

**TECHNICAL SPECIFICATIONS**

**CABLE, CONTROL, COPPER, ARMOURED, XLPE/PVC/AIA/PVC, 1000 V**

**JPS Specification No.: 1000V-CC-AMRD  
(Effective February 6, 2018)**

EFFECTIVE: FEBRUARY 2018

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The "Technical Specifications, General Requirements" forms a part of this specification.

1. SCOPE

1.1 These specifications cover Armoured, 1000V rated Control and Power Cables. Cables shall be used for instrumentation and metering purposes, where added insulation is required.

2. GENERAL REQUIREMENTS

2.1 INFORMATION

2.1.1. Refer to "Submittal of Information" Section 2 Paragraph 2.1 of "Technical Specifications, General Requirements".

2.2 DRAWINGS ETC. BY SUPPLIER

2.2.1 Refer to "Submittal of Information" Section 2, paragraph 2.2 of "Specifications and Requirements".

3. STANDARDS AND SERVICE CONDITIONS

3.1 STANDARDS

3.1.1 Refer to "Codes and Standards" Section 3 of "Technical Specifications, General Requirements".

3.1.2 The following standards shall be observed in the design, manufacture, performance and tests.

3.1.2.1 CSA Standard C22.2 No. 131 and No. 174

3.1.2.2 CSA FT1 and FT4

3.1.2.3 UL 1581 (70,000 BTU/hr)

3.2 SERVICE CONDITIONS

3.2.1 Refer to "Geographic Conditions" Section 4 of "Technical Specifications, General Requirements".

#### 4. DETAILED REQUIREMENTS

##### 4.1 TYPE

(See chart)

##### 4.2 CONSTRUCTION

###### 4.2.1 PHASE CONDUCTORS

Phase conductors shall be constructed from Class B bare copper, compressed concentric round to ASTM B8 standard.

###### 4.2.2 GROUND CONDUCTOR

Ground conductor shall be one uninsulated stranded bare copper conductor.

###### 4.2.3 INSULATION

Insulation shall be Cross-linked Polyethylene (XLPE), Type RW90.

###### 4.2.4 INNER JACKET

Inner Jacket shall be Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC). Jacket shall be black in colour.

###### 4.2.5 ARMOUR

Armour shall be Aluminium Interlocked Armor (AIA)

###### 4.2.6 OVERALL JACKET

Overall Jacket shall be Lead-free, flame-retardant, moisture and sunlight resistant Polyvinyl Chloride (PVC). Jacket shall be black in colour.

##### 4.3 CONTROL CABLE SHALL BE CAT. NO.:

(See chart)

#### 4.4 DIMENSIONS AND SPECIFICATION

The Armoured control and power cable shall be manufactured with insulation rated for 1000V. Cable shall have rating outlined below:

	General Cable TECK90 Cat. No:	No. of Con.	Phase Wire Size (AWG)	Ground Wire Size (AWG)	Nominal Diameter (Inches)			Net Weight (LBS/ 1000FT)	Minimum Ampacity (A)	Cable Length (meter)
					Insulation	Armour	Cable			
4.2.4.1	308550	2	12	14	0.18	0.69	0.77	255	30	1000
4.2.4.2	331260	2	8	10	0.24	0.82	0.90	392	55	1000
4.2.4.3	793180	4	12	14	0.18	0.79	0.88	357	30	1000
4.2.4.4	331250	4	8	10	0.24	0.92	1.00	548	55	1000

#### 5. TESTS

5.1 Refer to "Tests" Section 5 of "Technical Specifications, General Requirements".

#### 6. PACKAGING AND MARKING

6.1 Conductor shall be supplied on non-returnable export type reels in approximate lengths **1000 meters**. All reels shall be designed to NEMA WC-21 standard or equivalent and are to be constructed to withstand the rigors of overseas shipping.

6.2 For "Export Markings" refer to Section 8 of "Technical Specifications, General Requirements".

#### 7. SHIPMENT

Manufacturer/supplier shall await the written instruction of the purchaser to commence shipment of materials. Approval for shipment will be given only after the purchaser has been satisfied that the material to be supplied meets the required specifications.

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**INDEX OF REVISIONS**

<b>Revision Number</b>	<b>Date of Revision</b>	<b>Revision Made</b>	<b>Checked By</b>

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# MEMORANDUM

**TO:** MANAGER MATERIAL PLANNING AND LOGISTICS  
**FROM:** MANAGER, ENGINEERING AND CONSTRUCTION DEPARTMENT  
**DATE:** February 6, 2018  
**SUBJECT:** CABLE, CONTROL, COPPER, ARMOURED, 2 CORE, #8AWG,  
XLPE/PVC/AIA/PVC, 1000 V, WITH GROUND CONDUCTOR

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**Please find attached forms on the following:**

- Material to be added to authorized line
- Material information/instruction form
- Material requires correction to its description

**This form:**

- Introduces a new material to be added to authorized line
- Identifies material to be removed from authorized line
- Identifies material for which information or action is required

**You are requested to:**

- Assign a stock number for the item
- Initiate a purchase requisition for the item
- Discontinue issuing the item
- Issue item until stock is depleted
- Advice Engineering department on existing stock levels
- Advice Engineering department on the assigned stock number and the date material is received at stores
- Update purchase specifications as per attached
- Take action on the matter as per attached

*OSAWICKHAM FEB 7/2018*  
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**OSAWICKHAM  
MANAGER,  
ENGINEERING AND  
CONSTRUCTION DEPARTMENT**

Copy: Director - Engineering  
General Manager - Materials Management  
Manager - Warehousing and Stores  
Manager - Purchasing