

Specification  
for  
General purpose AC Servo  
Power supply cable

Type SC-PWC3CBL□M-■-○L

MITSUBISHI ELECTRIC  
SYSTEM & SERVICE CO.,LTD

Note

Revision				Drawn	Check	Design	Approved
A	31 Mar.,2017			<i>n. Ito</i>	<i>S. Kanija</i>	<i>M. Awamura</i>	<i>D. Tsubushiro</i>
B	19 July,2018						
C	15 Mar.,2022						
Send to				Date		Dwg	
				27 Apr.,2016		X903703D50052-F11C	
				Order			

### 1. SCOPE

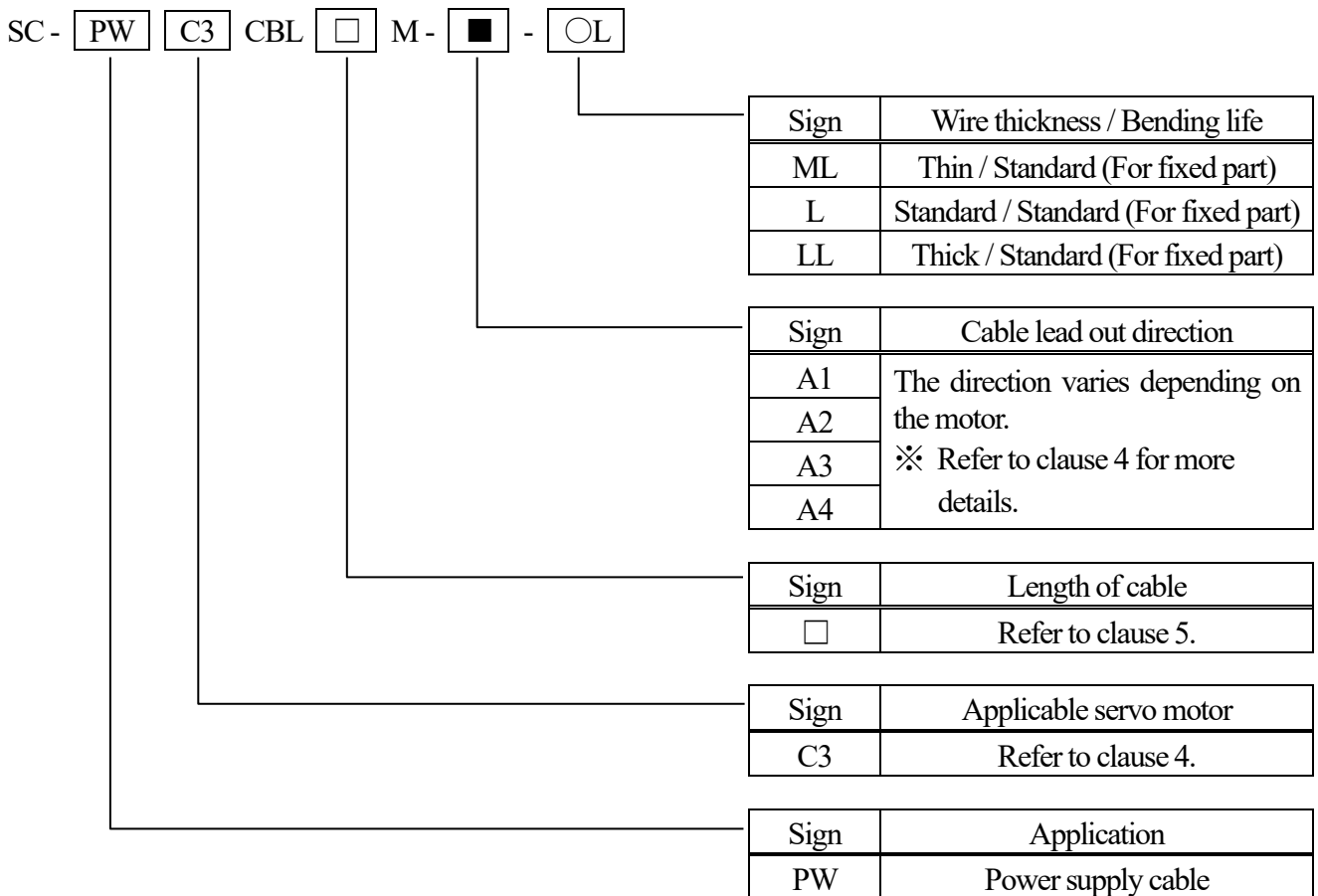
This specification covers the requirements for the General purpose AC Servo Power supply cable.

- SC-PWC3CBL□M-■-ML
- SC-PWC3CBL□M-■-L
- SC-PWC3CBL□M-■-LL

※ 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

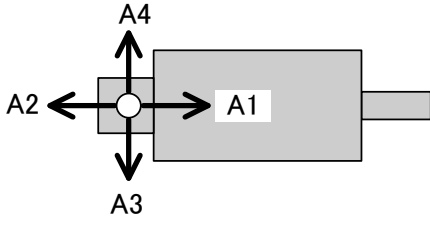
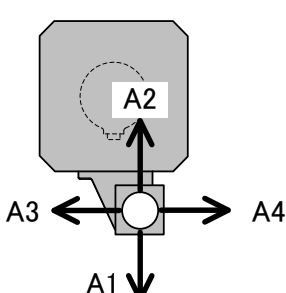


### 3. APPLICABLE STANDARDS

Wire part : UL standard (UL 758 : AWM)

UL Style No.	Rated	
2586	105°C	600V

#### 4. APPLICABLE SERVO MOTOR

Wire thickness	Applicable motor	Cable lead out direction (View from cable insertion direction)
ML	HG-SR421, 7024 motor HG-JR6014, 701M4, 8014 motor HF-SP421, 7024 motor	
L	HG-SR702 motor HG-JR601, 701M, 11K1M4, 12K14 motor HF-SP702 motor HF-JP11K1M4 motor HA-LP702 motor	
LL	HG-JR801, 11K1M, 12K1, 15K1M4 motor HF-JP11K1M, 15K1M4 motor	
ML	HG-JR7034, 9034 motor HF-JP7034, 9034 motor	
L	HG-JR703 motor HF-JP703 motor	
LL	HG-JR903 motor HF-JP903 motor	

(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.

#### 5. LENGTH OF CABLE

1 to 30m Specified by 1m unit

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

SC-PWC3CBL□M-■-○L ××××××××

- ※ □ 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 or eight digits.

## 7. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification		
			ML	L	LL
Structure		—	AWG10×4C	AWG8×4C	AWG6×4C
Conductor	Conductor size	—	AWG10	AWG8	AWG6
	Outer diameter	mm	Approx. 3.1	Approx. 4.5	Approx. 5.7
Insulation	Material	—	PVC		
	Outer diameter	mm	Approx. 4.8	Approx. 7.3	Approx. 9.1
Stranding	Number of insulation core wire	—	4C		
Sheath	Material	—	Flame resisting PVC		
	Color	—	Black		
Overall diameter		mm	Approx. 13.7	Approx. 21.3	Approx. 25.6
Cable weight		kg/km	330	670	1020
Electrical characteristics	Insulation resistance	MΩ · km	Over 10		
	Withstand voltage	V for 1minute	AC2000*2		
Operating temperature range		°C	-10~+60 (without condensation)		
Minimum Bend Radius		mm	6 times the overall diameter		
Flame Retardant		—	UL1581 VW-1		
Connector	Servo amplifier side		—		
	Servo motor side	Type	ML: DDK Ltd. CE05-6A32-17SD-D(R1) (Plug) *3 Nippon Flex Co., Ltd. *4 ACA-16RL-MS32F (MS type 90° connector) or SANKEI MANUFACTURING CO.LTD, *4 C29KD1632 (KEIGLAND Type C2)		
			L: DDK Ltd. CE05-8A32-17SD-D-BAS(R1) (Angle plug) CE3057-20A-1-D(R1) (Waterproof cable clamp)		
			LL: DDK Ltd. CE05-8A32-17SD-D-BAS(R1) (Angle plug) CE3057-20A-2-D(R1) (Waterproof cable clamp)		
	IP rating	IP67*1			

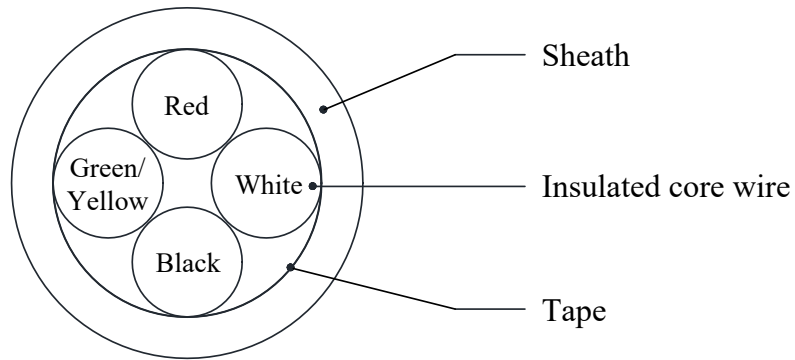
\*1 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

\*2 In addition, the cable material alone is tested for a withstand voltage of 2000V / 5 minutes.

\*3 The plug is used in common for Nippon Flex product and Sankei Seisakusho product clamps.

\*4 Due to the discontinuation of production of Nippon Flex clamps, we will switch to Sankei Seisakusho products after the inventory of Nippon Flex products is exhausted.

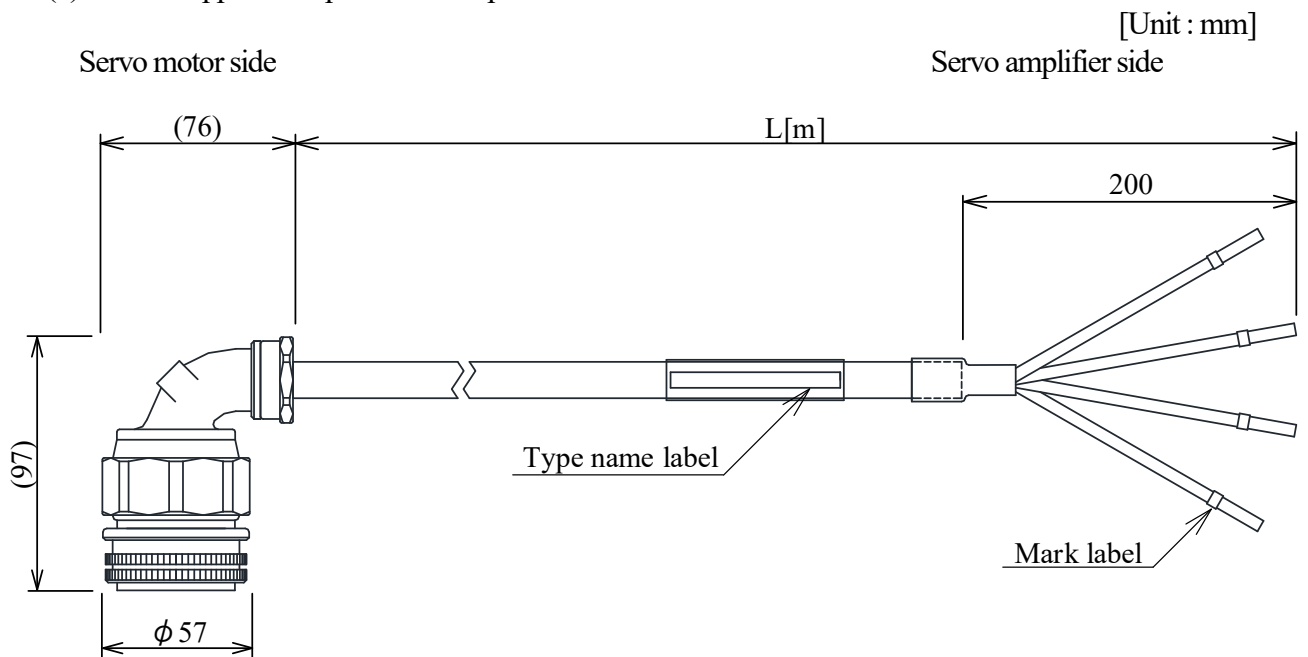
### 8. STRUCTURAL DRAWING



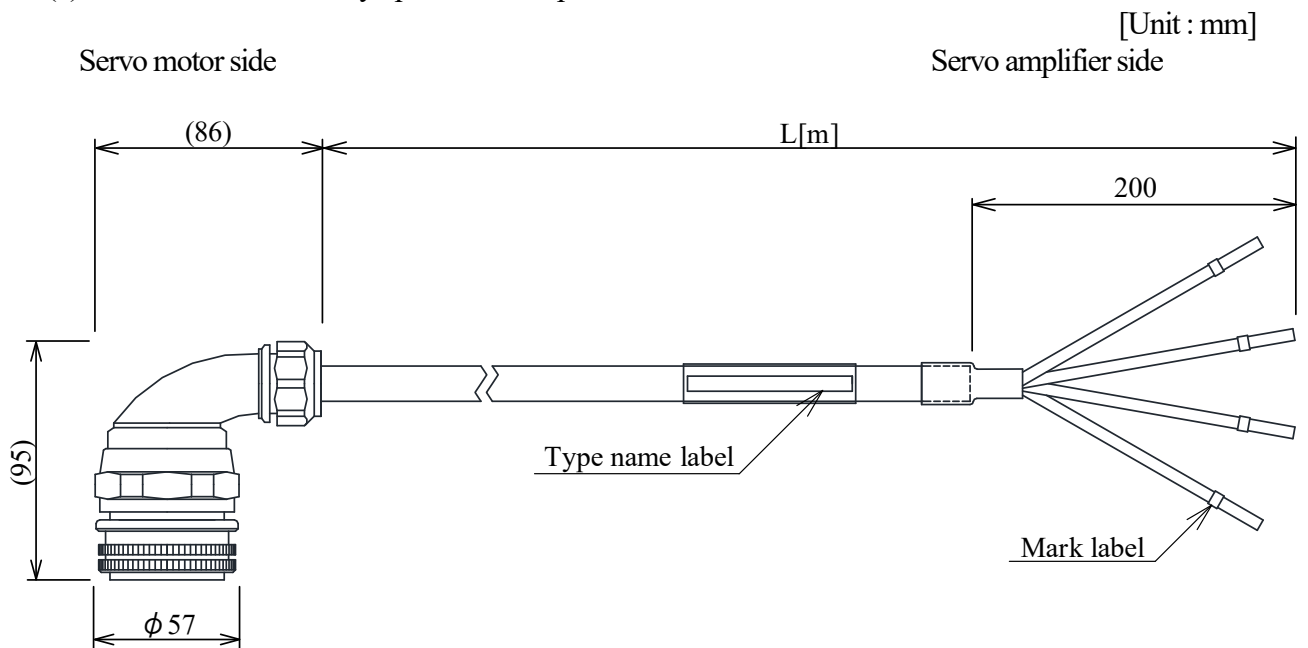
### 9. OUTLINE DRAWING

(1) SC-PWC3CBL□M-■-ML

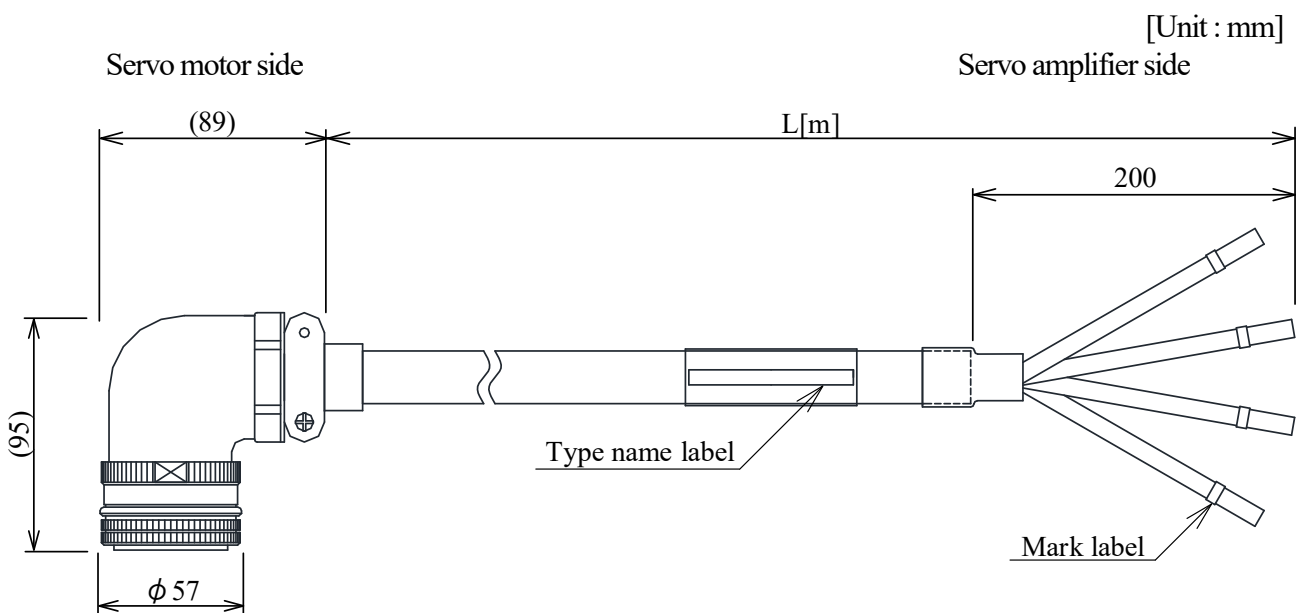
(1)-1 Uses Nippon Flex products clamp



(1)-2 Uses Sankei Seisakusyo products clamp



(2) SC-PWC3CBL□M-■-L  
SC-PWC3CBL□M-■-LL



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

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