

Specification  
for  
General purpose AC Servo  
High Twisting Long Life Encoder cable

Type SC-J3ENCBL□M-■-N

MITSUBISHI ELECTRIC  
SYSTEM & SERVICE CO.,LTD

Note

Revision				Drawn	Check	Design	Approved
A	13 Nov.,2017			<i>N. Ishii</i>	<i>S. Kariya</i>	<i>S. Kadalara</i>	<i>D. Takushima</i>
Send to				Date		Dwg	
				22 Mar.,2016		X903703D50052-E56A	
				Order			

### 1. SCOPE

This specification covers the requirements for the General purpose AC Servo High Twisting Long Life Encoder cable.

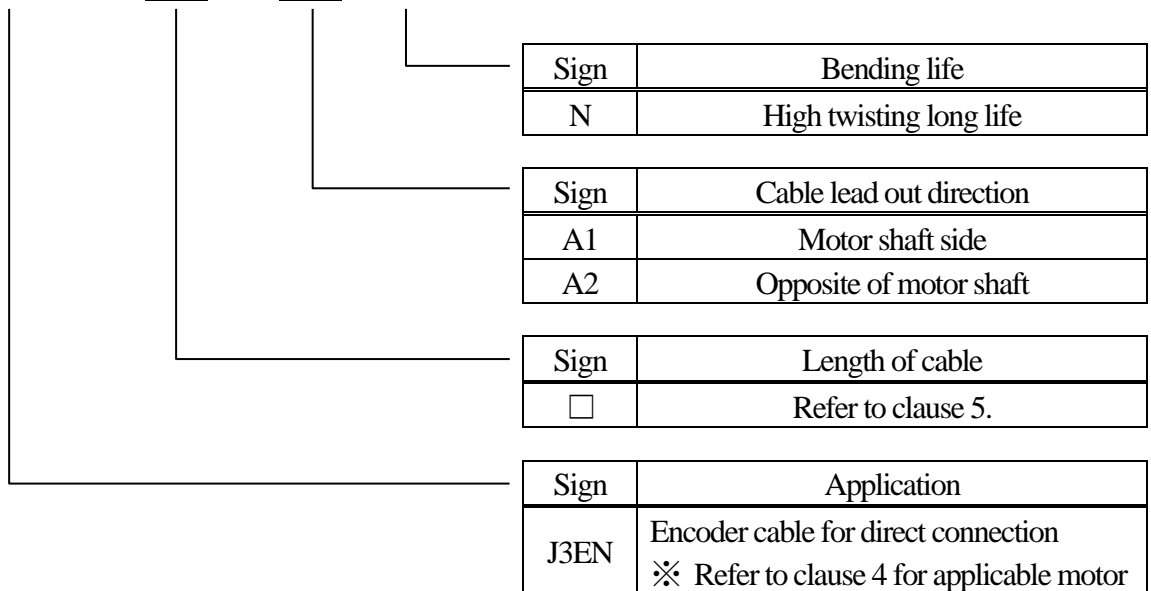
- SC-J3ENCBL□M-■-N

※ This cable doesn'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

SC - J3EN CBL □ M - ■ - N



### 3. APPLICABLE STANDARDS

UL758 AWM STYLE 20276 (wire part)

### 4. APPLICABLE SERVO MOTOR

HG-KR, HG-MR series motor  
HF-KN, HF-KP, HF-MP series motor

### 5. LENGTH OF CABLE

1 to 5m Specified by 1m unit

## 6. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-J3ENCBL□M-■-N ×××××××

※ □ is a figure from 1 to 5.

※ ■ is cable lead out direction from A1, A2.

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

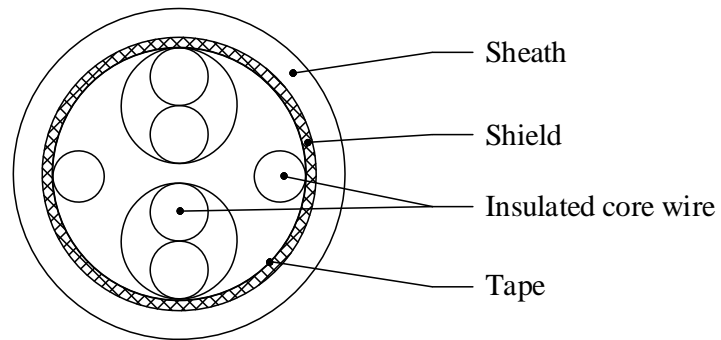
## 7. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification	
Structure		—	AWG24×2C	AWG24×2P
Conductor	Conductor size	—	AWG24	
	Outer diameter	mm	Approx. 0.66	
Insulation	Material	—	ETFE	
	Outer diameter	mm	Approx. 1.02	
Twisted pair	Number of pairs	—	—	2P
	Number of insulated core wire	—	2C	2C
Shield	Material	—	Copper alloy foil braid	
Sheath	Material	—	High elastic PVC	
	Color	—	Black	
Overall diameter		mm	Approx. 7.0	
Electrical characteristics	Insulation resistance	MΩ · km	Over 500	
	Withstand voltage	V for 1 minute	AC500	
Operating temperature range		°C	-10~+60 (without condensation)	
Minimum Bend Radius		mm	6 times the overall diameter	
Twisting performance		—	Over 2 million times <sup>*1</sup> (twisting angle: ±180° )	
Flame Retardant		—	UL1581 VW-1	
Connector	Servo amplifier side	Type	Molex 54599-1016 (Connector set)	
		IP rating	IP20 <sup>*2</sup>	
	Servo motor side	Type	Tyco electronics Japan 2174053-1 (Micro motor connector)	
		IP rating	IP65 <sup>*2</sup>	

\*1 This is the test result, not a guaranteed value. ( The performance would change depending on 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]

