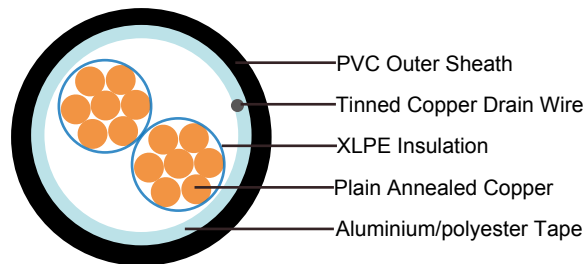


## Flame Retardant Overall Screened Instrumentation Cables (Multicore) RE-2X(St)Y



### 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

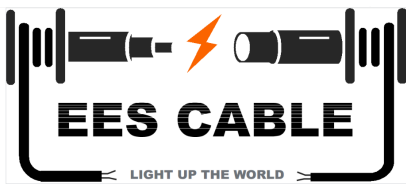
**Conductor:** Plain or metal coated copper wire, solid, stranded or flexible according to IEC 60228 class 1, 2 and 5.

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

**Overall Screen:** Aluminium/polyester tape is applied over the laid up cores with metallic side down in contact with tinned copper drain wire, 0.5mm<sup>2</sup>. 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

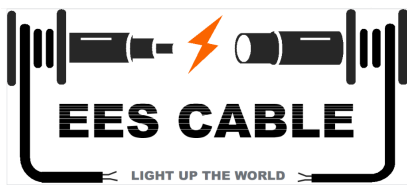
## ELECTRICAL PROPERTIES

### 300V

Conductor Area Size	mm <sup>2</sup>	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

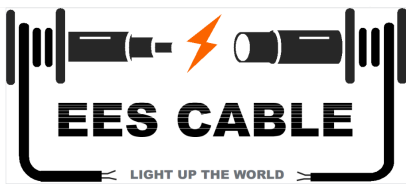
Conductor Area Size	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
Insulation Thickness (Nominal)	mm	0.6	0.6	0.6	0.6	0.7
Insulation Thickness (Minimum)	mm	0.44	0.44	0.44	0.44	0.53
Conductor Resistance (20°C)	ohm/km	36.7	25.0	18.5	12.3	7.4
Minimum Insulation Resistance (20°C)	Mohm/km	1000				
Maximum Mutual Capacitance	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

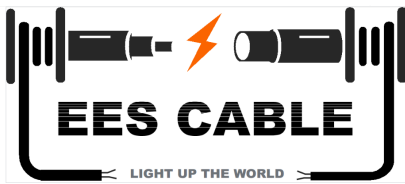
Conductor		RE-2X(St)Y			
No. of Core X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm <sup>2</sup>		mm	mm	mm	kg/km
<b>0.5mm<sup>2</sup></b>					
2x0.5	2	0.4	0.9	5.5	40
3x0.5	2	0.4	0.9	5.7	49
4x0.5	2	0.4	0.9	6.2	59
5x0.5	2	0.4	0.9	6.7	69
8x0.5	2	0.4	1.0	8.0	101
10x0.5	2	0.4	1.0	9.1	123
12x0.5	2	0.4	1.0	9.4	139
14x0.5	2	0.4	1.0	9.8	157
16x0.5	2	0.4	1.0	10.3	175
20x0.5	2	0.4	1.1	11.3	215
24x0.5	2	0.4	1.1	12.8	254
27x0.5	2	0.4	1.1	13.0	279
30x0.5	2	0.4	1.2	13.7	311
37x0.5	2	0.4	1.2	14.7	370
40x0.5	2	0.4	1.2	15.2	397
<b>0.75mm<sup>2</sup></b>					
2x0.75	2	0.4	0.9	5.8	47
3x0.75	2	0.4	0.9	6.1	59
4x0.75	2	0.4	0.9	6.6	72
5x0.75	2	0.4	1.0	7.4	88
8x0.75	2	0.4	1.0	8.5	125
10x0.75	2	0.4	1.1	10.0	158
12x0.75	2	0.4	1.1	10.3	181
14x0.75	2	0.4	1.1	10.8	204
16x0.75	2	0.4	1.1	11.4	228
20x0.75	2	0.4	1.2	12.4	280
24x0.75	2	0.4	1.3	14.3	339
27x0.75	2	0.4	1.3	14.6	372
30x0.75	2	0.4	1.3	15.1	406
37x0.75	2	0.4	1.3	16.2	485
40x0.75	2	0.4	1.4	16.9	528
<b>1.0mm<sup>2</sup></b>					
2x1.0	2	0.4	0.9	6.2	57
3x1.0	2	0.4	0.9	6.6	72
4x1.0	2	0.4	0.9	7.1	89
5x1.0	2	0.4	0.9	7.7	106
8x1.0	2	0.4	1.0	9.2	158
10x1.0	2	0.4	1.0	10.7	195
12x1.0	2	0.4	1.0	11.0	224
14x1.0	2	0.4	1.0	11.6	255



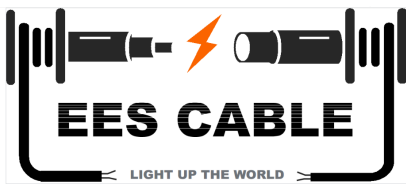
Conductor		RE-2X(St)Y			
No. of Core X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm <sup>2</sup>		mm	mm	mm	kg/km
16x1.0	2	0.4	1.1	12.4	292
20x1.0	2	0.4	1.2	13.5	360
24x1.0	2	0.4	1.2	15.3	427
27x1.0	2	0.4	1.2	15.6	471
30x1.0	2	0.4	1.2	16.2	516
37x1.0	2	0.4	1.3	17.6	630
40x1.0	2	0.4	1.3	18.3	676
<b>1.5mm<sup>2</sup></b>					
2x1.5	2	0.5	0.9	7.2	74
3x1.5	2	0.5	0.9	7.6	97
4x1.5	2	0.5	1.0	8.5	124
5x1.5	2	0.5	1.0	9.2	149
8x1.5	2	0.5	1.1	10.9	224
10x1.5	2	0.5	1.1	12.8	276
12x1.5	2	0.5	1.1	13.2	318
14x1.5	2	0.5	1.2	14.0	370
16x1.5	2	0.5	1.2	14.8	415
20x1.5	2	0.5	1.3	16.1	512
24x1.5	2	0.5	1.3	18.3	609
27x1.5	2	0.5	1.4	18.9	682
30x1.5	2	0.5	1.4	19.6	748
37x1.5	2	0.5	1.4	21.1	901
40x1.5	2	0.5	1.5	22.1	978

### 500V

Conductor		RE-2X(St)Y			
No. of Core X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm <sup>2</sup>		mm	mm	mm	kg/km
<b>0.5mm<sup>2</sup></b>					
2x0.5	2	0.6	0.9	6.3	47
3x0.5	2	0.6	0.9	6.6	57
4x0.5	2	0.6	0.9	7.1	69
5x0.5	2	0.6	0.9	7.8	81
8x0.5	2	0.6	1.0	9.2	119
10x0.5	2	0.6	1.0	10.7	146
12x0.5	2	0.6	1.1	11.2	171
14x0.5	2	0.6	1.1	11.8	192
16x0.5	2	0.6	1.1	12.4	214
20x0.5	2	0.6	1.2	13.6	262
24x0.5	2	0.6	1.2	15.4	310
27x0.5	2	0.6	1.2	15.7	339
30x0.5	2	0.6	1.3	16.5	378



Conductor		RE-2X(St)Y			
No. of Core X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm <sup>2</sup>		mm	mm	mm	kg/km
37x0.5	2	0.6	1.3	17.7	449
40x0.5	2	0.6	1.3	18.3	480
0.75mm <sup>2</sup>					
2x0.75	2	0.6	0.9	6.6	54
3x0.75	2	0.6	0.9	7.0	68
4x0.75	2	0.6	0.9	7.6	83
5x0.75	2	0.6	1.0	8.4	102
8x0.75	2	0.6	1.0	9.8	145
10x0.75	2	0.6	1.0	11.4	178
12x0.75	2	0.6	1.0	11.8	203
14x0.75	2	0.6	1.1	12.6	236
16x0.75	2	0.6	1.1	13.3	264
20x0.75	2	0.6	1.2	14.5	324
24x0.75	2	0.6	1.3	16.7	392
27x0.75	2	0.6	1.3	17.0	430
30x0.75	2	0.6	1.3	17.6	469
37x0.75	2	0.6	1.4	19.2	570
40x0.75	2	0.6	1.4	19.9	611
1.0mm <sup>2</sup>					
2x1.0	2	0.6	0.9	7.0	64
3x1.0	2	0.6	0.9	7.4	82
4x1.0	2	0.6	1.0	8.3	105
5x1.0	2	0.6	1.0	9.0	124
8x1.0	2	0.6	1.0	10.5	179
10x1.0	2	0.6	1.1	12.5	226
12x1.0	2	0.6	1.1	12.9	260
14x1.0	2	0.6	1.1	13.5	295
16x1.0	2	0.6	1.2	14.4	337
20x1.0	2	0.6	1.2	15.6	407
24x1.0	2	0.6	1.3	17.9	492
27x1.0	2	0.6	1.3	18.3	541
30x1.0	2	0.6	1.3	19.0	592
37x1.0	2	0.6	1.4	20.6	721
40x1.0	2	0.6	1.4	21.4	774
1.5mm <sup>2</sup>					
2x1.5	2	0.6	0.9	7.6	78
3x1.5	2	0.6	1.0	8.2	106
4x1.5	2	0.6	1.0	8.9	131
5x1.5	2	0.6	1.0	9.7	157
8x1.5	2	0.6	1.1	11.6	236
10x1.5	2	0.6	1.2	13.8	297
12x1.5	2	0.6	1.2	14.2	342
14x1.5	2	0.6	1.2	14.9	389
16x1.5	2	0.6	1.2	15.7	437



Conductor		RE-2X(St)Y			
No. of Core X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm <sup>2</sup>		mm	mm	mm	kg/km
20x1.5	2	0.6	1.3	17.2	539
24x1.5	2	0.6	1.4	19.7	650
27x1.5	2	0.6	1.4	20.2	717
30x1.5	2	0.6	1.4	20.9	786
37x1.5	2	0.6	1.5	22.7	958
40x1.5	2	0.6	1.5	23.6	1028
2.5mm <sup>2</sup>					
2x2.5	2	0.7	1.0	9.0	113
3x2.5	2	0.7	1.0	9.5	149
4x2.5	2	0.7	1.0	10.4	187
5x2.5	2	0.7	1.1	11.6	232
8x2.5	2	0.7	1.2	13.9	351
10x2.5	2	0.7	1.3	16.4	441
12x2.5	2	0.7	1.3	17.0	511
14x2.5	2	0.7	1.3	17.9	584
16x2.5	2	0.7	1.4	19.0	667
20x2.5	2	0.7	1.4	20.6	811
24x2.5	2	0.7	1.5	23.7	977
27x2.5	2	0.7	1.6	24.4	1093
30x2.5	2	0.7	1.6	25.3	1200
37x2.5	2	0.7	1.7	27.5	1463
40x2.5	2	0.7	1.7	28.5	1572

Note: Other conductor sizes & core configurations are available upon request.