

Specification  
for  
General purpose AC Servo  
Power supply cable

Type SC-PWC3CBL□M-OL

MITSUBISHI ELECTRIC  
SYSTEM & SERVICE CO.,LTD

Note

Revision				Drawn	Check	Design	Approved
A	31 Mar.,2017	D	15 Mar.,2022	<i>n. Ito</i>	<i>S. Kariya</i>	<i>M. Kuwamura</i>	<i>D. Takahashi</i>
B	28 Sep.,2017						
C	19 July,2018						
Send to				Date		Dwg	
				27 Apr.,2016		X903703D50052-F10D	
				Order			

### 1. SCOPE

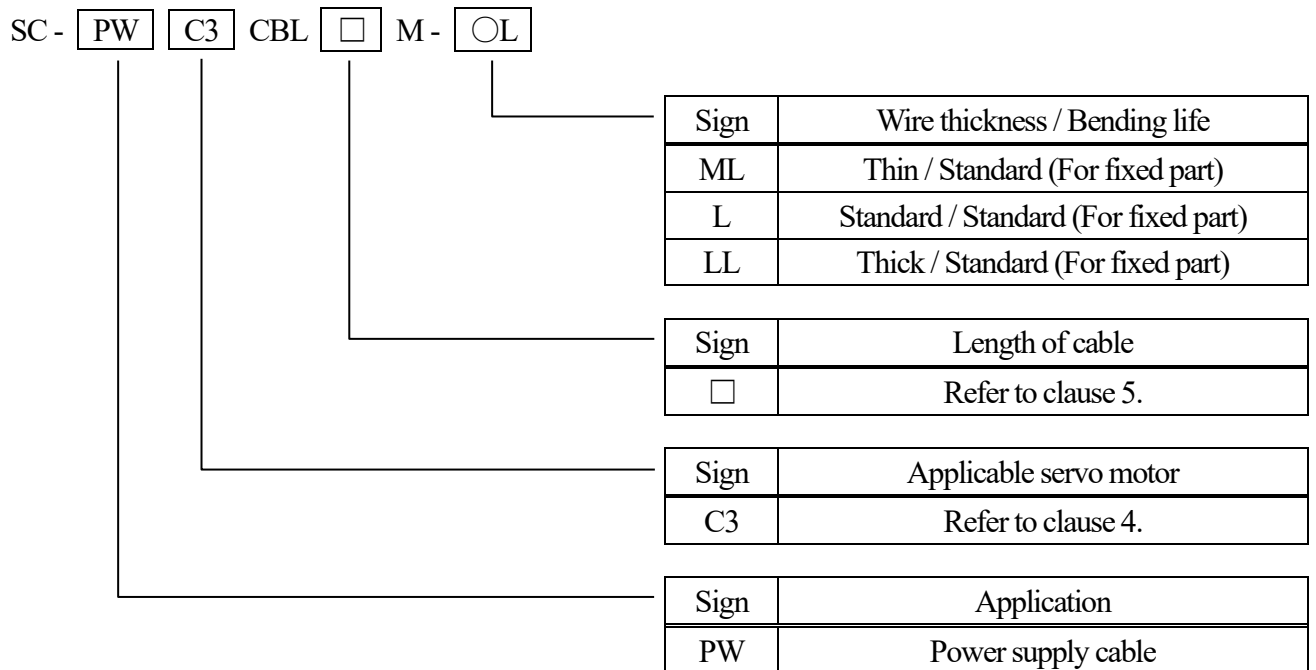
This specification covers the requirements for the General purpose AC Servo Power supply cable.

- 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

Refer to MR-J4 APPLICABLE SERVO MOTOR TABLE “R9037020-01002-105”.

#### 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 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 Retardant 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 Radius Bend		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)*4 Nippon Flex Co., Ltd. *5 ACS-16RL-MS32F (MS type straight connector) or SANKEI MANUFACTURING CO.LTD, *5 C2KD1632 (KEIGLAND Type C2)		
			L: DDK Ltd. CE05-6A32-17SD-D-BSS(R1) (Straight plug) CE3057-20A-1-D(R1) (Waterproof cable clamp)		
			LL: DDK Ltd. CE05-6A32-17SD-D-BSS(R1) (Straight plug) CE3057-20A-2-D(R1) (Waterproof cable clamp)		
IP rating		IP67*1			

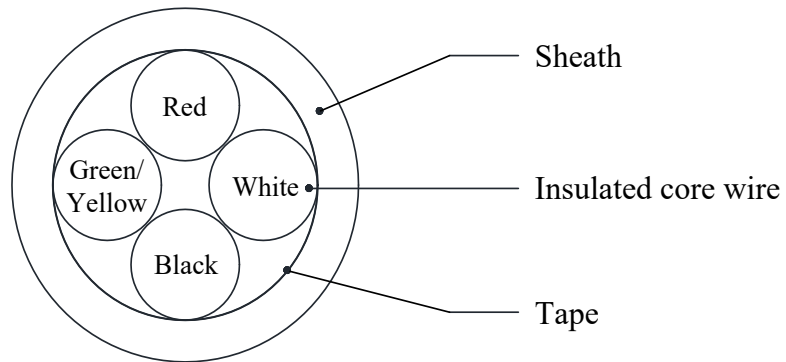
\*1 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

\*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.

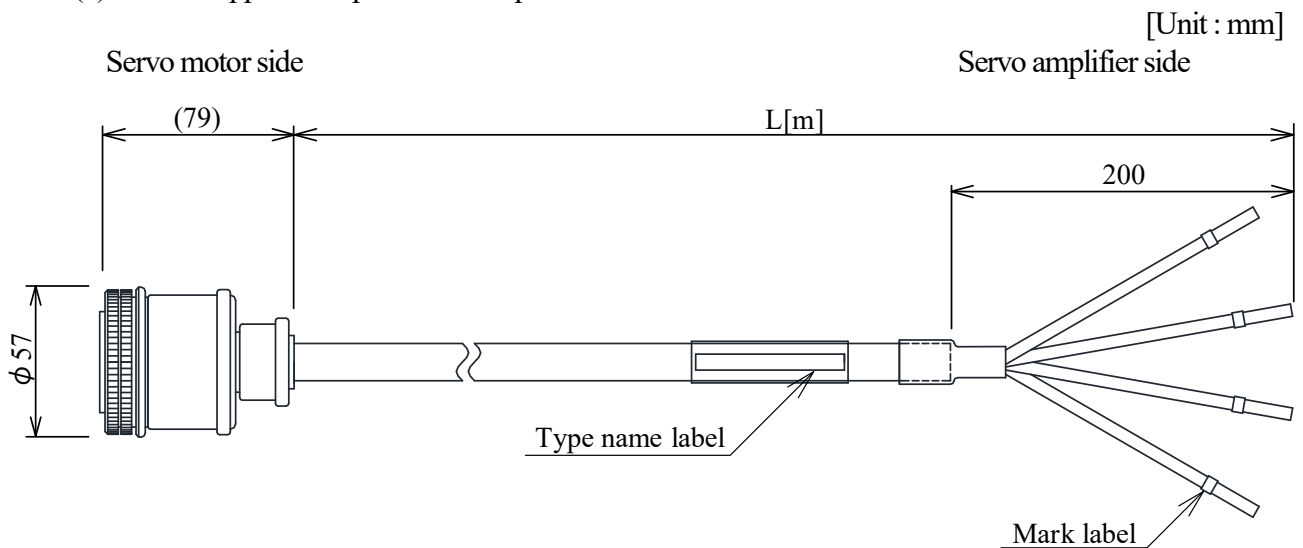
### 8. STRUCTURAL DRAWING



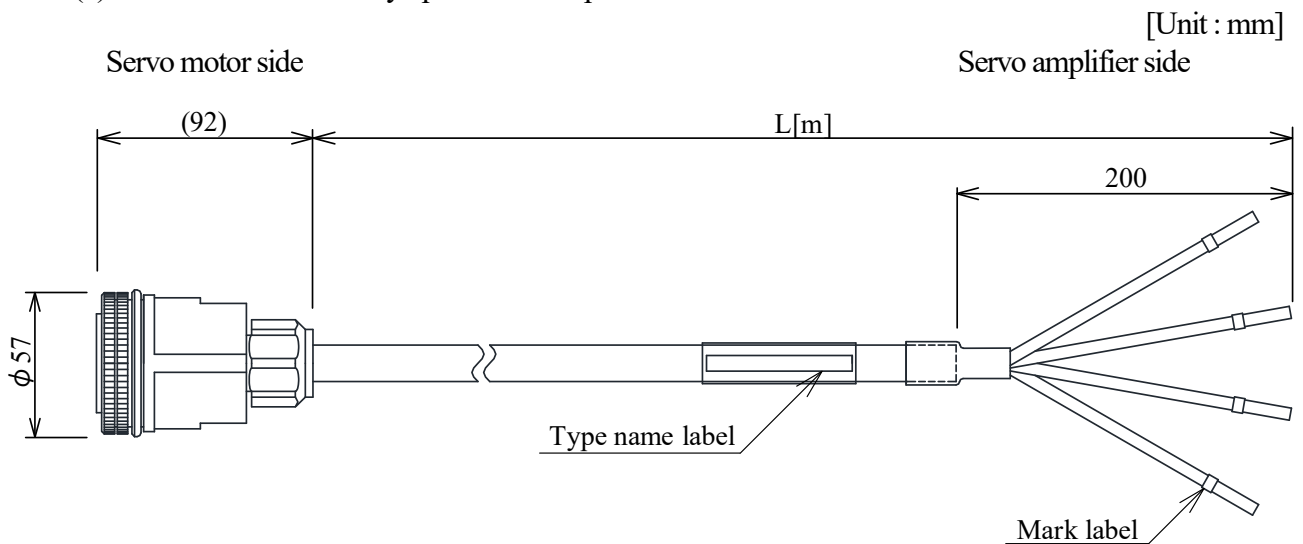
### 9. OUTLINE DRAWING

(1) SC-PWC3CBL□M-ML

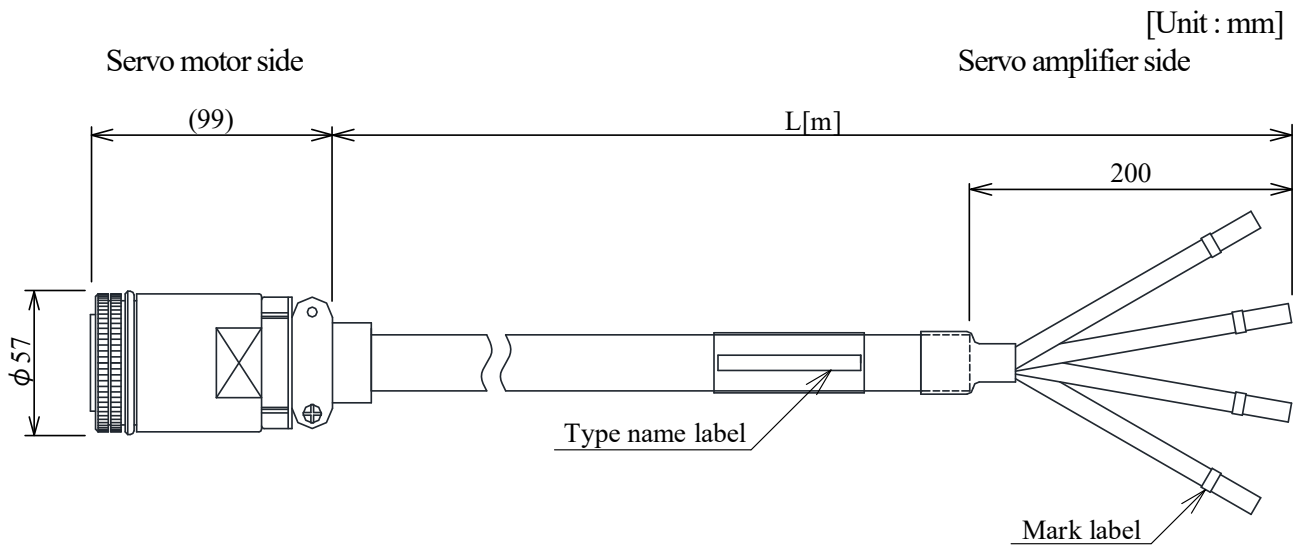
(1)-1 Uses Nippon Flex products clamp



(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