

Specification
for
General purpose AC Servo
Power supply cable

Type SC-PWC503C□M-SB○H

MITSUBISHI ELECTRIC
SYSTEM & SERVICE CO.,LTD

Note

Revision								Drawn	Check	Design	Approved
A	6 Sep.,2022							N.Ito	S.Kariya	T.kasahara	D.Fukushima
Send to								Date		Dwg	
								10 May, 2019		X953503D70003-E25A	
								Order			

1. SCOPE

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

- SC-PWC503C□M-SBMH
- SC-PWC503C□M-SBH
- SC-PWC503C□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 C □ M - SB ○H

Sign	Wire thickness / Bending life
MH	Thin / Long bending life
H	Standard / Long bending life
LH	Thick / Long bending life

Sign	With or without shield
SB	With shield

Sign	Length of cable
□	Refer to clause 4

Sign	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 SERVOMOTOR / LENGTH OF CABLE

1 to 100m

※ The maximum cable length differs depending on the motor.

Refer to the CABLE LENGTH SELECTION TABLE "R9535021-018028-010"
for more information.

Refer to the CABLE SELECTION TABLE "R9535021-018028-015" for applicable motors.

5. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-PWC503C□M-SB○H ×××××××

※ □ is a figure from 1 to 100.

※ ○ is wire thickness from M , none , L.

※ ××××××× are the serial number for seven digits.

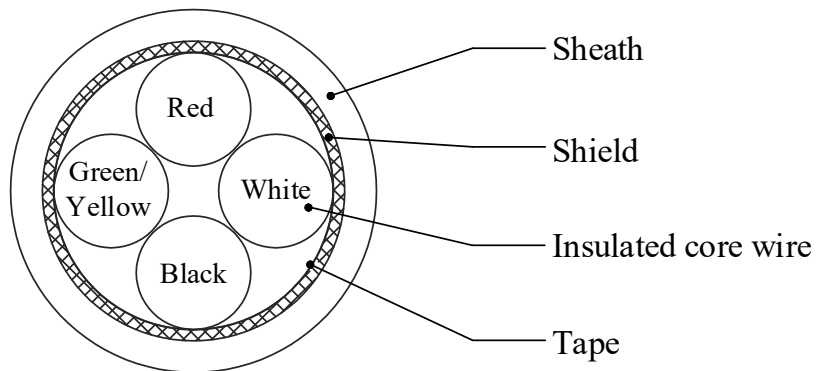
6. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification		
			MH	H	LH
Wire					
Structure		—	AWG15×4C	AWG12×4C	AWG10×4C
Conductor	Conductor size	—	AWG15	AWG12	AWG10
	Outer diameter	mm	Approx.2.0	Approx.2.6	Approx.3.0
Insulation	Material	—	ETFE		PVC
	Outer diameter	mm	Approx.2.8	Approx.3.4	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. 9.9	Approx. 11.5	Approx. 14.8
Cable weight		kg/km	180	260	410
Electrical characteristics	Insulation resistance	MΩ・km	Over 100		Over 10
	Withstand voltage	V / for 5 min	AC2000		
Minimum bend radius		mm	6 times the overall diameter		
Bending life		—	Over 1 million times*1 (by Minimum bend radius)		
Flame retardant		—	UL1581 VW-1		
Connector					
Amplifier side		—			
Motor side	Type		MH , H : Japan Aviation Electronics Industry, Ltd. JL10-6A22-22SE-EB (Straight plug) JL04-2022CK(12)-R (Waterproof cable clamp)		
			LH : Japan Aviation Electronics Industry, Ltd. JL10-6A22-22SE-EB (Straight plug) JL04-2022CK(14)-R (Waterproof cable clamp)		
	IP rating		IP67*2		
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		

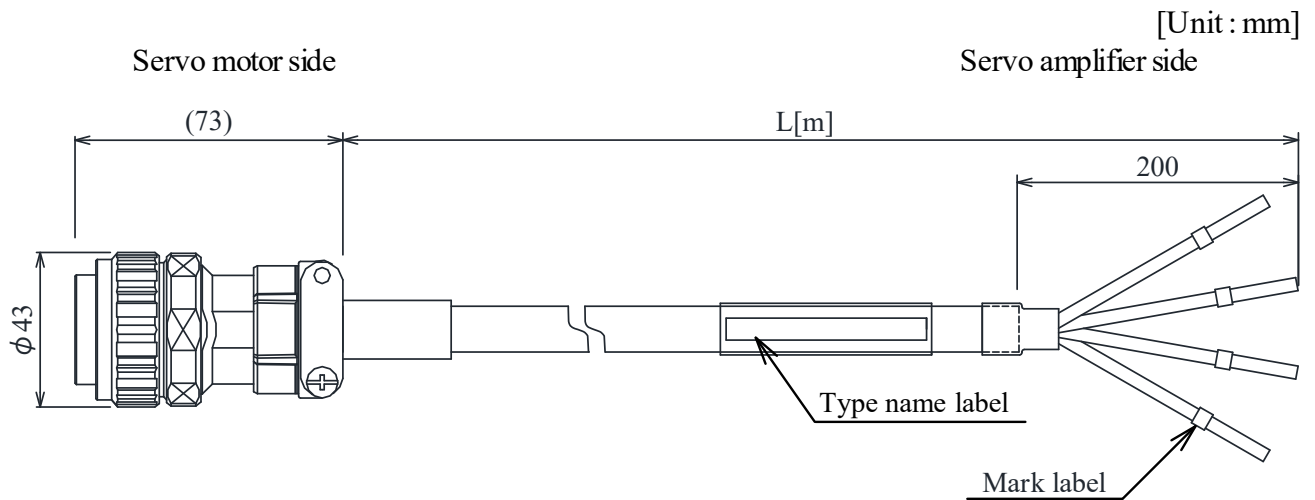
*1 It is a test outcome, and not a guaranteed value. (The performance is different according to customer's environment.)

*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



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

Mark label	Insulation color
U	Red
V	White
W	Black
E	Green / Yellow