

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 | | | <i>N. Ishii</i> | <i>J. Kariya</i> | <i>M. Asumura</i> | <i>D. Tsubokawa</i> |
| B | 7 Jun., 2018 | | | | | | |
| | | | | | | | |
| Send to | | | | Date | | Dwg | |
| | | | | 27 Apr., 2016 | | X903703D50052-F29B | |
| | | | | Order | | | |
| | | | | | | | |

1. SCOPE

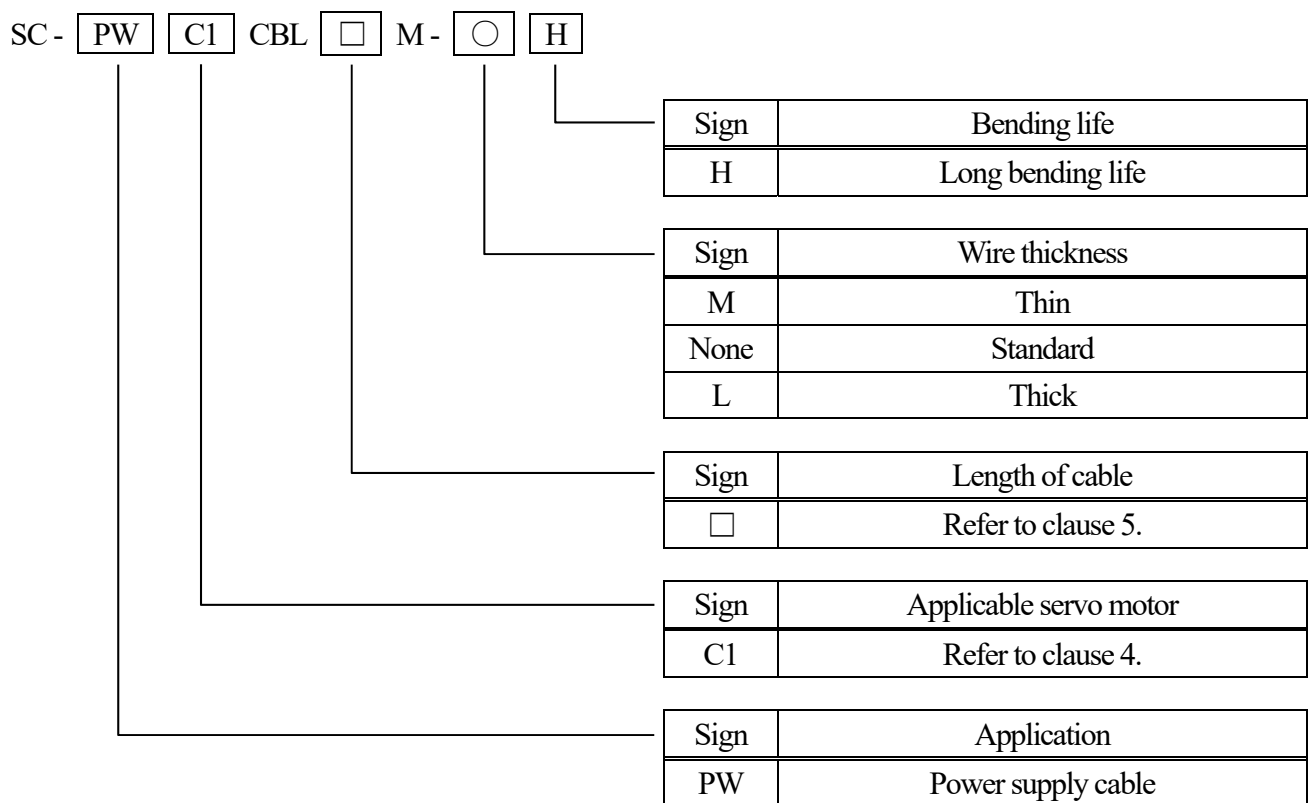
This specification covers the requirements for the General purpose AC Servo Long Bending Life Power supply cable.

- 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



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 wire thickness from M, none, L.

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

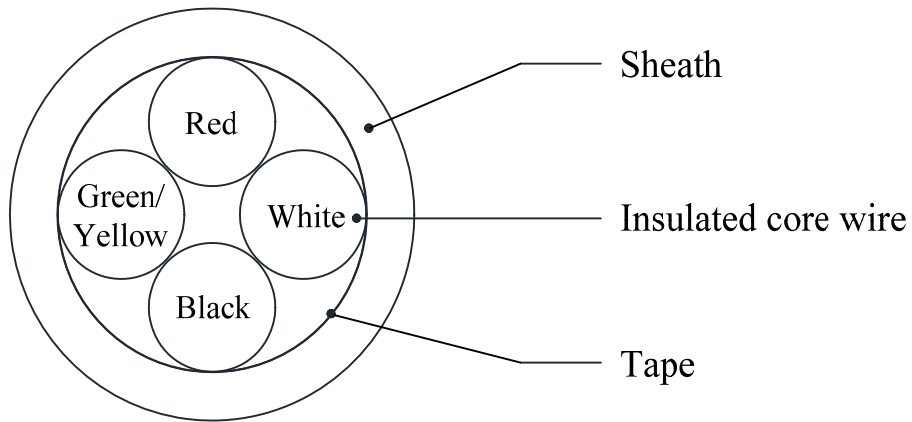
7. STRUCTURE AND CHARACTERISTICS

| 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 | | °C | -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. CE05-6A22-23SD-D-BSS (Straight plug) CE3057-12A-3-D (Waterproof cable clamp) | | |
| | | | LH : DDK Ltd. CE05-6A22-23SD-D-BSS (Straight 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.)

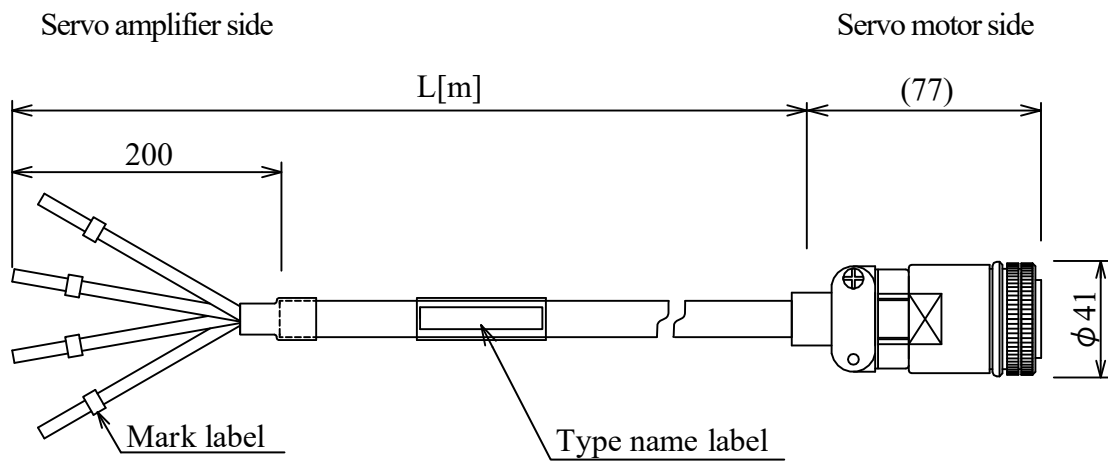
*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

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 |