Specification
for
General purpose AC Servo
Long Bending Life Power supply cable

Type SC-PWC1CBL□M-■-○H

MITSUBISHI ELECTRIC
SYSTEM & SERVICE CO.,LTD

Note

Revision				Drawn	Check	Design	Approved
A	31 Mar., 2017			N.Ishii	S.Kariya	M.Kawamura	D.Tsukishima
B	7 Jun.,2018						

Send to	Date	Dwg
	27 Apr.,2016	
	Order	X903703D50052-F30B

1. SCOPE

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

- SC-PWC1CBL□M-■-MH
- SC-PWC1CBL□M-■-H
- SC-PWC1CBL□M-■-LH

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

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

2. CABLE TYPE

SC - [PW] [C1] CBL [□] M - [■] - [○] [H]

Sign	Bending life
H	Long bending life

Sign	Wire thickness
M	Thin
None	Standard
L	Thick

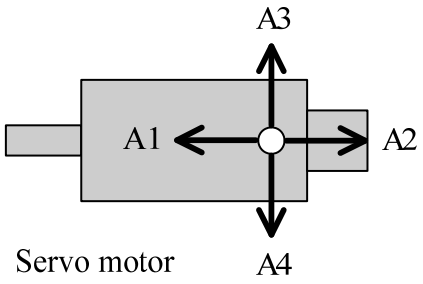
Sign	Cable lead out direction *1
A1	Motor shaft side
A2	Opposite of motor shaft
A3	Left side of motor shaft
A4	Right side of motor shaft

Sign	Length of cable
□	Refer to clause 5.

Sign	Applicable servo motor
C1	Refer to clause 4.

Sign	Application
PW	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

UL758 AWM STYLE 2586 (wire part)

4. APPLICABLE SERVO MOTOR

The end of type name

① MH
HG-UR72 motor
HC-LP52, 102 motor
HC-UP72 motor

② H
HG-RR103, 153 motor
HG-UR152 motor
HC-LP152 motor
HC-RP103, 153 motor
HC-UP152 motor

③ LH
HG-RR203 motor
HC-RP203 motor

5. LENGTH OF CABLE

1 to 30m Specified by 1m unit

6. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-PWC1CBL□M-■-○H ××××××

※ □ is a figure from 1 to 30.
※ ■ is cable lead out direction from A1, A2, A3, A4.
※ ○ is wire thickness from M, none , L.
※ ×××××× are the serial number for seven digits.

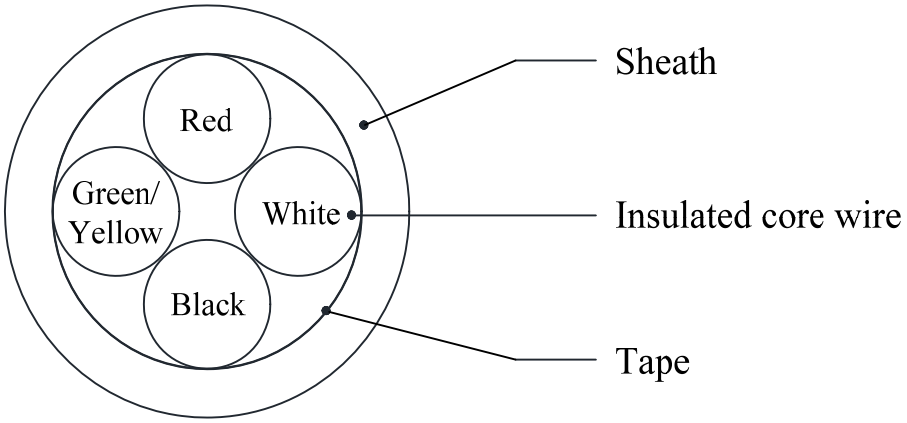
7. STRUCTURE AND CHARACTERISTICS

Item			Unit	Specification		
				MH	H	LH
Structure			—	AWG16×4C	AWG15×4C	AWG12×4C
Conductor	Conductor size		—	AWG16	AWG15	AWG12
	Outer diameter		mm	Approx. 1.75	Approx.2.00	Approx.2.77
Insulation	Material		—	ETFE		
	Outer diameter		mm	Approx. 2.55	Approx. 2.60	Approx. 3.57
Stranding	Number of insulation core wire		—	4C		
Sheath	Material		—	Flame Retardant PVC		
	Color		—	Black		
Overall diameter			mm	Approx. 8.3	Approx. 8.6	Approx. 10.9
Electrical characteristics	Insulation resistance		MΩ・km	Over 100		
	Withstand voltage		V for 1minute	AC2000		
Operating temperature range			℃	-10～+60 (without condensation)		
Minimum radius bend			mm	6 times the overall diameter		
Bending life			—	Over 1 million times[*1] (Bend radius : Minimum bend radius of each cable)		
Flame retardant			—	UL1581 VW-1		
Connector	Servo amplifier side		—			
	Servo motor side	Type	MH / H : DDK Ltd. CE05-8A22-23SD-D-BAS (Angle plug) CE3057-12A-3-D (Waterproof cable clamp)			
			LH : DDK Ltd. CE05-8A22-23SD-D-BAS (Angle plug) CE3057-12A-2-D (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.)

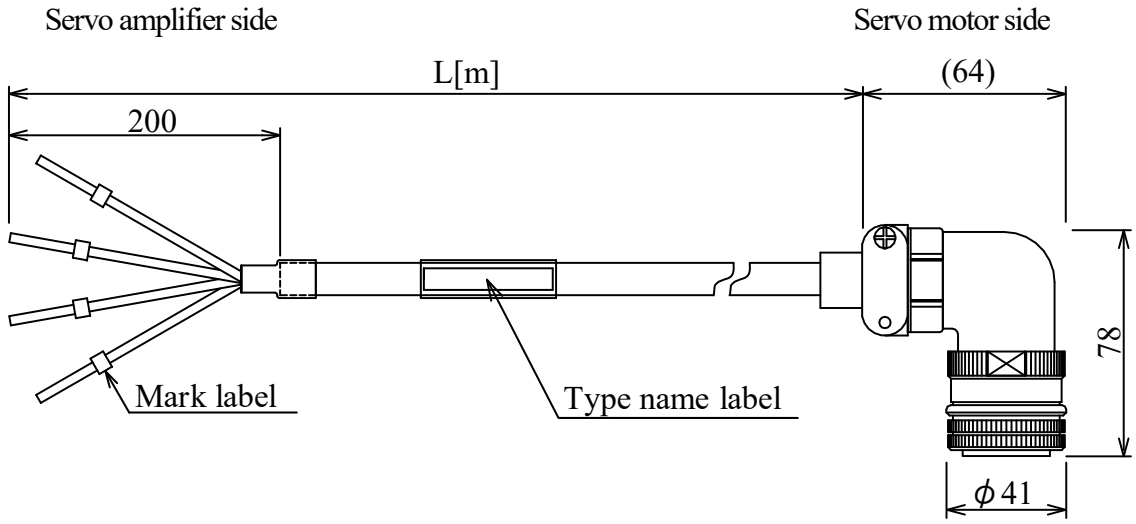
*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

8. STRUCTURAL DRAWING



9. 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