



Indian Electrical & Electronics Manufacturer's Association
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Cir. No.: 124/DIV/CAB/05

14 October 2025

To Members of IEEMA Cable Division

To all State Electricity Boards, Utilities and Other purchasing organizations

Sub: New price variation formula for Cables at 25 KV and 30 KV for Metro specific purposes

IEEMA had published price variation formulae for various types of Cables. There was also need mentioned by stake holders for the PV formula for 25 KV and 30 KV single core cables for Metro specific purpose.

After discussion it is decided to have a new PV formula for 25 KV and 30 KV Cables as per IEC 60840 and IEC 60502 for Metro specific purpose. IEEMA collected the weight factors and other required inputs and after due deliberations with manufacturers, DRAFT PV formula is prepared for 25 KV and 30 KV single core cables for Metro specific purpose and circulated to all stake holders for comments vide Cir. No.: 119/DIV/CAB/05 dated 12th September 2025.

After incorporating all the relevant suggestions on the above proposal; we are making the Metro Cable PV formula operational from 1st September 2025.

Although, this PV clause made effective from 1st September 2025, practically it can be incorporated in all the current new tenders/contracts starting from 1st October 2025.

We request and recommend all the users & stakeholders including Utilities, PSUs etc. to incorporate this new PV formula for Metro Cables in all the new tenders/contracts henceforth.

Senior Director

Encl: FINAL PV formula for 25 KV and 30 KV Cables for Metro specific purposes



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IEEMA (PVC)/METRO CABLE_25KV_30KV/2025

Effective from: 01 September 2025

Price Variation Clause for Cables for Metro

The Price quoted/confirmed is based on the input cost of raw materials/components as on the date of quotation, and the same is deemed to be related to the prices of raw materials as specified in the price variation clause given below. In case of any variation in these prices, the price payable shall be subject to adjustment up or down in accordance with the formulae provided in this document.

Terms used in price variation formulae:

- P Price payable as adjusted in accordance with above appropriate formula **(in Rs/Km)**
 Po Ex-Works Price quoted/confirmed **(in Rs/Km)**

ALUMINIUM

- AIF Variation factor for Aluminium
 ALD Variation factor for Aluminium for Armouring for Double Aluminium Tape
 ALW Variation factor for Aluminium round wire

- AI Price of Aluminum. This price is as applicable one month prior to the date of delivery.
 Alo Price of Aluminum. This price is as applicable one month prior to the date of tendering.

COPPER

- CuF Variation factor for copper
 SMIF Variation factor for Copper/Aluminium wire screen
 Cu Price of CC copper rods. This price is as applicable one month prior to the date of delivery.
 Cuo Price of CC copper rods. This price is as applicable one month prior to the date of tendering.

POLYMER COMPOUND (PVC/PE/Zero Halogen low smoke)

- PVC Price of PVC Compound / PE / Zero Halogen low smoke. This price is as applicable **one** month prior to the date of delivery.
 PVCo Price of PVC Compound / PE / Zero Halogen low smoke. This price is as applicable **one** month prior to the date of the tendering.

(the relevant price of Polymer Compound is to be selected depending upon the type of compound used for the cable)

- CCFAI Variation factor for PVC compound/Polymer/LSZH for aluminum conductor cable.
 CCFCu Variation factor for PVC compound/Polymer/LSZH for copper conductor cable.



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XLPE COMPOUND

CC price of MV XLPE compound. This price is as one month prior to the date of delivery.

CCo Price of MV XLPE compound. This price is as one month prior to the date of tendering.

XLFAL Variation factor for XLPE compound for aluminum conductor cable.

XLFCU Variation factor for XLPE compound for copper conductor cable.

The above prices and indices are as published by IEEMA vide Circular reference IEEMA (PVC)/CABLE (R-1)/--/-- for the month i.e. one month prior to the date of tendering.

The date of delivery is the date on which the cable is notified as being ready for inspection/dispatch (in the absence of such notification, date of manufacturer's dispatch note is to be considered as the date of delivery) or contracted delivery date (including any agreed extension thereto) whichever is earlier.

Notes: All prices of raw materials are exclusive of GST amount. The details of prices are as under:

1. Price of Aluminium is LME average Cash SELLER Settlement price of Primary Aluminium in US\$ per MT as published by London Metal Bulletin (LME) including Premium for Aluminium Ingot in US\$ per MT is converted in Indian Rs./MT
2. Price of PVC Compound (in Rs/MT) is the ex-works price, as quoted by the manufacturer/s
3. Price of XLPE Compound (in Rs/MT) is the ex-works price, as quoted by the manufacturer/s
4. Price of CC copper rods (in Rs/MT) is ex-works price as quoted by the primary producer.
5. Price of Zero halogen low smoke (LSZH) (in Rs/MT) is the ex-work price, as quoted by the manufacturer/s

Price variation formula

1. For Aluminium /copper Conductor Single core armoured XLPE insulated copper wire screen cable

$$P = P_o + MIF (MIF2 - MIF1) + XL3 (CC-CCo) + SMIF (SMIF2 - SMIF1) + XL5 (PVC - PVCo) + AIF (AL - Alo)$$

Table references: -

Table M1 (MIF) : Variation factor for Aluminium & Copper Conductor Aluminium Conductor AIF
 Copper Conductor CuF

Table M2 (XL3) : Variation factor for XLPE

Table M3 (SMIF) : Variation factor for Copper Wire Screen/ Aluminium wire screen

Table M4 (XL5) : Variation factor for Polymer

Table M5 (AIF) : Variation factor for Aluminium Armouring for Double Aluminium Tape (ALD) / Aluminium round Wire(ALW)



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Note:

For cases where Short Circuit Current through Screen/Sheath is required & is not available in the Reference Tables, in that case Screen/Sheath area as approved by the customer in Datasheet / Short Circuit Current calculation of Screen/Sheath shall be used to derive SMIF as below:

If A= Area of Metallic Screen in Approved Datasheet / Calculation Sheet

D= Density= 8.89 for Cu. & 2.703 for Al; LF = Lay Factor (=1.07, for Copper/Aluminium Wire Metallic Screen and counter helix tape)

$$SMIF = (A \times D \times LF)/1000$$

Authorized Signatory**TABLE M1**

VARIATION FACTOR FOR ALUMINIUM & COPPER CONDUCTOR (AIF & CuF)
 SINGLE CORE ARMoured XLPE INSULATED POWER CABLE WITH AL/CU CONDUCTOR

Nominal cross sectional area (in Sq.mm)	ALUMINIUM FACTORS (AIF)		COPPER FACTORS (CuF)	
	25 KV (26/45kV)	30 KV (18/30kV)	25 KV (26/45kV)	30 KV (18/30kV)
95	-	0.274	-	0.901
120	-	0.346	-	1.138
150	-	0.425	-	1.398
185	-	0.533	-	1.753
240	0.703	0.703	2.312	2.312
300	-	0.879		2.891
400	1.126	1.126	3.703	3.703

IEEMA (PVC)/METRO CABLE_25KV_30KV/2025

Effective from: 01 September 2025

TABLE M2

VARIATION FACTOR FOR XLPE (XL3)

SINGLE CORE ARMoured XLPE INSULATED POWER CABLE WITH AL/CU CONDUCTOR

Nominal cross sectional area (in Sq.mm)	XLPE Factor	
	25 KV (26/45kV)	30 KV (18/30kV)
95	-	0.684
120	-	0.732
150	-	0.773
185	-	0.829
240	1.083	0.899
300	-	0.961
400	1.263	1.057

TABLE M3

VARIATION FACTOR FOR COPPER WIRE SCREEN (SMIF)

SINGLE CORE ARMoured XLPE INSULATED POWER CABLE WITH AL/CU CONDUCTOR

Nominal cross sectional area (in Sq.mm)	25 KV (26/45kV) (14 kA for 3 sec)	30 KV (18/30kV) (1 kA for 3 sec)
95	-	0.162
120	-	0.162
150	-	0.162
185	-	0.163
240	1.921	0.163
300	-	0.163
400	1.921	0.164

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TABLE M4

VARIATION FACTOR FOR POLYMER (XL5)

SINGLE CORE ARMoured XLPE INSULATED POWER CABLE WITH AL/CU CONDUCTOR

Nominal cross sectional area (in Sq.mm)	25 KV (26/45kV)	30 KV (18/30kV)
95	-	1.011
120	-	1.081
150	-	1.110
185	-	1.174
240	1.290	1.265
300	-	1.335
400	1.479	1.487

The above factors are for PVC and Zero Halogen low smoke (LSZH) and for PE factor, the above factor will be multiplied by 0.641.

TABLE M5

VARIATION FACTOR FOR ALUMINIUM ARMOURING

SINGLE CORE ARMoured XLPE INSULATED POWER CABLE WITH AL/CU CONDUCTOR

Nominal cross sectional area (in Sq.mm)	Double Aluminium Tape Armoured (ALD)		Aluminium Wire Armoured (ALW)	
	25 KV (26/45kV)	30 KV (18/30kV)	25 KV (26/45kV)	30 KV (18/30kV)
95	-	0.239	-	0.495
120	-	0.250	-	0.600
150	-	0.257	-	0.621
185	-	0.269	-	0.696
240	0.321	0.283	0.846	0.734
300	-	0.295	-	0.769
400	0.353	0.316	0.929	0.817