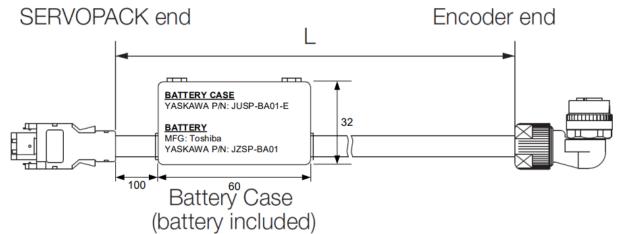
## 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

### **EXTERNAL DIMENSIONS:**



The recommended bend radius is **46mm** or larger for **moving** parts of machines, such as robots. See <u>Page 2</u> for Precautions for Flexible Cables.

The recommended bend radius is **15mm** or larger for **fixed** installations.

#### SERVOPACK END CONNECTOR

| Туре                        | Standard Connector Kit                                    |  |
|-----------------------------|---|--|
| Inquires                    | Yaskawa representative                                    |  |
| Manufacturer                | Molex Incorporated  |  |
| Order Number                | JZSP-CMP9-1-E   |  |
| Specifications              | 55100-0670 (soldered)<br>Product specifications: PS-54280 |  |
| External<br>Dimensions [mm] |   |  |

WIRING SPECIFICATIONS

Encoder (motor) end

Wire Color

Black/pink

Red/pink

Black/light blue

Red/light blue

Light green

Orange

SERVOPACK end

4

3

2

Shell

3

Signal

/PS

PS

BAT(-)

BAT(+)

PG 0 V

PG 5 V

FG

BAT(-)

Battery Case
Pin Signal

#### **RAW CABLE**

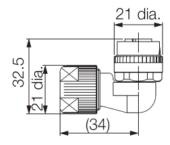
| Item                                  | Flexible Cable  |  |
|---------------------------------------|---|--|
| Order Number*                         | JZSP-CSP39-□□-E<br>(maximum length: 20 m)                             |  |
|                                       | UL20276 (rated temperature: 80°C)<br>AWG22 × 2C + AWG24 × 2P          |  |
| Specifications                        | AWG22 (0.33 mm²)<br>Outer diameter of insulating sheath:<br>1.35 mm   |  |
|                                       | AWG24 (0.20 mm²)<br>Outer diameter of insulating sheath:<br>1.21 mm   |  |
| Finished Diameter                     | 6.8 mm  |  |
| Internal Structure and<br>Lead Colors | Black (light blue)  Orange Red (light blue)  Black (pink)  Red (pink) |  |

#### \* Replace the boxes (□□) in the order number with the cable length (05, 10, 15, or 20).

#### MOTOR END CONNECTOR

| Order  | Number  | Specification   | External<br>Dimensions | Manufacturer |
|--------|---------|---|------------------------|--------------|
| JZSP-C | VP9-2-E | Plug: CM10-AP10S-M-D Contacts: Crimped CM10-#22SC(C4)-100 Applicable cable diameter: 6.0 mm to 9.0 mm |                        | DDK Ltd.     |

#### MOTOR END CONNECTOR DIMENSIONS



#### **IMPORTANT NOTES**

This cable cannot be used with the SGM7A-70 (7.0 kW).
Use an Encoder Cable with a Straight Connector, such as JZSP-CVP26-xx-E.

| ITEM NUMBER     | L = Length |
|-----------------|------------|
| JZSP-CVP27-03-E | 3000       |
| JZSP-CVP27-05-E | 5000       |
| JZSP-CVP27-10-E | 10000      |
| JZSP-CVP27-15-E | 15000      |
| JZSP-CVP27-20-E | 20000      |
|                 |            |

| THIS DOCUMENT AND THE       |
|-----------------------------|
| INFORMATION CONTAINED IN IT |
| ARE PUBLIC AND CAN BE       |
| DISCLOSED WITHOUT EXPRESS   |
| WRITTEN CONSENT OF YASKAWA  |
| AMERICA INC. SPECIFICATIONS |
| ARE SUBJECT TO CHANGE       |
| WITHOUT NOTICE FOR ONGOING  |
| PRODUCT MODIFICATIONS AND   |
| IMPROVEMENTS.               |

# YASKAWA TITLE:SGM7A-15 to -50 (1.5 kW to 5.0 kW) & SGM7G

TITLE: SGM7A-15 to -50 (1.5 kW to 5.0 kW) & SGM7G Series Servomotor Encoder Cable, With Battery Case For Absolute Encoder, Away From Load, Flex, Shietted.

ITEM#:

JZSP-CVP27-xx-E (xx = See Chart)

SIZE: REVISION: PAGE:

- 0 1 of 2

DRAWING#:

CAD-JZSP-CVP27-xx-E

 REV
 DESCRIPTION
 DATE
 DRAWN BY

 0
 Initial Release
 Jan. 12, 2021
 D. LEE

н

G

В

SCALE: NTS UNIT

1 2 3 4 5 6 7 8 9 10

#### **Precautions for Flexible Cables**

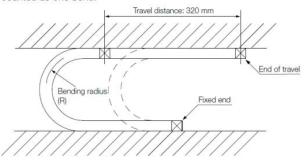
The Flexible Cables have a service life of 10,000,000 operations minimum when used at the recommended bending radius (R) or larger under the following test conditions. The service life of a Flexible Cable is reference data under the following test conditions. The service life of a Flexible Cable greatly depends on the amount of mechanical shock, how the cable is attached, and how the cable is secured.

#### ◆ Test Conditions

D

3

- One end of the cable is repeatedly moved forward and backward for 320 mm using the test equipment shown in the following figure.
- The fixed end is connected to a non-moving part, the moving end is connected to the moving part, and the number of cable return operations until a lead wire breaks are counted. One round trip is counted as one bend.



Note: The service life of a Flexible Cable indicates the number of bends while the lead wires are electrically charged for which no cracks or damage that affects the performance of the cable sheathing occurs. Breaking of the shield wire is not considered.

- Straighten out the Flexible Cable when you connect it. If the cable is connected while it is twisted, it will break faster. Check the indication on the cable surface to make sure that the cable is not twisted.
- Do not secure the portions of the Flexible Cable that move. Stress will accumulate at the point that is secured, and the cable will break faster. Secure the cable in as few locations as possible.
- If a Flexible Cable is too long, looseness will cause it to break faster. If the Flexible Cable is too short, stress at the points where it is secured will cause it to break faster. Adjust the cable length to the optimum value.
- Do not allow Flexible Cables to interfere with each other. Interference will restrict the motion
  of the cables, causing them to break faster. Separate the cables sufficiently, or provide partitions between them when wiring.

| 111 |                 |            |
|-----|-----------------|------------|
|     | ITEM NUMBER     | L = Length |
| Γ   | JZSP-CVP27-03-E | 3000       |
|     | JZSP-CVP27-05-E | 5000       |
|     | JZSP-CVP27-10-E | 10000      |
|     | JZSP-CVP27-15-E | 15000      |
|     | JZSP-CVP27-20-E | 20000      |

THIS DOCUMENT AND THE INFORMATION CONTAINED IN IT ARE PUBLIC AND CAN BE DISCLOSED WITHOUT EXPRESS WRITTEN CONSENT OF YASKAWA AMERICA INC. SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE FOR ONGOING PRODUCT MODIFICATIONS AND IMPROVEMENTS.

## YASKAWA TITLE:SGM7A-15 to -50 (1.5 kW to 5.0 kW) & SGM7G

TITLE:SGM7A-15 to -50 (1.5 kW to 5.0 kW) & SGM7G Series Servomotor Encoder Cable, With Battery Case For Absolute Encoder, Away From Load, Fler Shiphed

| ITEM#: | JZSP-CVP27-xx-E (xx = See Chart) | SIZE: | REVISION: | PAGE: | 0 | 2 | of 2

SCALE: NTS UNITS: mm CAD-JZSP-CVP27-xx-E

| REV | DESCRIPTION     | DATE          | DRAWN BY |
|-----|-----------------|---------------|----------|
| 0   | Initial Release | Jan. 12, 2021 | D. LEE   |