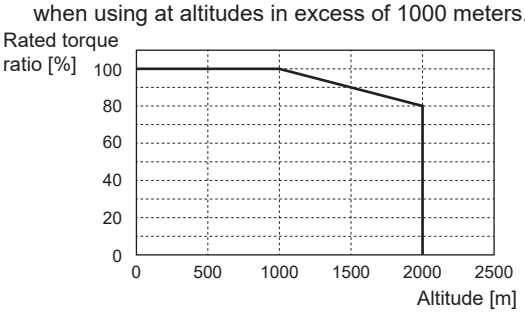
Oil seal	Brake	Shaft		
		Straight	D Cut	With key and tap
Without	Without	A	N	S
	With	B	P	T
With	Without	C	Q	U
	With	D	R	V

3 Serial No. (Production No.)

The serial no. on the motor name plate contains the following:

Example	SER No.	P	２６	０４	０００１
			Production year	Production month	Serial number

4 Performance and Environmental Conditions

Performance	Insulation resistance	● Motor unit: 20 MΩ or more when cool by DC 500 V megger. (Between motor frame and motor lead wire)
	Insulation voltage resistance	● Motor unit: To withstand AC1500 V for 1 minute. (Between motor frame and motor lead wire) ● Brake unit: To withstand AC1000 V for 1 minute. (Between motor frame and brake lead wire)
	Allowable maximum rotating speed	● 110 % of the maximum speed. (Operational speed must be 100 % or less.)
	Vibration resistance	● 49 m/s^2 or less X, Y, Z directions (At center of frame, 20 to 3000 Hz, with not more than 1.5 mm amplitude) ● But when the motor doesn't operate, 24.5 m/s^2 or less.
	Impact resistance	● 98 m/s^2 in X, Y, Z directions; 3 times each (Flange mounting position)
	IP rating (*1) (Dust-proof & Drip-proof)	● Equivalent of IP65 (Except for shaft through sections and connector sections.)
Environmental Condition	Heat resistance (*2) (*3)	● Allowable ambient temperature (Except for motor temperature rise) During operation: 0 °C to +60 °C (no condensation) However, in the following cases, be sure to perform the derating indicated in the *"18 AC Servo Motor Specifications"* specifications and Speed-Torque characteristics. • Without oil seals, when the temperature exceeds 40 °C • With oil seals, when the temperature exceeds 20 °C ● When left unattended: -20 °C to +65 °C (maximum storing temperature: 80 °C, 72 hours cumulative, no condensation)
	Humidity resistance (*2)	● Operating and storing 20 to 85 %RH (no condensation)
	Altitude (*3)	● Altitude: 2000 m or less. However, be sure to perform the derating shown below when using at altitudes in excess of 1000 meters. 

*1 This motor conplies with the test conditions specified in the EN standards (EN 60529, EN 60034-5). It is not suitable for applications requiring prolonged water resistance, such as continuous washing.

*2 Condensation is likely to occur if the temperature decreases.

*3 When operating at an ambient temperature of 40 °C or above and at an altitude of 1000 m or above, multiply the derating by the item's respective derating rate.

Example: For *"18.3 MSMG012U1 (100 W, 200 V)"* Without oil seal

Ambient temperature is 60 °C and altitude is 2000 m

70 % × 80 % = 56 %

5 Assembly Accuracy

1 Follows the Motor Dimension Drawing.

- Axial runout is measured in the lateral direction of the shaft.
- The flange surface perpendicularity and spigot eccentricity are measured in the vertical direction of the shaft.

2 End play (axial play) is 0.3 mm or less. (Reference value)

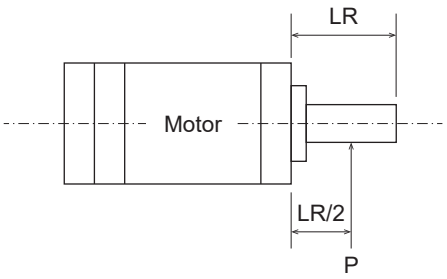
6 Shaft Allowable Load

Unit: [N]

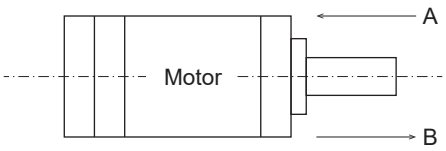
Applicable Models	When assembled			When operating	
	Radial load	Thrust load		Radial load	Thrust load
		Direction A	Direction B		
MSMG5A, MSMG01	147	88	117	68	58
MSMG02, MSMG04	392	147	196	245	98
MSMG08, MSMG09	686	294	392	392	147

For dimensions (LR), see the Motor Dimension Drawing.

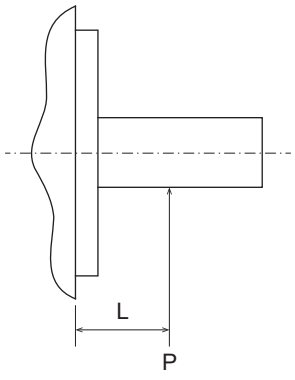
Radial load (P) position



Thrust load direction



When the load position is changed, calculate allowable radial load P using the following relational expressions. When doing so, use load position distance L from the mounting flange surface and set the load to a value less than or equal to the calculated result.



Unit: P [N], L [mm]

Applicable Models	Relational expressions for load-to-load position
MSMG5A	$P = \frac{3996}{L + 45.8}$
MSMG01	$P = \frac{5365}{L + 65.7}$
MSMG02	$P = \frac{16244}{L + 51.3}$
MSMG04	$P = \frac{20360}{L + 68.1}$
MSMG08	$P = \frac{37064}{L + 77.1}$
MSMG09	$P = \frac{44335}{L + 95.6}$

7 Rotary Encoder Specifications

1 27-bit absolute encoder

2 For details, see specification document no. SX-DSV03899.

Precautions for when replacing the battery of absolute encoders

- Before replacing the battery, turn on the encoder's main power supply (5 V supplied to the encoder) and leave it on.
- Please note that if the battery is replaced while the encoder's main power supply is switched off, the data stored in the encoder will be lost.

8 Motor Brake Specifications

Item	Unit	Applicable Models		
		MSMG5A, MSMG01	MSMG02, MSMG04	MSMG08, MSMG09
Static friction torque (*1)	N・m	0.38 or more	1.6 or more	3.8 or more
Armature pull-in time (*2)	ms	35 or less	50 or less	70 or less
Armature release time (*2) (*3)	ms	20 or less	←	←
Release voltage (*1)	DC, V	1 or more	←	←
Exciting voltage	DC, V	24 ± 2.4	←	←
Exciting current (at DC24 V) (*2)	DC, A	0.30	0.36	0.42
Allowable braking energy	J	39.2	105	185
All allowable braking energy	J	4.90×10^3	44.1×10^3	80.0×10^3
Allowable angular acceleration	rad/s^2	30000	←	←

*1 Values at the time of shipping inspection by Panasonic.

*2 Representative values at 20 °C.

*3 DC cut-off using a varistor (TND14V271K manufactured by Nippon Chemi-Con Corporation).

1 This brake is a non-excitation brake.

2 Armature pull in time and Armature release time are delay time of brake operation.
Please confirm these by actual machine when motor is used.

3 The backlash for this brake should not exceed 2° at the time of shipping.

4 The brake power supply is to be provided by the user. (No polarity specified)

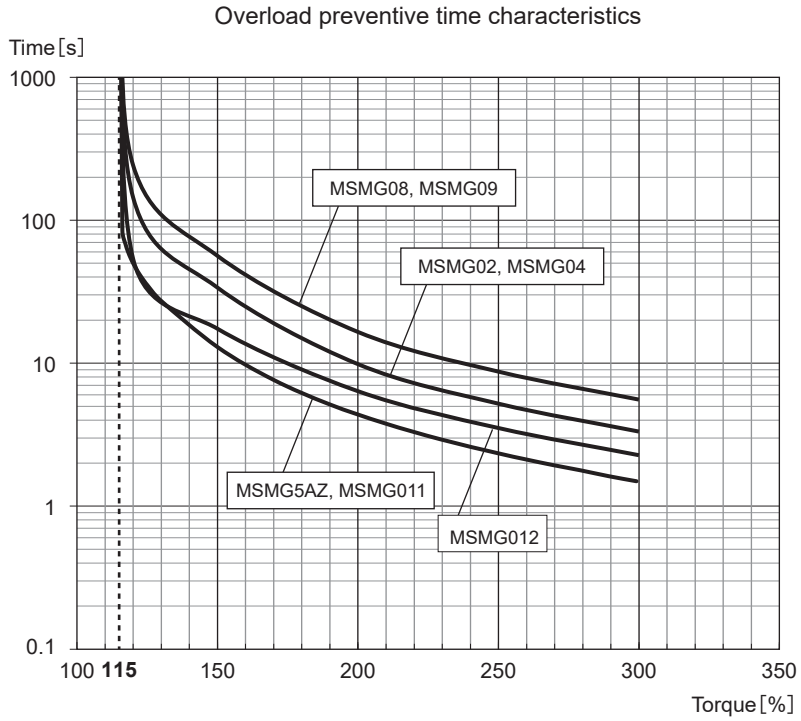
5 The allowable braking energy stated above represents the amount of braking that can be performed in compliance with brake specifications.
(braking energy capable of performing a suction motion in consideration of braking temperature increases)

6 The allowable braking energy may vary depending on wear during idling (when brakes are powered).

7 The motor's life span is 10 million accelerations and decelerations at the allowable angular acceleration stated above.
(The number of accelerations and decelerations before brake backlash starts increasing rapidly)

8 When using a varistor, it is recommended to connect protective parts, such as fuses, in series.

9 Time Characteristics



The above time characteristics are obtained when our company standard servo driver is used.

Ensure that the effective torque is within the continuous duty zone of the Speed-Torque characteristics of each motor.

For Speed-Torque characteristics, please check the motor specifications.

When used in combination with a servo driver other than our standard servo driver, ensure that the overload setting for the servo driver is below the time stated above.

Please contact for the time characteristics of specific models.

10 Compliance with International Standards

10.1 AC Servo Motor Conforming Standards

		Standard No.
EU/UK Standards	Low Voltage	EN 60034-1 EN 60034-5
UL Standards		UL 1004-1, UL 1004-6 (File No. E327868)
CSA Standards		CSA C22.2, No. 100
GB Standards (*1)		GB 30253

*1 Models that comply with this standard are 550 W or higher.

10.2 RoHS Compliance

		Standard No.
EU/UK standards	RoHS	EN IEC 63000

11 Safety Precautions

This section explains precautions that must be taken to prevent harm to people and damage to property

⚠ SAFETY PRECAUTIONS

The following symbols represent the extent of the harm or damage that may occur through improper use.

⚠ **DANGER**	This indicates "a significant risk of death or serious injury".
⚠ **CAUTION**	This indicates "a risk of minor injury or damage to property".

The following symbols indicate how to comply with safety precautions.

	Something that you must not do.
	Something you must do.

⚠ DANGER

1 Ensure that the product is used in an environment of pollution degree 2 or 1 (places free from dust, metal powders, oil mists, and other foreign objects, as well as liquids such as water, oil, or grinding fluids). Do not store or use near combustible materials or in an environment containing corrosive gases (H_2S、SO_2, NO_2, Cl_2, etc.), flammable gases, helium gases, or other gases with low molecular weight.

2 Do not place flammable materials near the motor, servo driver, or regenerative resistor.

3 Do not run the motor using an external power source. If the motor is run externally, it will start acting as an electricity generator. This may cause it to short-circuit during operation of the dynamic brake, which is integrated into the servo driver, resulting in smoke and dust being emitted. Doing so may also cause the dynamic brake to become disconnected, preventing it from functioning.

4 Do not damage the cable, apply undue stress to it, place heavy objects on it, or pinch it.

5 Do not use with the cable submerged in oil or water.

6 Do not install the product next to heating elements such as heaters or large winding resistors.
(Protection such as heat shields should be used to protect the product from heating elements.)

7 Do not connect a commercial power supply directly to the motor.

8 Do not use in places susceptible to strong vibrations or impacts. If installing a servo driver near a source of vibration, attach a vibration dampening device to the servo driver mounting surface.

9 Do not touch the rotating parts of the motor during operation.

10 Do not touch the keyway of the motor output shaft with bare hands.

11 Do not put hands inside the servo driver.

12 Do not touch the heat sink or devices surrounding the motor or servo driver, as they can get very hot.

13 Do not perform wiring or operate the product with wet hands.

⚠ DANGER

14 Wiring work should be carried out by an electrical engineer.

15 Motors other than that specified do not include protective devices. Protect them using overcurrent protection devices, ground-fault circuit interrupters, overheating prevention devices, emergency stop devices, etc.

16 Before operating the servo driver following an earthquake, ensure that the servo driver and motor are properly installed and that the machine is safe.

17 After the power supply is switched off, the internal circuit will be charged at high voltage for a period of time. When relocating, wiring, or inspecting the driver, ensure that the power supply input is completely disconnected on the outside of the servo driver and wait at least 15 minutes before carrying out any work.

18 Install and set up the product so that it does not cause fire or personal injury in the event of an earthquake.

19 Install an external emergency stop circuit must be installed to enable the power supply to be immediately disconnected in the event of an emergency.

Failure of the combined motor and servo driver may result in smoke and dust being emitted.

For example, if an electric current is passed through the regenerative control power transistor built into the servo driver following a short-circuit fault, the regenerative resistor installed outside the servo driver may overheat, leading to smoke and dust being emitted.

If a regenerative resistor is connected to the outside of the servo driver, it must be installed so that the thermal protector or other overheating detection devices can detect abnormal overheating and to enable the power supply to be disconnected.

20 Install the motor, servo driver, and surrounding devices to nonflammable materials such as metal.

21 Ensure that the product is wired correctly and securely. Insecure or incorrect wiring may cause the motor to malfunction or lead to thermal damage. Also, do not allow any conductive materials such as wire debris to enter the servo driver during installation and wiring.

22 Ensure that the cables are securely connected and that energized parts are insulated.

23 Binding and inserting wires into a metal duct will cause the temperature to increase, which will result in reduced wire allowable current and possibly lead to thermal damage. Please consider the current reduction coefficient before deciding on how to wire the product.

24 Be sure to install a molded case circuit breaker (MCCB) to the power supply. Also, make sure to ground the ground terminal or ground wire.

D-type grounding or higher (ground resistance less than 100 Ω) is recommended in order to prevent electric shocks and malfunctions.

25 Ensure that the power supply wire terminal, ground screws, and terminal box lid mounting bolts are securely tightened to the torque specified in the specifications document, and check that none are loose.

26 When constructing a system using safety features, make sure you understand and comply with the relevant safety standards as well as the information in our user manuals or technical reference documents.

27 Depending on the actual machine and the installation environment, your company equipment may be affected by switching noise current when driving the servo driver.

When installing a our company servo driver or motor in your company equipment, make sure that the proper measures for grounding the motor body are confirmed and verified in addition to grounding the ground terminal and ground wire.

⚠ CAUTION

28 When transporting the product, do not hold it by the cable or motor shaft.

29 When adjusting the parameters of the servo driver, do not set the gain too high or make extreme modifications to settings simultaneously, as doing so may result in unstable operation.

30 Following a power outage, do not get close to the machine once power is restored, as it may restart suddenly.

31 Do not approach the motor or the machine when it is running during power-up to ensure safety in the event of an unexpected malfunction.

32 Do not subject the motor shaft to strong shock.

33 Do not use the electromagnetic contactor installed on the main power supply side to start or stop the motor.

34 Do not turn the servo driver main power supply on and off more frequently than necessary.

35 If the motor has a built-in brake, it is for holding purposes and should not be used as a stopping (braking) device in order to ensure machine safety.

36 Do not drop or tip over the product during transportation or installation.

37 Do not climb on the motor or place heavy objects on it.

38 Do not cover the servo driver louver or allow any foreign objects to enter.

39 Do not expose the product to direct sunlight. When storing the product, keep it away direct sunlight and store at temperatures and humidity within the specified ranges.

40 Do not attempt to overhaul or modify the motor. Overhauls must be carried out by Panasonic or an authorized dealer.

41 Do not start or stop the product by turning the servo-on command (SRV-ON) on or off as doing so may damage the dynamic braking circuit incorporated into the servo driver.

⚠ CAUTION

42 Use the motor and servo driver in the combination specified by Panasonic. If combining the motor with a different servo driver, make sure to confirm its performance and safety.

43 Failure of the motor or the servo driver it is combined with may result in thermal damage to the motor and may cause smoke and dust to be emitted. Please consider these possibilities when using the device in cleanrooms, etc.

44 Make sure the device is mounted in a manner suitable for the power output and the weight of the unit.

45 Keep the ambient temperature and humidity of the servo driver and motor within the allowable ambient temperature and humidity ranges.

46 Observe the specified mounting method and orientation.

47 Keep the required distance between the servo driver and the control panel interior or other equipment.

48 If an eyebolt is attached to the motor, it should only be used to lift the motor and not to lift any other equipment. The eyebolt should also not be used if a decelerator, face plate, etc., is attached.

49 Because the eyebolt is not fully tightened, make sure it is properly screwed in and in the correct orientation before attempting to lift the motor. Also, do not tighten the eyebolt using tools, etc.

50 Connect the brake control relay in series with the relay that disconnects in the event of an emergency stop.

51 To perform a test run, secure the motor and check its operation with it disconnected from the mechanical system, then mount it onto the machine.

52 Confirm that the input power supply voltage is in line with the servo driver specifications before turning it on and operating. Entering a voltage higher than the rated voltage could cause smoke and dust to be emitted inside the servo driver, which in some cases may cause the motor to malfunction or lead to thermal damage.

53 In the event of an alarm, eliminate the cause of the alarm and restart the device. Restarting the device without eliminating the cause of the alarm may cause the motor to malfunction or lead to thermal damage.

54 If the motor has a built-in brake, it may not last due to reasons such as its life span or mechanical structure. A stopping device must be installed on the machine side to ensure safety.

55 Because the motor and servo driver emit heat while the motor is in operation, abnormal increases in the ambient temperature may occur if used in an enclosed area. Take care to ensure that the ambient temperatures of the motor and servo driver are within the operating range.

56 Maintenance and inspections should be performed by a specialist.

57 Make sure to turn off the power supply if the device will not be used for a long period of time.

58 If the dynamic brake built into the servo driver is applied when the device is operating at a high speed, allow a stop time of approximately 10 minutes. Failure to do so may cause the internal circuit to disconnect or the brake to no longer be operable.

59 Secure the cables so that they do not put stress on the connectors, terminal block, or other connections.

Be sure to read the safety instructions in the operating manual before use.

Because unexpected external noise (including radiation, etc.), static charge, input power supply, wiring, components, etc., can sometimes cause unexpected operation, we ask users to ensure adequate safety against unpredictable malfunctions.

12 Life Span and Standard Replacement Time

(these are not guaranteed)

1 Expected standard life span rating of bearings (calculated value)

With 90 % reliability and statistically processed variances, the fatigue life is over 20,000 hours of continuous rated load at loads below the allowable load for the shaft.

Please ensure that the motor shaft does not repeatedly oscillate less than 45° as this can lead to fretting.

2 Expected life span of rotary encoder

The life span to fulfill the rotary encoder's specifications (half-life of LED lighting) is over 30,000 hours of continuous rated loads

3 Standard replacement time for oil seal (only motors with oil seal)

5,000 hours of continuous rated loads (depending on environment and usage method)

13 Warranty

1 Warranty period

The warranty period for the product is one year from the date of purchase or one year and six months from the date the product was manufactured.

However, for motors with brakes, the number of accelerations and decelerations of the shaft must not exceed the product's life span.

This does not apply to replacement parts (oil seal). (Only motors with oil seal)

The warranty will be void in any of the following cases, even within the warranty period:

- If the issue is due to incorrect use or improper repair/modification
- If the issue is due to the device being dropped after purchase or damaged during transit
- If the issue is due to the device being used outside of its specifications
- If the issue is due to a fire, earthquake, lightning strike, wind/water damage, salt damage, voltage abnormalities, other natural disasters, or natural damage
- If the issue is due to ingress of water, oil, metal fragments, or other foreign objects
- If parts with a stated standard life span have exceeded their respective life spans

2 Warranty coverage

If the product fails during the warranty period for reason in which our company is at fault, we will only replace or repair the defective parts of the device that were provided by us. Please note that our above-stated responsibility is limited to the replacement and repair of the equipment provided by us and that we do not accept any responsibility for damage to your company or any third party that may occur in connection with the failure of the equipment provided by us.

We do not accept responsibility for any equipment failures or damage to your company or any third party in the case of any of the exclusions set forth in "1" above or in any of the following cases:

- If the equipment has been incorporated or used in a way that does not conform to the instructions or precautions set forth in this specifications document
- If the issue is due to a combination of products that incorporate different equipment
- If you fail to comply with the requests made to your company in this specifications document
- If the equipment failure is not caused by our company's actions

3 Warranty service

If you require the warranty service (fault cause investigation, repair, etc.), please contact the retailer from which you purchased the product.

If you wish to send it directly to us with the permission of the retailer, please receive a repair/investigation request form from the place of purchase, fill out the necessary information, and send it to our motor service desk along with the product. As a general rule, you will be responsible for shipping costs.

14 Additional Precautions

1 Precautions to be taken when exporting the product or equipment incorporating the product

If the end user or end use of this product is related to the military or weaponry, etc., it may be subject to export restrictions as set forth in the Foreign Exchange and Foreign Trade Act. When exporting, please review and follow the necessary export procedures.

2 This product is designed for general industrial use. This product is not for use in devices critical to human wellbeing or in specialized environments, such as nuclear power control, aerospace equipment, transportation systems, medical equipment, various safety devices, or equipment that requires a high degree of cleanliness.

3 Please ensure that finished equipment complies with standards, laws, and regulations, and confirm that the structure, dimensions, life span, and characteristics of the product match those of your installed equipment and components.

4 Since it is possible, albeit unlikely, that your finished equipment will operate abnormally due to a malfunction of our product, please put in place failsafes and ensure adequate safety within the operational range of your site.

5 Make sure to follow indications as overloading products can cause loads to collapse.

6 If the shaft has a key, it should be secured not only with the key, but also with set screws, etc. Grease for fretting prevention should also be applied to the section that joins with the motor shaft.

7 Ensure that the motor shaft is not operated without being electrically grounded, as this may lead to electrolytic corrosion of the motor bearing and increased bearing noise, depending on the machine and the installation environment.

8 Please check the strength of the shaft.

(During operation, do not place a load on the shaft that is greater than the allowable load.)

9 A tightening torque appropriate for the product mounting screws should be chosen to avoid loosening or damage, taking into account the strength of the screws used and the material to which they are mounted.

10 Grease (Shell Alvania Grease S 2) is applied to the end of the motor shaft. Please confirm whether this will impact plastics, etc., used by your company.

11 If a seal is required between the mounting surface of our motor and the equipment it is being mounted to, please source this independently.

12 Please be very careful when changing the specifications of your equipment to match our motor.

13 When disposing of the servo driver or motor, treat them as industrial waste.

14 When disposing of batteries, insulate them with tape and dispose of them in accordance with local regulations.

15 As long as you comply with this specifications document, certain components may be modified to improve performance, etc.

16 Changes to specifications shall be reflected in the delivery specifications document or in a document specified by your company. If this affects the function or characteristics of the product, the specifications will be changed following a test with a prototype.

17 Changes in specifications may affect the price of the product.

18 If you require clarification on something that is not covered by this specifications document, please contact us in advance.

19 In the event of a problem, the two parties shall resolve the issue following consultations as set forth in this specifications document.

20 Some faults may cause the emission of roughly one cigarette's worth of smoke,

so please consider these possibilities when using the device in cleanrooms, etc.

21 Do not use detergents containing benzine, thinner, alcohol, acid, or alkaline as this may cause discoloration or damage to the product’s exterior.

15 Other

Safety Precautions and Additional Precautions are for use with Panasonic's standard servo drivers and motors.
Check with your company when using in combination with your company's servo driver.

16 Reliability Evaluation Items

This evaluation was carried out on a representative model using the design verification items from the initial development stage.

This evaluation is not a guarantee for all instances of this product. (These are basic evaluation conditions.)

Evaluation Item	Evaluation Criteria	Evaluation Result
Vibration resistance and thermal cycle test	20 to 3000 Hz, 49 m/s^2, amplitude of 1.5 mm or less X, Y, Z directions, 8 hours each -30/+80 °C for 1 cycle	No abnormalities in external appearance, structure, or function
Resonant point vibration endurance test	49 m/s^2, X, Y, Z directions Number of vibrations: 10 million	No abnormalities in external appearance, structure, or function
High-temperature, high-humidity electric conduction test	60 °C, 95 % RH, 72 hours	No abnormalities in external appearance, structure, or function
Thermal shock resistance test	-20/+80 °C, 50 cycles	No abnormalities in external appearance, structure, or function
Impact resistance test	490 m/s^2 with L flange installed X, Y, Z directions, 3 times each (196 m/s^2 for anything over 750 W)	No abnormalities in external appearance, structure, or function
Maximum rotor rotation speed test	-20/+80 °C, after 50 cycles 100°C, 10 seconds at 10000 r/min. (2 times the maximum speed for those with a maximum speed exceeding 5000 r/min)	No abnormalities in external appearance, structure, or function
Burnout test	Allow the motor to burnout at the maximum current (Overload protection disabled)	No fire Smoke emitted within the stipulated amount

17 Shipment Inspection Items

Inspection Item	Inspection Method	Quantity
External appearance	Visual inspection	All
Dimensions	Caliper, gauge	Sampling
Insulation voltage resistance	High voltage insulation tester	All
Insulation resistance	Insulation resistance meter	All
Induced voltage constant	Automatic tester	All
Line-to-line resistance	Ohm meter	All
Encoder test and driver combination test	Automatic tester	All
Brake static friction torque	Torque meter	All
Brake suction/release voltage	Voltmeter	All

* The inspection method may be substituted by the method corresponding to the description.

18 AC Servo Motor Specifications

The following items are common to all pages.

- The Speed-Torque characteristics are adjusted for combination with our servo driver. (Representative values at 20 °C)
- The rated torque indicates the continuous allowable torque under our measurement conditions.

18.1 MSMG5AZU1（50 W, 100 V/200 V shared）

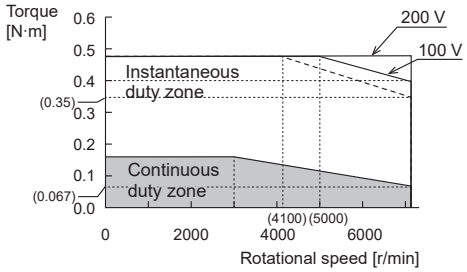
■ MSMG5AZU1□△ Without oil seal

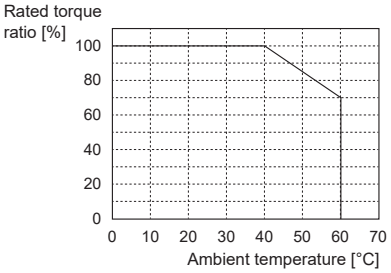
Item	Unit	Without brake	With brake	Remarks
Rated output	W	50	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	7150	←	
Rated torque	N·m	0.16	←	
Continuous stall torque	N·m	0.16	←	
Instantaneous maximum torque	N·m	0.48	←	
Rated voltage	V_{AC}	42	←	
Rated current	A(rms)	(1.1)	←	
Stall current	A(rms)	(1.1)	←	
Rotor inertia	$\times 10^{-4}$ kg·m^2	0.0337	0.0373	
Electrical time constant	ms	(0.97)	←	
Mechanical time constant	ms	2.03	2.25	
Power rate	kW/s	7.52	6.79	
Instantaneous maximum current	A(0-p)	(4.5)	←	
Demagnetizing current	A(0-p)	6.75	←	
Voltage constant per phase	$\times 10^{-3}$V(rms)/min^{-1}	5.60 ± 10 %	←	
Induced voltage constant	$\times 10^{-3}$V(0-p)/min^{-1}	11.9 ± 10 %	←	
Torque constant	N·m/A(rms)	0.160 ± 10 %	←	
	N·m/A(0-p)	0.113 ± 10 %	←	
Phase resistance	Ω	5.18 ± 7 %	←	
Phase inductance	mH	(5.0)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(0.34)	(0.54)	
Structure		Totally-enclosed self-cooled type	←	Without oil seal
Supply voltage	V_{AC}	100/200	←	

- The temperature at the center of the motor frame should not exceed 75 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

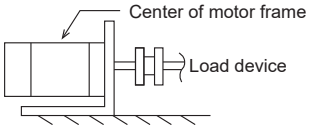
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 100 V/200 V AC (dotted line indicates 10 % drop in power supply voltage 100 V)





Measurement Condition
Flange size: 100×80×t10
Material: Aluminum



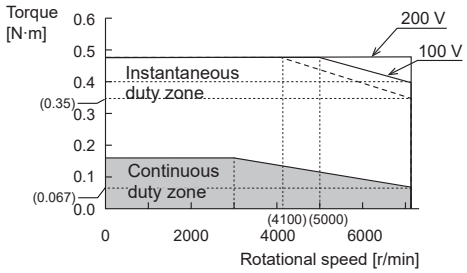
■ MSMG5AZU1□△ With oil seal

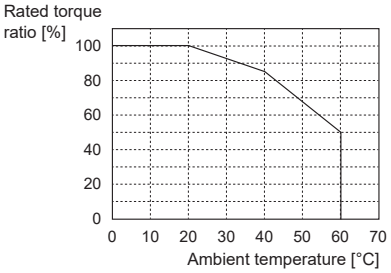
Item	Unit	Without brake	With brake	Remarks
Rated output	W	50	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	7150	←	
Rated torque	N·m	0.16	←	
Continuous stall torque	N·m	0.16	←	
Instantaneous maximum torque	N·m	0.48	←	
Rated voltage	V_{AC}	42	←	
Rated current	A(rms)	(1.1)	←	
Stall current	A(rms)	(1.1)	←	
Rotor inertia	$\times10^{-4}$ kg·m^2	0.0337	0.0373	
Electrical time constant	ms	(0.97)	←	
Mechanical time constant	ms	2.03	2.25	
Power rate	kW/s	7.52	6.79	
Instantaneous maximum current	A(0-p)	(4.5)	←	
Demagnetizing current	A(0-p)	6.75	←	
Voltage constant per phase	$\times10^{-3}$V(rms)/min^{-1}	5.60 ± 10 %	←	
Induced voltage constant	$\times10^{-3}$V(0-p)/min^{-1}	11.9 ± 10 %	←	
Torque constant	N·m/A(rms)	0.160 ± 10 %	←	
	N·m/A(0-p)	0.113 ± 10 %	←	
Phase resistance	Ω	5.18 ± 7 %	←	
Phase inductance	mH	(5.0)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(0.35)	(0.55)	
Structure		Totally-enclosed self-cooled type	←	With oil seal
Supply voltage	V_{AC}	100/200	←	

- The temperature at the center of the motor frame should not exceed 75 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

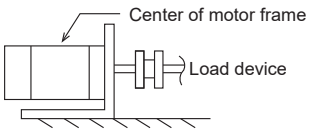
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 100 V/200 V AC (dotted line indicates 10 % drop in power supply voltage 100 V)





Measurement Condition
Flange size: 100×80×t10
Material: Aluminum



18.2 MSMG011U1（100 W, 100 V）

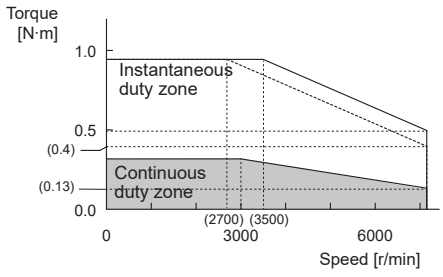
■ MSMG011U1□△ Without oil seal

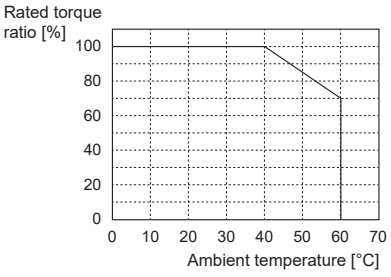
Item	Unit	Without brake	With brake	Remarks
Rated output	W	100	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	7150	←	
Rated torque	N·m	0.32	←	
Continuous stall torque	N·m	0.32	←	
Instantaneous maximum torque	N·m	0.95	←	
Rated voltage	V_{AC}	53	←	
Rated current	A(rms)	(1.6)	←	
Stall current	A(rms)	(1.6)	←	
Rotor inertia	$\times10^{-4}$ kg·m^2	0.0552	0.0587	
Electrical time constant	ms	(1.4)	←	
Mechanical time constant	ms	1.18	1.26	
Power rate	kW/s	18.4	17.3	
Instantaneous maximum current	A(0-p)	(6.3)	←	
Demagnetizing current	A(0-p)	9.45	←	
Voltage constant per phase	$\times10^{-3}$V(rms)/min^{-1}	7.68 ± 10 %	←	
Induced voltage constant	$\times10^{-3}$V(0-p)/min^{-1}	16.3 ± 10 %	←	
Torque constant	N·m/A(rms)	0.220 ± 10 %	←	
	N·m/A(0-p)	0.156 ± 10 %	←	
Phase resistance	Ω	3.45 ± 7 %	←	
Phase inductance	mH	(4.9)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(0.48)	(0.68)	
Structure		Totally-enclosed self-cooled type	←	Without oil seal
Supply voltage	V_{AC}	100	←	

- The temperature at the center of the motor frame should not exceed 90 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

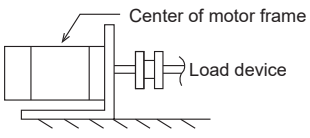
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 100 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 100×80×t10
Material: Aluminum



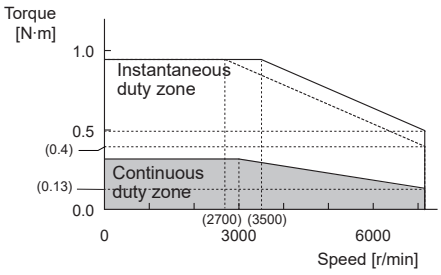
■ MSMG011U1□△ With oil seal

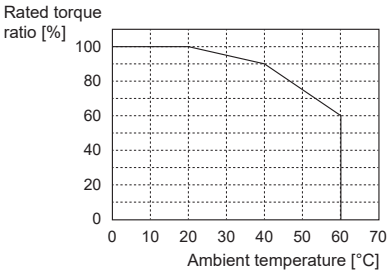
Item	Unit	Without brake	With brake	Remarks
Rated output	W	100	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	7150	←	
Rated torque	N·m	0.32	←	
Continuous stall torque	N·m	0.32	←	
Instantaneous maximum torque	N·m	0.95	←	
Rated voltage	V_{AC}	53	←	
Rated current	A(rms)	(1.6)	←	
Stall current	A(rms)	(1.6)	←	
Rotor inertia	$\times 10^{-4}$ kg·m^2	0.0552	0.0587	
Electrical time constant	ms	(1.4)	←	
Mechanical time constant	ms	1.18	1.26	
Power rate	kW/s	18.4	17.3	
Instantaneous maximum current	A(0-p)	(6.3)	←	
Demagnetizing current	A(0-p)	9.45	←	
Voltage constant per phase	$\times 10^{-3}$V(rms)/min^{-1}	7.68 ± 10 %	←	
Induced voltage constant	$\times 10^{-3}$V(0-p)/min^{-1}	16.3 ± 10 %	←	
Torque constant	N·m/A(rms)	0.220 ± 10 %	←	
	N·m/A(0-p)	0.156 ± 10 %	←	
Phase resistance	Ω	3.45 ± 7 %	←	
Phase inductance	mH	(4.9)		Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(0.49)	(0.69)	
Structure		Totally-enclosed self-cooled type	←	With oil seal
Supply voltage	V_{AC}	100	←	

- The temperature at the center of the motor frame should not exceed 90 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

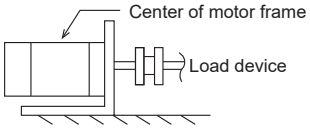
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 100 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 100×80×t10
Material: Aluminum



18.3 MSMG012U1（100 W, 200 V）

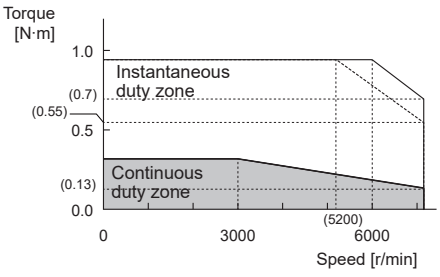
■ MSMG012U1□△ Without oil seal

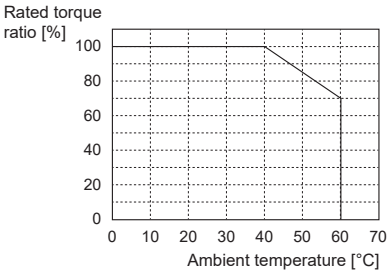
Item	Unit	Without brake	With brake	Remarks
Rated output	W	100	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	7150	←	
Rated torque	N·m	0.32	←	
Continuous stall torque	N·m	0.32	←	
Instantaneous maximum torque	N·m	0.95	←	
Rated voltage	V_{AC}	76	←	
Rated current	A(rms)	(1.1)	←	
Stall current	A(rms)	(1.1)	←	
Rotor inertia	$\times10^{-4}$ kg·m^2	0.0552	0.0587	
Electrical time constant	ms	(1.2)	←	
Mechanical time constant	ms	1.32	1.41	
Power rate	kW/s	18.4	17.3	
Instantaneous maximum current	A(0-p)	(4.5)	←	
Demagnetizing current	A(0-p)	6.75	←	
Voltage constant per phase	$\times10^{-3}$V(rms)/min^{-1}	10.8 ± 10 %	←	
Induced voltage constant	$\times10^{-3}$V(0-p)/min^{-1}	22.9 ± 10 %	←	
Torque constant	N·m/A(rms)	0.309 ± 10 %	←	
	N·m/A(0-p)	0.219 ± 10 %	←	
Phase resistance	Ω	7.64 ± 7 %	←	
Phase inductance	mH	(9.1)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(0.48)	(0.68)	
Structure		Totally-enclosed self-cooled type	←	Without oil seal
Supply voltage	V_{AC}	200	←	

- The temperature at the center of the motor frame should not exceed 95 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

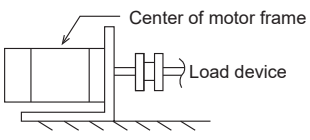
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 200 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 100×80×t10
Material: Aluminum



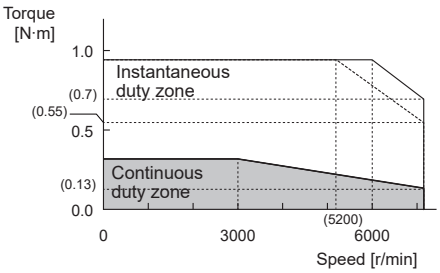
■ MSMG012U1□△ With oil seal

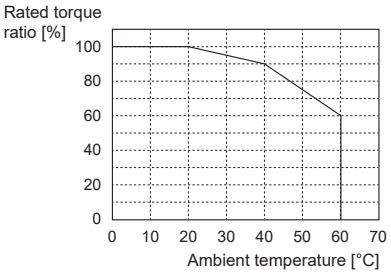
Item	Unit	Without brake	With brake	Remarks
Rated output	W	100	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	7150	←	
Rated torque	N·m	0.32	←	
Continuous stall torque	N·m	0.32	←	
Instantaneous maximum torque	N·m	0.95	←	
Rated voltage	V_{AC}	76	←	
Rated current	A(rms)	(1.1)	←	
Stall current	A(rms)	(1.1)	←	
Rotor inertia	$\times 10^{-4}$ kg·m^2	0.0552	0.0587	
Electrical time constant	ms	(1.2)	←	
Mechanical time constant	ms	1.32	1.41	
Power rate	kW/s	18.4	17.3	
Instantaneous maximum current	A(0-p)	(4.5)	←	
Demagnetizing current	A(0-p)	6.75	←	
Voltage constant per phase	$\times 10^{-3}$V(rms)/min^{-1}	10.8 ± 10 %	←	
Induced voltage constant	$\times 10^{-3}$V(0-p)/min^{-1}	22.9 ± 10 %	←	
Torque constant	N·m/A(rms)	0.309 ± 10 %	←	
	N·m/A(0-p)	0.219 ± 10 %	←	
Phase resistance	Ω	7.64 ± 7 %	←	
Phase inductance	mH	(9.1)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(0.49)	(0.69)	
Structure		Totally-enclosed self-cooled type	←	With oil seal
Supply voltage	V_{AC}	200	←	

- The temperature at the center of the motor frame should not exceed 95 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

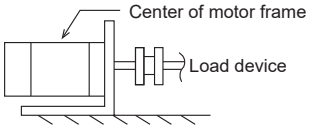
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 200 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 100×80×t10
Material: Aluminum



18.4 MSMG021U1（200 W, 100 V）

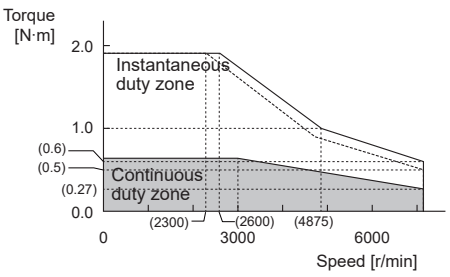
■ MSMG021U1□△ Without oil seal

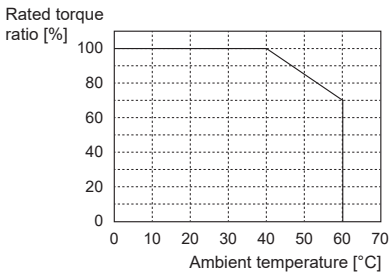
Item	Unit	Without brake	With brake	Remarks
Rated output	W	200	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	7150	←	
Rated torque	N·m	0.64	←	
Continuous stall torque	N·m	0.64	←	
Instantaneous maximum torque	N·m	1.91	←	
Rated voltage	V_{AC}	66	←	
Rated current	A(rms)	(2.5)	←	
Stall current	A(rms)	(2.5)	←	
Rotor inertia	$\times10^{-4}$ kg·m^2	0.156	0.182	
Electrical time constant	ms	(4.5)	←	
Mechanical time constant	ms	0.804	0.938	
Power rate	kW/s	26.0	22.3	
Instantaneous maximum current	A(0-p)	(11)	←	
Demagnetizing current	A(0-p)	16.7	←	
Voltage constant per phase	$\times10^{-3}$V(rms)/min^{-1}	9.53 ± 10 %	←	
Induced voltage constant	$\times10^{-3}$V(0-p)/min^{-1}	20.2 ± 10 %	←	
Torque constant	N·m/A(rms)	0.273 ± 10 %	←	
	N·m/A(0-p)	0.193 ± 10 %	←	
Phase resistance	Ω	1.28 ± 7 %	←	
Phase inductance	mH	(5.7)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(0.87)	(1.3)	
Structure		Totally-enclosed self-cooled type	←	Without oil seal
Supply voltage	V_{AC}	100	←	

- The temperature at the center of the motor frame should not exceed 80 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

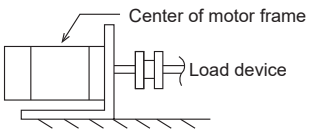
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 100 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 130×120×t12
Material: Aluminum



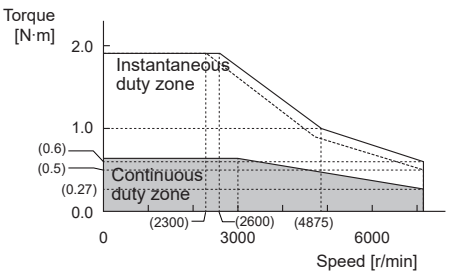
■ MSMG021U1□△ With oil seal

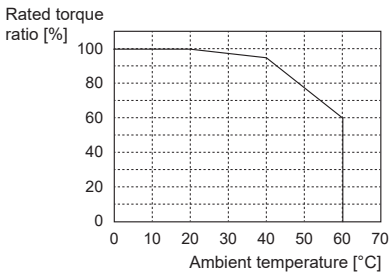
Item	Unit	Without brake	With brake	Remarks
Rated output	W	200	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	7150	←	
Rated torque	N·m	0.64	←	
Continuous stall torque	N·m	0.64	←	
Instantaneous maximum torque	N·m	1.91	←	
Rated voltage	V_{AC}	66	←	
Rated current	A(rms)	(2.5)	←	
Stall current	A(rms)	(2.5)	←	
Rotor inertia	$\times 10^{-4}$ kg·m^2	0.156	0.182	
Electrical time constant	ms	(4.5)	←	
Mechanical time constant	ms	0.804	0.938	
Power rate	kW/s	26.0	22.3	
Instantaneous maximum current	A(0-p)	(11)	←	
Demagnetizing current	A(0-p)	16.7	←	
Voltage constant per phase	$\times 10^{-3}$V(rms)/min^{-1}	9.53 ± 10 %	←	
Induced voltage constant	$\times 10^{-3}$V(0-p)/min^{-1}	20.2 ± 10 %	←	
Torque constant	N·m/A(rms)	0.273 ± 10 %	←	
	N·m/A(0-p)	0.193 ± 10 %	←	
Phase resistance	Ω	1.28 ± 7 %	←	
Phase inductance	mH	(5.7)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(0.88)	(1.3)	
Structure		Totally-enclosed self-cooled type	←	With oil seal
Supply voltage	V_{AC}	100	←	

- The temperature at the center of the motor frame should not exceed 80 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

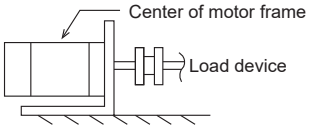
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 100 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 130×120×t12
Material: Aluminum



18.5 MSMG022U1（200 W, 200 V）

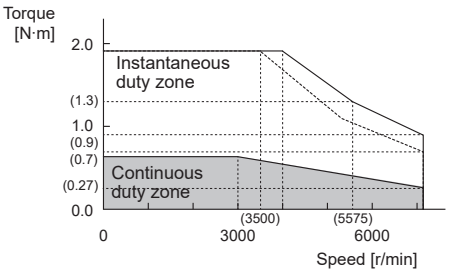
■ MSMG022U1□△ Without oil seal

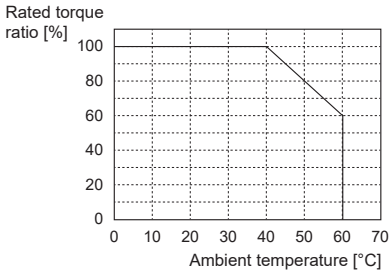
Item	Unit	Without brake	With brake	Remarks
Rated output	W	200	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	7150	←	
Rated torque	N·m	0.64	←	
Continuous stall torque	N·m	0.64	←	
Instantaneous maximum torque	N·m	1.91	←	
Rated voltage	V_{AC}	112	←	
Rated current	A(rms)	(1.5)	←	
Stall current	A(rms)	(1.5)	←	
Rotor inertia	$\times10^{-4}$ kg·m^2	0.156	0.182	
Electrical time constant	ms	(4.5)	←	
Mechanical time constant	ms	0.759	0.886	
Power rate	kW/s	26.0	22.3	
Instantaneous maximum current	A(0-p)	(6.5)	←	
Demagnetizing current	A(0-p)	9.75	←	
Voltage constant per phase	$\times10^{-3}$V(rms)/min^{-1}	16.2 ± 10 %	←	
Induced voltage constant	$\times10^{-3}$V(0-p)/min^{-1}	34.3 ± 10 %	←	
Torque constant	N·m/A(rms)	0.463 ± 10 %	←	
	N·m/A(0-p)	0.327 ± 10 %	←	
Phase resistance	Ω	3.48 ± 7 %	←	
Phase inductance	mH	(16)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(0.87)	(1.3)	
Structure		Totally-enclosed self-cooled type	←	Without oil seal
Supply voltage	V_{AC}	200	←	

- The temperature at the center of the motor frame should not exceed 75 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

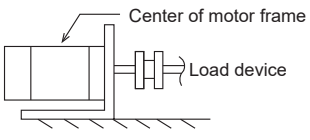
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 200 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 130×120×t12
Material: Aluminum



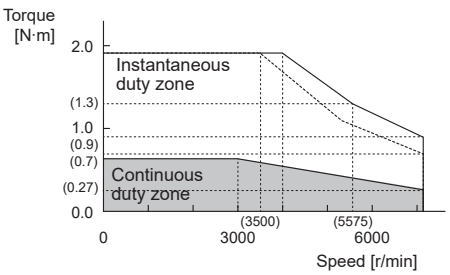
■ MSMG022U1□△ With oil seal

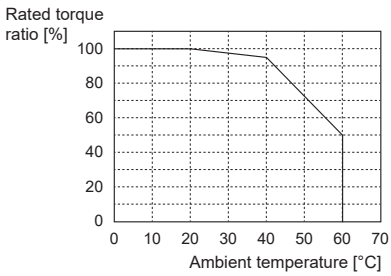
Item	Unit	Without brake	With brake	Remarks
Rated output	W	200	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	7150	←	
Rated torque	N·m	0.64	←	
Continuous stall torque	N·m	0.64	←	
Instantaneous maximum torque	N·m	1.91	←	
Rated voltage	V_{AC}	112	←	
Rated current	A(rms)	(1.5)	←	
Stall current	A(rms)	(1.5)	←	
Rotor inertia	$\times10^{-4}$ kg·m^2	0.156	0.182	
Electrical time constant	ms	(4.5)	←	
Mechanical time constant	ms	0.759	0.886	
Power rate	kW/s	26.0	22.3	
Instantaneous maximum current	A(0-p)	(6.5)	←	
Demagnetizing current	A(0-p)	9.75	←	
Voltage constant per phase	$\times10^{-3}$V(rms)/min^{-1}	16.2 ± 10 %	←	
Induced voltage constant	$\times10^{-3}$V(0-p)/min^{-1}	34.3 ± 10 %	←	
Torque constant	N·m/A(rms)	0.463 ± 10 %	←	
	N·m/A(0-p)	0.327 ± 10 %	←	
Phase resistance	Ω	3.48 ± 7 %	←	
Phase inductance	mH	(16)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(0.88)	(1.3)	
Structure		Totally-enclosed self-cooled type	←	With oil seal
Supply voltage	V_{AC}	200	←	

- The temperature at the center of the motor frame should not exceed 75 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

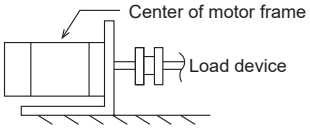
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 200 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 130×120×t12
Material: Aluminum



18.6 MSMG041U1（400 W, 100 V）

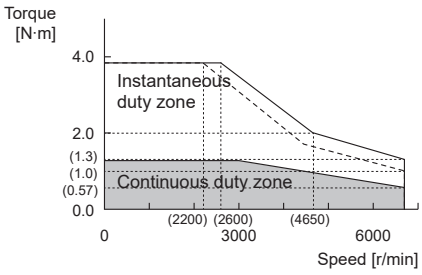
■ MSMG041U1□△ Without oil seal

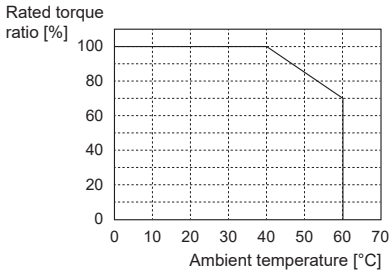
Item	Unit	Without brake	With brake	Remarks
Rated output	W	400	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	6700	←	
Rated torque	N·m	1.27	←	
Continuous stall torque	N·m	1.27	←	
Instantaneous maximum torque	N·m	3.82	←	
Rated voltage	V_{AC}	70	←	
Rated current	A(rms)	(4.6)	←	
Stall current	A(rms)	(4.6)	←	
Rotor inertia	$\times 10^{-4}$ kg·m^2	0.262	0.288	
Electrical time constant	ms	(5.6)	←	
Mechanical time constant	ms	0.599	0.659	
Power rate	kW/s	61.9	56.3	
Instantaneous maximum current	A(0-p)	(20)	←	
Demagnetizing current	A(0-p)	30.0	←	
Voltage constant per phase	$\times 10^{-3}$V(rms)/min^{-1}	9.87 ± 10 %	←	
Induced voltage constant	$\times 10^{-3}$V(0-p)/min^{-1}	20.9 ± 10 %	←	
Torque constant	N·m/A(rms)	0.283 ± 10 %	←	
	N·m/A(0-p)	0.200 ± 10 %	←	
Phase resistance	Ω	0.610 ± 7 %	←	
Phase inductance	mH	(3.4)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(1.3)	(1.7)	
Structure		Totally-enclosed self-cooled type	←	Without oil seal
Supply voltage	V_{AC}	100	←	

- The temperature at the center of the motor frame should not exceed 95 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

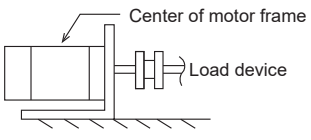
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 100 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 130×120×t12
Material: Aluminum



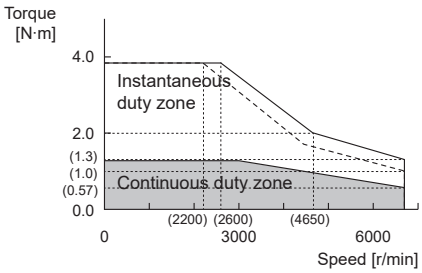
■ MSMG041U1□△ With oil seal

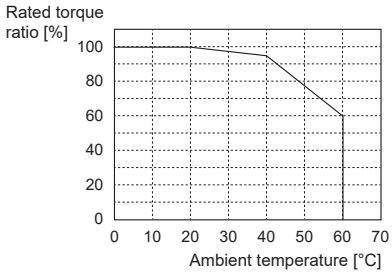
Item	Unit	Without brake	With brake	Remarks
Rated output	W	400	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	6700	←	
Rated torque	N·m	1.27	←	
Continuous stall torque	N·m	1.27	←	
Instantaneous maximum torque	N·m	3.82	←	
Rated voltage	V_{AC}	70	←	
Rated current	A(rms)	(4.6)	←	
Stall current	A(rms)	(4.6)	←	
Rotor inertia	$\times 10^{-4}$ kg·m^2	0.262	0.288	
Electrical time constant	ms	(5.6)	←	
Mechanical time constant	ms	0.599	0.659	
Power rate	kW/s	61.9	56.3	
Instantaneous maximum current	A(0-p)	(20)	←	
Demagnetizing current	A(0-p)	30.0	←	
Voltage constant per phase	$\times 10^{-3}$V(rms)/min^{-1}	9.87 ± 10 %	←	
Induced voltage constant	$\times 10^{-3}$V(0-p)/min^{-1}	20.9 ± 10 %	←	
Torque constant	N·m/A(rms)	0.283 ± 10 %	←	
	N·m/A(0-p)	0.200 ± 10 %	←	
Phase resistance	Ω	0.610 ± 7 %	←	
Phase inductance	mH	(3.4)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(1.3)	(1.7)	
Structure		Totally-enclosed self-cooled type	←	With oil seal
Supply voltage	V_{AC}	100	←	

- The temperature at the center of the motor frame should not exceed 95 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

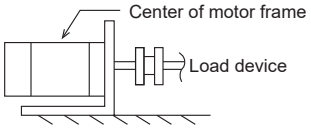
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 100 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 130×120×t12
Material: Aluminum



18.7 MSMG042U1（400 W, 200 V）

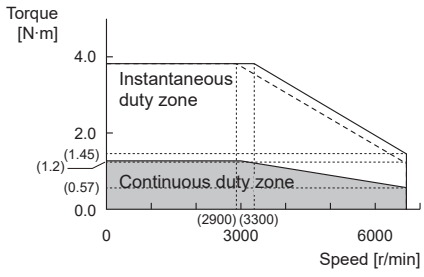
■ MSMG042U1□△ Without oil seal

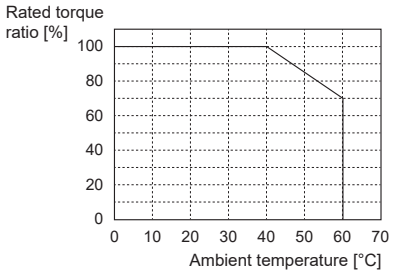
Item	Unit	Without brake	With brake	Remarks
Rated output	W	400	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	6700	←	
Rated torque	N·m	1.27	←	
Continuous stall torque	N·m	1.27	←	
Instantaneous maximum torque	N·m	3.82	←	
Rated voltage	V_{AC}	129	←	
Rated current	A(rms)	(2.4)	←	
Stall current	A(rms)	(2.4)	←	
Rotor inertia	$\times 10^{-4}$ kg·m^2	0.262	0.288	
Electrical time constant	ms	(6.0)	←	
Mechanical time constant	ms	0.555	0.610	
Power rate	kW/s	61.9	56.3	
Instantaneous maximum current	A(0-p)	(11)	←	
Demagnetizing current	A(0-p)	16.8	←	
Voltage constant per phase	$\times 10^{-3}$V(rms)/min^{-1}	18.5 ± 10 %	←	
Induced voltage constant	$\times 10^{-3}$V(0-p)/min^{-1}	39.3 ± 10 %	←	
Torque constant	N·m/A(rms)	0.531 ± 10 %	←	
	N·m/A(0-p)	0.375 ± 10 %	←	
Phase resistance	Ω	1.99 ± 7 %	←	
Phase inductance	mH	(12)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(1.3)	(1.7)	
Structure		Totally-enclosed self-cooled type	←	Without oil seal
Supply voltage	V_{AC}	200	←	

- The temperature at the center of the motor frame should not exceed 90 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

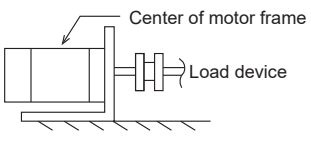
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 200 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 130×120×t12
Material: Aluminum



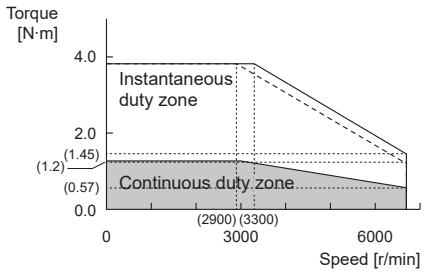
■ MSMG042U1□△ With oil seal

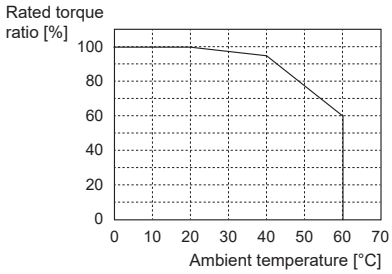
Item	Unit	Without brake	With brake	Remarks
Rated output	W	400	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	6700	←	
Rated torque	N·m	1.27	←	
Continuous stall torque	N·m	1.27	←	
Instantaneous maximum torque	N·m	3.82	←	
Rated voltage	V_{AC}	129	←	
Rated current	A(rms)	(2.4)	←	
Stall current	A(rms)	(2.4)	←	
Rotor inertia	$\times 10^{-4}$ kg·m^2	0.262	0.288	
Electrical time constant	ms	(6.0)	←	
Mechanical time constant	ms	0.555	0.610	
Power rate	kW/s	61.9	56.3	
Instantaneous maximum current	A(0-p)	(11)	←	
Demagnetizing current	A(0-p)	16.8	←	
Voltage constant per phase	$\times 10^{-3}$V(rms)/min^{-1}	18.5 ± 10 %	←	
Induced voltage constant	$\times 10^{-3}$V(0-p)/min^{-1}	39.3 ± 10 %	←	
Torque constant	N·m/A(rms)	0.531 ± 10 %	←	
	N·m/A(0-p)	0.375 ± 10 %	←	
Phase resistance	Ω	1.99 ± 7 %	←	
Phase inductance	mH	(12)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(1.3)	(1.7)	
Structure		Totally-enclosed self-cooled type	←	With oil seal
Supply voltage	V_{AC}	200	←	

- The temperature at the center of the motor frame should not exceed 90 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

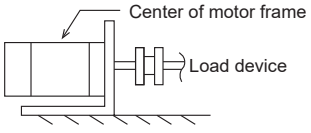
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 200 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 130×120×t12
Material: Aluminum



18.8 MSMG082U1（750 W, 200 V）

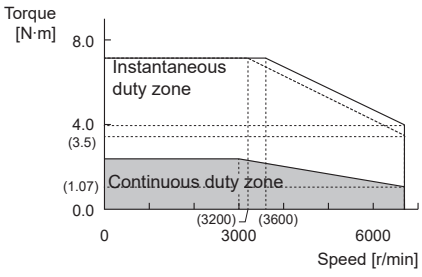
■ MSMG082U1□△ Without oil seal

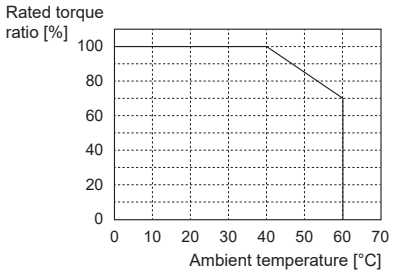
Item	Unit	Without brake	With brake	Remarks
Rated output	W	750	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	6700	←	
Rated torque	N·m	2.39	←	
Continuous stall torque	N·m	2.39	←	
Instantaneous maximum torque	N·m	7.16	←	
Rated voltage	V_{AC}	122	←	
Rated current	A(rms)	(4.1)	←	
Stall current	A(rms)	(4.1)	←	
Rotor inertia	$\times 10^{-4}$ kg·m^2	0.890	0.982	
Electrical time constant	ms	(9.3)	←	
Mechanical time constant	ms	0.421	0.465	
Power rate	kW/s	64.0	58.0	
Instantaneous maximum current	A(0-p)	(19)	←	
Demagnetizing current	A(0-p)	27.9	←	
Voltage constant per phase	$\times 10^{-3}$V(rms)/min^{-1}	20.6 ± 10 %	←	
Induced voltage constant	$\times 10^{-3}$V(0-p)/min^{-1}	43.7 ± 10 %	←	
Torque constant	N·m/A(rms)	0.590 ± 10 %	←	
	N·m/A(0-p)	0.418 ± 10 %	←	
Phase resistance	Ω	0.550 ± 7 %	←	
Phase inductance	mH	(5.1)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(2.4)	(3.2)	
Structure		Totally-enclosed self-cooled type	←	Without oil seal
Supply voltage	V_{AC}	200	←	

- The temperature at the center of the motor frame should not exceed 85 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

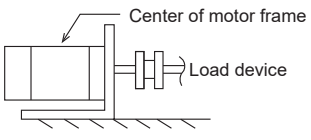
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 200 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 170×160×t12
Material: Aluminum



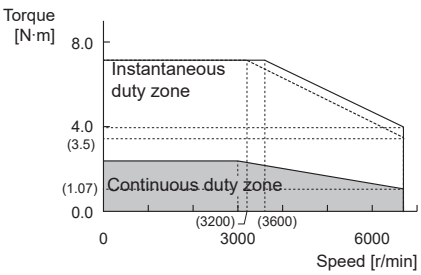
■ MSMG082U1□△ With oil seal

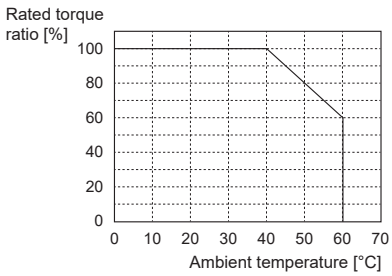
Item	Unit	Without brake	With brake	Remarks
Rated output	W	750	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	6700	←	
Rated torque	N·m	2.39	←	
Continuous stall torque	N·m	2.39	←	
Instantaneous maximum torque	N·m	7.16	←	
Rated voltage	V_{AC}	122	←	
Rated current	A(rms)	(4.1)	←	
Stall current	A(rms)	(4.1)	←	
Rotor inertia	$\times 10^{-4}$ kg·m^2	0.890	0.982	
Electrical time constant	ms	(9.3)	←	
Mechanical time constant	ms	0.421	0.465	
Power rate	kW/s	64.0	58.0	
Instantaneous maximum current	A(0-p)	(19)	←	
Demagnetizing current	A(0-p)	27.9	←	
Voltage constant per phase	$\times 10^{-3}$V(rms)/min^{-1}	20.6 ± 10 %	←	
Induced voltage constant	$\times 10^{-3}$V(0-p)/min^{-1}	43.7 ± 10 %	←	
Torque constant	N·m/A(rms)	0.590 ± 10 %	←	
	N·m/A(0-p)	0.418 ± 10 %	←	
Phase resistance	Ω	0.550 ± 7 %	←	
Phase inductance	mH	(5.1)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(2.4)	(3.2)	
Structure		Totally-enclosed self-cooled type	←	With oil seal
Supply voltage	V_{AC}	200	←	

- The temperature at the center of the motor frame should not exceed 85 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

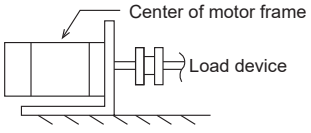
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 200 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 170×160×t12
Material: Aluminum



18.9 MSMG092U1（1000 W, 200 V）

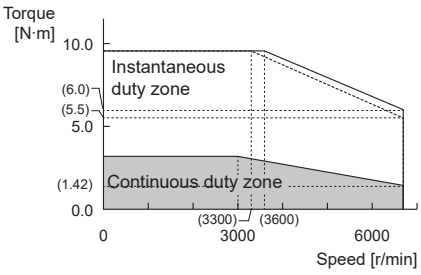
■ MSMG092U1□△ Without oil seal

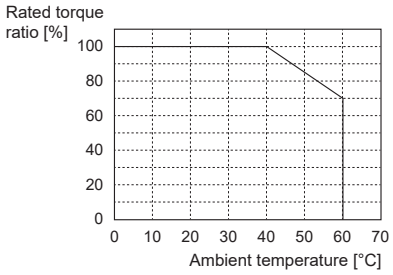
Item	Unit	Without brake	With brake	Remarks
Rated output	W	1000	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	6700	←	
Rated torque	N·m	3.18	←	
Continuous stall torque	N·m	3.18	←	
Instantaneous maximum torque	N·m	9.55	←	
Rated voltage	V_{AC}	122	←	
Rated current	A(rms)	(5.5)	←	
Stall current	A(rms)	(5.5)	←	
Rotor inertia	$\times10^{-4}$ kg·m^2	1.21	1.30	
Electrical time constant	ms	(9.5)	←	
Mechanical time constant	ms	0.406	0.436	
Power rate	kW/s	83.7	77.9	
Instantaneous maximum current	A(0-p)	(24)	←	
Demagnetizing current	A(0-p)	36.0	←	
Voltage constant per phase	$\times10^{-3}$V(rms)/min^{-1}	20.6 ± 10 %	←	
Induced voltage constant	$\times10^{-3}$V(0-p)/min^{-1}	43.7 ± 10 %	←	
Torque constant	N·m/A(rms)	0.590 ± 10 %	←	
	N·m/A(0-p)	0.418 ± 10 %	←	
Phase resistance	Ω	0.390 ± 7 %	←	
Phase inductance	mH	(3.7)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(3.0)	(3.8)	
Structure		Totally-enclosed self-cooled type	←	Without oil seal
Supply voltage	V_{AC}	200	←	

- The temperature at the center of the motor frame should not exceed 90 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

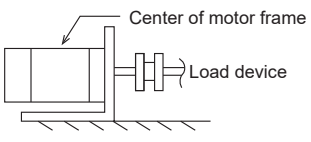
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 200 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 170×160×t12
Material: Aluminum



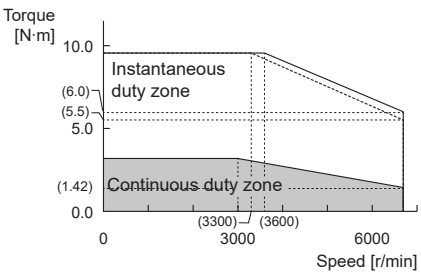
■ MSMG092U1□△ With oil seal

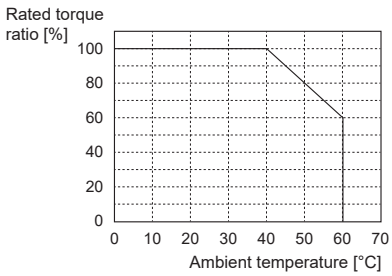
Item	Unit	Without brake	With brake	Remarks
Rated output	W	1000	←	
Rating	%	(100)	←	Refer to the characteristic curve shown below
Number of poles		10	←	
Rated rotating speed	r/min	3000	←	
Maximum speed	r/min	6700	←	
Rated torque	N·m	3.18	←	
Continuous stall torque	N·m	3.18	←	
Instantaneous maximum torque	N·m	9.55	←	
Rated voltage	V_{AC}	122	←	
Rated current	A(rms)	(5.5)	←	
Stall current	A(rms)	(5.5)	←	
Rotor inertia	$\times10^{-4}$ kg·m^2	1.21	1.30	
Electrical time constant	ms	(9.5)	←	
Mechanical time constant	ms	0.406	0.436	
Power rate	kW/s	83.7	77.9	
Instantaneous maximum current	A(0-p)	(24)	←	
Demagnetizing current	A(0-p)	36.0	←	
Voltage constant per phase	$\times10^{-3}$V(rms)/min^{-1}	20.6 ± 10 %	←	
Induced voltage constant	$\times10^{-3}$V(0-p)/min^{-1}	43.7 ± 10 %	←	
Torque constant	N·m/A(rms)	0.590 ± 10 %	←	
	N·m/A(0-p)	0.418 ± 10 %	←	
Phase resistance	Ω	0.390 ± 7 %	←	
Phase inductance	mH	(3.7)	←	Center value
Thermal class		155(F)	←	
Vibration class		V-15	←	
Paint color		Silver	←	Plastic parts are black
Mass	kg	(3.0)	(3.8)	
Structure		Totally-enclosed self-cooled type	←	With oil seal
Supply voltage	V_{AC}	200	←	

- The temperature at the center of the motor frame should not exceed 90 °C during use. (When the ambient temperature is 40°C at an altitude of 1000 m or less)

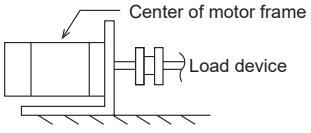
Speed-Torque characteristics (representative values)

Servo driver power supply voltage: For 200 V AC (dotted line indicates 10 % drop in power supply voltage)





Measurement Condition
Flange size: 170×160×t12
Material: Aluminum



Appendix Motor Dimension Drawing

- No. SX-DSV0403901
- No. SX-DSV0403902
- No. SX-DSV0403903
- No. SX-DSV0403904
- No. SX-DSV0403905
- No. SX-DSV0403906

Appendix Name Plate Description

- No. SX-DSV0403907

Do NOT scale the drawings.
instead rely on the dimensions and their definitions.

Opponent connector (No belongings)

Motor connector(TE)
Cap : 172159-1
Socket : 170362-1
or 170366-1

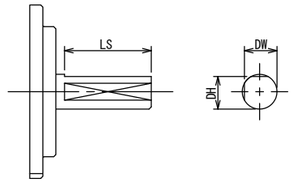
Encoder connector(TE)
Cap : 172161-1
Socket : 170361-1
or 170365-1

Encoder unit
(Absolute)

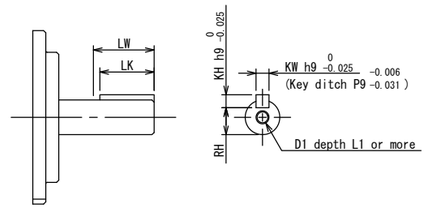
Pin No.	Color	Signal
1	Red	BAT +
2	Pink	BAT −
3	Black	FG
4	Sky blue	PS(SD)
5	Violet	PS(SD)
6	——	NC
7	White	E5 V
8	Black	E0 V
9	——	NC

Motor unit

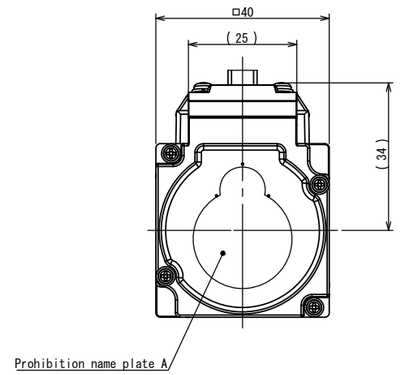
Pin No.	Color	Signal
1	Red	U
2	White	V
3	Black	W
4	Green/Yellow	E

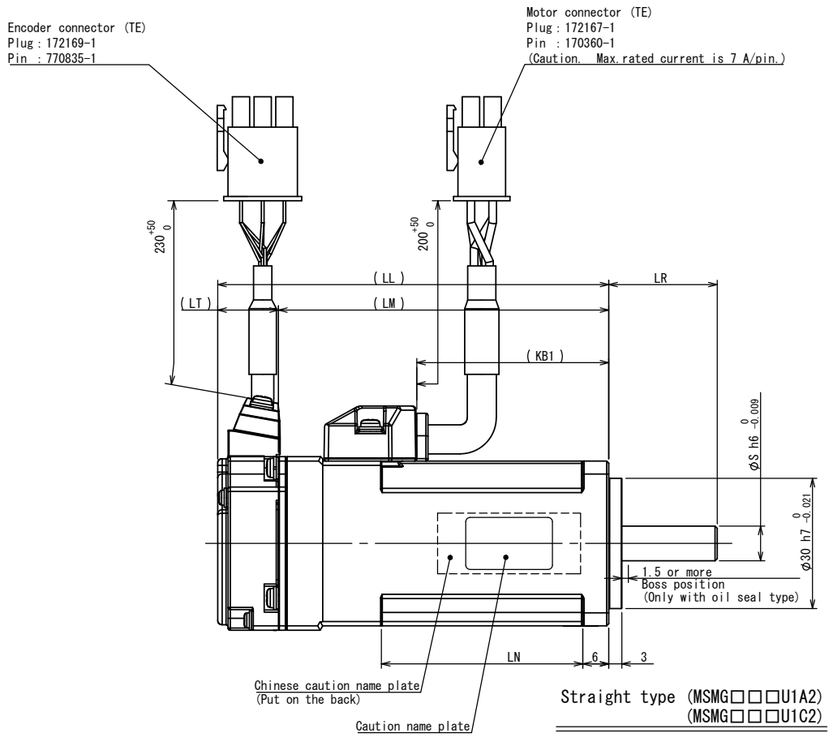


D cut type (MSMG□□□U1N2)
(MSMG□□□U1Q2)

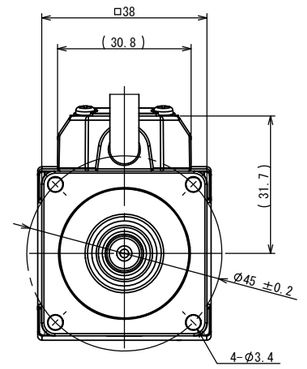


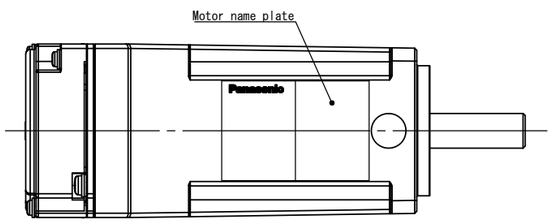
With key and tap type (MSMG□□□U1S2)
(MSMG□□□U1U2)

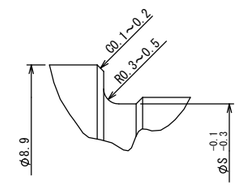




Straight type (MSMG□□□U1A2)
(MSMG□□□U1C2)







Detail of shaft step part
(S=Free)

Notes
1. Assembly accuracy(TIR value)
・Shaft end runout: 0.015 (shaft exit middle)
・Perpendicularity of flange face to shaft: 0.04 (ϕ45)
・Eccentricity of flange fitting outside diameter to shaft: 0.03 (middle of spigot)
2. For flange mounting bolts, use hexagonal socket head bolts.

Model name	Rated rotating speed (r/min)	Rated output (W)	LL	LR	LM	S	LT	LN	KB1	LW	LK	KW	KH	RH	D1	L1	LS	DW	DH
MSMG5AZU1□2	3000	50	70.25	25	56.25	8	14	26.5	24.35	14	12.5	3	3	6.2	M3	6	20	7.5	7.5
MSMG01□U1□2	↑	100	90.2	↑	76.2	↑	↑	46.45	44.3	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑

Scale	Panasonic Industry Co., Ltd.			Agreement
1:1	3rd Angle System	Unit:mm		
Designed	Drawn	Checked	Checked	Checked

Model	MSMG□□□U1□2 □38
Name	MOTOR DIMENSION DRAWING(WITHOUT BRAKE)
No.	SX-DSV0403901

TRACE
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Opponent connector (No belongings)

Motor connector (TE)
Cap : 172159-1
Socket : 170362-1
or 170366-1

Brake connector (TE)
Cap : 172157-1
Socket : 170362-1
or 170366-1

Encoder connector (TE)
Cap : 172161-1
Socket : 170361-1
or 170365-1

Encoder unit
(Absolute)

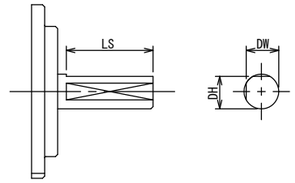
Pin No.	Color	Signal
1	Red	BAT +
2	Pink	BAT -
3	Black	FG
4	Sky blue	PS(SD)
5	Violet	PS(SD)
6	——	NC
7	White	E5 V
8	Black	E0 V
9	——	NC

Brake unit

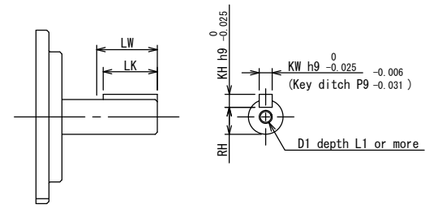
Pin No.	Color	Signal
1	Yellow	Brake
2	Yellow	Brake

Motor unit

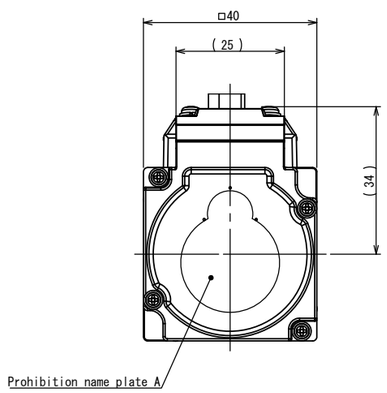
Pin No.	Color	Signal
1	Red	U
2	White	V
3	Black	W
4	Green/Yellow	E

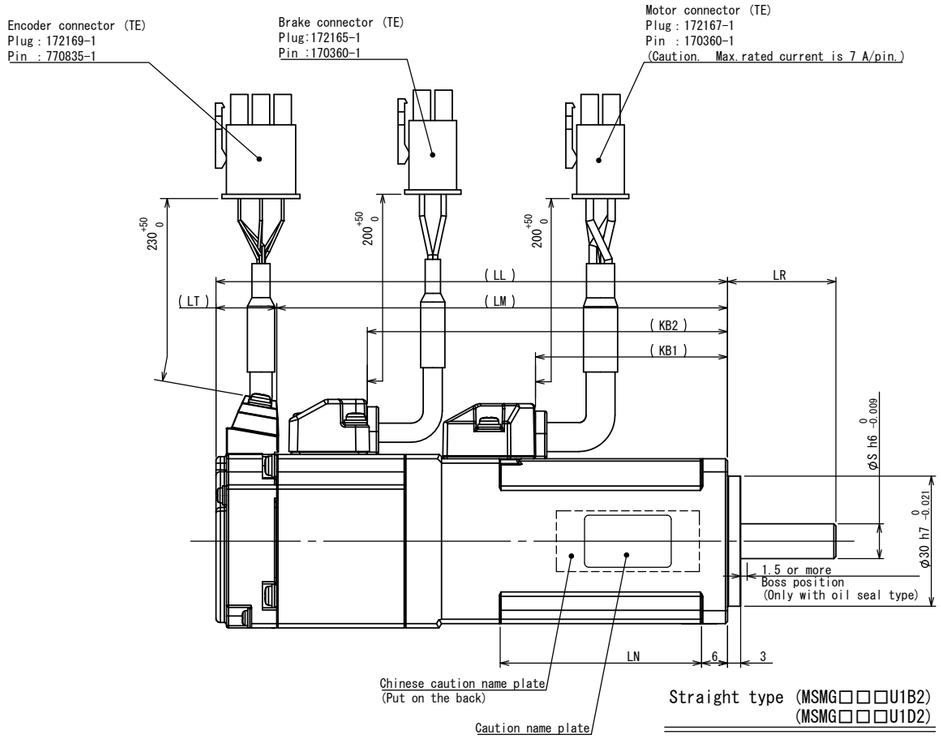


D cut type (MSMG□□□U1P2)
(MSMG□□□U1R2)

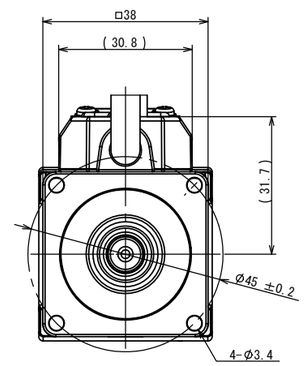


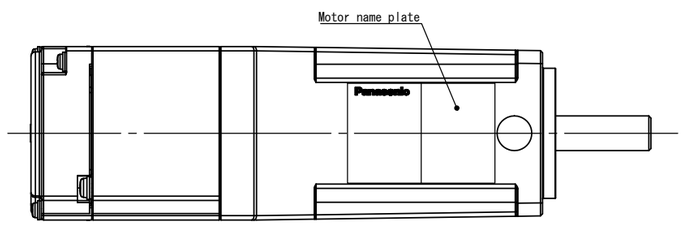
With key and tap type (MSMG□□□U1T2)
(MSMG□□□U1V2)

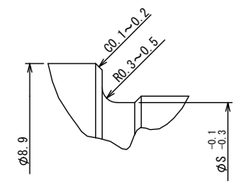




Straight type (MSMG□□□U1B2)
(MSMG□□□U1D2)







Detail of shaft step part
(S=Free)

Notes
1. Assembly accuracy(TIR value)
・Shaft end runout: 0.015 (shaft exit middle)
・Perpendicularity of flange face to shaft: 0.04 (ϕ45)
・Eccentricity of flange fitting outside diameter to shaft: 0.03 (middle of spigot)
2. For flange mounting bolts, use hexagonal socket head bolts.

Model name	Rated rotating speed (r/min)	Rated output (W)	LL	LR	LM	S	LT	LN	KB1	KB2	LW	LK	KW	KH	RH	D1	L1	LS	DW	DH
MSMG5AZU1□2	3000	50	98.05	25	84.05	8	14	26.5	24.35	63.15	14	12.5	3	3	6.2	M3	6	20	7.5	7.5
MSMG01□U1□2	↑	100	118	↑	104	↑	↑	46.45	44.3	83.1	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑

Scale	Panasonic Industry Co., Ltd.			Agreement	Model: MSMG□□□U1□2 □38
1:1	3rd Angle System Unit:mm				Name: MOTOR DIMENSION DRAWING(WITH BRAKE)
Designed	Drawn	Checked	Checked	Checked	No. SX-DSV0403902

TRACE
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Do NOT scale the drawings.
instead rely on the dimensions and their definitions.

Do NOT scale the drawings.
instead rely on the dimensions and their definitions.

Opponent connector (No belongings)

Motor connector(TE)
Cap : 172159-1
Socket : 170362-1
or 170366-1

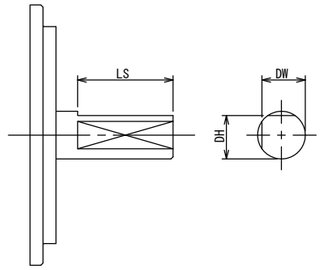
Encoder connector(TE)
Cap : 172161-1
Socket : 170361-1
or 170365-1

Encoder unit
(Absolute)

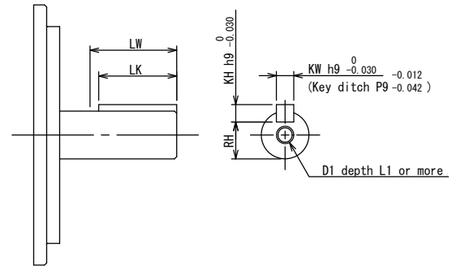
Pin No.	Color	Signal
1	Red	BAT +
2	Pink	BAT −
3	Black	FG
4	Sky blue	PS(SD)
5	Violet	PS(SD)
6	—	NC
7	White	E5 V
8	Black	E0 V
9	—	NC

Motor unit

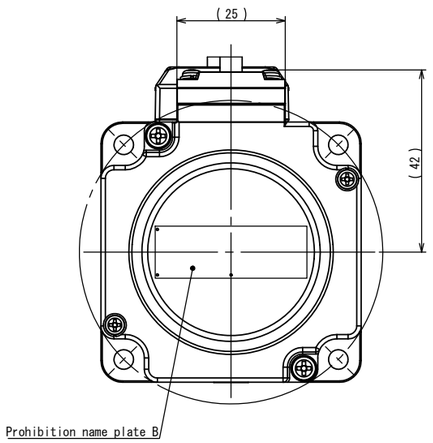
Pin No.	Color	Signal
1	Red	U
2	White	V
3	Black	W
4	Green/Yellow	E

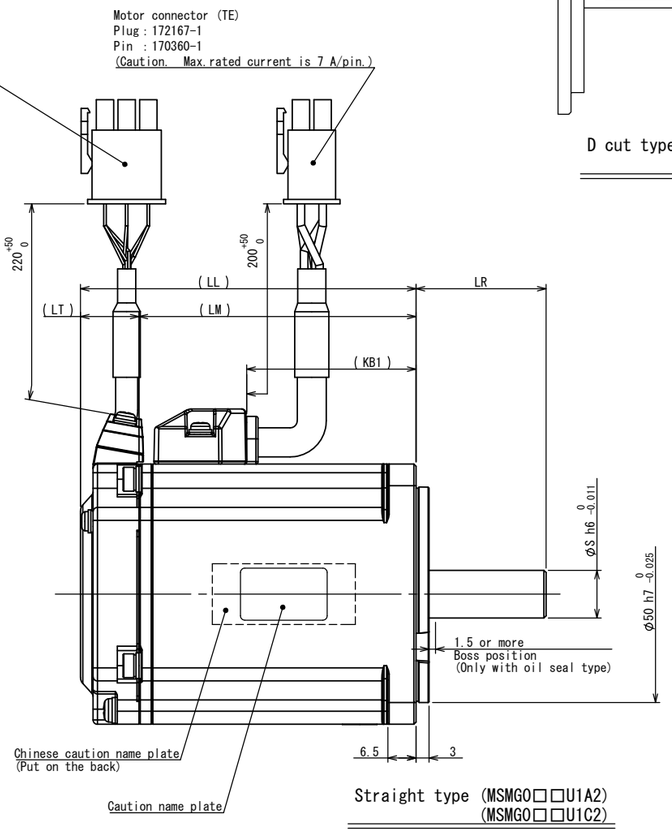


D cut type (MSMG0□□U1N2)
(MSMG0□□U1Q2)

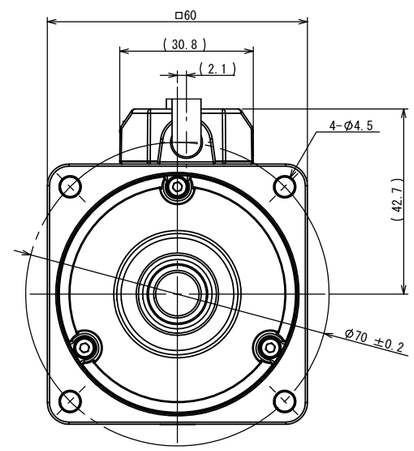


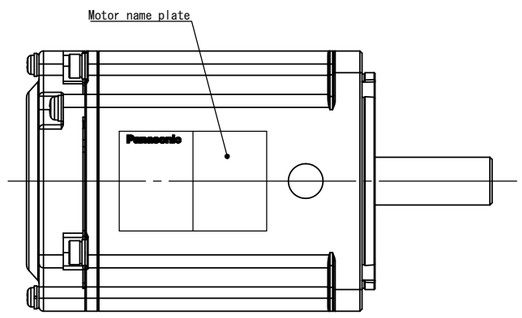
With key and tap type (MSMG0□□U1S2)
(MSMG0□□U1U2)

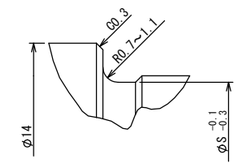




Straight type (MSMG0□□U1A2)
(MSMG0□□U1C2)







Detail of shaft step part
(S=Free)
(200 W only)

Notes
1. Assembly accuracy(TIR value)
・Shaft end runout: 0.015 (shaft exit middle)
・Perpendicularity of flange face to shaft: 0.04 (ϕ70)
・Eccentricity of flange fitting outside diameter to shaft: 0.03 (middle of spigot)
2. For flange mounting bolts, use hexagonal socket head bolts.

Model	Rated rotating speed (r/min)	Rated output (W)	LL	LR	LM	S	LT	KB1	LW	LK	KW	KH	RH	D1	L1	LS	DW	DH
MSMG02□U1□2	3000	200	77.4	30	63.9	11	13.5	39.05	20	18	4	4	8.5	M4	8	22	10	10
MSMG04□U1□2	↑	400	94.2	↑	80.7	14	↑	55.85	25	22.5	5	5	11	M5	10	↑	12.5	12.5

Scale	Panasonic Industry Co., Ltd.			Agreement
1:1	3rd Angle System Unit:mm			
Designed	Drawn	Checked	Checked	Checked

Model	MSMG0□□U1□2 □60
Name	MOTOR DIMENSION DRAWING(WITHOUT BRAKE)
No.	SX-DSV0403903

TRACE
CLASS
MERCHAND G

Do NOT scale the drawings.
instead rely on the dimensions and their definitions.

Opponent connector (No belongings)

Motor connector (TE)
Cap : 172159-1
Socket : 170362-1
or 170366-1

Brake connector (TE)
Cap : 172157-1
Socket : 170362-1
or 170366-1

Encoder connector (TE)
Cap : 172161-1
Socket : 170361-1
or 170365-1

Encoder unit
(Absolute)

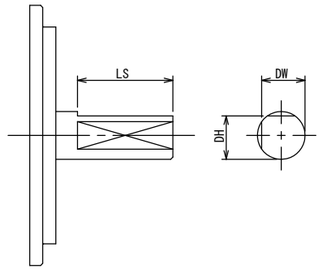
Pin No.	Color	Signal
1	Red	BAT +
2	Pink	BAT −
3	Black	FG
4	Sky blue	PS(SD)
5	Violet	PS(SD)
6	——	NC
7	White	E5 V
8	Black	E0 V
9	——	NC

Brake unit

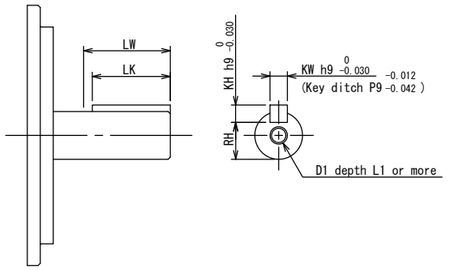
Pin No.	Color	Signal
1	Yellow	Brake
2	Yellow	Brake

Motor unit

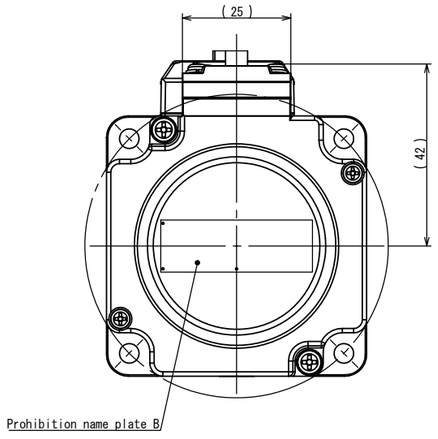
Pin No.	Color	Signal
1	Red	U
2	White	V
3	Black	W
4	Green/Yellow	E

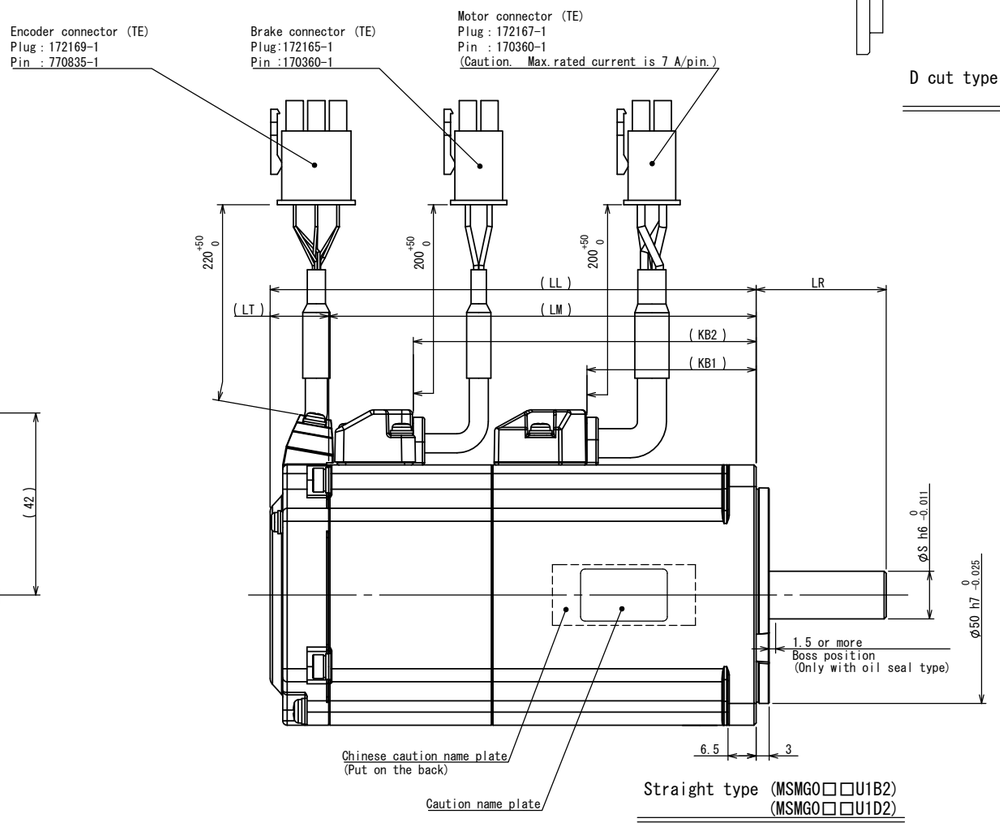


D cut type (MSMG0□□U1P2)
(MSMG0□□U1R2)

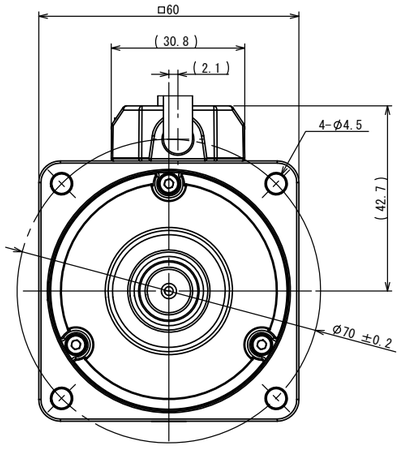


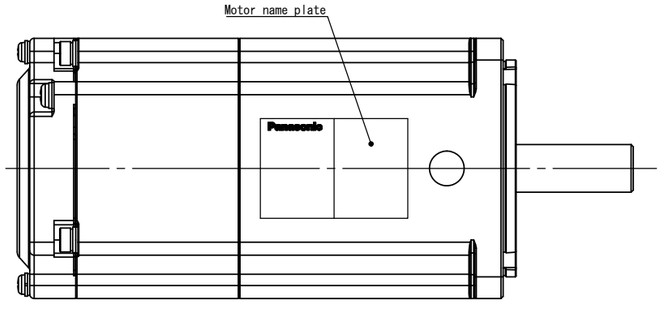
With key and tap type (MSMG0□□U1T2)
(MSMG0□□U1V2)

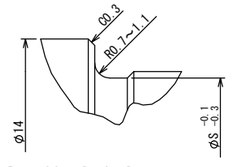




Straight type (MSMG0□□U1B2)
(MSMG0□□U1D2)







Detail of shaft step part
(S=Free)
(200 W only)

Notes
1. Assembly accuracy(TIR value)
・Shaft end runout: 0.015 (shaft exit middle)
・Perpendicularity of flange face to shaft: 0.04 (ϕ70)
・Eccentricity of flange fitting outside diameter to shaft: 0.03 (middle of spigot)
2. For flange mounting bolts, use hexagonal socket head bolts.

Model name	Rated rotating speed (r/min)	Rated output (W)	LL	LR	LM	S	LT	KB1	KB2	LW	LK	KW	KH	RH	D1	L1	LS	DW	DH
MSMG02□U1□2	3000	200	112.1	30	98.6	11	13.5	39.05	79.1	20	18	4	4	8.5	M4	8	22	10	10
MSMG04□U1□2	↑	400	128.9	↑	115.4	14	↑	55.85	95.9	25	22.5	5	5	11	M5	10	↑	12.5	12.5

Scale	Panasonic Industry Co., Ltd.			Agreement
1:1	3rd Angle System Unit:mm			
Designed	Drawn	Checked	Checked	Checked

Model	MSMG0□□U1□2 □60
Name	MOTOR DIMENSION DRAWING(WITH BRAKE)
No.	SX-DSV0403904

TRACE
CLASS
MERCHAND G

Opponent connector (No belongings)

Motor connector(TE)
Cap : 172159-1
Socket : 170362-1
or 170366-1

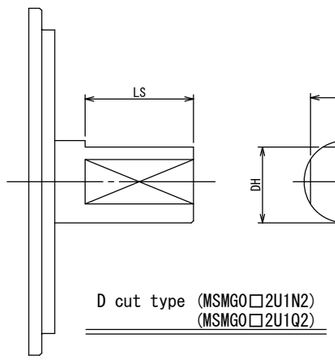
Encoder connector(TE)
Cap : 172161-1
Socket : 170361-1
or 170365-1

Encoder unit
(Absolute)

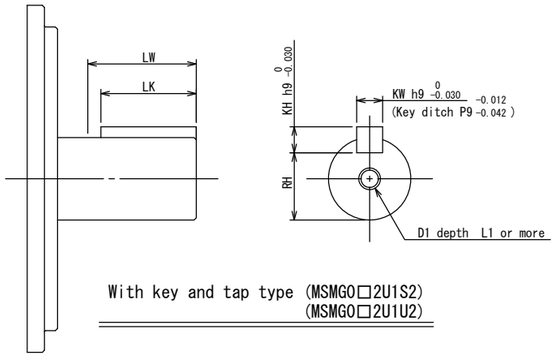
Pin No.	Color	Signal
1	Red	BAT +
2	Pink	BAT -
3	Black	FG
4	Sky blue	PS(SD)
5	Violet	PS(SD)
6	——	NC
7	White	E5 V
8	Black	E0 V
9	——	NC

Motor unit

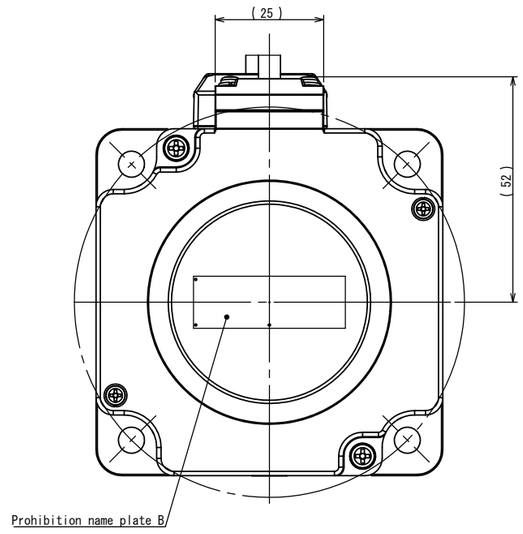
Pin No.	Color	Signal
1	Red	U
2	White	V
3	Black	W
4	Green/Yellow	E

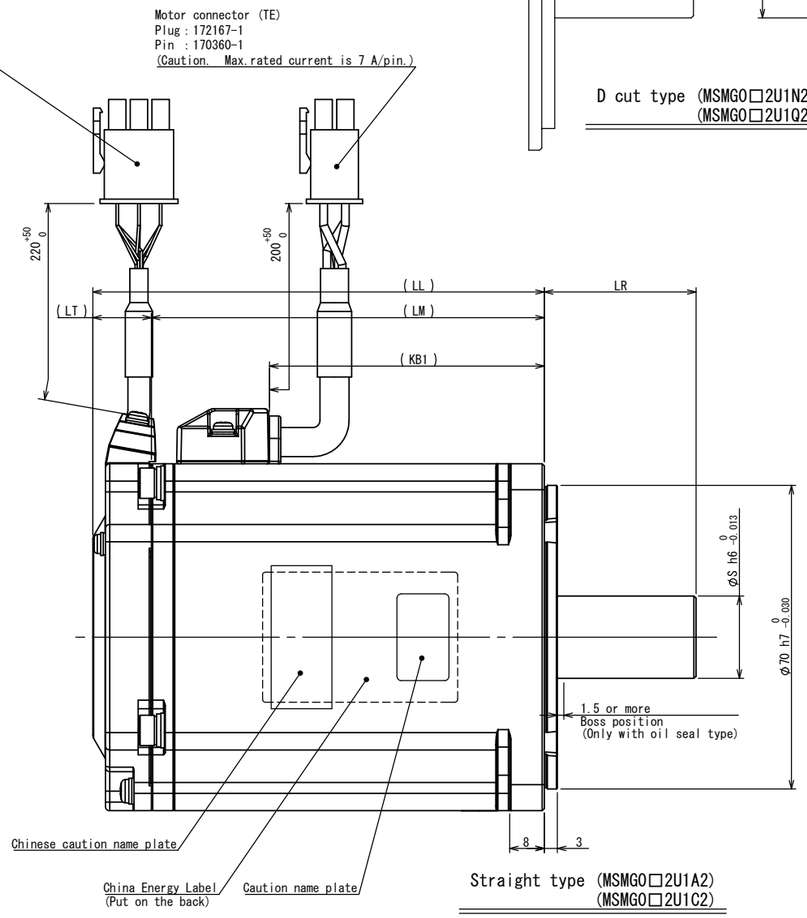


D cut type (MSMG0□2U1N2)
(MSMG0□2U1Q2)

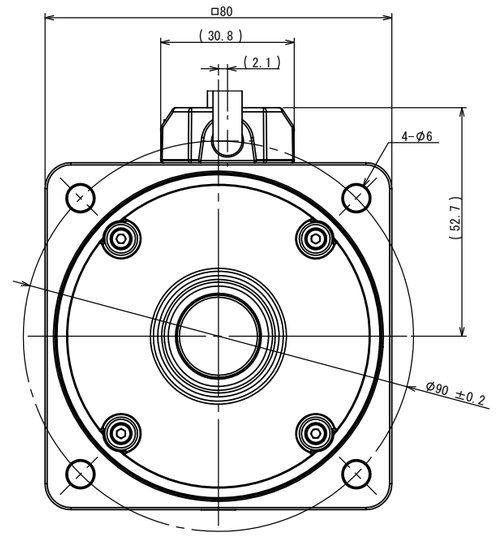


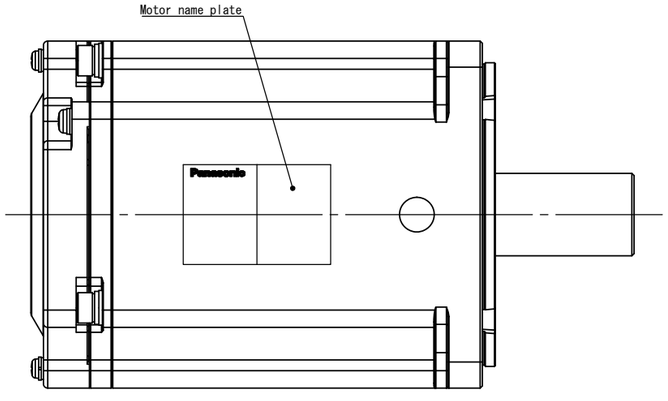
With key and tap type (MSMG0□2U1S2)
(MSMG0□2U1U2)





Straight type (MSMG0□2U1A2)
(MSMG0□2U1C2)





Notes
1. Assembly accuracy(TIR value)
・Shaft end runout: 0.015 (shaft exit middle)
・Perpendicularity of flange face to shaft: 0.04 (ϕ90)
・Eccentricity of flange fitting outside diameter to shaft: 0.03 (middle of spigot)
2. For flange mounting bolts, use hexagonal socket head bolts.

Model name	Rated rotating speed (r/min)	Rated output (W)	LL	LR	LM	S	LT	KB1	LW	LK	KW	KH	RH	D1	L1	LS	DW	DH
MSMG082U1□2	3000	750	104.15	35	90.65	19	13.5	63.4	25	22	6	6	15.5	M5	10	25	17.5	17.5
MSMG092U1□2	↑	1000	122.7	↑	109.2	↑	↑	81.95	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑

Scale	Panasonic Industry Co., Ltd.			Agreement
1:1	3rd Angle System	Unit:mm		
Designed	Drawn	Checked	Checked	Checked

Model	MSMG0□2U1□2 □80
Name	MOTOR DIMENSION DRAWING(WITHOUT BRAKE)
No.	SX-DSV0403905

Do NOT scale the drawings.
instead rely on the dimensions and their definitions.

MERCHAND G CLASS TRACE

Opponent connector (No belongings)

Motor connector (TE)
Cap : 172159-1
Socket : 170362-1
or 170366-1

Brake connector (TE)
Cap : 172157-1
Socket : 170362-1
or 170366-1

Encoder connector (TE)
Cap : 172161-1
Socket : 170361-1
or 170365-1

Encoder unit
(Absolute)

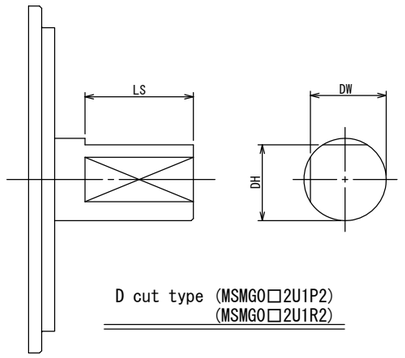
Pin No.	Color	Signal
1	Red	BAT +
2	Pink	BAT −
3	Black	FG
4	Sky blue	PS(SD)
5	Violet	PS(SD)
6	——	NC
7	White	E5 V
8	Black	E0 V
9	——	NC

Brake unit

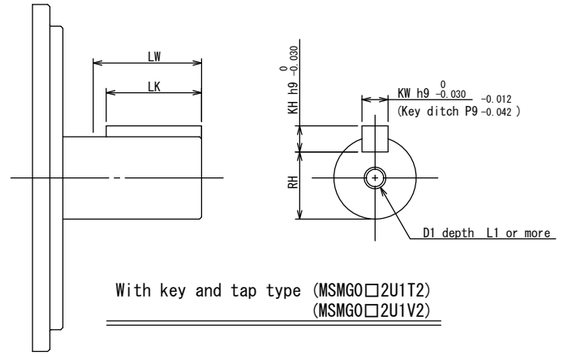
Pin No.	Color	Signal
1	Yellow	Brake
2	Yellow	Brake

Motor unit

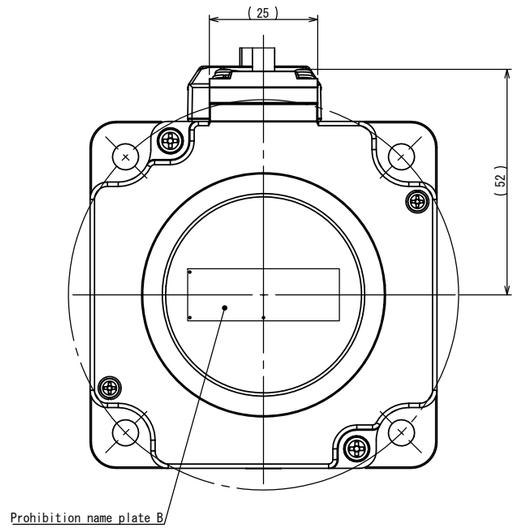
Pin No.	Color	Signal
1	Red	U
2	White	V
3	Black	W
4	Green/Yellow	E

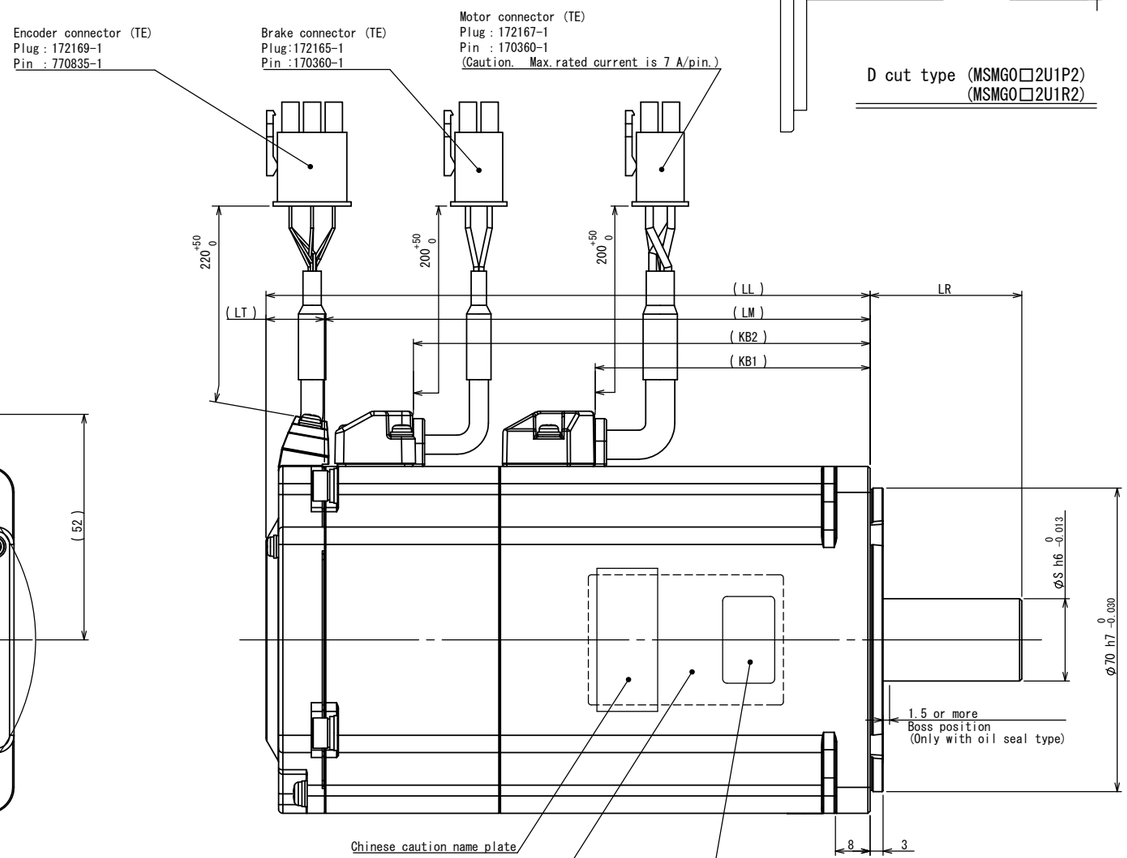


D cut type (MSMG0□2U1P2)
(MSMG0□2U1R2)

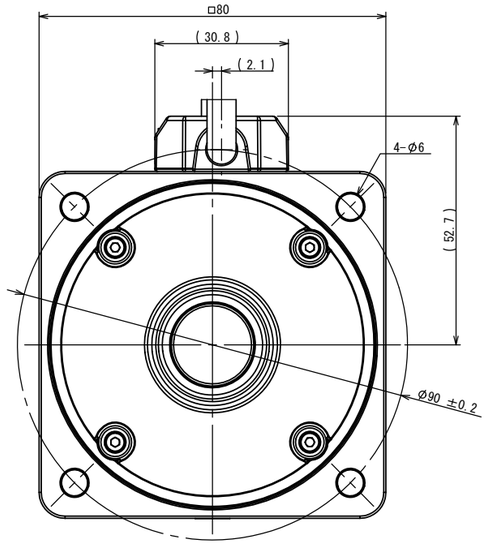


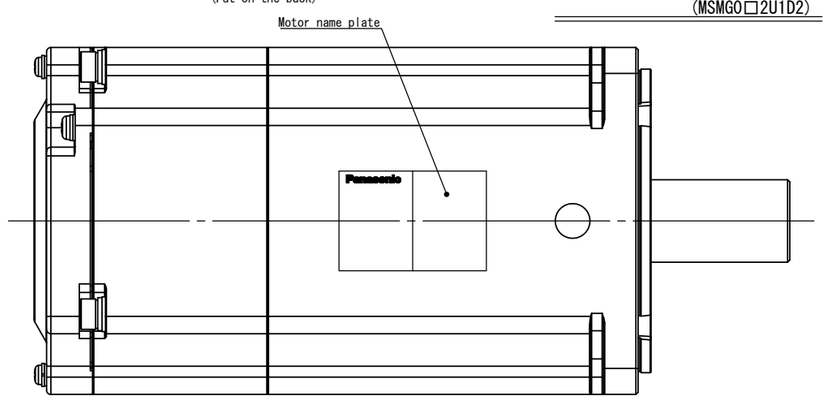
With key and tap type (MSMG0□2U1T2)
(MSMG0□2U1V2)





Straight type (MSMG0□2U1B2)
(MSMG0□2U1D2)





Notes
1. Assembly accuracy(TIR value)
・Shaft end runout: 0.015 (shaft exit middle)
・Perpendicularity of flange face to shaft: 0.04 (ϕ90)
・Eccentricity of flange fitting outside diameter to shaft: 0.03 (middle of spigot)
2. For flange mounting bolts, use hexagonal socket head bolts.

Model name	Rated rotating speed (r/min)	Rated output (W)	LL	LR	LM	S	LT	KB1	KB2	LW	LK	KW	KH	RH	D1	L1	LS	DW	DH
MSMG082U1□2	3000	750	139.35	35	125.85	19	13.5	63.4	105.35	25	22	6	6	15.5	M5	10	25	17.5	17.5
MSMG092U1□2	↑	1000	157.9	↑	144.4	↑	↑	81.95	123.9	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑

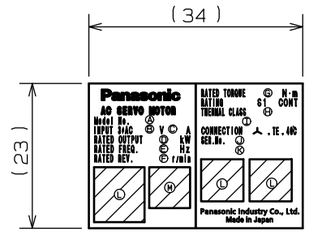
Scale	Panasonic Industry Co., Ltd.			Agreement
1:1	3rd Angle System Unit:mm			
Designed	Drawn	Checked	Checked	Checked

Model	MSMG0□2U1□2 □80
Name	MOTOR DIMENSION DRAWING(WITH BRAKE)
No.	SX-DSV0403906

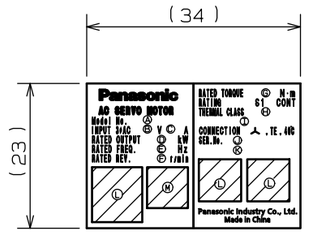
Do NOT scale the drawings,
instead rely on the dimensions and their definitions.

TRACE
CLASS
MERCHAND G

Do NOT scale the drawings.
instead rely on the dimensions
and their definitions



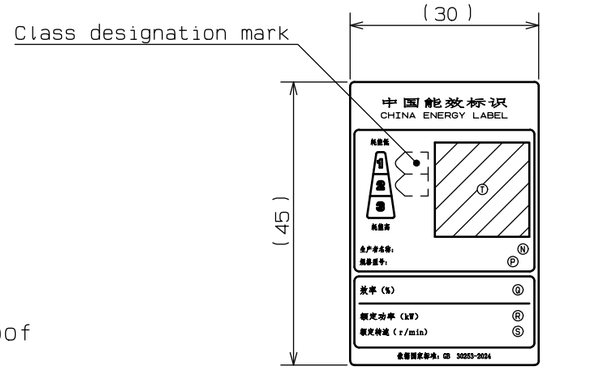
Motor name plate
(Made in Japan)



Motor name plate
(Made in China)

Motor name plate
described contents

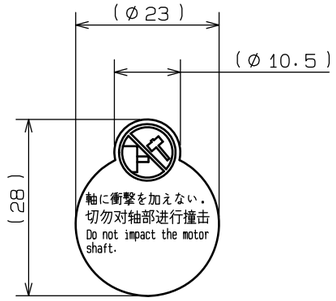
- Ⓐ Model name
- Ⓑ Rated voltage
- Ⓒ Rated current
- Ⓓ Rated output
- Ⓔ Rated frequency
- Ⓕ Rated rotating speed
- Ⓖ Rated torque
- Ⓗ Thermal class
- Ⓘ Dust-proof & Drip-proof
- Ⓙ Serial No.
- Ⓚ Production date
- Ⓛ Standard mark
- Ⓜ QR code



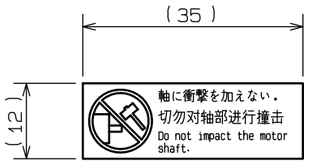
China Energy Label
(Only 750 W or more)

China Energy Label
described contents

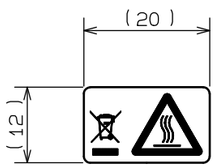
- Ⓝ Manufacturer name
- Ⓟ Model name
- Ⓠ Efficiency
- Ⓡ Rated output
- Ⓢ Rated rotating speed
- Ⓣ QR code



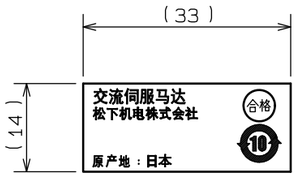
Prohibition name plate A



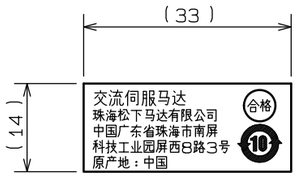
Prohibition name plate B



Caution name plate



Chinese caution name plate
(Made in Japan)



Chinese caution name plate
(Made in China)

Scale	Panasonic Industry Co., Ltd.				Agreement
1 : 1	3rd Angle System / Unit:mm				
Designed	Drawn	Checked	Checked	Checked	

Model	MSMG Series
Name	NAME PLATE DESCRIPTION
No.	SX-DSV0403907

MERCHAND G	CLASS	TRACE
SVM	E	