

Specification  
for  
General purpose AC Servo  
Power supply cable

Type SC-PWC403C□M-■-○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	
				24 Apr.,2019		X953503D70003-E19A	
				Order			

## 1. SCOPE

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

- SC-PWC403C□M-■-H
- SC-PWC403C□M-■-LH

※ 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 - PWC4 03 C □ M - ■ - ○H

Sign	Bending life
H	Standard / Long bending life
LH	Thick / Long bending life

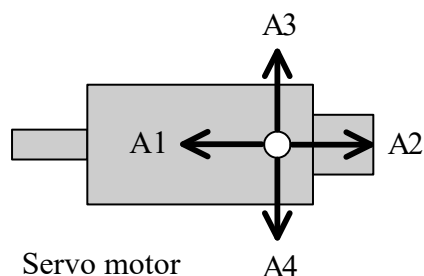
Sign	Cable lead out direction *1
A1	Motor shaft side
A2	Opposite of motor shaft
A3	Left side of motor shaft
A4	Right side of motor shaft

Sign	Length of cable
□	Refer to clause 4

Sign	Connector specifications
03	One-touch locking plug

Sign	Application
PWC4	Power supply cable

\*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)

UL Style No.	Rated	
2586	105°C	600V

### 4. APPLICABLE SERVO MOTOR / 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-PWC403C□M-■-○H    ×××××××

※ □ is a figure from 1 to 100.

※ ■ is cable lead out direction from A1, A2, A3, A4.

※ ○ is wire thickness from none , L.

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

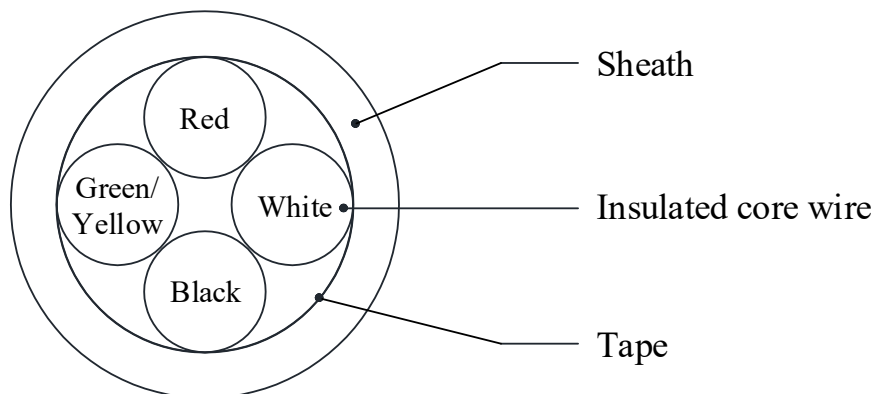
## 6. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification	
			H	LH
Wire				
Structure		—	AWG15×4C	AWG12×4C
Conductor	Conductor size	—	AWG15	AWG12
	Outer diameter	mm	Approx.2.0	Approx.2.6
Insulation	Material	—	ETFE	
	Outer diameter	mm	Approx.2.6	Approx.3.4
Twisted	Number of insulated core wire	—	4C	
Sheath	Material	—	Flame resisting PVC	
	color	—	Black	
Overall diameter	Internal unit	mm	Approx. 8.6	Approx. 10.9
Cable weight		kg/km	140	230
Electrical characteristics	Insulation resistance	MΩ・km	Over 100	
	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	H : Japan Aviation Electronics Industry, Ltd. JL10-8A18-10SE-EB (Angle plug) JL04-18CK(10)-R (Waterproof cable clamp)		
		LH : Japan Aviation Electronics Industry, Ltd. JL10-8A18-10SE-EB (Angle plug) JL04-18CK(13)-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. )

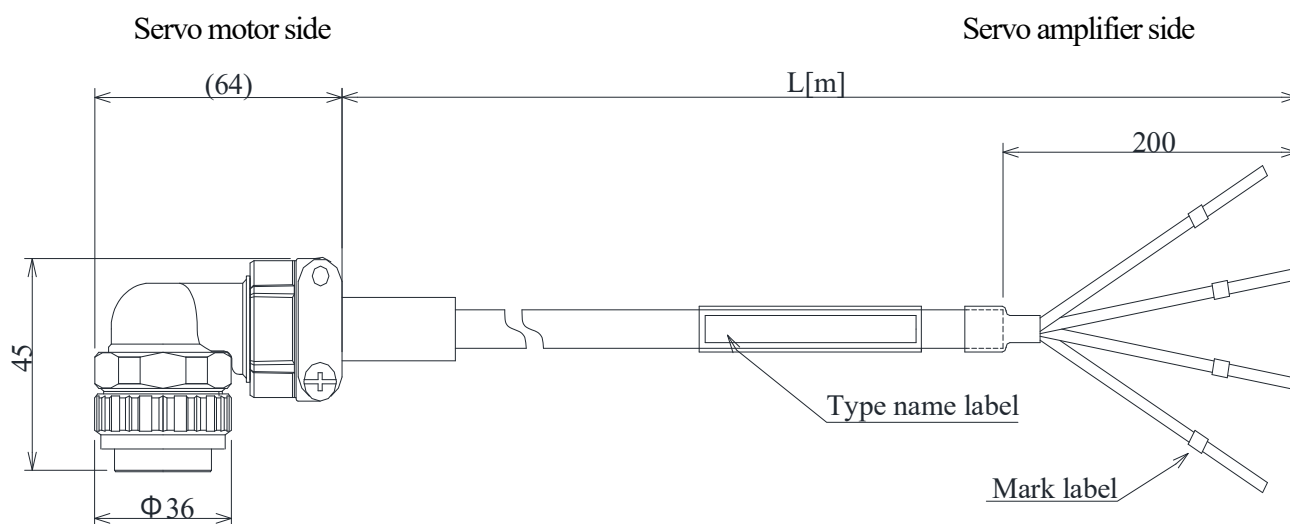
\*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

## 7. STRUCTURAL DRAWING



## 8. OUTLINE DRAWING

[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