

Specification  
for  
General purpose AC Servo  
Power supply cable  
with electromagnetic brake

Type SC-PWBKC1CBL□M-SB○H

MITSUBISHI ELECTRIC  
SYSTEM & SERVICE CO.,LTD

Note

Revision				Drawn	Check	Design	Approved
A	24 Mar.,2020			n. Ito	S. Kariya	S. Minomaga	D. Takashima
Send to				Date		Dwg	
				24 Apr.,2019		X953503D70003-E40A	
				Order			

## 1. SCOPE

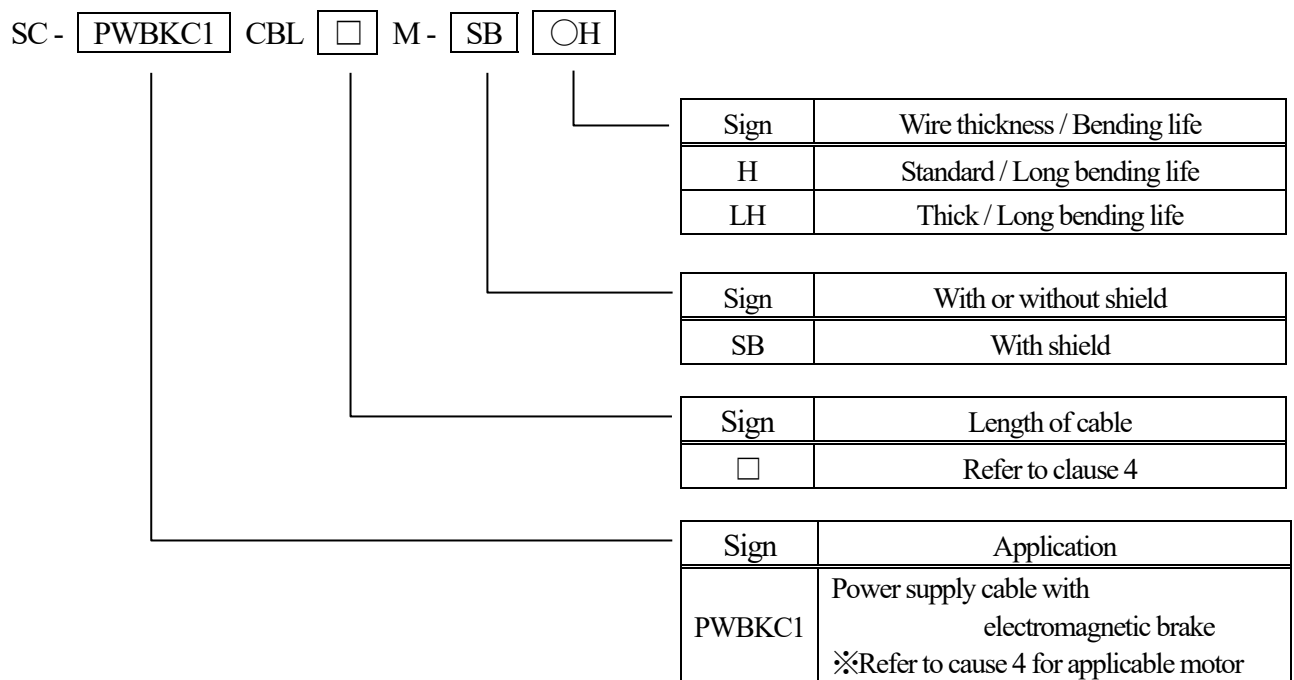
This specification covers the requirements for the General purpose AC Servo Power supply cable with electromagnetic brake.

- SC-PWBKC1CBL□M-SBH
- SC-PWBKC1CBL□M-SBLH

※ The Products covered in this specification don't include the toxic substances in RoHS2 (Lead, Mercury, Cadmium, Hexavalent Chromium, PBDE, PBB, HBCDD, DEHP, BPP, DBP).

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

## 2. CABLE TYPE



## 3. APPLICABLE STANDARDS

Wire part : UL standard (UL 758 : AWM)

UL Style No.	Rated	
21885	105°C	600V

## 4. APPLICABLE MOTOR / LENGTH OF CABLE

Target series	Length of cable	Type name end	Amplifier power supply voltage	Applicable motor
MR-J4 series	1~30m	H	200V	HG-RR103B, 153B, 203B motor HG-UR72B, 152B motor
		LH		HG-RR103B, 153B, 203B motor HG-UR152B motor
	31~100m	H	200V	<u>The maximum cable length differs depending on the motor.</u> <u>Please contact a nearest branch for details</u>
		LH		
MR-J5 series	1~100m	H	200V	It is a cable for amplifier side relay. The applicable motor and maximum cable length differ depending on the wire thickness. Please refer to the CABLE LENGTH SELECTION TABLE "R9535021-018028-010" for more information
		LH		

**When using as MR-J5 series amplifier side relay**

When using this cable for relaying at the MR-J5 series amplifier side,  
Check the specifications of the motor side relay cable (below table).

Target series	Bending life	Cable type name	The number of specification sheet
MR-J5 series	Standard (For fixed part)	SC-AEPB3J2C□M-■-L	X953503D70003-E01

## 5. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-PWBKC1CBL□M-SB○H    ×××××××

- ※ □ is a figure from 1 to 100.
- ※ ○ is wire thickness from none , L.
- ※ ××××××× are the serial number for seven digits.

## 6. STRUCTURE AND CHARACTERISTICS

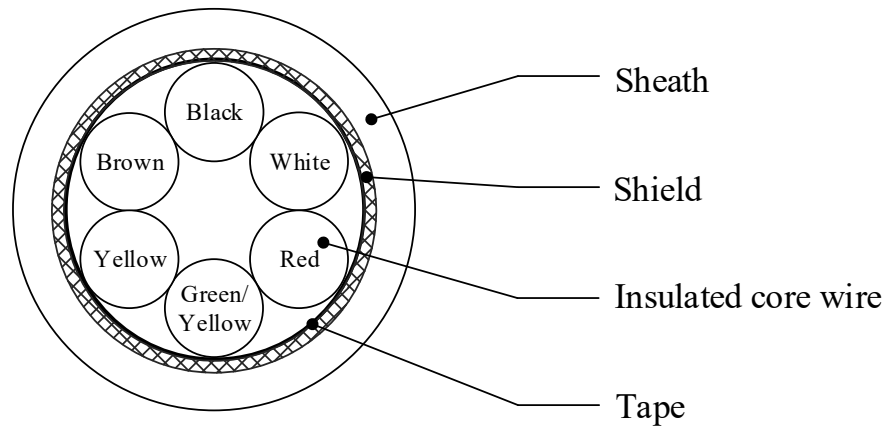
Item		Unit	Specification		
			H	LH	
Structure		—	AWG15×6C	AWG12×4C+AWG15×2C	
Conductor	Conductor size	—	AWG15	AWG12	AWG15
	Outer diameter	mm	Approx.2.0	Approx.2.6	Approx.2.0
Insulation	Material	—	Special elastomer	Special elastomer	
	Outer diameter	mm	Approx.2.4	Approx.3.1	Approx.2.4
Twisted	Number of insulated core wire	—	6C	4C	2C
Shield	Material	—	Tin coated copper braid	Tin coated copper braid	
Sheath	Material	—	Flame resisting PVC	Flame resisting PVC	
	color	—	Black	Black	
Overall diameter		mm	Approx. 9.8	Approx. 11.4	
Electrical characteristics	Insulation resistance	MΩ・km	Over 100	Over 100	
	Withstand voltage	V / for 1 min	AC2000	AC2000	
Operating temperature range		℃	-10～+60 (without condensation)	-10～+60 (without condensation)	
Minimum bend radius		mm	6 times the overall diameter	6 times the overall diameter	
Bending life		—	Over 1 million times* <sup>1</sup> (by Minimum bend radius)	Over 1 million times* <sup>1</sup> (by Minimum bend radius)	
Flame retardant		—	UL1581 VW-1	UL1581 VW-1	
Connector					
Amplifier side		—			
Motor side	Type	DDK Ltd. CE05-6A22-23SD-D-BSS(R1) (Straight plug) CE3057-12A-2-D(R1) (Cable clamp)			
	IP rating	IP67* <sup>2</sup>			

\*1 It is a test outcome, and not a guaranteed value. (The performance is different according to customer's environment. )

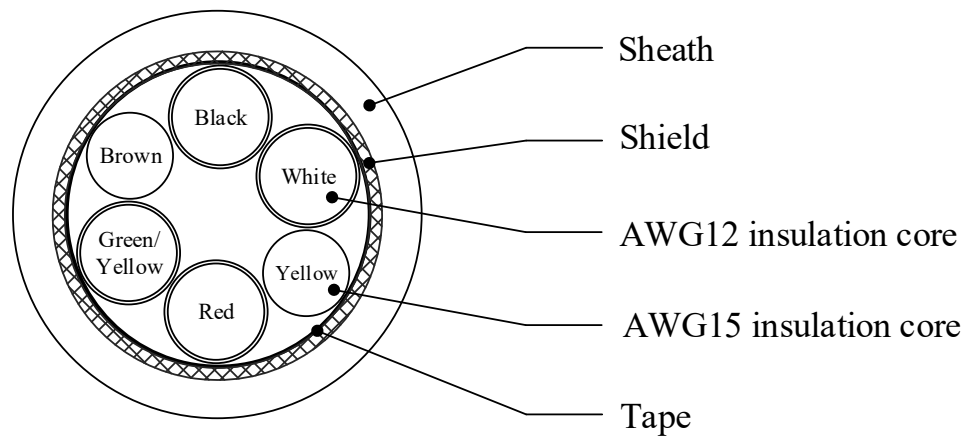
\*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

## 7. STRUCTURAL DRAWING

(1)SC-PWBKC1CBL□M-SBH

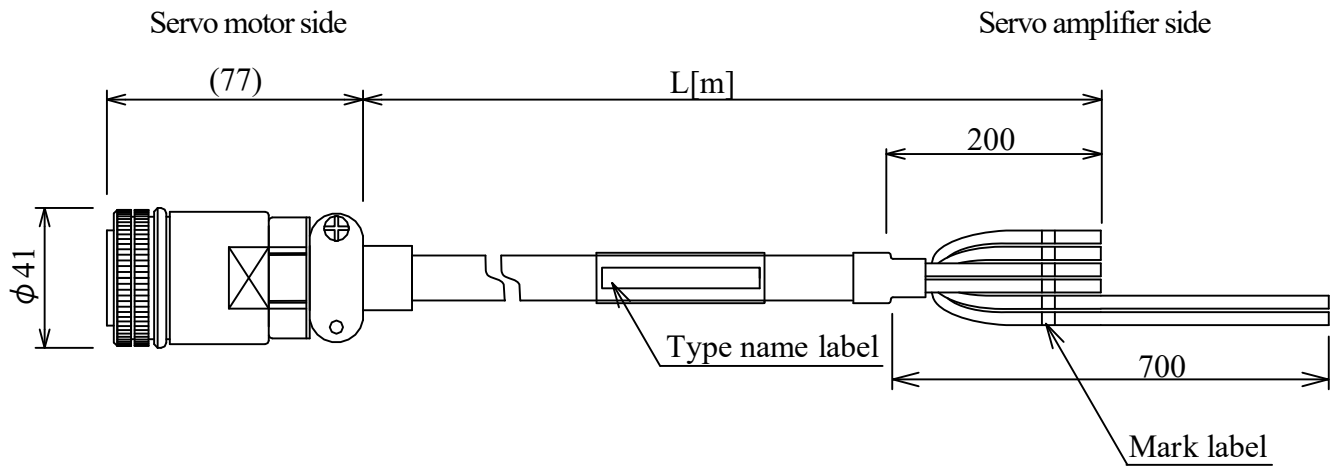


(2) SC-PWBKC1CBL□M-SBLH



## 8. OUTLINE DRAWING

[Unit : mm]



Refer to the following table for mark label and insulation color.

Application	Mark label	Insulation color
For motor power supply	U	Red
	V	White
	W	Black
	E	Green / Yellow
For brake circuit	B1	Yellow
	B2	Brown