

Specification  
for  
General purpose AC Servo  
Power supply cable

Type SC-PWC503C□M-■-○H

MITSUBISHI ELECTRIC  
SYSTEM & SERVICE CO.,LTD

Note

Revision								Drawn	Check	Design	Approved
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Send to								Date		Dwg	
								24 june, 2019		X953503D70003-E27	
								Order			

## 1. SCOPE

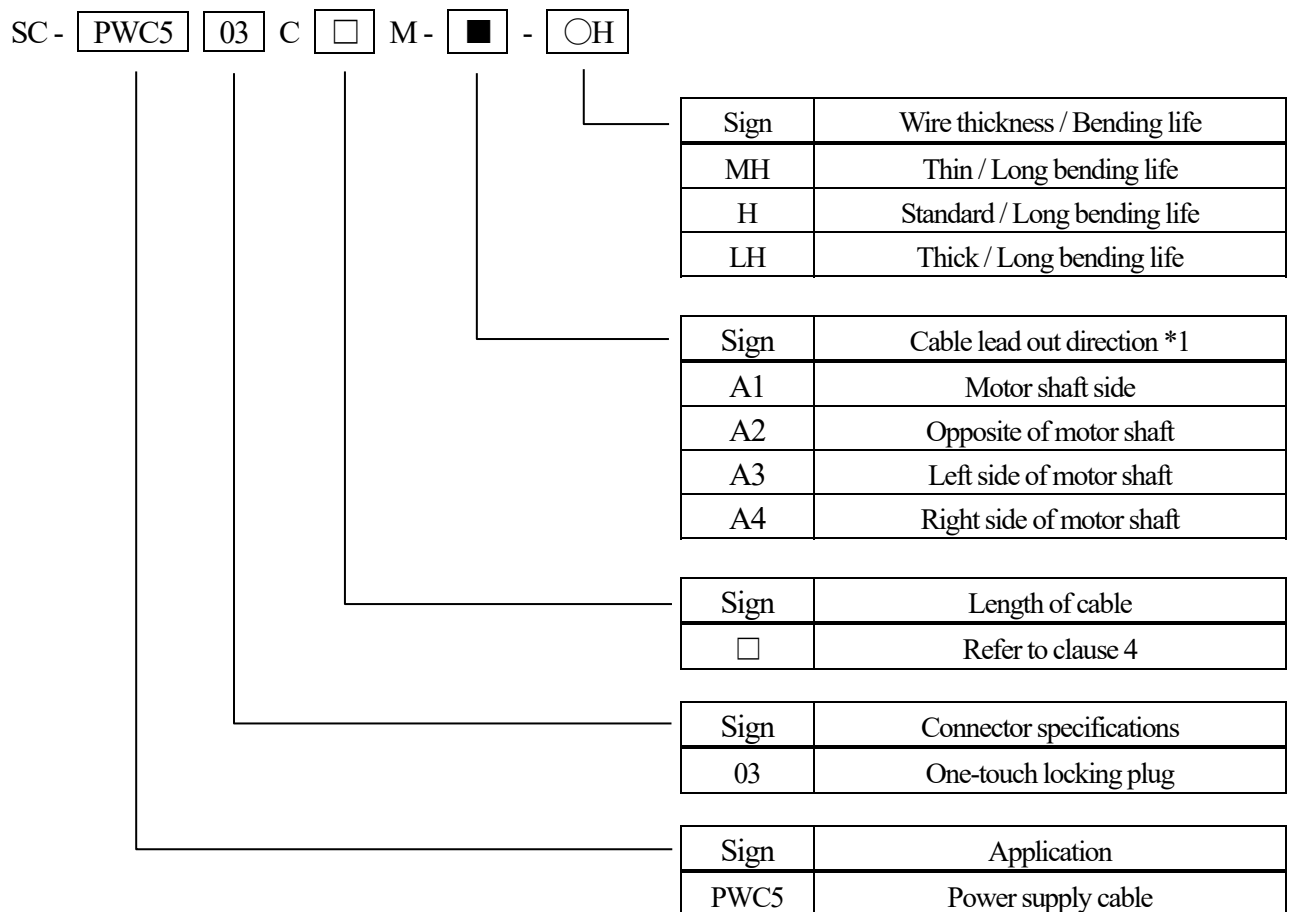
This specification covers the requirements for the General purpose AC Servo Power supply cable.

- SC-PWC503C□M-■-MH
- SC-PWC503C□M-■-H
- SC-PWC503C□M-■-LH

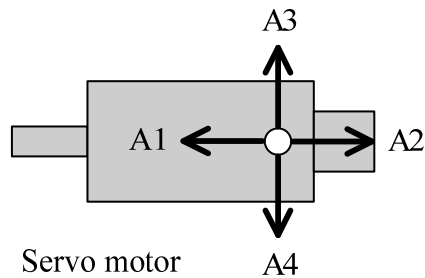
※ The Products covered in this specification don't include the toxic substances in RoHS2 (Lead, Mercury, Cadmium, Hexavalent Chromium, PBDE, PBB, HBCDD, DEHP, BPP, DBP).

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

## 2. CABLE TYPE



\*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.

### 3. APPLICABLE STANDARDS

Wire part : UL standard (UL 758 : AWM)

Wire thickness	UL Style No.	Rated	
MH (Thin)	2586	105°C	600V
H (Standard)			
LH (Thick)			

### 4. LENGTH OF CABLE

1 to 100m

※ The maximum cable length differs depending on the motor.

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

### 5. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-PWC503C□M-■-○H ×××××××

- ※ □ is a figure from 1 to 100.
- ※ ■ is cable lead out direction from A1, A2, A3, A4.
- ※ ○ is wire thickness from M, none, L.
- ※ ××××××× are the serial number for seven digits.

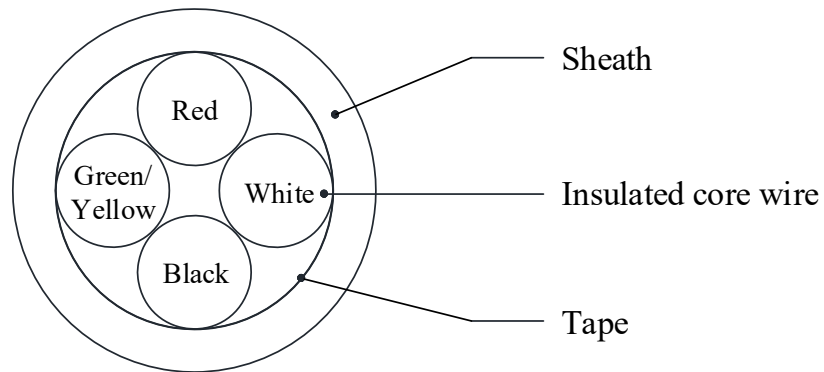
## 6. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification		
			MH	H	LH
Structure		—	AWG15×4C	AWG12×4C	AWG10×4C
Conductor	Conductor size	—	AWG15	AWG12	AWG10
	Outer diameter	mm	Approx.2.0	Approx.2.8	Approx.3.0
Insulation	Material	—	ETFE		PVC
	Outer diameter	mm	Approx.2.6	Approx.3.6	Approx.4.7
Twisted	Number of insulated core wire	—	4C		
Sheath	Material	—	Flame resisting PVC		
	color	—	Black		
Overall diameter		mm	Approx. 8.6	Approx. 10.9	Approx. 14.0
Electrical characteristics	Insulation resistance	MΩ・km	Over 100		Over 10
	Withstand voltage	V / for 1 min	AC2000		
Operating temperature range		℃	-10~+60 (without condensation)		
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: Japan Aviation Electronics Industry, Ltd. JL10-8A22-22SE-EB (Angle plug) JL04-2022CK(09)-R (Waterproof cable clamp)			
		H: Japan Aviation Electronics Industry, Ltd. JL10-8A22-22SE-EB (Angle plug) JL04-2022CK(12)-R (Waterproof cable clamp)			
		LH: Japan Aviation Electronics Industry, Ltd. JL10-8A22-22SE-EB1 (Angle plug) JL04-2428CK(14)-RK (Waterproof cable clamp)			
	IP rating	IP67*2			

\*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.

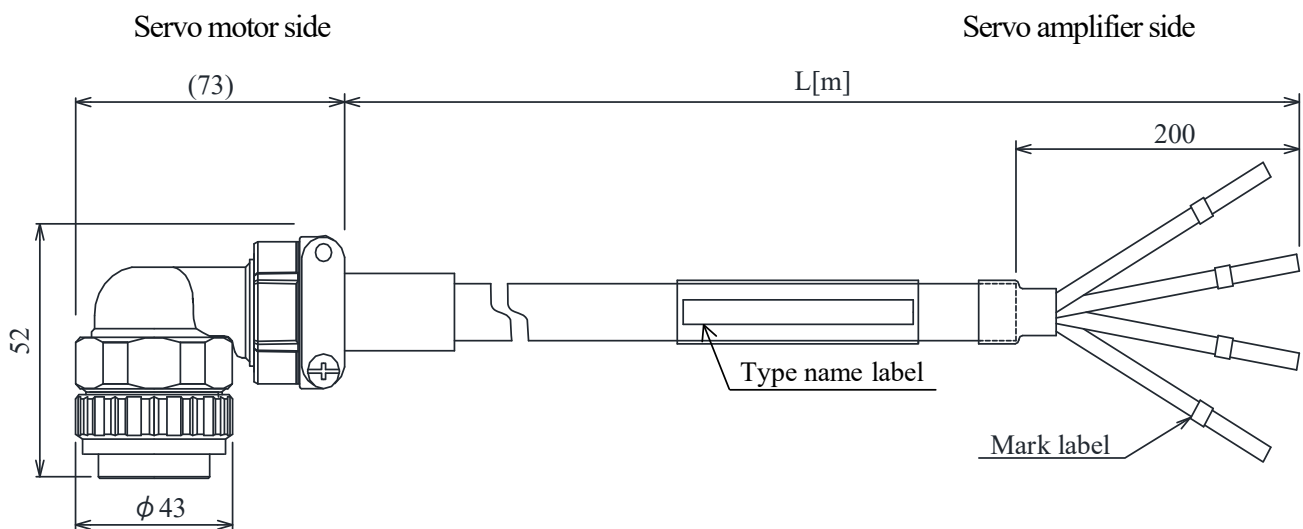
## 7. STRUCTURAL DRAWING



## 8. OUTLINE DRAWING

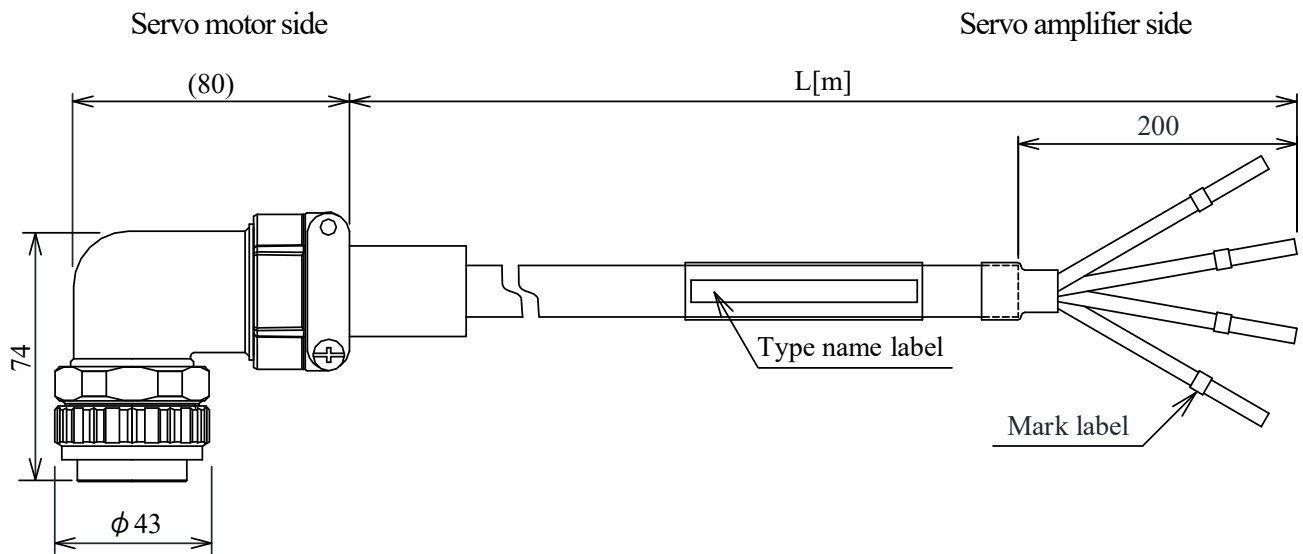
- (1) SC-PWC503C□M-■-MH  
SC-PWC503C□M-■-H

[Unit : mm]



(2) SC-PWC503C□M-■-LH

[Unit : mm]



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

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