

Specification
for
General purpose AC Servo
Power supply cable

Type SC-PWC501C□M-SBXL

MITSUBISHI ELECTRIC
SYSTEM & SERVICE CO.,LTD

Note

| Revision | | | | | | | | Drawn | Check | Design | Approved |
|----------|--|--|--|--|--|--|--|-------------|----------|-------------------|-------------|
| | | | | | | | | N.Ito | S.Kariya | T.Kasahara | D.Fukushima |
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| | | | | | | | | | | | |
| Send to | | | | | | | | Date | | Dwg | |
| | | | | | | | | 7 Sep.,2022 | | X953503D70003-F02 | |
| | | | | | | | | Order | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

1. SCOPE

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

- SC-PWC501C□M-SBXL

※ 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 - PWC5 01 C □ M - SB XL

| | | |
|--|------|---|
| | Sign | Wire thickness / Bending life |
| | XL | Extra thick / Standard (For fixed part) |
| | Sign | With or without shield |
| | SB | With shield |
| | Sign | Length of cable |
| | □ | Refer to clause 4 |
| | Sign | Connector specifications |
| | 01 | Screw tightening plug |
| | Sign | Application |
| | PWC5 | Power supply cable |

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-PWC501C□M-SBXL ×××××××

※ □ is a figure from 1 to 100.

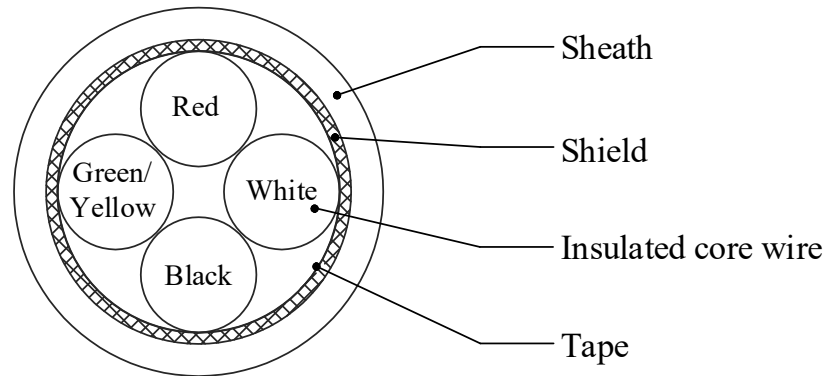
※ ××××××× are the serial number for seven digits.

6. STRUCTURE AND CHARACTERISTICS

| Item | | Unit | Specification |
|----------------------------|-------------------------------|---|--|
| Wire | | | |
| Structure | | — | AWG8×4C |
| Conductor | Conductor size | — | AWG8 |
| | Outer diameter | mm | Approx.4.5 |
| Insulation | Material | — | PVC |
| | Outer diameter | mm | Approx.7.3 |
| Twisted | Number of insulated core wire | — | 4C |
| Shield | Material | — | Tin coated copper braid |
| Sheath | Material | — | Flame resisting PVC |
| | color | — | Black |
| Overall diameter | | mm | Approx. 22.3 |
| Cable weight | | kg/km | 790 |
| Electrical characteristics | Insulation resistance | MΩ・km | Over 10 |
| | Withstand voltage | V / for 5 min | AC2000 |
| Minimum bend radius | | mm | 6 times the overall diameter |
| Flame retardant | | — | UL1581 VW-1 |
| Connector | | | |
| Amplifier side | | — | |
| Motor side | Type | Japan Aviation Electronics Industry, Ltd. JL04V-6A22-22SE-R (Straight plug) SANKEI MANUFACTURING CO.LTD, C2KD2422 (KEIGLAND Type C2) | |
| | IP rating | IP67*1 | |
| 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 |

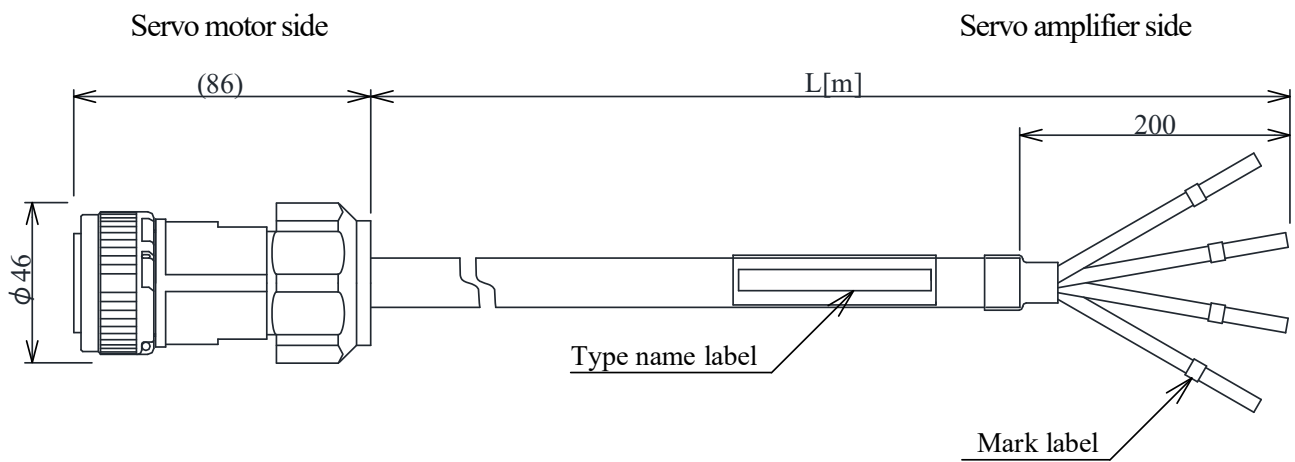
*1 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

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 |