SPECIFICATION

FOR

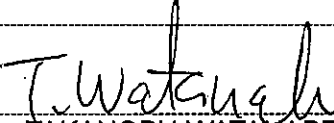## 6600V FLAT TYPE FLEXIBLE CABLE

Code : 6600V H-3PNCT 3×35mm²

Quantity

Your Ref. No.

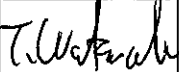*Our Ref. No.*

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
-	July 3, 2023	First issue	*K. Yamane* K. Yamane	*N. Ono* N. Ono	*T. Watanabe* T. WATANABE

1. Scope

This specification covers 6600V Flat Type Flexible Cable which is based on Japanese Electrical Facility Regulation and Manufacturer's Standard.

2. Construction and Materials

2.1 Power units

2.1.1 Conductor

Conductor shall be stranded with 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 extruded layer of ethylene propylene rubber compound.
Nominal thickness shall be shown in the attached table 1.
　　　　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

Outer semi-conductive layer shall consist of suitable semi-conductive fabric tape.

2.1.5 Braided shield

Braided shield shall consist of tinned annealed copper wires.

2.1.6 Core identification

The core identification shall be made by the colour of the tape which is
applied under the braided shield as shown in the attached figures 2.

2.1.7 Reinforcement

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

2.2 Assembly

Power units shall be assembled in parallel.

2.3 Sheath

Sheath shall consist of black polychloroprene compound.
Nominal thickness shall be shown in the attached table 1.
　　　　Ave. thick. :　not less than 90% of the nominal thickness
　　　　Min. thick. :　not less than 80% of the nominal thickness

2.4 Dimension

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

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.

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 17000V for 10 min.	
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 crane installation of reel system (traveling) as shown below.
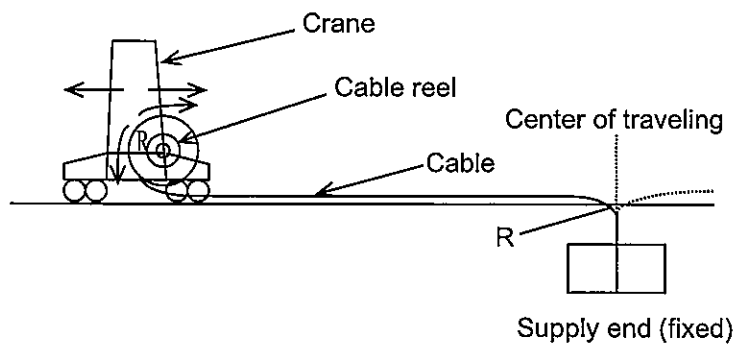
R : Permissible minimum bending radius

Table 1 : Dimensions and electrical properties
(Code : 6600V H-3PNCT 3X35mm²)

Item		Unit	Specified value
Conductor	No. of conductor	-	3
	Nominal cross-section area	mm²	35
	Construction	No./mm	7/39/0.4
	Approx. diameter	mm	8.7
Nominal thickness of insulation		mm	5.0
Approx. thickness of shield braid		mm	0.45
Nominal thickness of sheath		mm	5.5
Approx. diameter of completed cable		mm	33 X 75.5
Maximum diameter of completed cable		mm	34.7 X 79.3
Approx. weight of completed cable		kg/km	3850

∗ : This value includes thickness of inner semi-conductive tape.

Table 2 : Characteristic

Item	Unit	Specified value
Max. conductor resistance(20℃)	Ω/km	0.565
Min. insulation resistance(20℃)	MΩ・km	500
Permissible minimum bending radius	mm	530
Permissible maximum pulling tension ∗∗	kN	4.0
Permissible maximum compression force ∗∗∗	kN／m	4.9

∗∗ : 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.

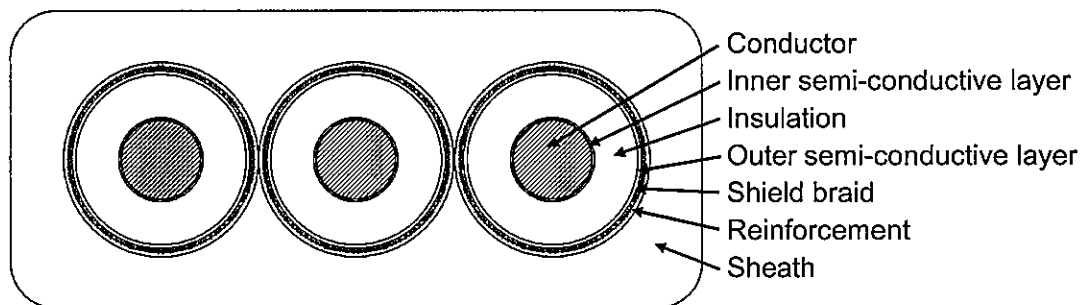∗∗∗: Compresstion force = Pulling tension ／ Bending radius

Conductor
Inner semi-conductive layer
Insulation
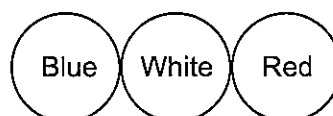Outer semi-conductive layer
Shield braid
Reinforcement
Sheath

Fig.1 Cable cross section

Blue White Red

Fig.2 Core identification