

# Jumper Wires

**PE Insulated:** The polyethylene insulated wires are used in cross connection cabinets between the primary and secondary terminal blocks

**PVC Insulated:** The PVC insulated jumper wires are used in main distribution frames in exchange MDF.

**Conductor:** Solid annealed plain copper conforming to ASTM B3.  
Tinned copper wire conforming to ASTM B 33.

**Insulation:** 1. High density polyethylene conforming to ASTM D 1248, TYPE III, Category 4 or 5 , Grade E8 or E9  
2. PVC compound conforming to BS EN 50363-3 / BS 7655-3.1 TYPE TI 1.

**Color:** ATC standard colors are:  
White-Blue, White-Black, White-Orange, Yellow-Blue, Yellow- Yellow, Black-Red-Yellow & Black-Red-Yellow-White.  
Other color combination can be provided upon the request of customer.

**Assembly:** Required number of insulated conductors shall be uniformly twisted together with maximum lay length of 50mm.



## PVC INSULATED PLAIN COPPER CONDUCTOR

PRODUCT NUMBER	NUMBER OF CONDUCTORS	CONDUCTOR DIAMETER (mm)	DIAMETER (mm) (MAXIMUM)	APPROXIMATE WEIGHT (KG/KM)	STANDARD LENGTH M
TL-JWPVC-0205	2	0.5	2.4	6.0	500
TL-JWPVC-0305	3	0.5	2.6	9.0	500
TL-JWPVC-0405	4	0.5	2.9	12.0	500
TL-JWPVC-0206	2	0.6	2.6	8.0	500
TL-JWPVC-0207	2	0.7	2.9	10.0	500

## HIGH DENSITY POLYETHYLENE INSULATED PLAIN COPPER CONDUCTOR

PRODUCT NUMBER	NUMBER OF CONDUCTORS	CONDUCTOR DIAMETER (mm)	DIAMETER (mm) (MAXIMUM)	APPROXIMATE WEIGHT (Kg/Km)	STANDARD LENGTH M
TL-JWPE-0205	2	0.5	2.4	5.2	250
TL-JWPE-0305	3	0.5	2.6	7.6	250
TL-JWPE-0405	4	0.5	2.9	10.1	250
TL-JWPE-0206	2	0.6	2.6	6.9	250
TL-JWPE-0207	2	0.7	2.9	9.1	250
TL-YYPE-0206	2	0.6	2.9	7.4	250

## PVC INSULATED TINNED COPPER CONDUCTOR

PRODUCT NUMBER	NUMBER OF CONDUCTORS	CONDUCTOR DIAMETER (mm)	DIAMETER (mm) (MAXIMUM)	APPROXIMATE WEIGHT (KG/KM)	STANDARD LENGTH M
TL-JWPVC-0205TC	2	0.50	2.4	6.0	400
TL-JWPVC-0206TC	2	0.60	2.6	8.0	500
TL-JWPVC-0265TC	2	0.65	2.8	9.0	250

## HIGH DENSITY POLYETHYLENE INSULATED TINNED COPPER CONDUCTOR

PRODUCT NUMBER	NUMBER OF CONDUCTORS	CONDUCTOR DIAMETER (mm)	DIAMETER (mm) (MAXIMUM)	APPROXIMATE WEIGHT (KG/KM)	STANDARD LENGTH M
TL-JWPE-0205 TC	2	0.50	2.4	5.2	250

## ELECTRICAL AND TRANSMISSION CHARACTERISTICS

CHARACTERISTIC	UNIT	High Density Polyethylene (HDPE)				Flame Retardant PVC			
		PLAIN COPPER CONDUCTOR		TINNED COPPER CONDUCTOR		PLAIN COPPER CONDUCTOR		TINNED COPPER CONDUCTOR	
		0.50 mm	0.60 Mm	0.50 mm	0.60 mm	0.50 mm	0.60 mm	0.50 mm	0.60 mm
Conductor Resistance (Maximum)	Ω/Km	96.0	67.0	97.0	68.0	96.0	67.0	97.0	68.0
Resistance Unbalance (Maximum)	%	2.5	2.0	2.5	2.0	2.5	2.0	2.5	2.0
Insulation Resistance (Minimum)	M.Ω.Km	10000	10000	10000	10000	500	500	500	500
Di-Electric Strength	DC V	1500	1500	1500	1500	1500	1500	1500	1500

## PVC INSUALTION TEST

Test	Results @ Conditions
<b>Tensile strength</b>	Minimum 176 Kg/cm <sup>2</sup> @ 25°C ± 3°C
<b>Elongation</b>	Minimum 125%
<b>Shrink back</b>	Maximum 1.58mm 5 of 6 samples
<b>Adhesion</b>	Mximum 1.36Kg
<b>Cold bend</b>	Passed @ -10°C
<b>Compression</b>	Minimum 272 Kg @ 25°C±3°C

## PVC INSUALTION TEST

Conductor	800Hz	300KHz
<b>0.4</b>	1.5	14
<b>0.5</b>	1.3	12
<b>0.6</b>	1.0	10