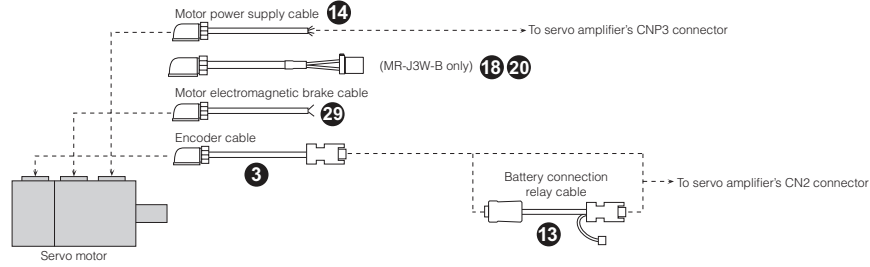


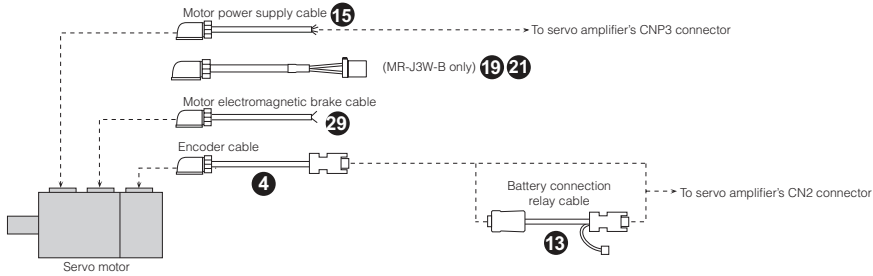
MR-J3 Motor Cables and Connectors

HF-KP/HF-MP servo motor series: encoder cable length 10m or shorter

- For leading the cables out in a direction of the motor shaft

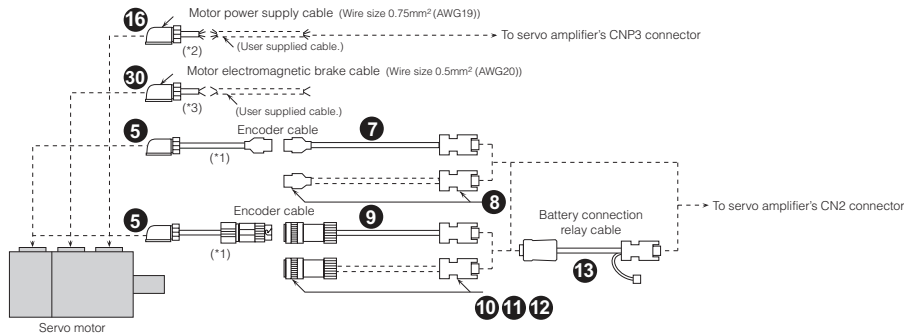


- For leading the cables out in an opposite direction of the motor shaft

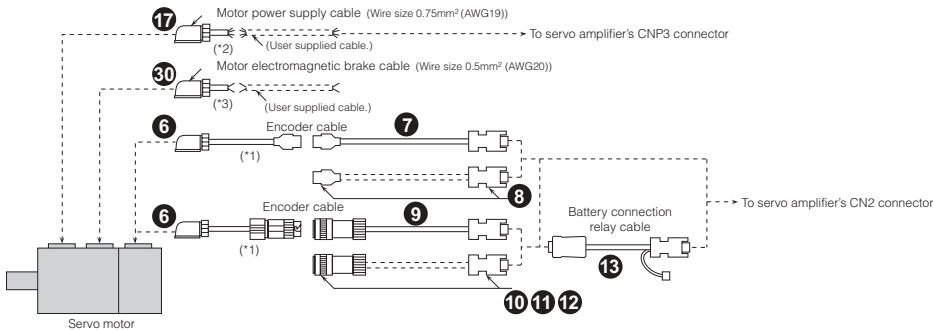


HF-KP/HF-MP servo motor series: encoder cable length over 10m

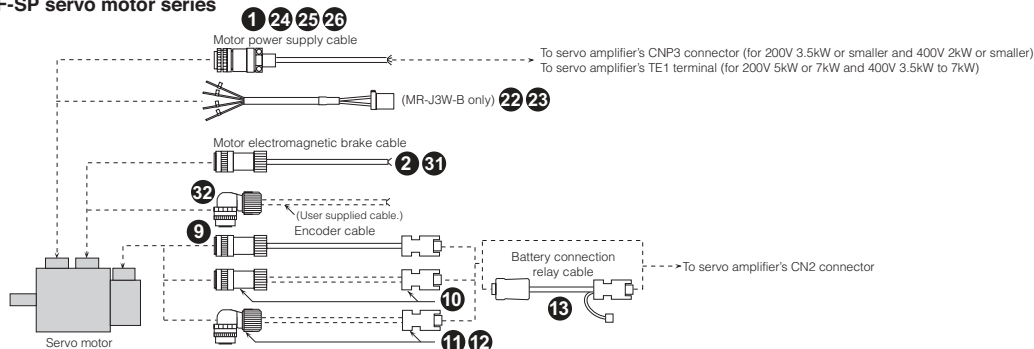
- For leading the cables out in a direction of the motor shaft



- For leading the cables out in an opposite direction of the motor shaft



HF-SP servo motor series

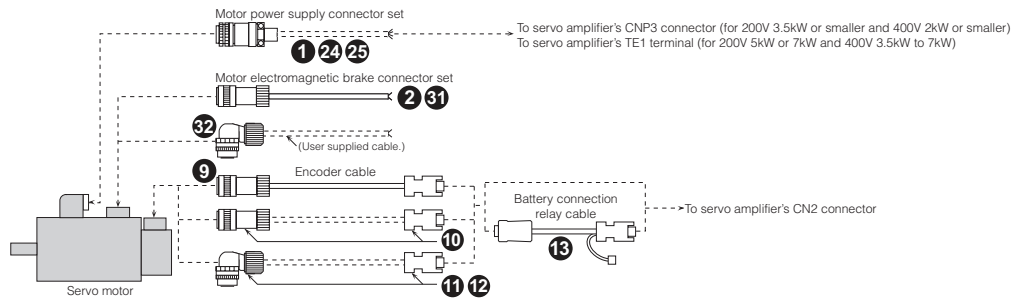


Notes:

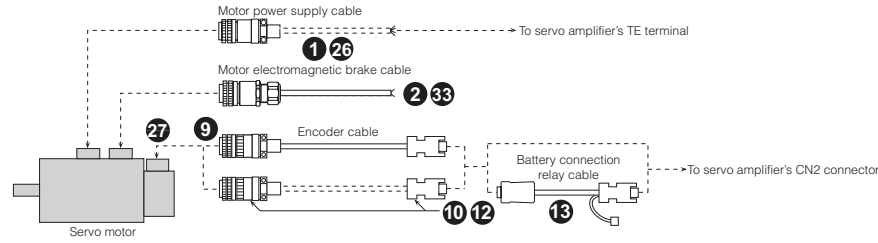
- This cable does not have a long bending life, so always fix the cable before using.
- If the length exceeds 10m, relay a cable using MR-PWS2CBL03M-A1-L/A2-L cable. This cable does not have a long bending life, so always fix the cable before using. Refer to "MR-J3 SERVO AMPLIFIER INSTRUCTION MANUAL" for details on manufacturing the relay cable.
- If the length exceeds 10m, relay a cable using MR-BKS2CBL03M-A1-L/A2-L cable. This cable does not have a long bending life, so always fix the cable before using. Refer to "MR-J3 SERVO AMPLIFIER INSTRUCTION MANUAL" for details on manufacturing the relay cable.

MR-J3 Motor Cables and Connectors (continued)

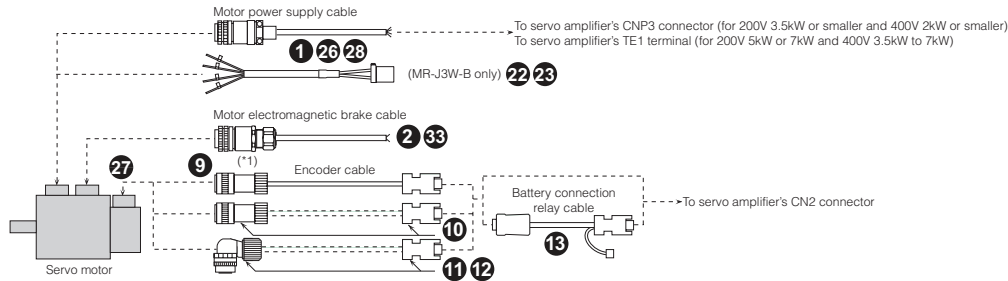
HF-JP servo motor series 5kW or smaller



HF-JP servo motor series 11kW and 15kW



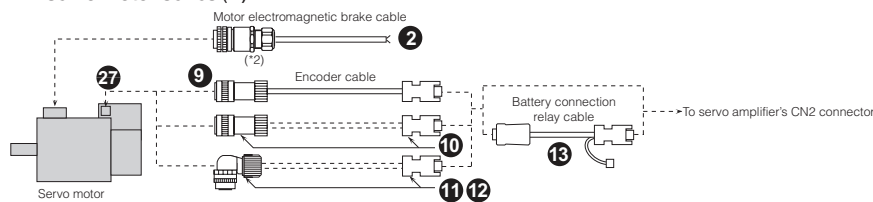
HC-LP/HC-RP/HC-UP servo motor series or HA-LP502/702



Notes:

1. An electromagnetic brake connector set is not required for HC-RP series and 1.5kW or smaller of HC-LP/HC-UP series as the power supply connector has electromagnetic brake terminals.

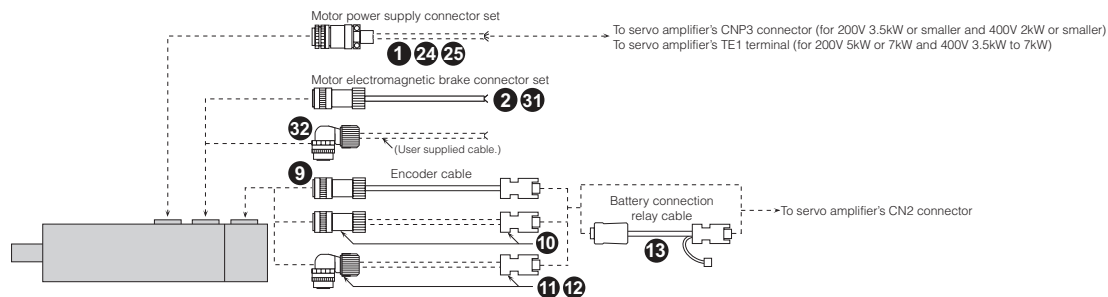
HA-LP servo motor series (*1)



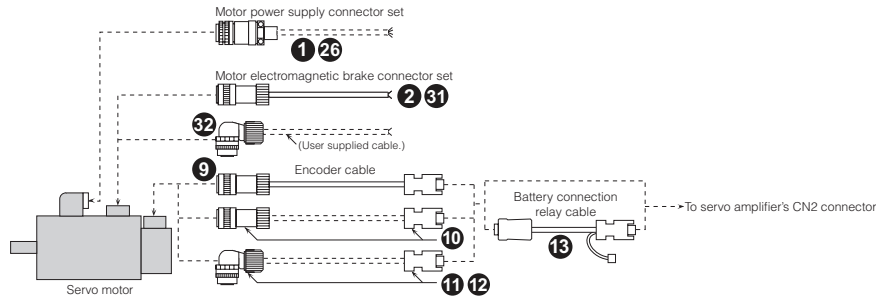
Notes:

1. HA-LP502 and 702 are excluded.
2. Servo Motors with an electromagnetic brake are available in 12kW or smaller for HA-LP 1000r/min series, 15kW or smaller for HA-LP 1500r/min series and 11kW to 22kW for HA-LP 2000r/min series.

GSX Exlar actuator series



HF-JP servo motor series 7kW and 9kW




MR-J3 Cables and Connectors (Refer to Charts on Previous Page)

Power Cables for HA-LP, HC-LP, HC-RP, HC-UP, HF-SP and HF-JP Series Motors A-, B Safety & T-Type Amplifiers


Item	Motor Model Number	Cable Number (_ = cable length 2, 5, 10, 15, 20, 25, 30 meter)	Stocked Lengths	Protection Level	Description
1	HA-LP502	MR-J3HC5S-_M	2, 5, 10, 20, 30	IP65	
	HA-LP702	MR-J3P7-_M			
	HA-LP ALL OTHERS	Hard Wired By Customer			
	HC-LP52	MR-J3HC1S-_M	2, 5, 10, 20, 30	IP65	
	HC-LP52B	MR-J3HC1SB-_M			
	HC-LP102~152	MR-J3HC2S-_M			
	HC-LP102B~152B	MR-J3HC2SB-_M			
	HC-LP202(B) (*1)	MR-J3HC4S-_M			
	HC-LP302(B) (*1)	MR-J3HC5S-_M			
	HC-RP103~153	MR-J3HC2S-_M	2, 5, 10, 20, 30	IP65	
	HC-RP103B~153B	MR-J3HC2SB-_M			
	HC-RP203	MR-J3HC3S-_M			
	HC-RP203B	MR-J3HC3SB-_M			
	HC-RP353~503	MR-J3HC5S-_M			
	HC-RP353B~503B	MR-J3HC5SB-_M			
	HC-UP72	MR-J3HC1S-_M	2, 5, 10, 20, 30	IP65	
	HC-UP72B	MR-J3HC1SB-_M			
	HC-UP152	MR-J3HC2S-_M			
	HC-UP152B	MR-J3HC2SB-_M			
	HC-UP202(B) (*1)	MR-J3HC4S-_M			
	HC-UP352(B)~502(B) (*1)	MR-J3HC5S-_M			
	HF-SP51, HF-SP51B, HF-SP52, HF-SP52B, HF-SP524, HF-SP524B, HF-SP1024, HF-SP1024B (*1)	MR-J3P1-_M	2, 5, 10, 20, 30	IP65	
	HF-JP53, HF-JP53B, HF-JP534, HF-JP534B, HF-JP73, HF-JP73B, HF-JP734, HF-JP734B, HF-JP1034, HF-JP1034B (*1)	MR-J3P1-_M			
	HF-SP81, HF-SP81B, HF-SP102, HF-SF102B, HF-SP152, HF-SP152B, HF-SP1524, HF-SP1524B, HF-JP103, HF-JP103B, HF-JP153, HF-JP153B, HF-JP1534, HF-JP1534B, GSX20, GSX30 (*1)	MR-J3P2-_M			
	HF-SP121, HF-SP121B, HF-201, HF-SP201B, HF-SP202, HF-SP202B, HF-SP2024, HF-2024B (*1)	MR-J3P4-_M			
	HF-SP502, HF-SP502B, HF-5024, HF-SP502B, GSX40, GSX50 (*1)	MR-J3P6-_M			
	HF-SP421, HF-SP421B, HF-SP702, HF-SP702B, HF-SP7024, HF-SP7024B, HF-JP703, HF-JP703B, HF-JP7034, HF-JP7034B, HF-JP9034, HF-JP9034B, HF-JP11K1M4, HF-JP11K1M4B, GSX60 (*1)	MR-J3P7-_M			
	HF-JP203, HF-JP203B, HF-JP2034, HF-JP2034B, HF-JP3534, HF-JP3534B (*1)	MR-J3P8-_M			
	HF-SP301, HF-SP301B, HF-SP352, HF-352B, HF-SP3524, HF-SP3524B, HF-JP353, HF-JP353B (*1)	MR-J3P9-_M			
	HF-JP503, HF-JP503B (*1)	MR-J3P10-_M			
	HF-JP5034, HF-JP5034B (*1)	MR-J3P11-_M			
HF-JP903, HF-JP903B, HF-JP11K1M, HF-JP11K1MB, HF-JP15K1M4, HF-JP15K1M4B (*1)	MR-J3P12-_M				
HF-JP15K1M, HF-JP15K1MB (*1)	MR-J3P13-_M				

Notes: See next page.

Item	Motor Model Number	Cable Number (_ = cable length 2, 5, 10, 15, 20, 25, 30 meter)	Stocked Lengths	Protection Level	Description
1	HA-LP502	MR-J3HC5S-SH-_M	-	IP65	
	HA-LP702	MR-J3PWS7-_M			
	HA-LP ALL OTHERS	Hard Wired By Customer	N/A	N/A	
	HC-LP52	MR-J3HC1S-SH-_M	-	IP65	
	HC-LP52B	MR-J3HC1SB-SH-_M			
	HC-LP102-152	MR-J3HC2S-SH-_M			
	HC-LP102B-152B	MR-J3HC2SB-SH-_M			
	HC-LP202(B) (*1)	MR-J3HC4S-SH-_M			
	HC-LP302(B) (*1)	MR-J3HC5S-SH-_M			
	HC-RP103-153	MR-J3HC2S-SH-_M			
	HC-RP103B-153B	MR-J3HC2SB-SH-_M			
	HC-RP203	MR-J3HC3S-SH-_M			
	HC-RP203B	MR-J3HC3SB-SH-_M			
	HC-RP353-503	MR-J3HC5S-SH-_M			
	HC-RP353B-503B	MR-J3HC5SB-SH-_M	-	IP65	
	HC-UP72	MR-J3HC1S-SH-_M			
	HC-UP72B	MR-J3HC1SB-SH-_M			
	HC-UP152	MR-J3HC2S-SH-_M			
	HC-UP152B	MR-J3HC2SB-SH-_M			
	HC-UP202(B) (*1)	MR-J3HC4S-SH-_M	-	IP65	
	HC-UP352(B)-502(B) (*1)	MR-J3HC5S-SH-_M			
	HF-SP51, 51B, 52, 52B, 524, 524B, 1024, 1024B (*1)	MR-J3PWS1-_M	2, 5, 10, 15, 20, 30	IP67	
	HF-JP53, 53B, 534, 534B, 73, 73B, 734, 734B, 1034, 1034B (*1)	MR-J3PWS1-_M			
	HF-SP81, 81B, 102, 102B, 152, 152B, 1524, 1524B, HF-JP103, 103B, 153, 153B, 1534, 1534B, GSX20, GSX30 (*1)	MR-J3PWS2-_M			
	HF-SP121, 121B, 201, 201B, 202, 202B, 2024, 2024B (*1)	MR-J3PWS4-_M			
	HF-SP502, 502B, 5024, 5024B, GSX40, GSX50 (*1)	MR-J3PWS6-_M			
	HF-SP421, 421B, 702, 702B, 7024, 7024B HF-JP703, 703B, 7034, 7034B, 9034, 9034B, 11K1M4, 11K1M4B, GSX60 (*1)	MR-J3PWS7-_M			
	HF-JP203, 203B, 2034, 2034B, 3534, 3534B (*1)	MR-J3PWS8-_M			
	HF-SP301, 301B, 352, 352B, 3524, 3524B HF-JP353, 353B (*1)	MR-J3PWS9-_M			
	HF-JP503, 503B (*1)	MR-J3PWS10-_M			
	HF-JP5034, 5034B (*1)	MR-J3PWS11-_M			
	HF-JP903, 903B, 11K1M, 11K1MB, 15K1M4, 15K1M4B (*1)	MR-J3PWS12-_M			
HF-JP15K1M, 15K1MB (*1)	MR-J3PWS13-_M				
HF-JP15K1M(B) (*1)	MR-J3PWS13-_M				

- Note:**
 1. Must order separate brake cable for these motors.
 2. Standard-flex cables listed on previous page.

Brake Cables for - A-, B Safety & T-Type Amplifiers

Item	Motor Model Number	Cable Number (_ = cable length 2, 5, 10, 15, 20, 25, 30 Meter)	Stocked Lengths	Protection Level	Description
2	HA-LP ALL (B) SIZES	MR-J3HCBKS-_M	5, 10, 20	IP65	
	HC-LP202B, 302B				
	HC-UP202B, 352B, 502B				
	HF-JP11K1M(4)B-HF-JP15K1M(4)B				
	HF-SP(4) ALL (B) SIZES	MR-J3BK-_M	-	IP67	
	HF-JP53B-HF-JP9034B				
	GSX Actuators				
	HA-LP ALL (B) SIZES	MR-J3HCBKS-SH-_M	-	IP65	
	HC-LP202B, 302B				
	HC-UP202B, 352B, 502B				
	HF-JP11K1M(4)B-HF-JP15K1M(4)B				
	HF-SP(4) ALL (B) SIZES	MR-J3BRKS1-_M	2, 5, 10, 15, 20, 30	IP67	
	HF-JP53B-HF-JP9034B				
	GSX Actuators				

MR-J3 Cables and Connectors Continued (Refer to Chart on Previous Page)

Encoder Cables for A-, B Safety and T-Type

Item	Model	Stocked Lengths	Protection Level	Description
3	Encoder Cable For HF-MP/HF-KP Series Motor Lead Out In Direction of Motor Shaft MR-J3ENCBL_M-A1-H _ = cable length 2, 5, 10m (*1)	2, 5, 10	IP65	
	MR-J3ENCBL_M-A1-L _ = cable length 2, 5, 10m (*1)	2, 5, 10	IP65	
4	Encoder Cable For HF-MP/HF-KP Series Motor Lead Out In Opposite Direction Of Motor Shaft MR-J3ENCBL_M-A2-H _ = cable length 2, 5, 10m (*1)	2, 5, 10	IP65	
	MR-J3ENCBL_M-A2-L _ = cable length 2, 5, 10m (*1)	2, 5, 10	IP65	
5	Encoder Cable For HF-MP/HF-KP Series Motor Lead Out In Direction of Motor Shaft MR-J3JCBLO3M-A1-L Cable length 0.3m (*1)	S	IP20	
	MR-J3JSCBL03M-A1-L Cable length 0.3m (*1, *3)	S	IP67	
6	Encoder Cable For HF-MP/HF-KP Series Motor Lead Out In Opposite Direction Of Motor Shaft MR-J3JCBLO3M-A2-L Cable length 0.3m (*1)	S	IP20	
	MR-J3JSCBL03M-A2-L Cable length 0.3m (*1, *3)	S	IP67	
7	Amplifier-Side Cable For HF-MP/HF-KP Series Motor MR-EKCBL_M-H _ = cable length 20, 30, 40, 50m (*1)	20, 30	IP20	<p>Use this in combination of 5 or 6.</p>
	MR-EKCBL_M-L _ = cable length 20, 30m (*1)	-	IP20	
8	Junction Connector, Amplifier-Side Connector (*2) For HF-MP/HF-KP Series Motor MR-ECNM	S	IP20	
9	Encoder Cable For HF-SP, HC-RP, HC-UP, HC-LP, HA-LP, HF-JP53(B)-HF-JP9034(B) Series Motor, GSX Actuators MR-J3ENCBL_M-H _ = cable length 2, 5, 10, 20, 30, 40, 50m (*1)	2, 5, 10, 20, 30	IP67	
	MR-J3ENCBL_M-L _ = cable length 2, 5, 10, 20, 30m (*1)	2, 5	IP67	
	Encoder Cable for HF-JP11K1M, 15K1M, 11K1M4, 15K1M4, GSX Actuators MR-ENECBL_M-H _ = 2, 5, 10, 20, 30, 40, or 50 (*1)	2, 5, 10	IP67	
	MR-ENECBL_M-L _ = 2, 5, 10, 20, 30, 40, or 50 (*1)	-	IP67	
10	Encoder Connector Set for HF-SP/HC-LP/HC-RP/HC-UP/HA-LP Series HF-JP53, 73, 103, 153, 203, 353, 503, 703, 903534, 734, 1034, 1534, 2034, 3534, 5034, 7034, 9034, GSX Actuators MR-J3SCNS	S	IP67	
	Encoder Connector Set for HF-JP11K1M, 15K1M, 11K1M4, 15K1M4, GSX Actuators MR-ENECNS	S	IP67	
11	90° Encoder Connector Set for HF-SP/HC-LP/HC-RP/HC-UP/HA-LP Series HF-JP53, 73, 103, 153, 203, 353, 503, 703, 903534, 734, 1034, 1534, 2034, 3534, 5034, 7034, 9034, GSX Actuators MR-J3SCNSA	S	IP67	
12	CN2 or CN2L Connector, GSX Actuators MR-J3CN2	S	IP20	
13	Battery Connection Relay Cable, GSX Actuators MR-J3BTCBL03M Cable length 0.3m	S	-	

Notes:

- H and -L indicate a bending life. -H indicates a long bending life, and -L indicates a standard bending life.
- The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/Servo Motor. If the IP rating of the servo amplifier/Servo Motor differs from that of these connectors, overall IP rating depends on the lowest of all.
- The encoder cable is rated IP65 while the junction connector is rated IP67.

MR-J3 Cables and Connectors Continued (Refer to Chart on Previous Page)

Motor Power Supply Cables For CNP3 - A-, B Safety and T-Type

Item	Model (*1)	Stocked Lengths	Protection Level	Description	
14	Power Supply Cable For HF-MP/ HF-KP Series Motor. Lead Out In Direction of Motor Shaft (Non-Shielded)	MR-PWS1CBL_M-A1-H (= cable length 2, 5, 10m)	2, 5, 10	IP65	
		MR-PWS1CBL_M-A1-L (= cable length 2, 5, 10m)	2, 5, 10	IP65	
	Power Supply Cable For HF-MP/ HF-KP Series Motor. Lead Out In Direction of Motor Shaft (Shielded)	MR-J3PS_M-A1 (= cable length 5, 10m)	5	IP65	
15	Power Supply Cable For HF-MP/ HF-KP Series Motor. Lead Out In Opposite Direction of Motor Shaft (Non-Shielded)	MR-PWS1CBL_M-A2-H (= cable length 2, 5, 10m)	2, 5, 10	IP65	
		MR-PWS1CBL_M-A2-L (= cable length 2, 5, 10m)	2, 5, 10	IP65	
	Power Supply Cable For HF-MP/ HF-KP Series Motor. Lead Out In Opposite Direction of Motor Shaft (Shielded)	MR-J3PS_M-A2 (= cable length 5, 10m)	5, 10	IP65	
16	Power Supply Cable For HF-MP/ HF-KP Series Motor Lead Out In Direction of Motor Shaft (Non-Shielded)	MR-PWS2CBL03M-A1-L (Cable length 0.3m)	S	IP55	
	Power Supply Cable For HF-MP/ HF-KP Series Motor Lead Out In Direction of Motor Shaft (Shielded)	MR-J3PS03M-A1 (Cable length 0.3m)	S	IP55	
17	Power Supply Cable For HF-MP/ HF-KP Series Motor Lead Out In Opposite Direction of Motor Shaft (Non-Shielded)	MR-PWS2CBL03M-A2-L (Cable length 0.3m)	S	IP55	
	Power Supply Cable For HF-MP/ HF-KP Series Motor Lead Out In Opposite Direction of Motor Shaft (Shielded)	MR-J3PS03M-A2 (Cable length 0.3m)	S	IP55	

Note:

1. -H and -L indicate bending life. -H indicates a long bending life and -L indicates a standard bending life.

Power Supply Cable for HF-KP/HF-MP Rotary Servo Motor Series (Direct Connection Type)

Item	Model (*1)	Stocked Lengths	Protection Level	Description
18	Lead Out in Direction of Motor Shaft Standard Bending Life	SC-EPWS1CBL_M-A1-L (= cable length: 2, 5, 10m)	-	
19	Lead Out in Opposite Direction of Motor Shaft Standard Bending Life	SC-EPWS1CBL_M-A2-L (= cable length: 2, 5, 10m)	-	
20	Lead Out in Direction of Motor Shaft Long Bending Life	SC-EPWS1CBL_M-A1-H (= cable length: 2, 5, 10m)	2, 5, 10	
21	Lead out in Opposite Direction of Motor Shaft Long Bending Life	SC-EPWS1CBL_M-A2-H (= cable length: 2, 5, 10m)	2, 5, 10	

Note:

1. -H and -L indicate bending life. -H indicates a long bending life and -L indicates a standard bending life.

Power Supply Cable for HF-SP/HC-LP/HC-UP Rotary Servo Motor Series

Item	Model (*1)	Stocked Lengths	Protection Level	Description
22	Standard Bending Life	SC-EPWS2CBL_M-L (= cable length: 2, 5, 10, 20, 30m)	-	
23	Long Bending Life	SC-EPWS2CBL_M-H (= cable length: 2, 5, 10, 20, 30m)	2, 5, 10	

Note:

1. A separate motor-side power supply connector (listed below) is required for HF-SP/HC-LP/HC-UP rotary Servo Motors.

MR-J3 Cables and Connectors Continued (Refer to Chart on Previous Page)

Power Supply Connectors

Item	Model Number	Stocked Lengths	Protection Level	Diagram	
24	Power Supply Connector Set for HF-SP51, 81, 52, 102, 152, 524, 1024, 1524, HF-JP53, 73, 103, 153, 203, 534, 734, 1034, 1534, 2034, 3534, 5034, GSX20, GSX30	MR-PWCNS4 (straight type only)	S	IP67	
25	Power Supply Connector Set for HF-SP121, 201, 301, 202, 352, 502, 2024, 3524, 5024 HF-JP353, 503, GSX40, GSX50	MR-PWCNS5 (straight type only)	S	IP67	
26	Power Supply Connector Set for HF-SP421, 702, 7024, HF-JP703, 903, 7034, 9034, 11K1M, 15K1M, 11K1M4, 15K1M4, HA-LP702, GSX60	MR-PWCNS3 (Straight type only)	S	IP67	
27	Power Supply Connector Set for HC-LP52, 102, 152, HC-RP103, 152, 153, 203	MR-PWCNS1 (Straight type)	S	IP67	
28	Power Supply Connector Set for HC-LP202, 302, HC-RP353, 503, HC-UP202, 352, 502, HA-LP502	MR-PWCNS2 (Straight type)	S	IP67	

Motor Brake Cables

Item	Model Number (=cable length in meters)	Stocked Lengths	Protection Level	Diagram	
29	Brake Cable for HF-KP/HF-MP Series 10m or Shorter (Direct Connection Type)	Lead Out in Direction of Motor Shaft	MR-BKS1CBL_M-A1-H (= 2, 5, or 10) (*1)	2, 5, 10	
			MR-BKS1CBL_M-A1-L (= 2, 5, or 10) (*1)	-	
		Lead Out in Opposite Direction of Motor Shaft	MR-BKS1CBL_M-A2-H (= 2, 5, or 10) (*1)	2, 5, 10	
			MR-BKS1CBL_M-A2-L (= 2, 5, or 10) (*1)	-	
30	Brake Cable for HF-KP/HF-MP Series Exceeding 10m (Relay Type)	Lead Out in Direction of Motor Shaft	MR-BKS2CBL03M-A1-L (cable length 0.3) (*1)	S	
		Lead Out in Opposite Direction of Motor Shaft	MR-BKS2CBL03M-A2-L (cable length 0.3) (*1)	S	

Note:

1. -H and -L indicate bending life. -H indicates a long bending life and -L indicates a standard bending life.

Brake Connector Set

Item	Model Number	Stocked Lengths	Protection Level (*1)	Diagram	
31	Brake Connector Set for HF-SP Series, HF-JP53B, 73B, 103B, 153B, 203B, 353B, 503B, 534B, 734B, 1034B, 1534B, 2034B, 3534B, 5034B, 7034B, 9034B, GSX Actuators	MR-BKCNS1 (straight type only)	S	IP67	
32	Brake Connector Set for HF-SP Series, HF-JP53B, 73B, 103B, 153B, 203B, 353B, 503B, 534B, 734B, 1034B, 1534B, 2034B, 3534B, 5034B, 7034B, 9034B, GSX Actuators	MR-BKCNS1A (Angled type)	S	IP67	
33	Brake Connector Set for HF-JP11K1MB, 15K1MB, 11K1M4B, 15K1M4B, HC-LP202B, 302B, HC-UP202B, 352B, 502B, HA-LP601B, 801B, 12K1B, 6014B, 8014B, 12K14B, 701MB, 11K1MB, 15K1MB, 701M4B, 11K1M4B, 15K1M4B, 11K2B, 15K2B, 22K2B, 11K24B, 15K24B, 22K24B	MR-BKCN	S	IP65	

Note:

1. The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/Servo Motor. If the IP rating of the servo amplifier/Servo Motor differs from that of these connectors, overall IP rating depends on the lowest of all.