

Specification
for
General purpose AC Servo
Long Bending life
Electromagnetic brake cable

Type SC-BKC1JCBL□M-■-H

MITSUBISHI ELECTRIC
SYSTEM & SERVICE CO.,LTD

Note

Revision				Drawn	Check	Design	Approved
A	31 Mar.,2017			<i>S. Karahara</i>	<i>S. Kariya</i>	<i>Mr. Oyamura</i>	<i>T. Tsubokawa</i>
Send to				Date		Dwg	
				26 Apr.,2016		X903703D50052-G20A	
				Order			

1. SCOPE

This specification covers the requirements for the General purpose AC Servo Long Bending Life Electromagnetic brake cable.

• SC-BKC1J CBL □ M- ■ - H

※ The Products covered in this specification don't include the toxic substances in RoHS (Lead, Mercury, Cadmium, Hexavalent Chromium, PBDE, PBB).

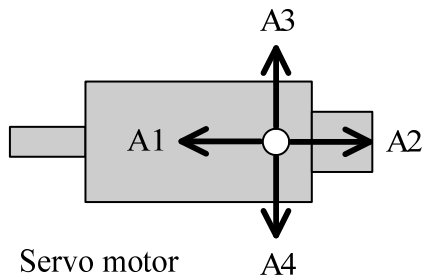
※ UL's Wiring Harnesses Traceability program provides traceability for this cable.

2. CABLE TYPE

SC - BKC1J CBL □ M- ■ - H

Sign	Bending life
H	Long bending life
Sign	Cable lead out direction*1
A1	Motor shaft side
A2	Opposite of motor shaft
A3	Left side of motor shaft
A4	Right side of motor shaft
Sign	Length of cable
□	Refer to clause 5.
Sign	Application
BKC1J	Motor side electromagnetic brake cable for relay connection *2 ※ Refer to clause 4 for applicable motor

*1 Cable lead out direction (View from cable insertion direction)



A1: Motor shaft side
A2: Opposite of motor shaft
A3: Left side of motor shaft
A4: Right side of motor shaft

(Note) Depending on the situation such as installation environment or combination of cables and connectors, there is a chance not to complete installation. (Even though it's mentioned above) Please make sure the cable lead out direction before your purchase.

*2 Please use it with power supply side electromagnetic brake cable.

Refer to clause 6 for confirming the combination and cable length.

3. APPLICABLE STANDARDS

UL758 AWM STYLE 2586 (wire part)

4. APPLICABLE SERVO MOTOR

HG-SR series motor

HG-JR53B, 73B, 103B, 153B, 203B, 353B, 503B, 703B, 903B,
534B, 734B, 1034B, 1534B, 2034B, 3534B, 5034B, 7034B, 9034B motor

HF-SP series motor

HF-JP53B, 73B, 103B, 153B, 203B, 353B, 503B, 703B, 903B,
534B, 734B, 1034B, 1534B, 2034B, 3534B, 5034B, 7034B, 9034B motor

5. LENGTH OF CABLE

1 to 49m Specified by 1m unit

6. CABLE LENGTH FOR RELAY CONNECTION

Combination			Total cable length
Power supply side		Motor side	
SC-BKC1CBL□M-L	30m or less	SC-BKC1JCBL□M-■-H	50m or less
SC-BKC1CBL□M-H			

7. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-BKC1JCBL□M-■-H ×××××××

- ※ □ is a figure from 1 to 49.
- ※ ■ is cable lead out direction from A1, A2, A3, A4.
- ※ ××××××× are the serial number for seven digits.

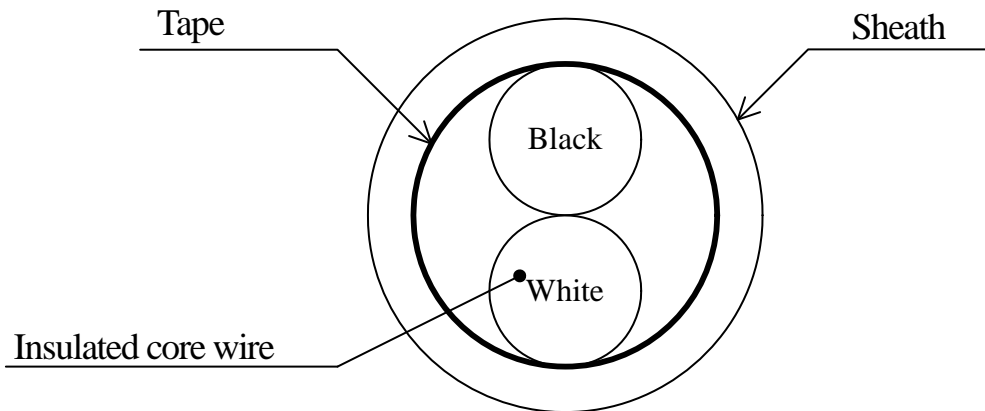
8. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification
Structure		—	AWG16×2C
Conductor	Conductor size	—	AWG16
	Outer diameter	mm	Approx. 1.75
Insulation	Material	—	ETFE
	Outer diameter	mm	Approx. 2.55
Stranding	Number of insulation core wire	—	2C
Sheath	Material	—	Flame resisting PVC
	Color	—	Black
Overall diameter		mm	Approx. 7.2
Electrical characteristics	Insulation resistance	MΩ · km	Over 100
	Withstand voltage	V for 1 minute	AC500
Operating temperature range		°C	-10~+60 (without condensation)
Minimum Bend Radius		mm	6 times the overall diameter
Bending Performance		—	Over 1 million times * ¹ (Bend radius 45mm)
Flame Retardant		—	UL1581 VW-1
Connector	Power supply side	Type	DDK Ltd. CM10-CR2P-M (Cable receptacle) or CMV1-CR2P-M2 (Cable receptacle)
		IP rating	IP67* ²
	Motor side	Type	DDK Ltd. CM10-AP2S-M (D6) (Angle plug) or CMV1-AP2S-M2 (Angle plug)
		IP rating	IP67* ²

*1 This is only the test result, not a guaranteed value. (The performance would change depending on customer's situation)

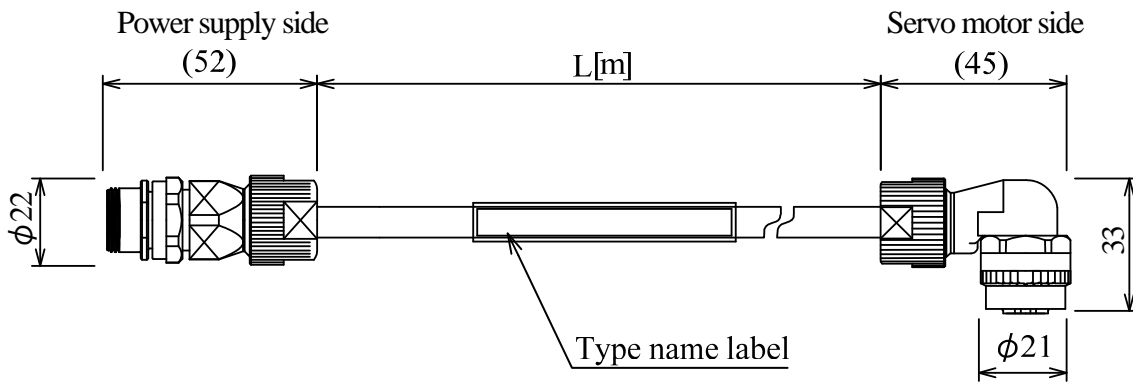
*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

9. STRUCTURAL DRAWING)I.

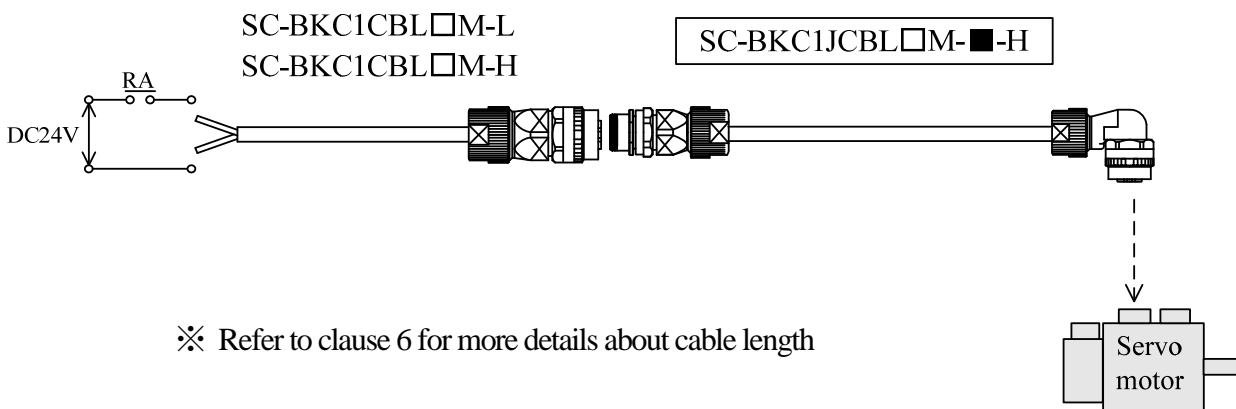


10. OUTLINE DRAWING

[Unit : mm]



11. SYSTEM CONFIGURATION DIAGRAM



※ Refer to clause 6 for more details about cable length