

Part number correspondence table (GU series)

Power supply	Rated rotation speed (r/min)	output (W)	Motor	Gear head (Note 1)	Brushless amplifier	Brushless amplifier (supplied with power cable)		Optional parts																	
								External regenerative resistor	Noise filter	Surge absorber	Reactor		Motor extension cable	Power supply connector kit	Console A (Note 2) Console A connection cable	Digital key pad (Note 3) Digital key pad connection cable	External speed setter	Control signal cable	I/O connector kit	Panel connector kit	PC connection cable (Note 5)	Noise filter for signal line	DIN rail mounting unit		
						Reference page	P:102	P:99	P:95	P:95	P:101		P:97	—	P:96	P:96	P:99	P:98	P:99	P:99	P:98	P:95	—		
Single phase 100 V	3000	50	MBMU5AZAX	MX8G□B	MBEU5A1AAV	No setting																			
			MBMU5AZAS	—																					
		90	MBMU9A1AZ	MZ9G□B MY9G□B	MBEU9A1AAV																		for single phase power supply DV0P4170	for single phase power supply DV0P4190	for single phase power supply DV0P227
			MBMU9A1AS	—																					
		130	MBMU1E1AZ	MZ9G□B MY9G□B	MBEU1E1AAV																				
			MBMU1E1AS	—																					
Single/ 3-phase 200 V		50	MBMU5AZAX	MX8G□B	MBEU5A5AAV																		for single phase power supply DV0P4170 for 3-phase power supply DV0PM20042	for single phase power supply DV0P4190 for 3-phase power supply DV0P1450	for single phase power supply DV0P227 for 3-phase power supply DV0P220
			MBMU5AZAS	—																					
		90	MBMU9A2AZ	MZ9G□B MY9G□B	MBEU9A5AAV																				
			MBMU9A2AS	—																					
		130	MBMU1E2AZ	MZ9G□B MY9G□B	MBEU1E5AAV																				
			MBMU1E2AS	—																					

Wiring equipment

Selection of circuit breaker (MCCB), magnetic contactor and electric wire. (To check conformity with international standards, refer to P:121 Conformity with international safety standards.)

Single phase	Power capacity	MCCB (molded case circuit breaker) Rated current	Magnetic contactor Rated Current (Contact composition)	Core of electric wire (mm <sup>2</sup> )	
				Main circuit, Grounding	Control circuit
Single phase 100 V	50 W to 130 W	5 A	20 A (3P+1a)	0.5 (AWG20)	0.13 (AWG26)
Single phase 200 V					
3-phase 200 V					

- Be sure to connect the earth terminal to ground.  
In wiring to power supply (outside of equipment) from MCCB, use an electric wire of 1.6 mm diameter (2.0 mm<sup>2</sup>) or more both for main circuit and grounding. Apply grounding class D (100 Ω or below) for grounding.
- Selection of relay  
A relay used in a control circuit, e.g. at the control input terminal should be small signal relay (Min. guaranteed current 1 mA or less) for positive contact.  
<Example> Panasonic: DS type, HC type OMRON: G2A type
- Selection of control circuit switch  
When using a switch in place of relay, select a switch rated at minute electric current, to assure positive contact.  
<Example> Nihon Kaiheiki Ind.: M-2012J-G
- The wiring of SER and I/O connector  
The wiring of SER and I/O connector should separate from power line to prevent malfunction.
- Wiring to the I/O connector  
Permissible length for control signal cable is 3 m\* or less.  
\* It is the maximum length in our evaluation environment, it does not guarantee the operation in customer's use environment.

- (Note 1) A figure representing reduction ratio in □.
- (Note 2) When using Console A, the Console A connection cable (DV0PM20069 \* 0) is required.
- (Note 3) When using Digital key pad, the Digital key pad connection cable (DV0P383 \* 0) is required.
- (Note 4) When connecting PC, the PC connection cable (DV0P4140) and the Digital key pad connection cable (DV0P383 \* 0) are required.
- \* When installing the reactor, refer to P:101.
- \* For details of cable, refer to P:96 to P:98.

- Be sure to use a set of matched components (series, power source, capacity, output, etc.)
- This motor is not provided with a holding brake. If it is used to drive a vertical shaft, the movable section may fall down by its own weight as power is turned off.

Part number correspondence table (GV series)

Power supply	Rated rotation speed (r/min)	output (W)	Motor	Gear head (Note 1)	Brushless amplifier	Brushless amplifier (supplied with power cable) (Note 2)		External regenerative resistor	Noise filter	Surge absorber	Reactor		Optional parts																										
						Reference page	P.102						P.99	P.95	P.95	P.101		Motor extension cable	Power supply connector kit	Console A (Note 3)	Digital key pad (Note 4)	External speed setter	Control signal cable	I/O connector kit	Panel connector kit	PC connection cable (Note 5)	Noise filter for signal line	DIN rail mounting unit											
																				Console A connection cable	Digital key pad connection cable								P.96	P.96	P.99	P.98	P.99	P.99	P.98	P.95	P.100		
Single phase 100 V	3000	50	MBMU5AZAX	MX8G□B	MBEG5A1BCV	MBEG5A1BCVC		for 100 V DV0P2890	for single phase power supply DV0P4170	for single phase power supply DV0P4190	for single phase power supply DV0P227		1 m DV0PQ1000110 3 m DV0PQ1000130 5 m DV0PQ1000150 10 m DV0PQ10001A1	DV0P2870	Console A DV0P3500 Connection cable 1 m DV0PM2006910 3 m DV0PM2006930 5 m DV0PM2006950	Digital key pad DV0P3510 Connection cable 1 m DV0P38310 3 m DV0P38330 5 m DV0P38350	DV0PM20078	2 m DV0PM20076	DV0PM20070	DV0P3610 ( Fits to Console A )	1.5 m DV0P4140	DV0P1460	DV0P3811																
			MBMU5AZAS	—																																			
		90	MBMU9A1AZ	MZ9G□B MY9G□B	MBEG9A1BCV	MBEG9A1BCVC																																	
			MBMU9A1AS	—																																			
		130	MBMU1E1AZ	MZ9G□B MY9G□B	MBEG1E1BCV	MBEG1E1BCVC																																	
MBMU1E1AS			—																																				
Single/ 3-phase 200 V		50	MBMU5AZAX	MX8G□B	MBEG5A5BCV	MBEG5A5BCVC																		for 200 V DV0PM20068	for single phase power supply DV0P4170 for 3-phase power supply DV0PM20042	for single phase power supply DV0P4190 for 3-phase power supply DV0P1450	for single phase power supply DV0P227 for 3-phase power supply DV0P220												
			MBMU5AZAS	—																																			
		90	MBMU9A2AZ	MZ9G□B MY9G□B	MBEG9A5BCV	MBEG9A5BCVC																																	
			MBMU9A2AS	—																																			
	130	MBMU1E2AZ	MZ9G□B MY9G□B	MBEG1E5BCV	MBEG1E5BCVC																																		
MBMU1E2AS		—																																					

Wiring equipment

Selection of circuit breaker (MCCB), magnetic contactor and electric wire. (To check conformity with international standards, refer to P.121 Conformity with international safety standards.)

Single phase	Power capacity	MCCB (molded case circuit breaker) Rated current	Magnetic contactor Rated Current (Contact composition)	Core of electric wire (mm <sup>2</sup> )	
				Main circuit, Grounding	Control circuit
Single phase 100 V	50 W to 130 W	5 A	20 A (3P+1a)	0.5 (AWG20)	0.13 (AWG26)
Single phase 200 V					
3-phase 200 V					

■ Be sure to connect the earth terminal to ground.

In wiring to power supply (outside of equipment) from MCCB, use an electric wire of 1.6 mm diameter (2.0 mm<sup>2</sup>) or more both for main circuit and grounding. Apply grounding class D (100 Ω or below) for grounding.

● Selection of relay

A relay used in a control circuit, e.g. at the control input terminal should be small signal relay (Min. guaranteed current 1 mA or less) for positive contact.

<Example> Panasonic: DS type, HC type    OMRON: G2A type

● Selection of control circuit switch

When using a switch in place of relay, select a switch rated at minute electric current, to assure positive contact.

<Example> Nihon Kaiheiki Ind.: M-2012J-G

● The wiring of SER and I/O connector

The wiring of SER and I/O connector should separate from power line to prevent malfunction.

● Wiring to the I/O connector

Permissible length for control signal cable is 5 m or less.

(Note 1) A figure representing reduction ratio in □.

(Note 2) Refer to P.102 for a power supply connecting cable.

This part number is the ordering part number for the amplifier and power cable, not for ordering amplifier only.

The supplied power connecting cable is for single-phase input, when supplying three-phase power; please make a cable using optional power connection kit (DV0P2870).

(Note 3) When using Console A, the Console A connection cable (DV0PM20069 \* 0) is required.

(Note 4) When using Digital key pad, the Digital key pad connection cable (DV0P383 \* 0) is required.

(Note 5) When connecting PC, the PC connection cable (DV0P4140) and the Digital key pad connection cable (DV0P383 \* 0) are required.

\* When installing the reactor, refer to P.101.

\* For details of cable, refer to P.96 to P.98.

● Be sure to use a set of matched components (series, power source, capacity, output, etc.)

● This motor is not provided with a holding brake. If it is used to drive a vertical shaft, the movable section may fall down by its own weight as power is turned off.

Part number correspondence table (KV series)

Power supply	Rated rotation speed (r/min)	output (W)	Motor <small>(Note 1)</small>	Gear head	Brushless amplifier	Optional parts																								
						Brushless amplifier (supplied with power cable) <small>(Note 2)</small>		External regenerative resistor	Noise filter	Surge absorber	Reactor		Motor extension cable	Power supply connector kit	Console A <small>(Note 3)</small> Console A connection cable	Digital key pad <small>(Note 4)</small> Digital key pad connection cable	External speed setter	Control signal cable	I/O connector kit	Panel connector kit	PC connection cable <small>(Note 5)</small>	Noise filter for signal line	DIN rail mounting unit							
						Reference page	P.102	P.99	P.95	P.95	P.101		P.97	P.98	P.96	P.96	P.99	P.98	P.99	P.99	P.98	P.95	P.100							
Single phase 100 V	3000	50	MBMS5AZBL○	No setting	MBEK5A1BCV	MBEK5A1BCVC	for 100 V DV0P2890	for single phase power supply DV0P4170	for single phase power supply DV0P4190	for single phase power supply DV0P227		1 m DV0PQ1000310 3 m DV0PQ1000330 5 m DV0PQ1000350 10 m DV0PQ10003A1	DV0P2870	Console A DV0P3500	Digital key pad DV0P3510	DV0PM20078	2 m DV0PM20076	DV0PM20070	DV0P3610 <small>( Fits to Console A )</small>	1.5 m DV0P4140	DV0P1460	DV0P3811								
		100	MBMS011BL○		MBEK011BCV	MBEK011BCVC							—									DV0P3811								
		200	MBMS021BL○		MBEK021BCV	—							—																	
Single/ 3-phase 200 V		50	MBMS5AZBL○		MBEK5A5BCV	MBEK5A5BCVC	for 200 V DV0PM20068	for single phase power supply DV0P4170	for single phase power supply DV0P4190	for single phase power supply DV0P227			DV0P2870	—	Connection cable 1 m DV0PM2006910 3 m DV0PM2006930 5 m DV0PM2006950							Connection cable 1 m DV0P38310 3 m DV0P38330 5 m DV0P38350	—							
		100	MBMS012BL○		MBEK015BCV	MBEK015BCVC																								
		200	MBMS022BL○		MBEK025BCV	—		for 3-phase power supply DV0PM20042	for 3-phase power supply DV0P1450	for 3-phase power supply DV0P220																				
400		MBMS042BL○	MBEK045BCV																											
3-phase 200 V	750	MBMS082BL○	MBEK083BCV		for 3-phase power supply DV0PM20042			for 3-phase power supply DV0P1450	for 3-phase power supply DV0P221																					

Wiring equipment

Selection of circuit breaker (MCCB), magnetic contactor and electric wire. (To check conformity with international standards, refer to P.121 Conformity with international safety standards.)

Single phase	Power capacity	MCCB (molded case circuit breaker) Rated current	Magnetic contactor Rated Current (Contact composition)	Core of electric wire (mm²)	
				Main circuit, Grounding	Control circuit
Single phase 100 V	50 W, 100 W	5 A	20 A (3P+1a)	0.5 (AWG20)	0.13 (AWG26)
Single phase 200 V					
3-phase 200 V					
Single phase 100 V	200 W	10 A		0.75 (AWG18)	
Single phase 200 V	200 W	5 A			
	400 W	10 A			
3-phase 200 V	200 W, 400 W	5 A			
	750 W	10 A			

■ Be sure to connect the earth terminal to ground.

In wiring to power supply (outside of equipment) from MCCB, use an electric wire of 1.6 mm diameter (2.0 mm²) or more both for main circuit and grounding. Apply grounding class D (100 Ω or below) for grounding.

● Selection of relay

A relay used in a control circuit, e.g. at the control input terminal should be small signal relay (Min. guaranteed current 1 mA or less) for positive contact.

<Example> Panasonic: DS type, HC type    OMRON: G2A type

● Selection of control circuit switch

When using a switch in place of relay, select a switch rated at minute electric current, to assure positive contact.

<Example> Nihon Kaiheiki Ind.: M-2012J-G

● The wiring of SER and I/O connector

Keep the cables connected to the POWER connector (50 W, 100 W), POWER terminal block (200 W to 750 W), the MOTOR connector away from the SER connector, and the cable connected to the I/O connector.

● Wiring to the I/O connector

Permissible length for control signal cable is 5 m or less.

(Note 1) ○: Refer to the table below.

		Shaft shape		
		Round	Keyway, center tap	D-cut
Oil seal	Without	A	S	N
	With	C	U	Q

(Note 2) Refer to P.102 for a power supply connecting cable.

This part number is the ordering part number for the amplifier and power cable, not for ordering amplifier only.

The supplied power connecting cable is for single-phase input, when supplying three-phase power; please make a cable using optional power connection kit (DV0P2870).

(Note 3) When using Console A, the Console A connection cable (DV0PM20069 \* 0) is required.

(Note 4) When using Digital key pad, the Digital key pad connection cable (DV0P383 \* 0) is required.

(Note 5) When connecting PC, the PC connection cable (DV0P4140) and the Digital key pad connection cable (DV0P383 \* 0) are required.

\* When installing the reactor, refer to P.101.

\* For details of cable, refer to P.96 to P.98.

● Be sure to use a set of matched components (series, power source, capacity, output, etc.)

● This motor is not provided with a holding brake. If it is used to drive a vertical shaft, the movable section may fall down by its own weight as power is turned off.

Part number correspondence table (GP series)

Power supply	Rated rotation speed (r/min)	output (W)	Motor	Gear head (Note 1)	Brushless amplifier	Brushless amplifier (supplied with power cable) (Note 2)		Optional parts															
						External regenerative resistor	Noise filter	Surge absorber	Reactor		Motor extension cable	Power supply connector kit	Console A Console A connection cable	Digital key pad (Note 3) Digital key pad connection cable	External speed setter	Control signal cable	I/O connector kit	Panel connector kit	PC connection cable (Note 5)	Noise filter for signal line	DIN rail mounting unit		
						Reference page	P.102	P.99	P.95	P.95	P.101		P.97	P.98	—	P.96	—	P.98	P.99	—	P.98	P.95	P.100
Single phase 100 V	3000	50	MBMU5AZAB	MB8G□BV	MBEG5A1BCP	MBEG5A1BCPC		for 100 V DV0P2890	for single phase power supply DV0P4170	for single phase power supply DV0P4190	for single phase power supply DV0P227		1 m DV0PQ1000110 3 m DV0PQ1000130 5 m DV0PQ1000150 10 m DV0PQ10001A1	DV0P2870	No setting	Digital key pad DV0P3510 Connection cable 1 m DV0P38310 3 m DV0P38330 5 m DV0P38350	No setting	2 m DV0PM20076	DV0PM20070	No setting	1.5 m DV0P4140	DV0P1460	DV0P3811
		90	MBMU9A1AB	MB9G□BV	MBEG9A1BCP	MBEG9A1BCPC																	
		130	MBMU1E1AB	MB9G□BV	MBEG1E1BCP	MBEG1E1BCPC																	
Single/ 3-phase 200 V		50	MBMU5AZAB	MB8G□BV	MBEG5A5BCP	MBEG5A5BCPC		for 200 V DV0PM20068	for single phase power supply DV0P4170 for 3-phase power supply DV0PM20042	for single phase power supply DV0P4190 for 3-phase power supply DV0P1450	for single phase power supply DV0P227 for 3-phase power supply DV0P220												
		90	MBMU9A2AB	MB9G□BV	MBEG9A5BCP	MBEG9A5BCPC																	
		130	MBMU1E2AB	MB9G□BV	MBEG1E5BCP	MBEG1E5BCPC																	

Wiring equipment

Selection of circuit breaker (MCCB), magnetic contactor and electric wire. (To check conformity with international standards, refer to P.121 Conformity with international safety standards.)

Single phase	Power capacity	MCCB (molded case circuit breaker) Rated current	Magnetic contactor Rated Current (Contact composition)	Core of electric wire (mm²)	
				Main circuit, Grounding	Control circuit
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Single phase 200 V					
3-phase 200 V					

■ Be sure to connect the earth terminal to ground.

In wiring to power supply (outside of equipment) from MCCB, use an electric wire of 1.6 mm diameter (2.0 mm²) or more both for main circuit and grounding. Apply grounding class D (100 Ω or below) for grounding.

● Selection of relay

A relay used in a control circuit, e.g. at the control input terminal should be small signal relay (Min. guaranteed current 1 mA or less) for positive contact.

<Example> Panasonic: DS type, HC type OMRON: G2A type

● Selection of control circuit switch

When using a switch in place of relay, select a switch rated at minute electric current, to assure positive contact.

<Example> Nihon Kaiheiki Ind.: M-2012J-G

● The wiring of SER and I/O connector

The wiring of SER and I/O connector should separate from power line to prevent malfunction.

● Wiring to the I/O connector

Permissible length for control signal cable is 5 m or less.

(Note 1) A figure representing reduction ratio in □.

(Note 2) Refer to P.102 for a power supply connecting cable.

This part number is the ordering part number for the amplifier and power cable, not for ordering amplifier only.

The supplied power connecting cable is for single-phase input, when supplying three-phase power; please make a cable using optional power connection kit (DV0P2870).

(Note 3) When using Digital key pad, the Digital key pad connection cable (DV0P383 \* 0) is required.

(Note 4) When connecting PC, the PC connection cable (DV0P4140) and the Digital key pad connection cable (DV0P383 \* 0) are required.

\* When installing the reactor, refer to P.101.

\* For details of cable, refer to P.96 to P.98.

● Be sure to use a set of matched components (series, power source, capacity, output, etc.)

● This motor is not provided with a holding brake. If it is used to drive a vertical shaft, the movable section may fall down by its own weight as power is turned off.