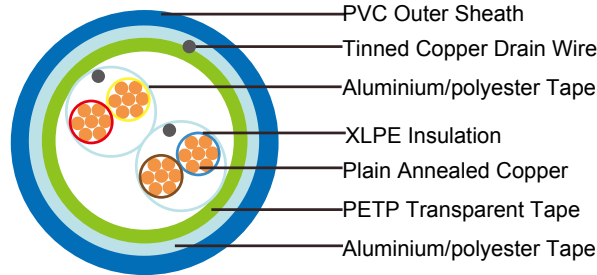


Flame Retardant Individual and Overall Screened Instrumentation Cables (Multipair)

RE-2X(St)Y PiMF



APPLICATION

The unarmoured XLPE versions are generally used for indoor installation and suitable for wet and damp areas. Generally used within industrial process manufacturing plants for communication, data and voice transmission signals and services.

STANDARDS

Basic design to BS EN 50288-7 (formerly BS 5308)

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	BS EN 60332-1-2
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VOLTAGE RATING

300V, 500V

CABLE CONSTRUCTION

Conductor: Plain or metal coated copper wire, solid, stranded or flexible according to IEC 60228 class 1, 2 and 5.

Insulation: Extruded XLPE compound according to EN 50290-2-29. PVC, PE, PP compound can be offered as options.

Pairs: Two insulated conductors uniformly twisted together with a lay not exceeding 100mm ($\leq 1.5\text{mm}^2$) or 150mm (for 2.5mm^2).

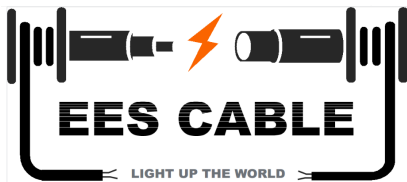
Individual Screen: Aluminium/polyester tape is applied over each pair with metallic side down in contact with tinned copper drain wire, 0.5mm^2 .

Binder Tape: PETP transparent tape.

Overall Screen: Aluminium/polyester tape is applied over the laid up pairs with metallic side down in contact with tinned copper drain wire, 0.5mm^2 . Copper braid screen or aluminium/polyester tape combined with copper braid screen can be offered as option.

Outer Sheath: Thermoplastic PVC compound according to EN 50290-2-22.

Outer Sheath Option: UV resistance, hydrocarbon resistance, oil resistance, anti-rodent and anti-termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3,



UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

COLOUR CODE

Insulation Colour: Colours and/or additional ring markings and/or symbols achieved by the use of coloured insulation or by a coloured surface using extrusion, printing or painting.

Outer Sheath: Black. Other colours can be offered upon request.

PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation: -30°C - +90°C

Temperature range fixed installation: -5°C - +50°C

Maximum short circuit temperature (5 Seconds): 250°C

Minimum bending radius: 7.5 x Overall Diameter

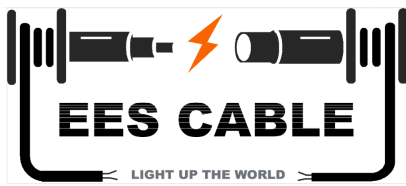
ELECTRICAL PROPERTIES

300V

Conductor Area Size	mm ²	0.5	0.75	1.0	1.5
Insulation Thickness (Nominal)	mm	0.4	0.4	0.4	0.5
Insulation Thickness (Minimum)	mm	0.26	0.26	0.26	0.35
Conductor Resistance (20°C)	ohm/km	36.7	25.0	18.5	12.3
Minimum Insulation Resistance (20°C)	Mohm/km	1000			
Maximum Mutual Capacitance	nf/km	250			
Capacitance Unbalance	pf/500m	500			
Maximum L/R (Ratio)	µH/Ω	25	25	25	40
Operating Voltage	V	300			
Dielectric Strength for 1 Minute	AC	V	≥1000		
	DC	V	≥2000		

500V

Conductor Area Size	mm ²	0.5	0.75	1.0	1.5	2.5
Insulation Thickness (Nominal)	mm	0.6	0.6	0.6	0.6	0.7
Insulation Thickness (Minimum)	mm	0.44	0.44	0.44	0.44	0.53
Conductor Resistance (20°C)	ohm/km	36.7	25.0	18.5	12.3	7.4
Minimum Insulation Resistance (20°C)	Mohm/km	1000				
Maximum Mutual Capacitance	nf/km	250				
Capacitance Unbalance	pf/500m	500				
Maximum L/R (Ratio)	µH/Ω	25	25	25	40	60
Operating Voltage	V	500				

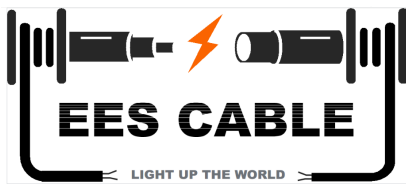


Dielectric Strength for 1 Minute	AC	V	≥2000
	DC	V	≥3000

CONSTRUCTION PARAMETERS

300V

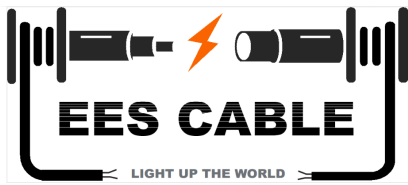
Conductor		RE-2X(St)Y PIMF			
No. of Pairs X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm ²		mm	mm	mm	kg/km
0.5mm²					
2x2x0.5	2	0.4	1.0	8.6	85
3x2x0.5	2	0.4	1.0	9.0	109
4x2x0.5	2	0.4	1.1	10.1	139
5x2x0.5	2	0.4	1.1	11.0	165
8x2x0.5	2	0.4	1.1	12.9	238
10x2x0.5	2	0.4	1.2	15.3	301
12x2x0.5	2	0.4	1.2	15.8	345
16x2x0.5	2	0.4	1.3	17.7	448
20x2x0.5	2	0.4	1.4	19.4	550
24x2x0.5	2	0.4	1.5	22.3	664
0.75mm²					
2x2x0.75	2	0.4	1.0	9.2	100
3x2x0.75	2	0.4	1.1	9.9	135
4x2x0.75	2	0.4	1.1	10.8	167
5x2x0.75	2	0.4	1.2	12.0	205
8x2x0.75	2	0.4	1.2	14.1	298
10x2x0.75	2	0.4	1.3	16.8	375
12x2x0.75	2	0.4	1.3	17.3	432
16x2x0.75	2	0.4	1.4	19.4	560
20x2x0.75	2	0.4	1.5	21.2	688
24x2x0.75	2	0.4	1.5	24.2	817
1.0mm²					
2x2x1.0	2	0.4	1.0	9.9	120
3x2x1.0	2	0.4	1.1	10.7	163
4x2x1.0	2	0.4	1.2	12.0	209
5x2x1.0	2	0.4	1.2	13.1	251
8x2x1.0	2	0.4	1.2	15.4	369
10x2x1.0	2	0.4	1.3	18.3	464
12x2x1.0	2	0.4	1.4	19.1	546
16x2x1.0	2	0.4	1.5	21.4	709
20x2x1.0	2	0.4	1.5	23.2	860
24x2x1.0	2	0.4	1.6	26.6	1037
1.5mm²					
2x2x1.5	2	0.5	1.1	11.8	164
3x2x1.5	2	0.5	1.2	12.7	223
4x2x1.5	2	0.5	1.2	14.0	279



Conductor		RE-2X(St)Y PiMF			
No. of Pairs X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm ²		mm	mm	mm	kg/km
5x2x1.5	2	0.5	1.3	15.5	344
8x2x1.5	2	0.5	1.3	18.3	508
10x2x1.5	2	0.5	1.4	21.8	639
12x2x1.5	2	0.5	1.5	22.8	752
16x2x1.5	2	0.5	1.6	25.5	978
20x2x1.5	2	0.5	1.7	27.9	1202
24x2x1.5	2	0.5	1.8	32.1	1447

500V

Conductor		RE-2X(St)Y PiMF			
No. of Pairs X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm ²		mm	mm	mm	kg/km
0.5mm ²					
2x2x0.5	2	0.6	1.0	10.0	101
3x2x0.5	2	0.6	1.1	10.8	133
4x2x0.5	2	0.6	1.1	11.8	164
5x2x0.5	2	0.6	1.2	13.1	201
8x2x0.5	2	0.6	1.2	15.4	289
10x2x0.5	2	0.6	1.3	18.4	365
12x2x0.5	2	0.6	1.4	19.2	427
16x2x0.5	2	0.6	1.5	21.5	550
20x2x0.5	2	0.6	1.5	23.3	661
24x2x0.5	2	0.6	1.6	26.7	798
0.75mm ²					
2x2x0.75	2	0.6	1.1	10.8	122
3x2x0.75	2	0.6	1.1	11.5	156
4x2x0.75	2	0.6	1.2	12.8	199
5x2x0.75	2	0.6	1.2	14.0	237
8x2x0.75	2	0.6	1.3	16.7	353
10x2x0.75	2	0.6	1.4	19.8	444
12x2x0.75	2	0.6	1.4	20.5	509
16x2x0.75	2	0.6	1.5	23.0	659
20x2x0.75	2	0.6	1.6	25.1	807
24x2x0.75	2	0.6	1.7	28.9	973
1.0mm ²					
2x2x1.0	2	0.6	1.1	11.6	143
3x2x1.0	2	0.6	1.2	12.5	191
4x2x1.0	2	0.6	1.2	13.7	238
5x2x1.0	2	0.6	1.3	15.2	292
8x2x1.0	2	0.6	1.3	17.9	427
10x2x1.0	2	0.6	1.4	21.3	537
12x2x1.0	2	0.6	1.5	22.2	630



Conductor		RE-2X(St)Y PiMF			
No. of Pairs X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm ²		mm	mm	mm	kg/km
16x2x1.0	2	0.6	1.6	25.0	816
20x2x1.0	2	0.6	1.7	27.2	1000
24x2x1.0	2	0.6	1.8	31.3	1204
1.5mm ²					
2x2x1.5	2	0.6	1.1	12.5	173
3x2x1.5	2	0.6	1.2	13.5	235
4x2x1.5	2	0.6	1.3	15.0	302
5x2x1.5	2	0.6	1.3	16.5	362
8x2x1.5	2	0.6	1.4	19.7	545
10x2x1.5	2	0.6	1.5	23.5	685
12x2x1.5	2	0.6	1.6	24.4	804
16x2x1.5	2	0.6	1.7	27.4	1043
20x2x1.5	2	0.6	1.8	29.9	1281
24x2x1.5	2	0.6	1.9	34.4	1541
2.5mm ²					
2x2x2.5	2	0.7	1.2	14.9	245
3x2x2.5	2	0.7	1.3	16.1	335
4x2x2.5	2	0.7	1.4	17.9	432
5x2x2.5	2	0.7	1.5	19.9	531
8x2x2.5	2	0.7	1.6	23.8	801
10x2x2.5	2	0.7	1.7	28.3	1005
12x2x2.5	2	0.7	1.8	29.4	1180
16x2x2.5	2	0.7	1.9	33.0	1533
20x2x2.5	2	0.7	2.1	36.2	1901
24x2x2.5	2	0.7	2.2	41.6	2284