

Specification  
for  
General purpose AC Servo  
Power supply cable

Type SC-PWC503JDC□M-SBLH

MITSUBISHI ELECTRIC  
SYSTEM & SERVICE CO.,LTD

Note

Revision								Drawn	Check	Design	Approved
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Send to								Date		Dwg	
								8 Sep.,2022		X953503D70003-E89	
								Order			

## 1. SCOPE

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

- SC-PWC503JDC□M-SBLH

※ The Products covered in this specification don't include the toxic substances in RoHS.

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

## 2. CABLE TYPE

SC - PWC5 03 JD C □ M - SB LH

	Sign	Wire thickness / Bending life
	LH	Thick / Long bending life
	Sign	With or without shield
	SB	With shield
	Sign	Length of cable
	□	Refer to clause 4
	Sign	Relay connection side connector specifications
	JD	Screw tightening plug
	Sign	Motor connection side connector specifications
	03	One-touch locking plug
	Sign	Application
	PWC5	Power supply cable

## 3. APPLICABLE STANDARDS

Wire part : UL standard (UL 758 : AWM)

UL Style No.	Rated	
2586	105°C	600V

#### 4. APPLICABLE SERVO MOTOR / LENGTH OF CABLE

1 to 100m

※ The maximum length of this cable varies depending on the motor model and amplifier side cable to be combined. Please contact us for more information.

※ Refer to the CABLE SELECTION TABLE "R9535021-018028-015" for applicable motors and connection cables.

#### 5. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-PWC503JDC□M-SBLH    xxxxxxxx

※    □ is a figure from 1 to 100.

※    xxxxxxxx are the serial number for seven digits.

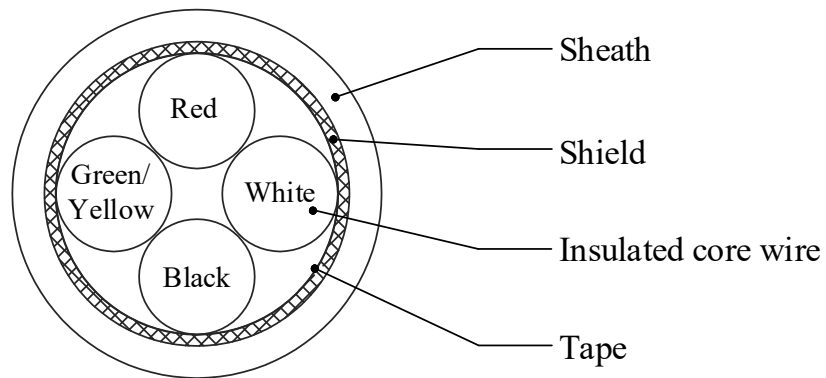
## 6. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification
Wire			
Structure		—	AWG10×4C
Conductor	Conductor size	—	AWG10
	Outer diameter	mm	Approx.3.0
Insulation	Material	—	PVC
	Outer diameter	mm	Approx.4.7
Twisted	Number of insulated core wire	—	4C
Shield	Material	—	Tin coated copper braid
Sheath	Material	—	Flame resisting PVC
	color	—	Black
Overall diameter		mm	Approx. 14.8
Cable weight		kg/km	410
Electrical characteristics	Insulation resistance	MΩ・km	Over 10
	Withstand voltage	V / for 5 min	AC2000
Minimum bend radius		mm	6 times the overall diameter
Bending life		—	Over 1 million times <sup>*1</sup> (by Minimum bend radius)
Flame retardant		—	UL1581 VW-1
Connector			
Amplifier side	Type	DDK Ltd. D/MS3101A22-22P(D263) (Cable receptacle) CE02-22BS-S-D(R1) (Waterproof straight back shell) CE3057-12A-1-D(R1) (Cable clamp)	
	IP rating	IP67 <sup>*2</sup>	
Motor side	Type	Japan Aviation Electronics Industry, Ltd. JL10-6A22-22SE-EB (Straight plug) JL04-2022CK(14)-R (Waterproof cable clamp)	
	IP rating	IP67 <sup>*2</sup>	
Cable harness			
Environment	Ambient temperature	℃	0 to 60 (Without freezing)
	Ambient humidity	%RH	5 to 95 (Without condensation)
	Ambience	—	Indoors (no direct sunlight), no corrosive gas, inflammable gas, oil mist, or dust
Electrical characteristics	Insulation resistance	MΩ・km	Over 10
	Withstand voltage	V / for 1 min	AC2000

\*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



## 8. OUTLINE DRAWING

[Unit : mm]

