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TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

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with experienced engineers and technicians on staff.

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along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
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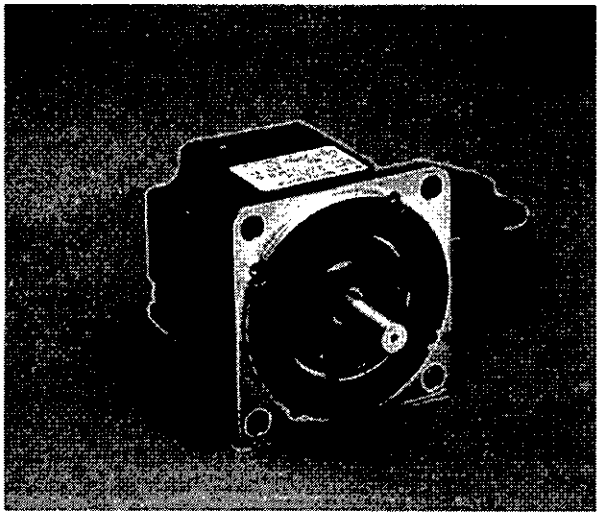
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Find the *Yaskawa SGMP-04V314CT* at our website: *Click HERE*

Flat Series
SGMP Servomotors - With Incremental / Absolute Encoder

Rated Output : 100W, 200W, 400W,
750W, 1500W



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Design Features

1. **Compact**
   - The length is about 1/2 of our conventional motor
   - Enhanced withstand load since motor output shaft bearing size is upgraded
2. **Enhanced Environmental Resistance**
   - Water resistance, IP55 standard
   - Reinforced lead-out cable access
3. **Application Emphasis**
   - Chip mounters
   - PCB drilling machines
   - Robots
   - Conveyor
   - Packaging
4. **Certified International Standards**
   - UL Recognized (File #: E165827), CE compliance (option)

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Servomotor Ratings and Specifications

Time Rating: Continuous
Insulation: Class B
Vibration: 15μm or less
Withstand Voltage: 1500VAC
Insulation Resistance: 500VDC 10MΩ or more

Enclosure: Totally-enclosed, self-cooled
Ambient Temperature: 0 to 40ºC
Ambient Humidity: 20 to 80% (non-condensing)
Rated Rotation Speed: 3000 rpm
Max. Rotation Speed: 4500 rpm

Excitation: Permanent magnet
Drive Method: Direct drive
Mounting: Flange-mounted
Applicable Encoder: Incremental encoder 2048PPR, Absolute encoder 12-bit 1024PPR

Applied Voltage	MOTORS: SGMP-	Rated Output	Rated Torque		Instantaneous Peak Torque		Continuous Output Current *3	Maximum Output Current *3	Rated Angular Acceleration	Rated Power Rating
		W (hp)	N • m	oz • in	N • m	oz • in	A (rms)	A (rms)	rad/s^2	KW/s
200VAC	01□	100 (0.13)	0.318	45.1	0.96	135	0.89	2.8	49200	15.7
	02□	200 (0.27)	0.637	90.1	1.91	270	2.0	6.0	30500	19.4
	04□	400 (0.54)	1.27	181	3.82	542	2.6	8.0	36700	46.8
	08□	750 (1.01)	2.39	338	7.1	1010	4.1	13.9	11300	26.9
	15□	1500 (2.01)	4.77	676	1.43	2027	7.5	28.0	11800	56.6
100VAC	01□	100 (0.13)	0.318	45.1	0.96	135	2.2	7.1	49200	15.7
	02□	200 (0.27)	0.637	90.1	1.91	207	2.7	8.4	30500	19.4
	03□	300 (0.40)	0.955	135	2.86	406	4.3	13.9	27500	26.3

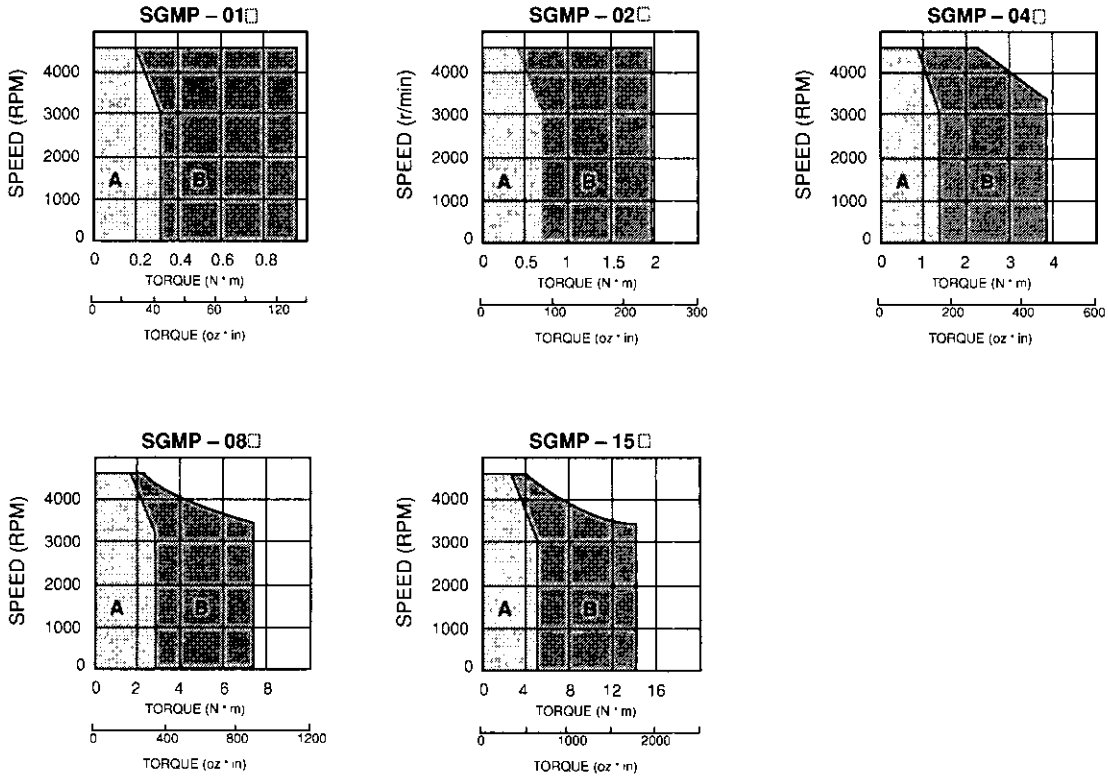
Applied Voltage	MOTORS: SGMP-	Moment Inertia (JM)								Allowable Load Inertia	
		Incremental Encoder w/o Brake		Incremental Encoder w/Brake		Absolute Encoder w/o Brake		Absolute Encoder w/Brake		*1	*2
		(GD^{2}M/4) kg • m^2	oz • in • s^2	(GD^{2}M/4) kg • m^2	oz • in • s^2	(GD^{2}M/4) kg • m^2	oz • in • s^2	(GD^{2}M/4) kg • m^2	oz • in • s^2	(=GD^{2}L/4) kg • m^2	(=GD^{2}L/4) oz • in • s^2
200VAC	01□	0.065×10^{-4}	0.917×10^{-3}	0.094×10^{-4}	1.46×10^{-3}	0.090×10^{-4}	1.27×10^{-3}	0.119×10^{-4}	1.81×10^{-3}	1.20×10^{-4}	17.0×10^{-3}
	02□	0.209×10^{-4}	2.96×10^{-3}	0.318×10^{-4}	4.35×10^{-3}	0.234×10^{-4}	3.31×10^{-3}	0.343×10^{-4}	4.70×10^{-3}	3.69×10^{-4}	52.3×10^{-3}
	04□	0.34×10^{-4}	4.92×10^{-3}	0.456×10^{-4}	6.31×10^{-3}	0.372×10^{-4}	5.27×10^{-3}	0.481×10^{-4}	6.66×10^{-3}	3.82×10^{-4}	54.1×10^{-3}
	08□	2.11×10^{-4}	29.9×10^{-3}	2.99×10^{-4}	35.7×10^{-3}	2.14×10^{-4}	30.3×10^{-3}	3.01×10^{-4}	36.1×10^{-3}	13.4×10^{-4}	190×10^{-3}
	15□	4.03×10^{-4}	57.1×10^{-3}	4.91×10^{-4}	67.8×10^{-3}	4.06×10^{-4}	57.5×10^{-3}	4.93×10^{-4}	68.2×10^{-3}	24.1×10^{-4}	341×10^{3}
100VAC	01□	0.065×10^{-4}	0.917×10^{-3}	0.094×10^{-4}	1.46×10^{-3}	0.090×10^{-4}	1.27×10^{-3}	0.119×10^{-4}	1.81×10^{-3}	1.20×10^{-4}	17.0×10^{-3}
	02□	0.209×10^{-4}	2.96×10^{-3}	0.318×10^{-4}	4.35×10^{-3}	0.234×10^{-4}	3.31×10^{-3}	0.343×10^{-4}	4.70×10^{-3}	3.69×10^{-4}	52.3×10^{-3}
	03□	0.347×10^{-4}	4.92×10^{-3}	0.456×10^{-4}	6.31×10^{-3}	0.372×10^{-4}	5.27×10^{-3}	0.481×10^{-4}	6.66×10^{-3}	5.73×10^{-4}	81.1×10^{-3}

*1 Values show the types with incremental encoder without brake. When "with absolute encoder and brake" types is applied, values may be varied.
*2 JL (allowable load inertia) shows the range requiring no exterior regenerative unit. When these values are exceeded, application may be restricted or a regenerative unit may be required.
*3 Values when SERVOMOTOR is combined with SGDA Servo Amplifier.

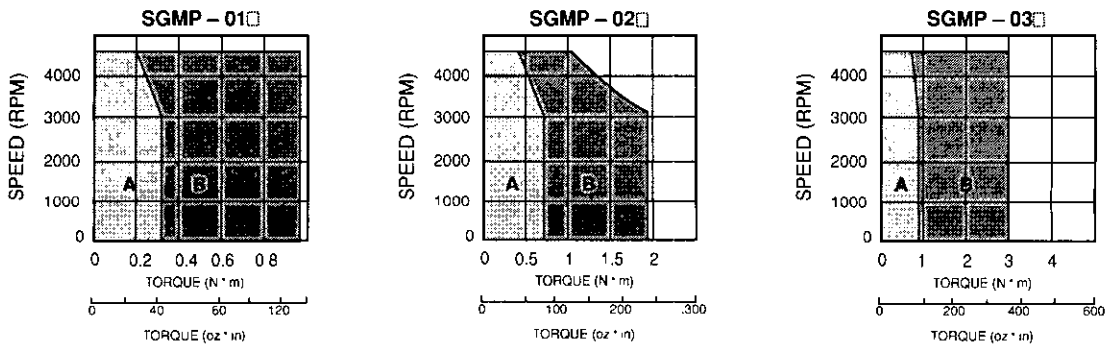
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Speed / Torque Curves

200V



100V



A: CONTINUOUS DUTY ZONE

B: INTERMITTENT DUTY ZONE

SGMP

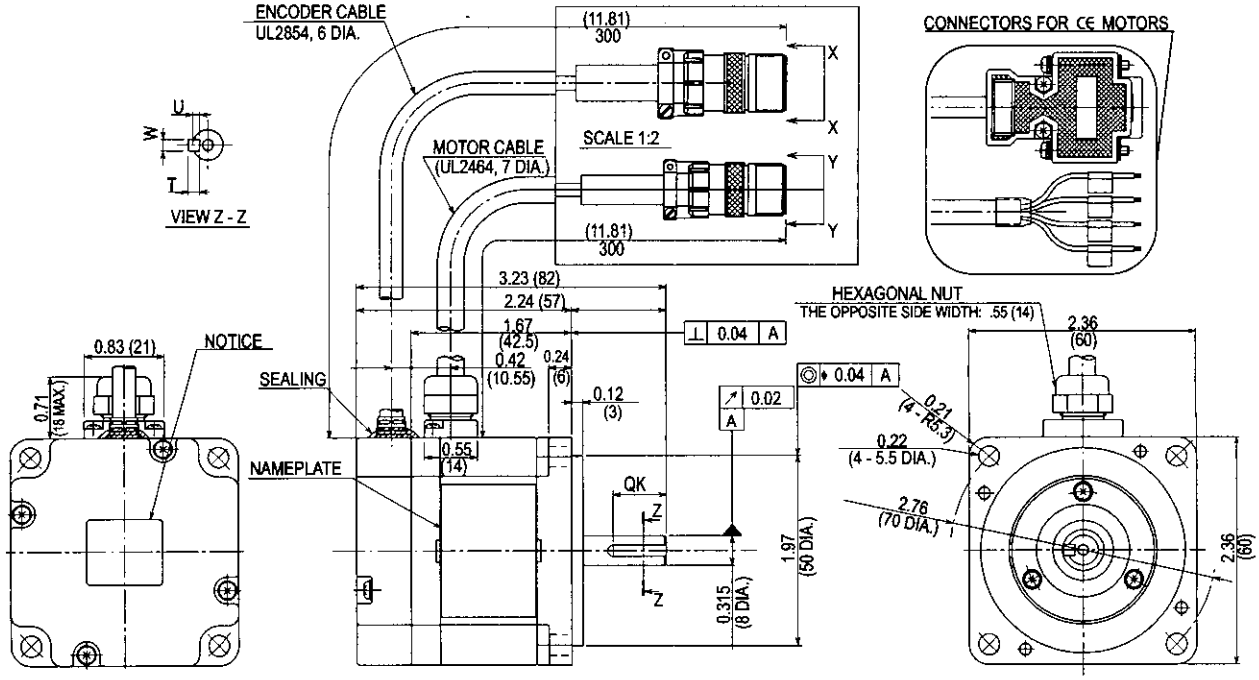
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Dimensions in inches (mm)

(1) 2048 PPR Incremental Encoder, without Brake

Note: 1. The keyway complies with JIS B1301-1976 (precision). A straight key is supplied.
2. The electromagnetic brake is only to hold the load in position and cannot be used to stop the motor.
3. Conforms to the IP55 enclosure (except connector and output shaft faces).
4. The quoted allowable radial load is the value at a position 5mm (0.2in) from the shaft end.

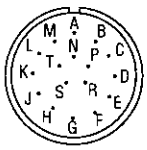
- **100W (0.13HP)**

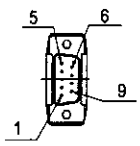


Type SGMP-	Key				Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
	QK	U	W	T							
01□312M	Without Keyway				100 (0.13)	0.318 (3.25)	Continuous	3000	1.54 (0.7)	17 (78)	11 (49)
01□314M	0.55 (14)	0.07 (1.8)	0.12 (3)	0.12 (3)							

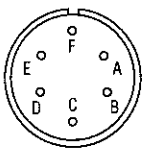
Note: The quoted allowable radial load is the value at a position 0.79in (20mm.) from the mounting surface.
For CE, these will be "V" for 200V and "L" for 100V.

Connector Specifications





MS Connector: MS310A20-29P (DDK)
Cable Clamp: MS3057-12A
CE connector: 17JE-23090-02 (D8A)
(Made by DDK Ltd)



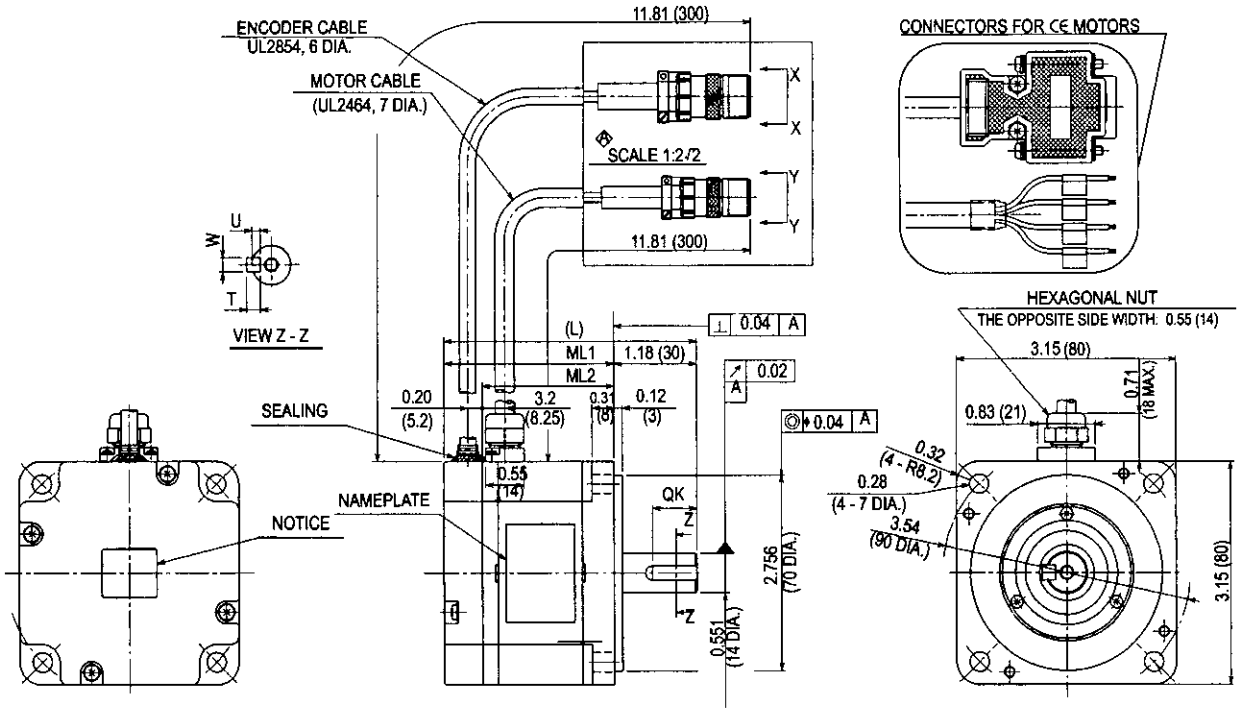
MS Connector: MS3101A18-12P
Cable Clamp: MS3057-10A (DDK)

Incremental Terminal Specifications		
1	Channel A Output	Blue
2	Channel $\overline{A}$ Ouput	Blue/Black
3	Channel B Output	Yellow
4	Channel $\overline{B}$ Output	Yellow/Black
5	Channel C Output	Green
6	Channel $\overline{C}$ Output	Green/Black
7	0V (Power Supply)	Grey
8	+5V (Power Supply)	Red
9	FG (Frame Ground)	Orange

Motor Wiring Specifications		
1	Phase U	Red
2	Phase V	White
3	Phase W	Blue
4	FG (Frame Ground)	Green

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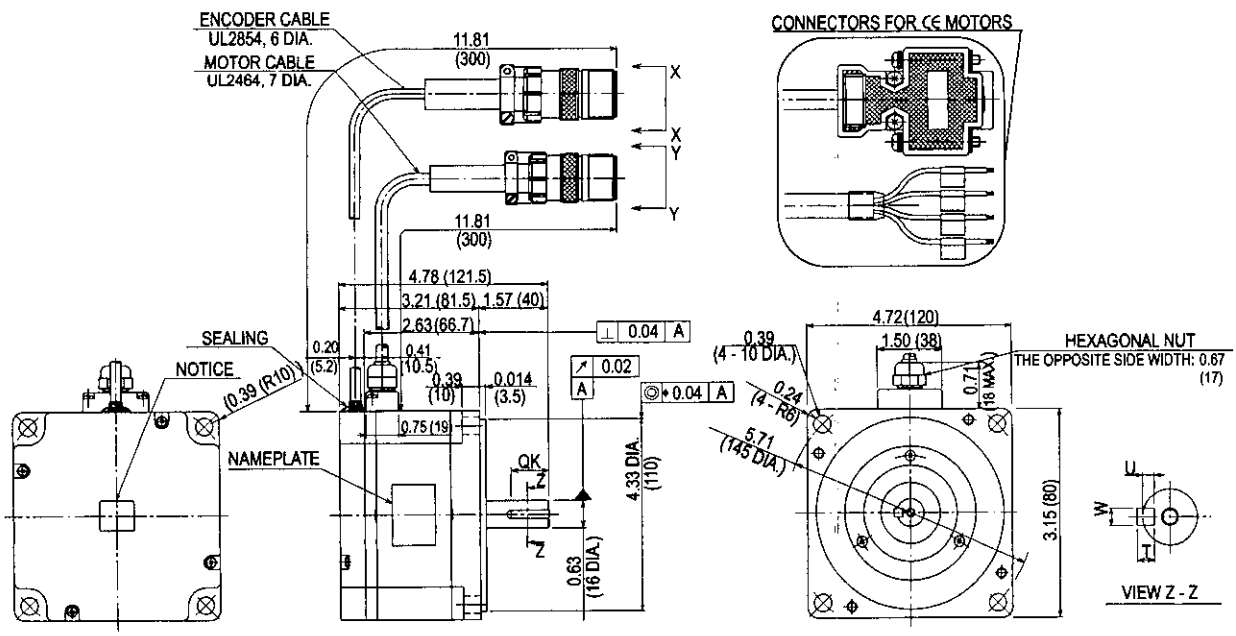
• 200W (0.27HP), 300W (0.40HP), 400W (0.53HP)



Type SGMP-	L	LL	LM	Key QK	Key U	Key W	Key T	Voltage V	Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
02□312M	3.62 (92)	2.44 (62)	1.89 (48.1)	Without Keyway				200	200 (0.27)	0.637 (6.49)	Continuous	3000	3.09 (1.4)	55 (245)	15 (68)
02□314M				0.63 (16)	0.12 (3)	0.20 (5)	0.20 (5)								
03□312M	4.41 (112)	3.23 (82)	2.68 (68.1)	Without Keyway				100	300 (0.40)	0.95 (9.74)			4.63 (2.1)		
03□314M				0.63 (16)	0.12 (3)	0.20 (5)	0.20 (5)								
04□312M				Without Keyway				200	400 (0.53)	1.27 (13.0)					
04□314M				0.63 (16)	0.12 (3)	0.20 (5)	0.20 (5)								

Note: The quoted allowable radial load is the value at a position 0.98in. (25mm) from the mounting surface.

• 750W (1.01HP)

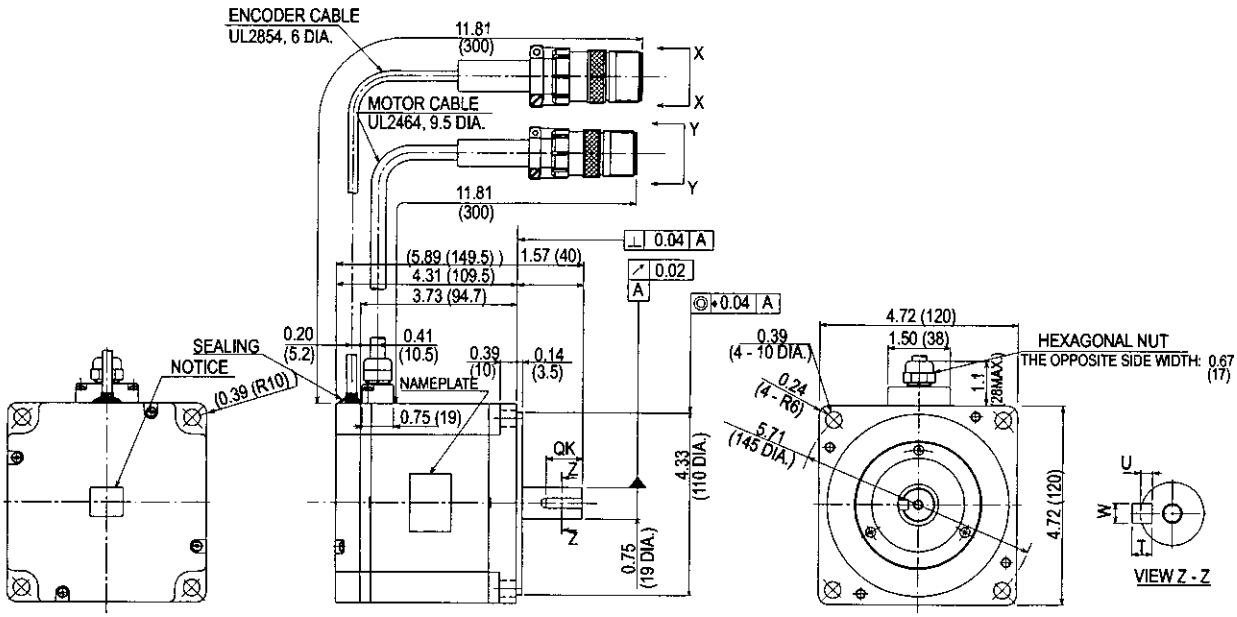


Type SGMP-	Key QK	Key U	Key W	Key T	Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
08□312M	Without Keyway				750 (1.01)	2.39 (24.3)	Continuous	3000	9.26 (4.2)	88 (392)	33 (147)
08□314M	0.87 (22)	0.12 (3)	0.20 (5)	0.20 (5)							

Note: The quoted allowable radial load is the value at a position 1.38in. (35mm) from the motor mounting surface.

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- **1500W (2.0HP)**



Type SGMP-	Key				Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
	QK	U	W	T							
15□312M	Without Keyway				1500 (2.0)	4.77 (48.7)	Continuous	3000	14.55 (6.6)	110 (490)	33 (147)
15□314M	0.87 (22)	0.14 (3.5)	0.24 (6)	0.24 (6)							

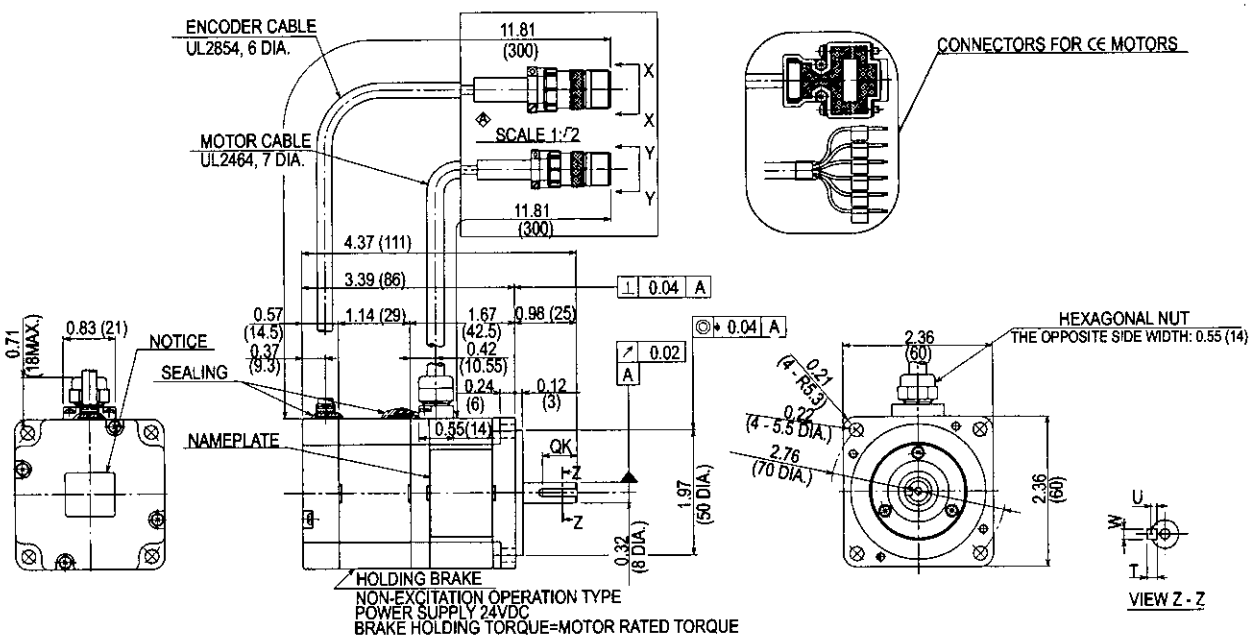
Note: The quoted allowable radial load is the value at a position 35mm (1.38in.) from the motor mounting surface.

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(2) 2048 PPR Incremental Encoder, with Brake

Note: 1. The keyway complies with JIS B1301-1976 (precision). A straight key is supplied.
2. The electromagnetic brake is only to hold the load in position and cannot be used to stop the motor.
3. Conforms to the IP55 enclosure (except connector and output shaft faces)

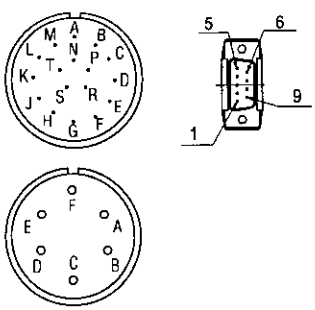
• 100W (0.13HP)



Type SGMP-	Key				Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
	QK	U	W	T							
01□312CM	Without Keyway				100 (0.13)	0.318 (3.25)	Continuous	3000	2.2 (0.9)	18 (78)	11 (49)
01□314CM	0.55 (14)	0.07 (1.8)	0.11 (3)	0.11 (3)							

Note: The quoted allowable radial load is the value at a position 0.79in. (20mm) from the motor mounting surface.

Connector Specifications



MS Connector: MS3101A20-29P (DDK)
Cable Clamp: MS3057-12A
CE connector: 17JE-23090-02 (D8A)
(Made by DDK Ltd)

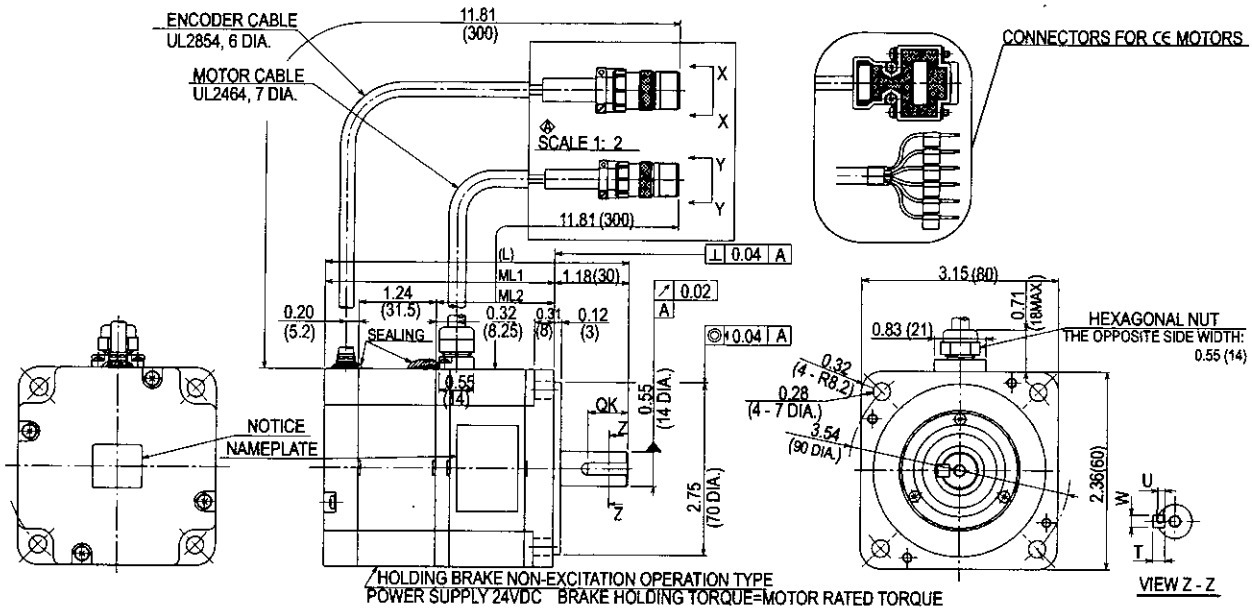
MS Connector: MS3101A18-12P (DDK)
Cable Clamp: MS3057-10A

Incremental Terminal Specifications		
A	Channel A Output	Blue
B	Channel $\bar{A}$ Output	Blue/Black
C	Channel B Output	Yellow
D	Channel $\bar{B}$ Output	Yellow/Black
E	Channel C Output	Green
F	Channel $\bar{C}$ Output	Green/Black
G	0VDC	Grey
H	+5VDC	Red
J	Frame Ground	Orange
K	-	-

Motor Wiring Specifications		
A	U-phase	Red
B	V-phase	White
C	W-phase	Blue
D	FG	Green/Yellow
E	Brake	Black
F	Brake	Black

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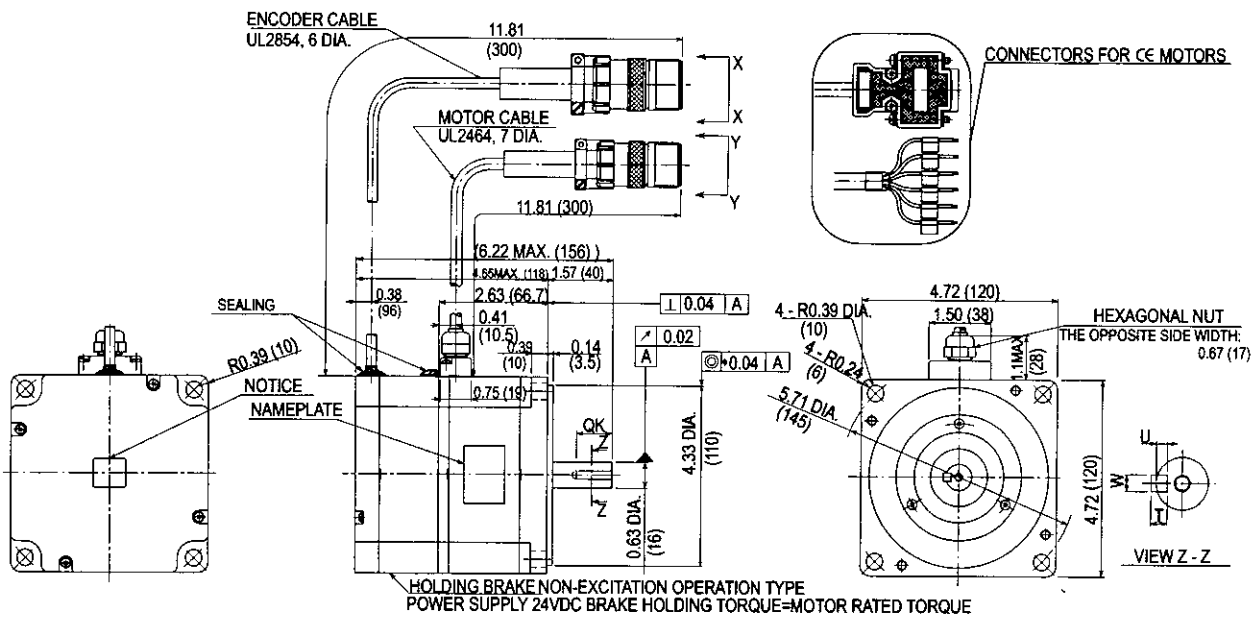
• 200W (0.27HP), 300W (0.40HP), 400W (0.53HP)



Type SGMP-	L	LL	LM	Key QK	Key U	Key W	Key T	Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
02□312CM	4.86 (123.5)	3.68 (93.5)	1.89 (48.1)	Without Keyway				200 (0.27)	0.637 (6.49)	Continuous	3000	4.2 (1.9)	55 (245)	15 (68)
02□314CM				0.63 (16)	0.11 (3)	0.20 (5)	0.20 (5)							
03□312CM	5.65 (143.5)	4.47 (113.5)	2.68 (68.1)	Without Keyway				300 (0.40)	0.95 (9.74)			5.7 (2.6)		
03□314CM				0.63 (16)	0.11 (3)	0.20 (5)	0.20 (5)							
04□312CM				Without Keyway				400 (0.53)	1.27 (13.0)					
04□314CM				0.63 (16)	0.11 (3)	0.20 (5)	0.20 (5)							

Note: The quoted allowable radial load is the value at a position 0.98in. (25mm) from the motor mounting surface.

• 750W (1.01HP)

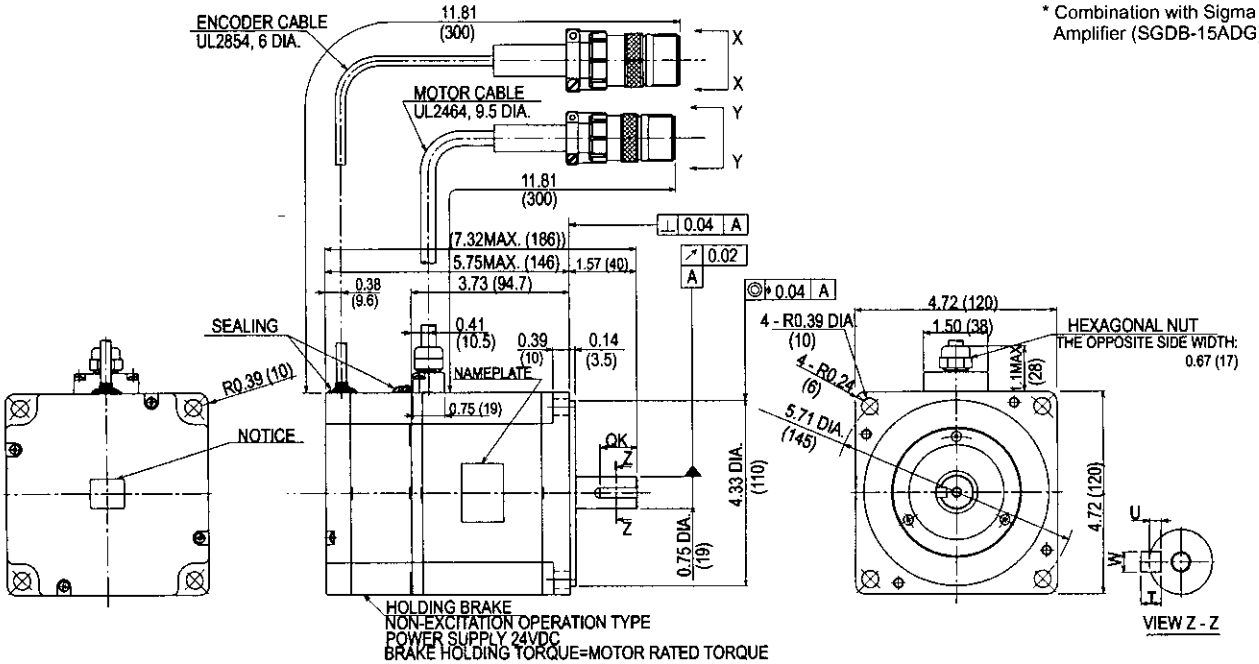


Type SGMP-	Key QK	Key U	Key W	Key T	Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
08□312CM	Without Keyway				750 (1.01)	2.39 (24.3)	Continuous	3000	12.6 (5.7)	88 (392)	33 (147)
08□314CM	0.87 (22)	0.12 (3)	0.20 (5)	0.20 (5)							

Note: The quoted allowable radial load is the value at a position 20mm (0.79in.) from the motor mounting surface.

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- **1500W (2.0HP)**



Type SGMP-	Key					Output W (HP)	Torque N·m (kgf·cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
	QK	U	W	T								
15□314CM	Without Keyway					1500 (2.0)	4.77 (48.7)	Continuous	3000	17.9 (8.1)	110 (490)	33 (147)
15□314CM	0.87 (22)	0.14 (3.5)	0.24 (6)	0.24 (6)								

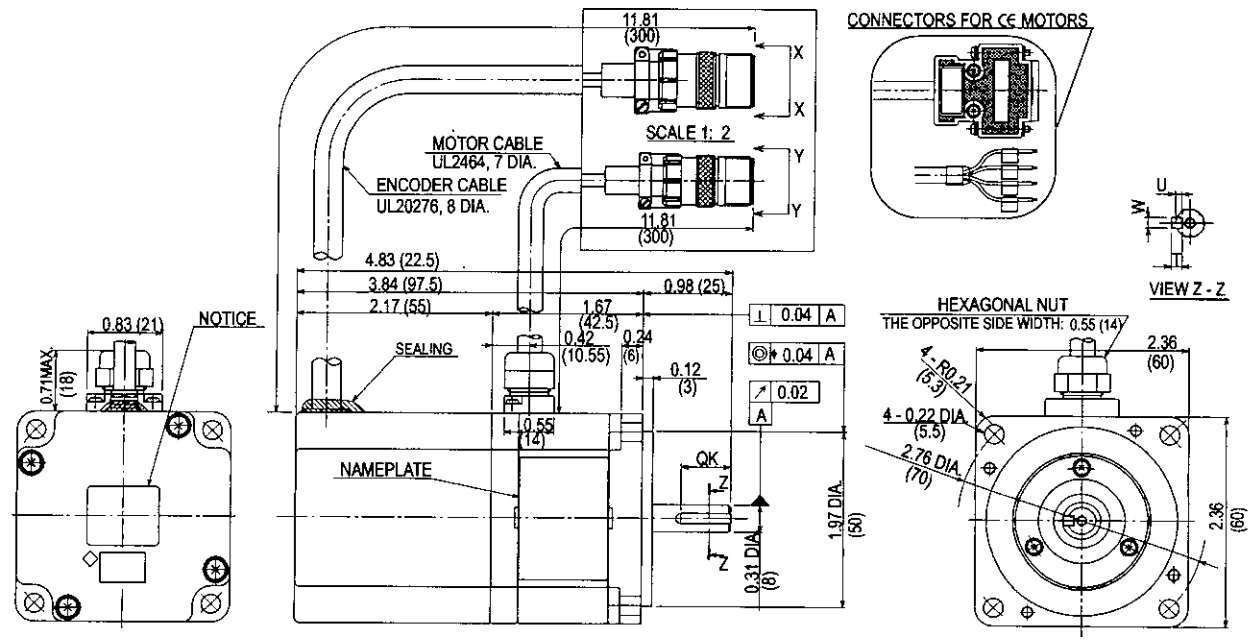
Note: The quoted allowable radial load is the value at a position 35mm (1.38in.) from the motor mounting surface.

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(3) 1024 PPR Absolute Encoder (12 bit), without Brake

Note: 1. The keyway complies with JIS B1301-1976 (precision). A straight key is supplied.
2. The electromagnetic brake is only to hold the load in position and cannot be used to stop the motor.
3. Conforms to the IP55 enclosure (except connector and output shaft faces).

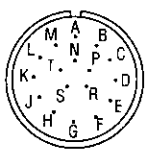
• 100W (0.13HP)

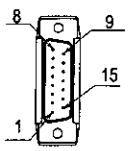


Type SGMP-	Key				Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
	QK	U	W	T							
01□W312M	Without Keyway				100 (0.13)	0.318 (3.25)	Continuous	3000	2.1 (0.95)	17.5 (78)	11 (49)
01□W314M	0.55 (14)	0.07 (1.8)	0.12 (3)	0.12 (3)							

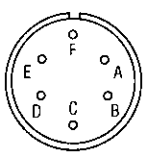
Note: The quoted allowable radial load is the value at a position 0.79 in. (20mm) from the motor mounting surface.

Connector Specifications





Connector: MS3101A20-29P (DDK)
Cable Clamp: MS3057-12A
CE Connector: 17JE-23150-02 (D8A)
(Made by DDK Ltd)



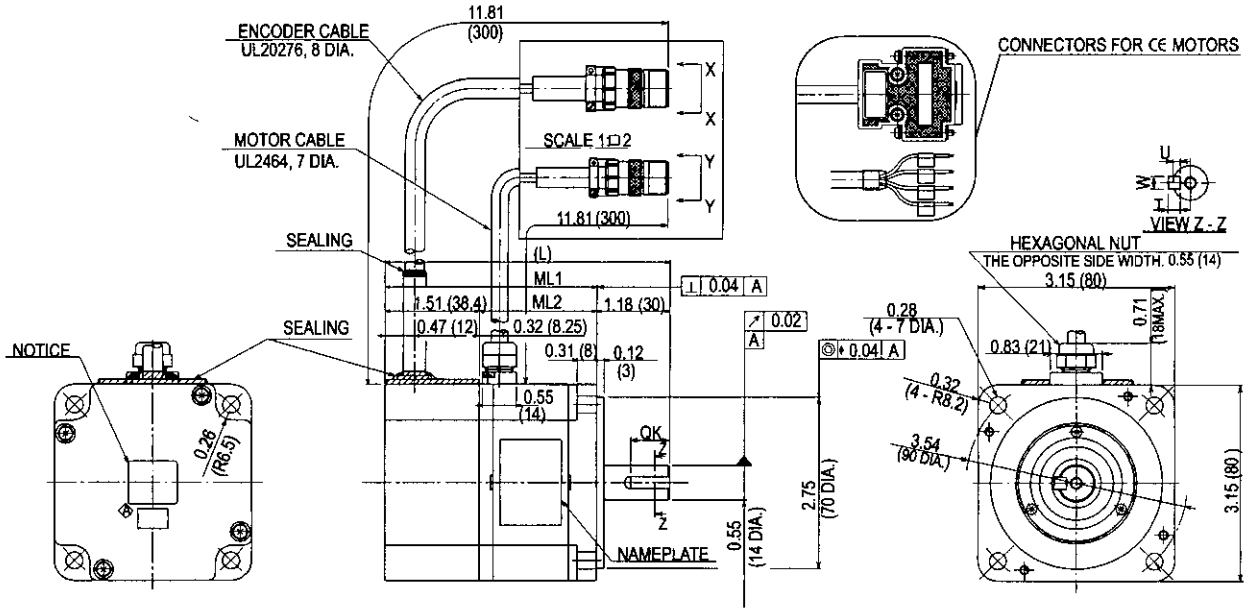
MS Connector: MS3101A18-12P (DDK)
Cable Clamp: MS3057-10A

Incremental Terminal Specifications		
A	Channel A Output	Blue
B	Channel $\overline{A}$ Output	White/Blue
C	Channel B Output	Yellow
D	Channel $\overline{B}$ Output	White/Yellow
E	Channel Z Output	Green
F	Channel $\overline{Z}$ Output	White/Green
G	0V Power Supply	Black
H	+5V Power Supply	Red
J	Frame Ground	Green/Yellow
K	Channel C Output	Purple
L	Channel $\overline{C}$ Output	White/Purple
M	-	-
N	-	-
P	Reset Capacitor	Grey
R	Reset	White/GrEy
S	0V Battery	White/Orange
T	3.6V Battery	Orange

Motor Wiring Specifications		
A	U-phase	Red
B	V-phase	White
C	W-phase	Blue
D	FG	Green/Yellow
E	-	-
F	-	-

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• 200W (0.27HP), 300W (0.40HP), 400W (0.53HP)

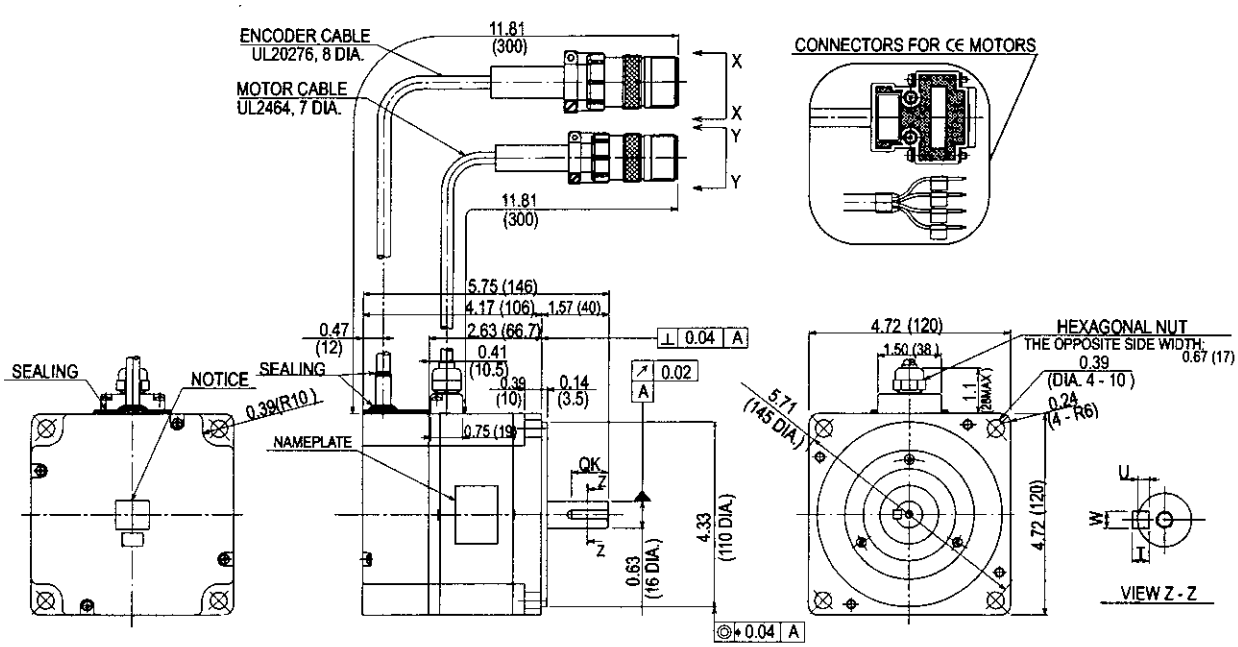


Type SGMP-	L	LL	LM	Key				Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	ApproxMass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
				QK	U	W	T							
02□W312M	4.59 (116.5)	3.41 (86.5)	1.89 (48.1)	Without Keyway				200 (0.27)	0.637 (0.27)	Continuous	3000	3.5 (1.6)	55 (245)	15 (68)
02□W314M				0.63 (16)	0.12 (3)	0.20 (5)	0.20 (5)							
03□W312M	5.37 (136.5)	4.19 (106.5)	1.89 (68.1)	Without Keyway				300 (0.40)	0.95 (0.40)			5.0 (2.3)		
03□W314M				0.63 (16)	0.12 (3)	0.20 (5)	0.20 (5)							
04□W312M				Without Keyway				400 (0.53)	1.27 (0.53)					
04□W314M				0.63 (16)	0.12 (3)	0.20 (5)	0.20 (5)							

Note: The quoted allowable radial load is the value at a position 0.98 in. (25mm) from the motor mounting surface.

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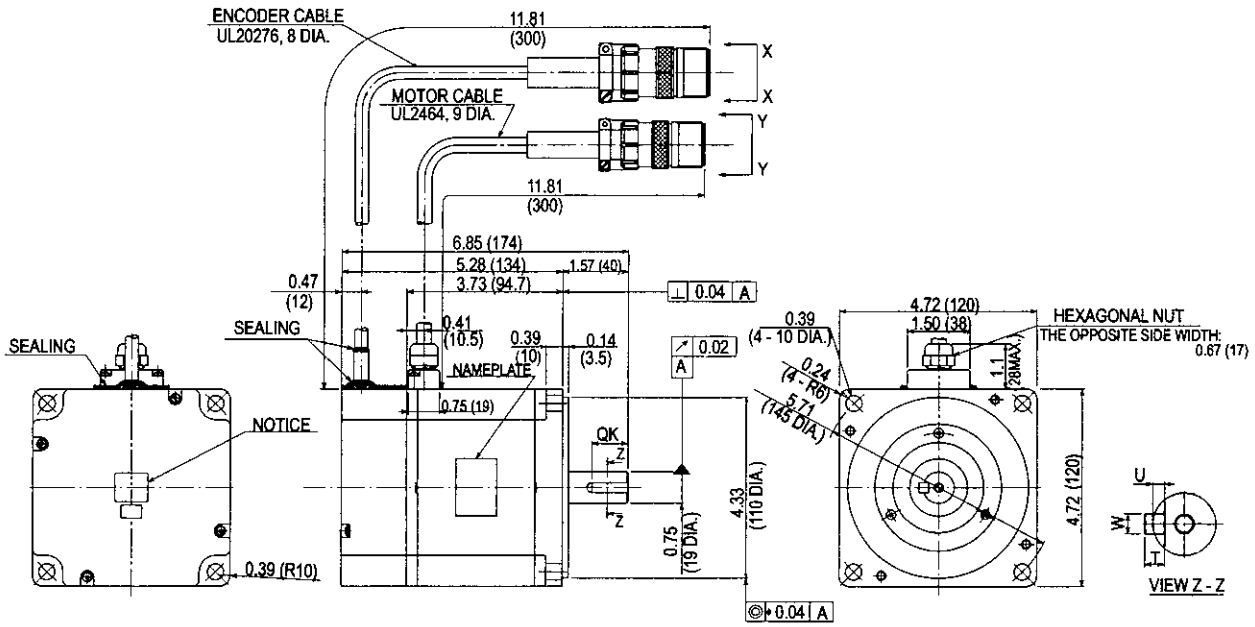
• 750W (1.01HP)



Type SGMP-	Key				Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
	QK	U	W	T							
08□W312M	Without Keyway				750 (1.01)	2.39 (24.3)	Continuous	3000	10.4 (4.7)	88 (392)	33 (147)
08□W314M	0.87 (22)	0.12 (3)	0.20 (5)	0.20 (5)							

Note: The quoted allowable radial load is the value at a position 1.38 in. (35mm) from the motor mounting surface.

• 1500W (2.0HP)



Type SGMP-	Key				Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
	QK	U	W	T							
15□W312M	Without Keyway				1500 (2.0)	4.77 (48.7)	Continuous	3000	15.6 (7.1)	110 (490)	33 (147)
15□W314M	0.87 (22)	0.14 (3.5)	0.24 (6)	0.24 (6)							

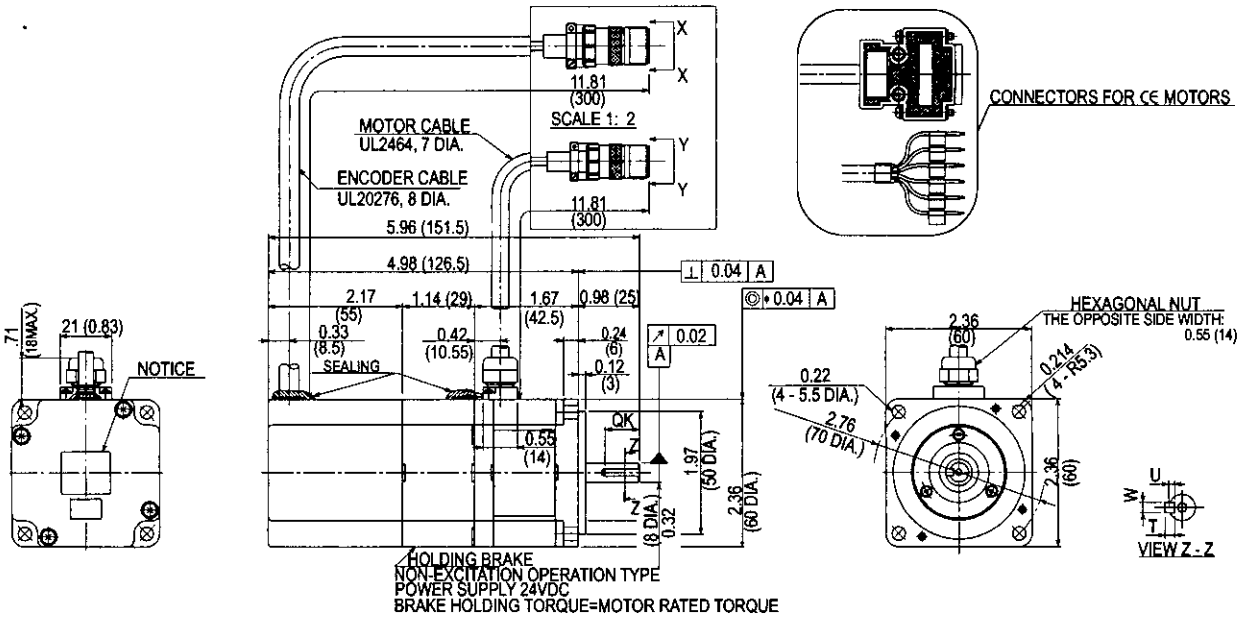
Note: The quoted allowable radial load is the value at a position 1.38 in. (35mm) from the motor mounting surface.

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(4) 1024 PPR Absolute Encoder (12 bit), with Brake

Note: 1. The keyway complies with JIS B1301-1976 (precision). A straight key is supplied.
2. The electromagnetic brake is only to hold the load in position and cannot be used to stop the motor.
3. Conforms to the IP55 enclosure (except connector and output shaft faces).

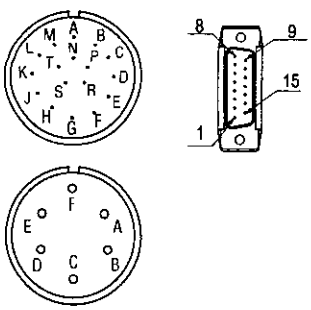
• 100W (0.13HP)



Type SGMP-	Key				Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
	QK	U	W	T							
01□W312CM	Without Keyway				100 (0.13)	0.318 (3.25)	Continuous	3000	2.6 (1.2)	18 (78)	11 (49)
01□W314CM	0.55 (14)	0.07 (1.8)	0.12 (3)	0.12 (3)							

Note: The quoted allowable radial load is the value at a position 0.79 in. (20mm) from the motor mounting surface.

Connector Specifications



MS Connector: MS3101A20-29P (DDK)
Cable Clamp: MS3057-12A
CE Connector: CE17JE-23150-02 (D8A)
(Made by DDK Ltd)

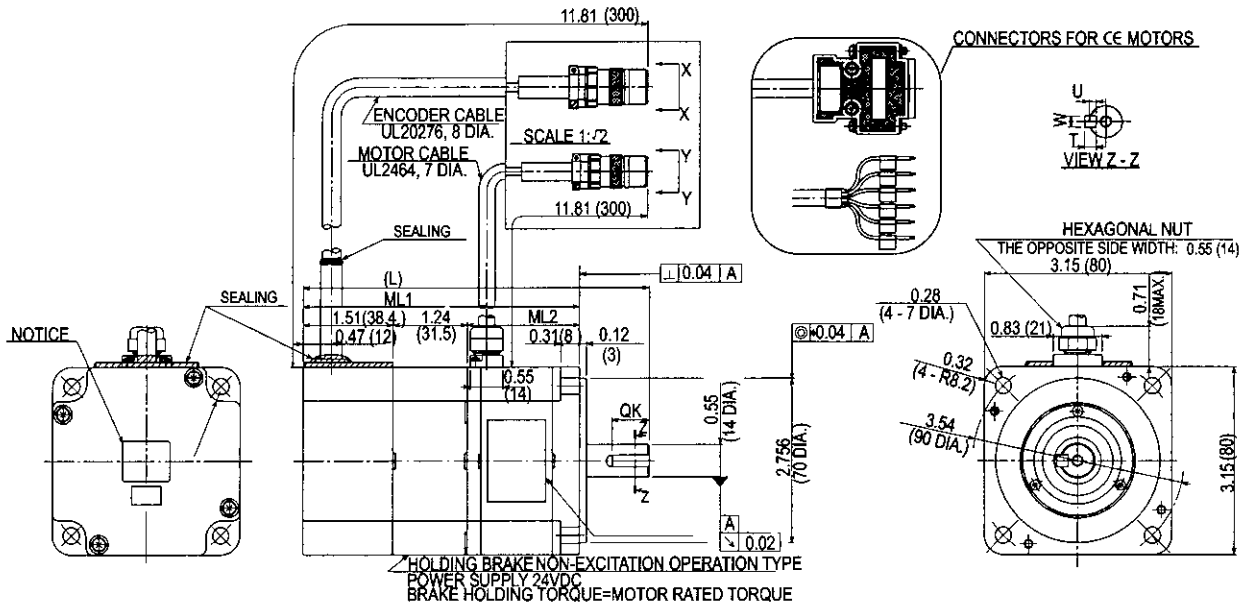
MS Connector: MS3101A18-2P (DDK)
Cable Clamp: MS3057-12A

Incremental Terminal Specifications		
A	Channel A Output	Blue
B	Channel $\overline{A}$ Output	White/Blue
C	Channel B Output	Yellow
D	Channel $\overline{B}$ Output	White/Yellow
E	Channel Z Output	Green
F	Channel $\overline{Z}$ Output	White/Green
G	0V Power Supply	Black
H	+5V Power Supply	Red
J	Frame Ground	Green/Yellow
K	Channel C Output	Purple
L	Channel $\overline{C}$ Output	White/Purple
M	-	-
N	-	-
P	Reset Capacitor	Grey
R	Reset	White/Grey
S	0V Battery	White/Orange
T	3.6V Battery	Orange

Motor Wiring Specifications		
A	U-phase	Red
B	V-phase	White
C	W-phase	Blue
D	FG	Green/Yellow
E	Brake Terminal	Black
F	Brake Terminal	Black

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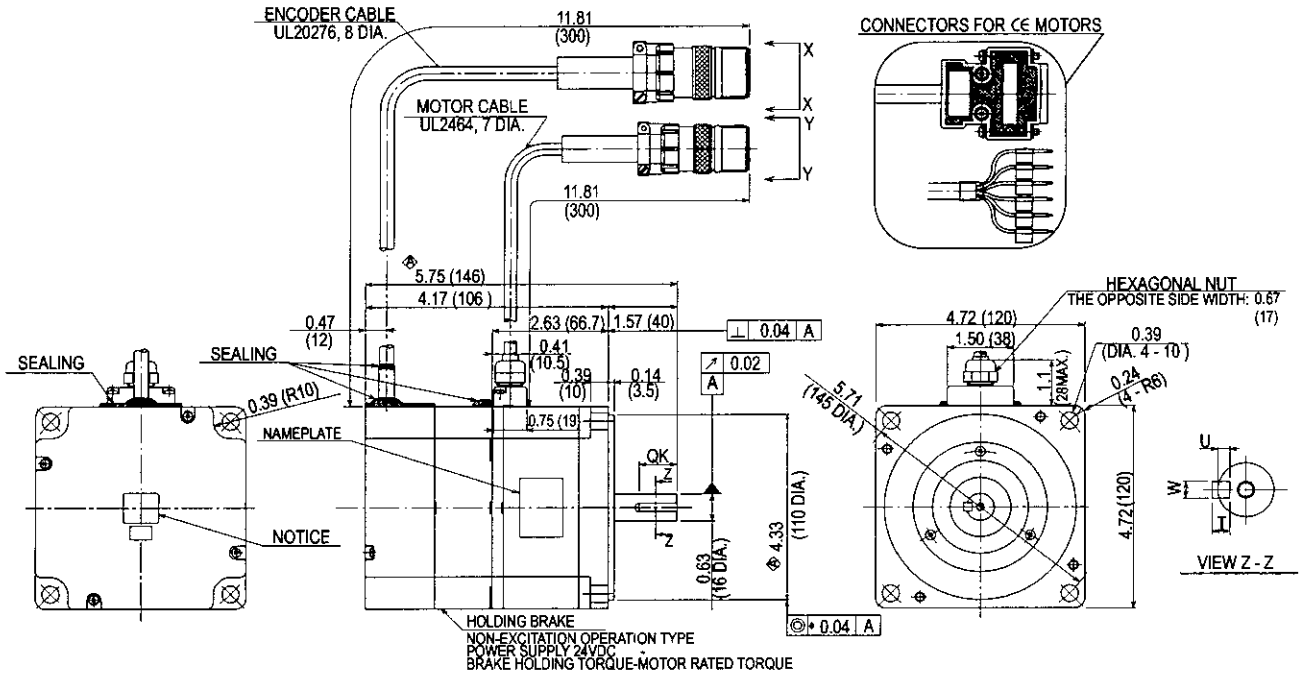
- **200W (0.27HP), 300W (0.40HP), 400W (0.53HP)**



Type SGMP-	L	LL	LM	Key QK	Key U	Key W	Key T	Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
02□W312CM	5.83 (148)	4.64 (118)	1.89 (48.1)	Without Keyway				200 (0.27)	0.637 (6.49)	Continuous	3000	5.1 (2.3)	55 (245)	15 (68)
02□W314CM				0.63 (16)	0.12 (3)	0.20 (5)	0.20 (5)							
03□W312CM	6.61 (168)	5.43 (138)	2.68 (68.1)	Without Keyway				300 (0.40)	0.95 (9.74)			6.6 (3.0)		
03□W314CM				0.63 (16)	0.12 (3)	0.20 (5)	0.20(5)							
04□W312CM				Without Keyway				400 (0.53)	1.27 (13.0)					
04□W314CM				0.63 (16)	0.12 (3)	0.20 (5)	0.20 (5)							

Note: The quoted allowable radial load is the value at a position 0.98 in. (25mm) from the motor mounting surface.

- **750W (1.01HP)**

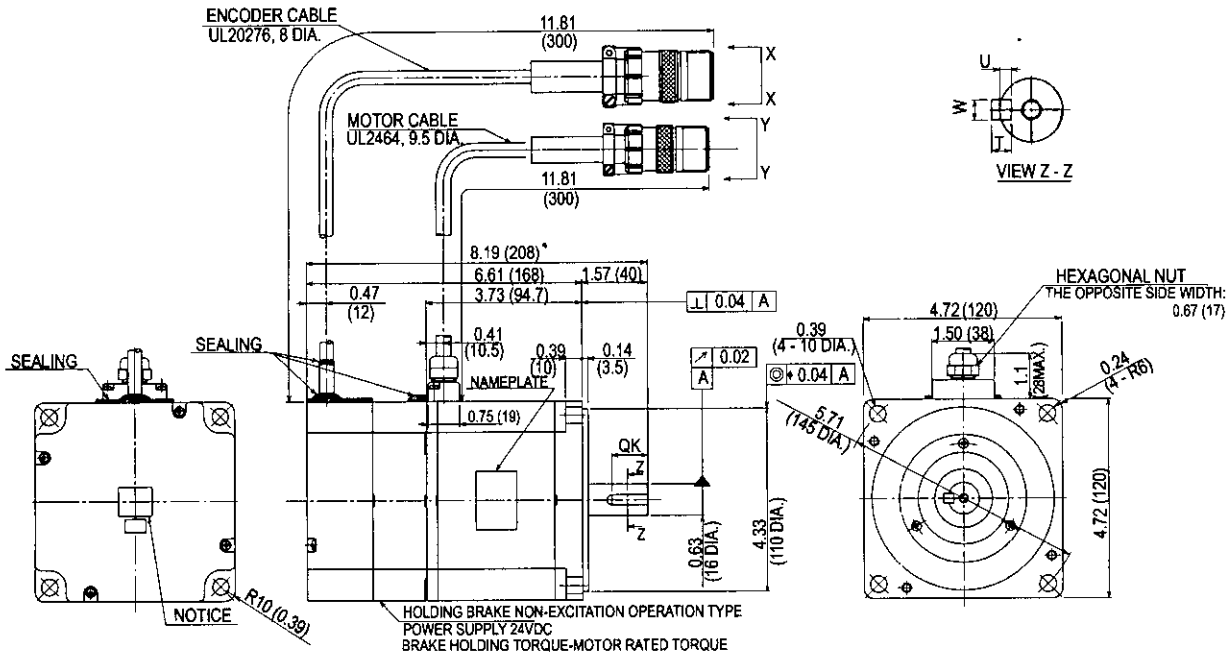


Type SGMP-	Key QK	Key U	Key W	Key T	Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
08□W312CM	Without Keyway				750 (1.01)	2.39 (24.3)	Continuous	3000	2.20 (6.2)	88 (392)	33 (147)
08□W314CM	0.87 (22)	0.12 (3)	0.20 (5)	0.20 (5)							

Note: The quoted allowable radial load is the value at a position 1.38 in. (35mm) from the motor mounting surface.

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- **1500W (2.0HP)**



Type SGMP-	Key				Output W (HP)	Torque N•m (kgf•cm)	Time Rating	Rated Speed (rpm)	Approx Mass lb (kg)	Allowable Radial Load lb (N)	Allowable Thrust Load lb (N)
	QK	U	W	T							
15□W312CM	Without Keyway				1500 (2.0)	4.77 (48.7)	Continuous	3000	18.96 (8.6)	110 (490)	33 (147)
15□W314CM	0.87 (22)	0.14 (3.5)	0.24 (6)	0.24 (6)							

Note: The quoted allowable radial load is the value at a position 1.38 in. (35mm) from the motor mounting surface.

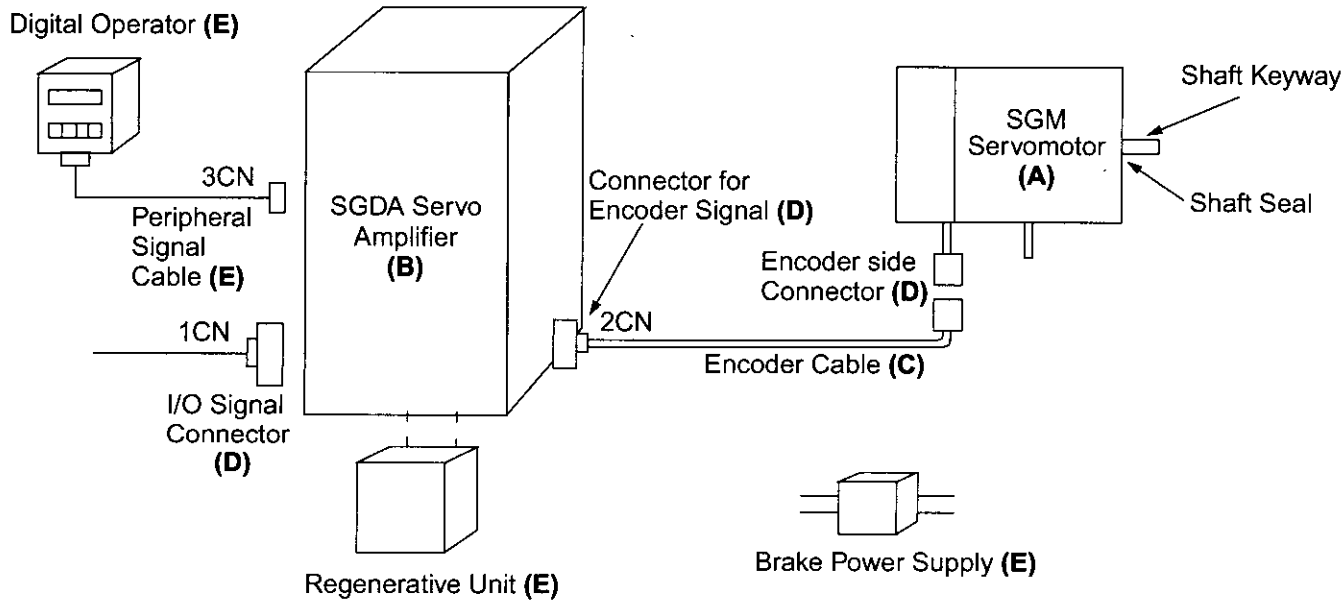
* Combination with Sigma Servo Amplifier
(SGDB-15ADG)

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Selecting Your SGMP Sigma Servo System

Use the diagram below to locate and identify the components of your system. Each item is letter-coded and cross-referenced in the option tables on the following pages.

System Configuration



Model Number Designation

SGMP - 01 U 3 1 4 M

Sigma Servomotor Type

Rated Output
- 01: 100W (0.13HP)
- 02: 200W (0.25HP)
- 03: 300W (0.4HP)
- 04: 400W (0.5HP)
- 08: 750W (1HP)
- 15: 1.5kW (2HP)

Power Supply
- U: 200V UL Recognized
- L: 100V UL Recognized

Accessories
- M: Standard
- CM: Standard with 24VDC Brake
- MS: Standard with Shaft Seal
- EM: Standard with Brake & Shaft Seal

Shaft Specifications
- 4: Straight Shaft with Keyway
- 2: Straight Shaft without Keyway

Revision Level

Encoder Specifications
- 3: 2048PPR Incremental Encoder
- W: 1024PPR Absolute Encoder

Note: **Bold** items are Stock Products usually available from inventory. Contact your Yaskawa representative for delivery on all other items.

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Servomotor & Amplifier Selection

Use the table below to select the appropriate SGMP Sigma Servomotor and Amplifier.

Description	Peak Torque (oz. in.)	Rated Torque (oz. in.)	Motor Inertia ($oz.in.sec^2x10^{-3}$)	Motor MODEL # (A)	Amplifier MODEL # (B)*			Motor & Amplifier Item Class
					Analog Input SGDA-	Digital Input SGDA-	Analog/Digital Input SGDB-	
200V 1-Phase 2048 PPR Incremental Encoder Straight Shaft with Keyway Pre-wired with MS Connectors	135	45.1	0.917	SGMP-01U314M	01AS	01AP	–	Stock
			1.46	SGMP-01U314CM				
	270	90.1	2.96	SGMP-02U314M	02AS	02AP	–	
			4.35	SGMP-02U314CM				
	542	181	4.92	SGMP-04U314M	04AS	04AP	05ADG	
			6.31	SGMP-04U314CM				
	1010	338	29.9	SGMP-08U314M	08AS	08AP	10ADG	
			35.7	SGMP-08U314CM				
	2027	676	57.1	SGMP-15U314M	–	–	15ADG	
			67.8	SGMP-15U314CM				
100V 1-Phase 2048 PPR Incremental Encoder Straight Shaft with Keyway Pre-wired with MS Connectors	135	45.1	0.917	SGMP-01L314M	01BS	01BP	–	
			1.46	SGMP-01L314CM				
	270	90.1	2.96	SGMP-02L314M	02BS	02BP	–	
			4.35	SGMP-02L314CM				
	406	135	4.92	SGMP-03L314M	03BS	03BP	–	
			6.31	SGMP-03L314CM				

Notes: 24VDC Brakes for SGMP Sigma servomotors are standard. Contact a local source for 24VDC power supplies.
Motor power and encoder cables are factory pre-wired with approximately 13" lead length with MS mating connectors.
Use the tables on the following page to specify mating connectors and/or various cable lengths.
For technical information, request manual number TSE-S800-15 from your Yaskawa representative.

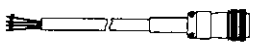
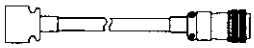
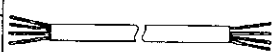
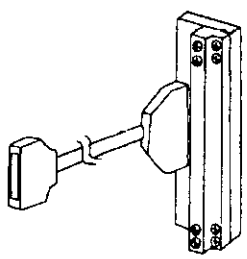
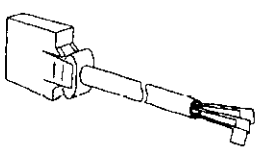
* For more detailed SGDA amplifier specifications and dimensions, refer to page 69.

SGMP

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Pre-wired Cable Selection

Use the table below to select Pre-wired Cables for your SGMP Sigma Servomotor.

Cable Description (C)		Motor Size (kW)	Part Number	Comments	Item Class
Power Cable with MS Connectors (with or without Brake)		0.1, 0.2, 0.4, 0.8, 1.5	B4B-□	Use the following key to specify required cable length (last digit of part #): 1: 3 meters 2: 5 meters 3: 10 meters (standard) 4: 15 meters 5: 20 meters	Stock *
Encoder Cable with MS Connector (incremental or absolute)			DE9407236-□		
Encoder Cable Only for Solder Connections		All	DP8409123	Up to 70 feet; for use with mating connector.	Stock
Encoder Cable Only for Solder Connections			DP8409179	Over 70 feet; splice cable to accommodate connector.	Stock
Input/Output 1CN Cable & Transition Terminal Block			JUSP-TA36P □□	35 mm din rail mountable; the cable length is 0.5 meters.	Non-Stock
Input/Output 1CN Cable with Pigtail Leads			DE9404859-□ ①	Use the following key to specify required cable length (last digit of part #): 1: 1 meter (standard) 2: 2 meters 3: 3 meters	Stock *

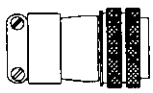
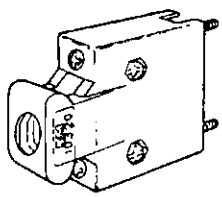
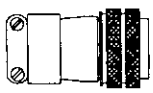
* Standard cable lengths are Stock items; non-standard cable lengths are Limited Stock items.

① Exception: For SGMP/SGDB 15, use standard SGDB accessories.

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Mating Connector Selection

Use the table below to select Mating Connectors or Kits for your SGMP Sigma Servomotor.

Connector Description (D)		Motor Size (kW)	Part Number	Comments	Item Class
MS Connector for Motor Power Cable (with or without Brake)		0.1, 0.2, 0.4, 0.8, 1.5	MS3106B18-12S + MS3057-10A	Straight-type part number Cable clamp part number	Stock
2CN Encoder Cable Connector			DE9406973	Solder type and connector case	
MS Connector for Encoder Cable (incremental or absolute encoder)			MS3106B20-29S + MS3057-12A	Straight-type part number Cable clamp part number	
1CN Mating Connector		All	DP9420007 ①	–	Stock

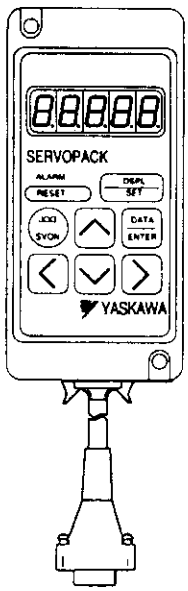
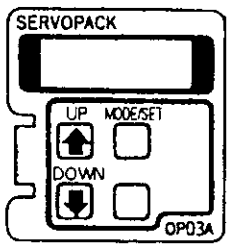
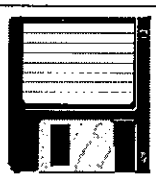
① Exception: For SGMP/SGDB 15, use standard SGDB accessories.

SGMP

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Peripheral Device Selection

Use the table below to select Peripheral Devices for your SGMP Sigma Servomotor.

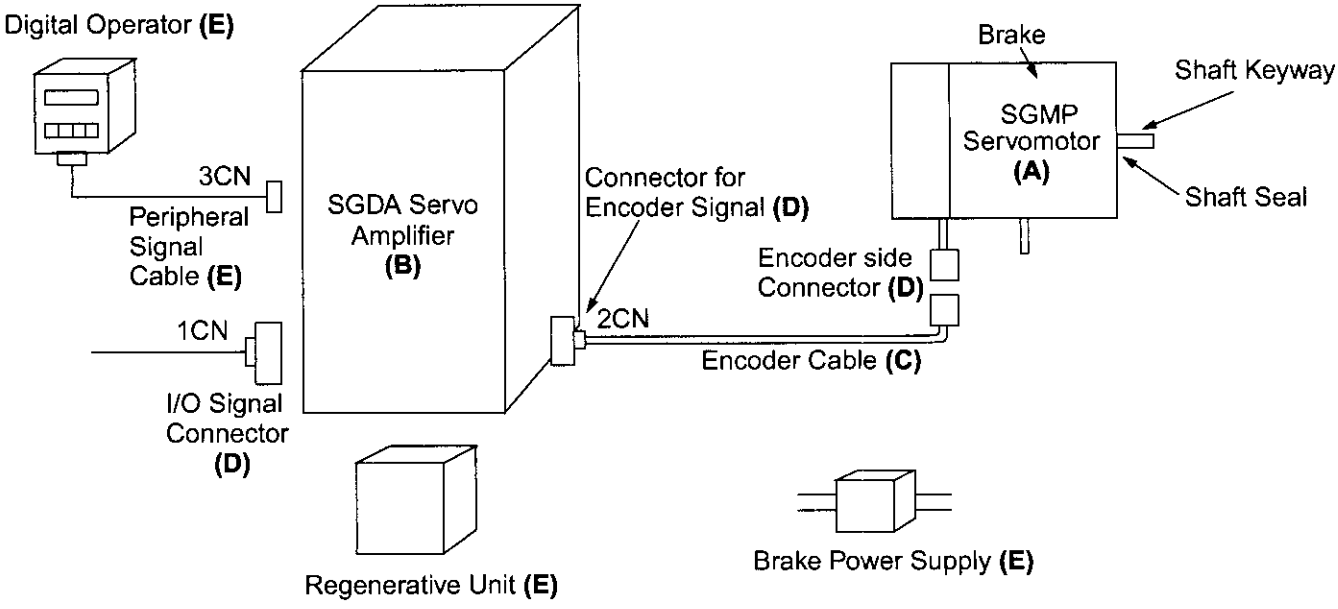
Component (E)		Part Number	Description	Item Class
Hand-held Digital Operator Panel		JUSP-OP02A-1	Portable unit with built-in cable	Stock
Digital Operator Panel		JUSP-OP03A	Plugs into front of amplifier	Non-Stock
SVMON Software		SVMON	Programming software for DOS 3.3 on a 3.5" floppy disk	Stock
Software Interface Cable		YS-11	Pre-wired 1.5 meter cable with 9-pin connector	Stock
Regenerative Unit		JUSP-RG08	60W capacity	Stock

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Selecting Your SGMP Sigma Servo System

Use the diagram below to locate and identify the components of your system. Each item is letter-coded and cross-referenced in the option tables on the following pages.

System Configuration



Model Number Designation

SGMP - 01 V 3 1 4 B

Sigma Servomotor Type

Rated Output
- 01: 100W (0.13HP)
- 02: 200W (0.25HP)
- 03: 300W (0.4HP)
- 04: 400W (0.5HP)
- 08: 750W (1HP)

Power Supply
- V: 200V CE Specification
- W: 100V CE Specification

Encoder Specifications
- 3: 2048PPR Incremental Encoder
- W: 1024PPR Absolute Encoder

Revision Level

Shaft Specifications
- 4: Straight Shaft with Keyway
- 2: Straight Shaft without Keyway

Optional Accessories
- B: 90VDC Brake
- S: Shaft Seal
- D: Brake & Shaft Seal

SGMP

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Servomotor & Amplifier Selection

Use the table below to select the appropriate SGMP Sigma Servomotor and Amplifier.

Description	Peak Torque (oz. in.)	Rated Torque (oz. in.)	Motor Inertia ($oz.in.sec^2 \times 10^{-3}$)	Motor MODEL # (A)	Amplifier MODEL # (B)*			Motor Item Class
					Analog Input SGDA-	Digital Input SGDA-	Analog/Digital Input SGDB-	
200V 1-Phase 2048 PPR Incremental Encoder Straight Shaft with Keyway	135	45.1	0.917	SGMP-01V314	01VS (Limited Stock)	01VP (Non-Stock)	–	Non-Stock
			1.46	SGMP-01V314B				
	270	90.1	2.96	SGMP-02V314	02VS (Limited Stock)	02VP (Non-Stock)	–	
			4.35	SGMP-02V314B				
	542	181	4.92	SGMP-04V314	04VS (Limited Stock)	04VP (Non-Stock)	05VD (Limited Stock)	
			6.31	SGMP-04V314B				
	1010	338	29.9	SGMP-08V314	08VS (Limited Stock)	08VP (Non-Stock)	10VD (Limited Stock)	
			35.7	SGMP-08V314B				
100V 1-Phase 2048 PPR Incremental Encoder Straight Shaft with Keyway	135	45.1	0.917	SGMP-01W314	01WS (Limited Stock)	01WP (Non-Stock)	–	Non-Stock
			1.46	SGMP-01W314B				
	270	90.1	2.96	SGMP-02W314	02WS (Limited Stock)	02WP (Non-Stock)	–	
			4.35	SGMP-02W314B				
	542	181	4.92	SGMP-03W314	03WS (Limited Stock)	03WP (Non-Stock)	–	
			6.31	SGMP-03W314B				

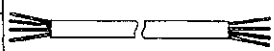
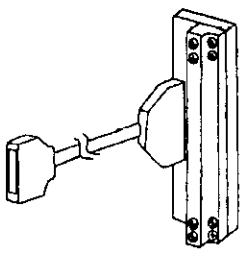
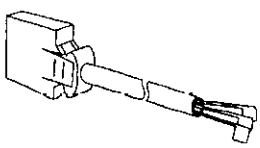
Notes: 90VDC Brakes for CE specification SGM Sigma servomotors are standard. Refer to the Peripheral Device Selection table (following page) to specify 90VDC power supplies.
Use the tables on the following page to specify encoder pre-wired cables and connectors.
For technical information, request technical document numbers PI-6022 and DE9409784 from your Yaskawa representative.

* For more detailed SGDA amplifier specifications and dimensions, refer to page 69.

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Pre-wired Cable Selection

Use the table below to select Pre-wired Cables for your SGMP Sigma Servomotor.

Cable Description (C)		Motor Size (kW)	Part Number	Comments	Item Class
Encoder Cable (incremental)		All	SMI-□	Use the following key to specify required cable length (last digit of part #): 1: 3 meters 2: 5 meters 3: 10 meters 4: 15 meters 5: 20 meters	Stock *
Encoder Cable (absolute)			SMA-□		Limited Stock
Encoder Cable Only for Solder Connections			DP8409123	Up to 70 feet; for use with mating connector.	Stock
Encoder Cable Only for Solder Connections			DP8409179	Over 70 feet; splice cable to accommodate connector.	Stock
Input/Output 1CN Cable & Transition Terminal Block			JUSP-TA36P	35 mm din rail mountable; the cable length is 0.5 meters.	Non-Stock
Input/Output 1CN Cable with Pigtail Leads			DE9404859-□	Use the following key to specify required cable length (last digit of part #): 1: 1 meter (standard) 2: 2 meters 3: 3 meters	Stock *

Notes: CE spec SGM servomotors come standard with 12" pigtail power leads.

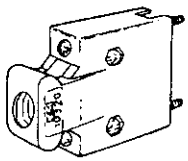
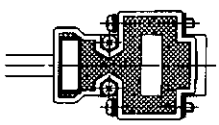
* Standard cable lengths are Stock items; non-standard cable lengths are Limited Stock items.

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SGMP

Mating Connector Selection

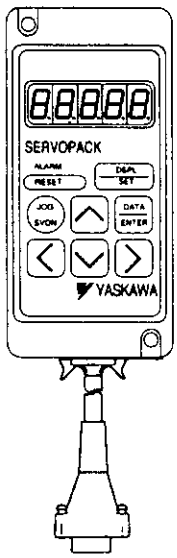
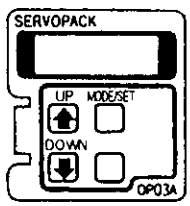
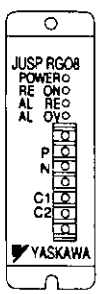
Use the table below to select Mating Connectors for your SGMP Sigma Servomotor.

Connector Description (D)		Motor Size (kW)	Part Number	Comments	Item Class
1CN Mating Connector		ALL	DP9420007	Solder type with cover	Stock
2CN Encoder Cable Connector			DE9406973	Solder type and connector case	
Incremental Encoder Cable Connector			17JE-13090-02 (D8A) + 17L-002A (x2)	Manufactured by Daichi Denshi Kougyo	
Absolute Encoder Cable Connector			17JE-13150-02 (D8A) + 17L-002A (x2)		

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Peripheral Device Selection

Use the table below to select Peripheral Devices for your SGMP Sigma Servomotor.

Component (E)		Part Number	Description	Item Class
Hand-held Digital Operator Panel		JUSP-OP02A-1	Portable unit with built-in cable	Stock
Digital Operator Panel		JUSP-OP03A	Plugs into front of amplifier	Non-Stock
SVMON Software		SVMON	Programming software for DOS 3.3 on a 3.5" floppy disk	Stock
Software Interface Cable		YS-11	Pre-wired 1.5 meter cable with 9-pin connector	
Regenerative Unit		JUSP-RG08	60W capacity	
90VDC Induction Brake Power Supply		LPSE-2H01	200VAC Input	

SGMP

NOTES

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