

# SPECIFICATION

FOR

600V ETHYLENE PROPYLENE RUBBER INSULATED  
POLYCHLOROPRENE SHEATHED FLEXIBLE CABLE

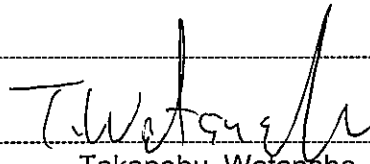
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Code : 600V MM-CAR-2PNCT-SB

*Quantity*

*Your Ref. No.*

*Our Ref. No.*

*Signed by*



Takanobu Watanabe  
Manager

*Engineering Dept. I*  
*Electric Wire & Cable Business Unit*

## Proterial, Ltd.

Issue and revision record

REV. No.	Issue date	Item	Prepared by	Reviewed by	Approved by
-	Feb. 21, 2024	FIRST ISSUE	K. Yamane	N. Ono	T. Watanabe
1	March 21, 2024	Changed marking method and marking content	<i>K. Yamane</i> K. Yamane	<i>N. Ono</i> N. Ono	<i>T. Watanabe</i> T. Watanabe

## 1. Scope

This specification covers 600V Ethylene Propylene Rubber Insulated Polychloroprene Sheathed Flexible Cable, which is reference to Japanese Electrical Appliance and Material Safety Law or Japanese Electrical Facility Regulation, and Manufacture' s Standard.

This cable shall have flame retardant property as per IEEE Std. 383-1974 paragraph 2. 5, Vertical Tray Flame Test (VTFT).

## 2. Construction and Materials

### 2. 1 Conductor

Conductor shall be stranded flexible conductor consisting of tinned annealed copper wires.

A suitable separator tape shall be applied over the conductor.

### 2. 2 Insulation

Insulation shall consist of black flame retardant ethylene propylene rubber compound. A suitable tape shall be applied over the insulation.

Nominal thickness shall be shown in the table 1.

Ave. thick. : not less than 90% of the nominal thickness

Min. thick. : not less than 80% of the nominal thickness

### 2. 3 Braided shield

Braided shield shall consist of tinned annealed copper wires and staple fiber.

A suitable tape shall be applied over the shield braid.

### 2. 4 Sheath

Sheath shall consist of black flame retardant polychloroprene compound.

Nominal thickness shall be shown in the table 1.

Ave. thick. : not less than 90% of the nominal thickness

Min. thick. : not less than 85% of the nominal thickness

A straight line shall be marked on the surface of the sheath.

### 2. 5 Dimension

The dimension of the cable shall be in accordance with the table 1.

## 3. Marking

The abbreviated description, manufacture' s name and year of manufacture shall be marked between the straight lines on the surface of the sheath.

4. Inspection

Inspection shall be made on the following items prior to shipment.

Properties	Standard to comply with	Requirements	Test interval
Construction and dimensions	JIS C 3005 4.3	To comply with clause 2 and the attached table 1	Every shipment
Withstand voltage test	JIS C 3005 4.6	To withstand AC 3000V for 1 min. 600V MM-CAR-2PNCT 1×95mm <sup>2</sup>	
		To withstand AC 3000V for 1 min. 600V MM-CAR-2PNCT 1×150mm <sup>2</sup> 600V MM-CAR-2PNCT 1×185mm <sup>2</sup>	
Conductor resistance	JIS C 3005 4.4	Not more than the value in the attached table 2	First shipment
Insulation resistance	JIS C 3005 4.7	Not less than the value in the attached table 2	

5. Guide to use

This cable is designed for carrier drum system (cable tender system) as shown below.

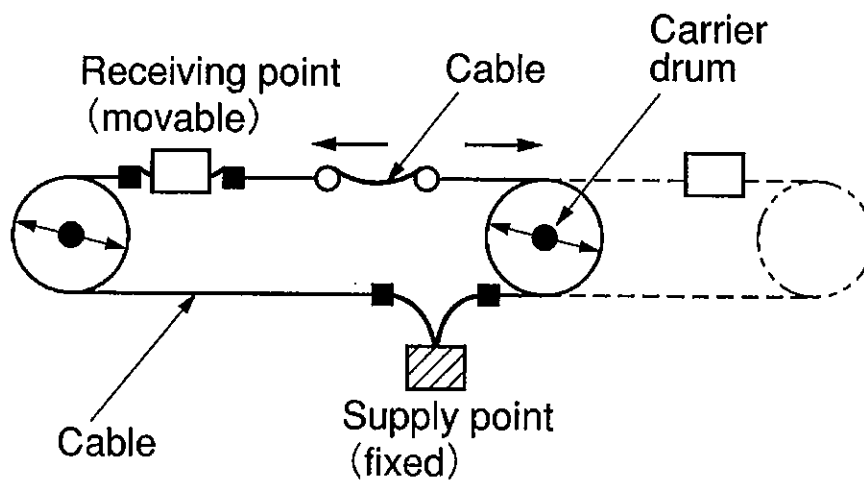


Table 1 : Dimensions  
( Code : 600V MM-CAR-2PNCT-SB 1×95mm<sup>2</sup>, 1×150mm<sup>2</sup>, 1×185mm<sup>2</sup>)

Item		Unit	Specified Value		
No. of conductor		—	1	1	1
Conductor	Nominal cross-section area	mm <sup>2</sup>	95	150	185
	Construction	No. /mm	19/25/0.5	27/34/0.45	37/25/0.5
	Approx. diameter	mm	14.4	18.7	20.2
Nominal thickness of insulation		mm	2.0	2.0	2.5
Approx. thickness of braided shield		mm	0.65	0.65	0.65
Nominal thickness of sheath		mm	2.7	2.9	3.2
Approx. diameter of completed cable		mm	27	31	35
Maximum diameter of completed cable		mm	28.4	32.6	36.8
Approx. weight of completed cable		kg/km	1370	1910	2490

Table 2: Characteristic

Item		Unit	Specified Value		
Conductor nominal cross-section area		—	95	150	185
Maximum conductor resistance at 20°C		Ω/km	0.210	0.136	0.108
Minimum insulation resistance at 20°C		MΩ·km	300	200	200
Permissible minimum bending radius		mm	170	190	210

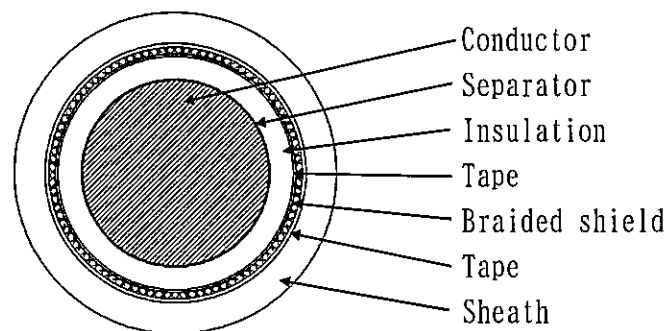


Fig.1 Cable cross section