No. SP13-31-0209
Date Nov. 14, 2023

SPECIFICATION

FOR

6600V ETHYLENE PROPYLENE RUBBER INSULATED
POLYCHLOROPRENE SHEATHED FLAT TYPE TRAILING CABLE
Code : 6600V F-H-3PNCT 3×120mm^2+1×50mm^2

Quantity

Your Ref. No.

Our Ref. No.

Signed by T. Watanabe
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
—	July 2, 2013	FIRST ISSUE	Y. TANAKA	T. KAJITA	E. KOISHI

1. Scope

This specification covers 6600V Ethylene Propylene Rubber Insulated Polychloroprene Sheathed Flat Type Trailing Cable, which is reference to Japanese Electrical Facility Regulation and Manufacturer's Standard.

2. Construction and Materials

2.1 Power conductor

2.1.1 Conductor

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

2.1.2 Inner semi-conductive layer

A suitable semi-conductive tape shall be applied over the conductor.
The thickness of the semi-conductive tape shall be included in a part of the insulation thickness.

2.1.3 Insulation

Insulation shall consist of ethylene propylene rubber compound.
Nominal thickness shall be shown in the attached table.
Ave. thick. : not less than 90% of the nominal thickness
Min. thick. : not less than 80% of the nominal thickness

2.1.4 Outer semi-conductive layer

A suitable semi-conductive tape shall be applied over the insulation.

2.1.5 Shield braid

Shield braid shall consist of tinned annealed copper wires.

2.1.6 Core identification

The core identification shall be made by the color of the tape which is applied under the shield braid.

2.1.7 Reinforcement

Reinforcement consisting of suitable fabric tape shall be applied over the shield braid.

2.2 Earth conductor

2.2.1 Conductor

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

2.2.2 Insulation

Insulation shall consist of ethylene propylene rubber compound.
Nominal thickness shall be shown in the attached table.
Ave. thick. : not less than 90% of the nominal thickness
Min. thick. : not less than 80% of the nominal thickness

2.2.3 Tape

Rubber filled texile tape shall be applied over the insulation.

2.3 Assembly

The power and earth conductors shall be assembled in parallel.

2.4 Sheath

Sheath shall consist of black polychloroprene compound.
Nominal thickness shall be shown in the attached table.
Ave. thick. : not less than 90% of the nominal thickness
Min. thick. : not less than 80% of the nominal thickness

2.5 Dimension

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

3. Marking

Manufacturer's name and year of manufacture shall be marked by suitable methods.

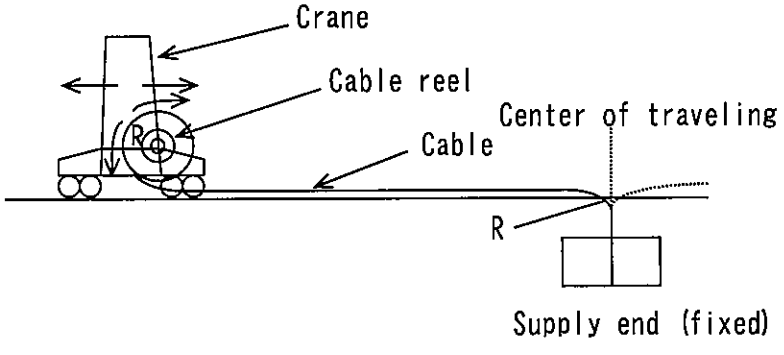
4. Inspection

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

(1) Construction and dimensions
(2) Conductor resistance
(3) Withstand voltage test
(4) Insulation resistance

5. Guide to use

This cable is designed for crane installation of reel system(traveling) as shown below.



R : Permissible minimum bending radius

Table. 1 Dimensions and Electrical properties
(Code : 6600V F-H-3PNCT 3×120mm²+1×50mm²)

Item		Unit	Value	
Type of core		—	Power	Earth
No. of cores		—	3	1
Conductor	Nominal cross-section area	mm²	120	50
	Construction	No. ／mm	19/32/0. 50	19/16/0. 45
	Approx. diameter	mm	16. 0	10. 4
Nominal thickness of insulation		mm	5. 0 *	2. 1
Approx. thickness of shield braid		mm	0. 45	—
Approx. thickness of reinforcement		mm	1. 0	—
Nominal thickness of sheath		mm	7. 1	
Approx. dimension of completed cable		mm	44. 5×118. 5	
Maximum dimension of completed cable		mm	46. 8×124. 5	
Approx. weight of completed cable		kg／km	9610	
Conductor resistance at 20℃		Ω／km	0. 164	0. 411
Withstand voltage test		V／min.	17000/10	3000/1
Insulation resistance at 20℃		MΩ·km	400	300
Permissible minimum bending radius		mm	720	
Permissible maximum pulling tension **		kN	16. 0	
Permissible maximum compression force ***		kN/m	4. 9	

* : This value includes thickness of inner semi-conductive tape.
** : In any case, pulling tension and compression force must not exceed this value.
For safety, regular pulling tension should be 1/3 of the permissible maximum value.
It is necessary to determine the pulling tension considering the compression force.
*** : Compression force = Pulling tension ／ Bending radius

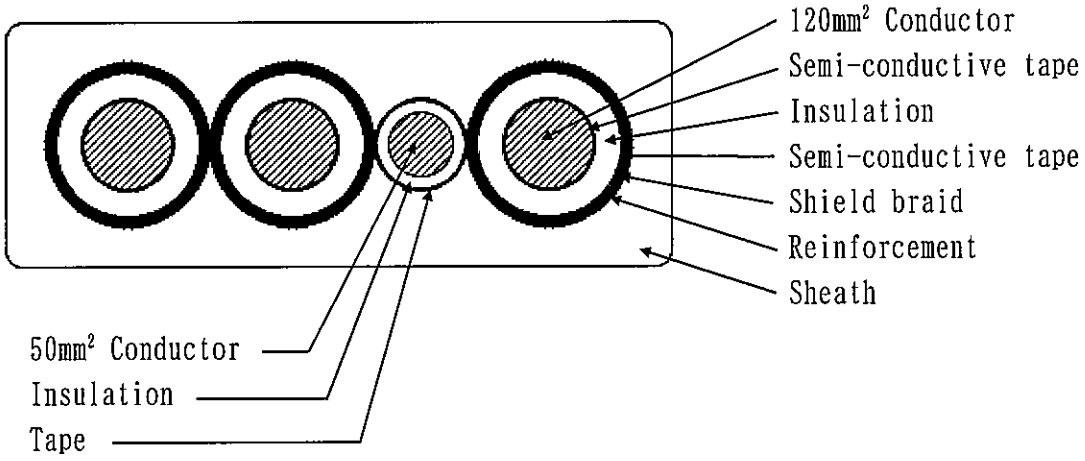
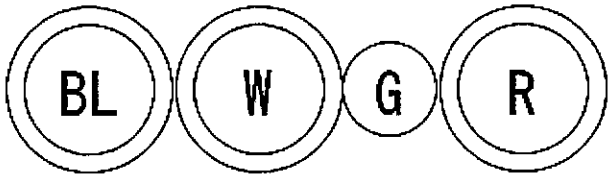


Fig. 1 Cable cross section



Note) BL: Blue
W : White
R : Red
G : Green

: 120mm²

: 50mm²

Fig. 2 Core identification