

## TYPE TEST APPROVALS

Sr. No.	Product Description	Certifying Agency
1	<b>Low voltage XLPE insulated Power cables</b>	
	<p>Material of conductor : Copper  <b>BS:5467 &amp; IEC:60502-1</b>                      1 core (50 mm<sup>2</sup> to 1000 mm<sup>2</sup>)</p>	LLOYD's Register
	<p>2, 3 and 4 core (1.5 mm<sup>2</sup> to 400 mm<sup>2</sup>) &amp; 5C upto 70mm<sup>2</sup>; 1.5-4mm<sup>2</sup> upto 48cores</p>	LLOYD's Register
2	<b>Low voltage PVC insulated Control &amp; Auxiliary cables</b>	
	<p><b>BS:6346 (for PVC) &amp; IEC:60502-1</b>                      2, 3 and 4 core (4, 6 and 10 mm<sup>2</sup>)</p>	LLOYD's Register
	<p>2 to 48 core (1.5 and 2.5 mm<sup>2</sup>)</p>	LLOYD's Register
3	<b>PVC insulated Wiring cables</b>	
	<p><b>BS:6004</b>                      Material of conductor : Copper                      450/750 V 1 core (1.5 to 630 mm<sup>2</sup>)</p>	LLOYD's Register
	<p>300/500 V 1, 2, 3, 4 &amp; 5 core (1.5 to 35 mm<sup>2</sup>)</p>	LLOYD's Register
	<p>300/500 V Flat Twin (1.5 to 16 mm<sup>2</sup>)</p>	LLOYD's Register
	<p>450/750 V 1 core (1.5 to 35 mm<sup>2</sup>) - Type TI-3 (Table 11 as per BS:6004)</p>	LLOYD's Register
4	<b>Low voltage XLPE insulated Power, Control &amp; Auxiliary cables for Low Smoke and Fume (LSZH) Cable systems</b>	
	<p><b>BS:6724</b>                      600/1000 V                      Material of conductor : Copper                      1 core (50 mm<sup>2</sup> to 1000 mm<sup>2</sup>) ; 2, 3 &amp; 4 core (1.5 mm<sup>2</sup> to 400 mm<sup>2</sup>) ; 5 core (1.5 mm<sup>2</sup> to 70 mm<sup>2</sup>) ; 7 to 48 core (1.5, 2.5 &amp; 4 mm<sup>2</sup>)</p>	LLOYD's Register

5	<b>Low voltage XL-LSZH Insulated Wiring cables for Low Smoke and Zero Halogen (LSZH) Cable systems</b>	
<b>BS:7211</b> Material of conductor : Copper		
1 core 4 mm <sup>2</sup> Blue (tested to IEC:60332-1)		Warrington Fire Research
1 core 4 mm <sup>2</sup> Yellow (tested to IEC:60332-1)		Warrington Fire Research
1 core 2.5 mm <sup>2</sup> Blue (tested to IEC:60332-1)		Warrington Fire Research
1 core 2.5 mm <sup>2</sup> Black (tested to IEC:60332-1)		Warrington Fire Research
1 core 4 mm <sup>2</sup> Green/Yellow (tested to IEC:60332-1)		Warrington Fire Research
1 core 6 mm <sup>2</sup> Green/Yellow (tested to IEC:60332-1)		Warrington Fire Research
6	<b>Lead Sheathed Low voltage XLPE insulated Power, Control &amp; Auxiliary cables for Oil, Gas and Petro/Chemical Industries</b>	
<b>BS:5467 &amp; IEC:60502-1 &amp; EEMUA No. 133</b> Material of conductor : Copper		
1 core (50 mm <sup>2</sup> to 1000 mm <sup>2</sup> ) ; 2, 3 & 4 core (1.5 mm <sup>2</sup> to 400 mm <sup>2</sup> ) ; 5 core (1.5 mm <sup>2</sup> to 70 mm <sup>2</sup> ) ; 7 to 48 core (1.5, 2.5 & 4 mm <sup>2</sup> )		LLOYD's Register
7	<b>Lead Sheathed Low voltage PVC insulated Power, Control &amp; Auxiliary cables for Oil, Gas and Petro/Chemical Industries</b>	
<b>BS:6346 &amp; IEC:60502-1 &amp; EEMUA No. 133</b> Material of conductor : Copper		
2, 3 & 4 core (1.5 mm <sup>2</sup> to 400 mm <sup>2</sup> ) ; 5 core (1.5 mm <sup>2</sup> to 70 mm <sup>2</sup> ) ; 7 to 48 core (1.5, 2.5 & 4 mm <sup>2</sup> )		LLOYD's Register
8	<b>Medium voltage XLPE insulated Power cables</b>	
3 x 240 AL/XLPE/CUTAPE/PVC/GSWA/PE 6/10 kV to IEC:60502-2		
1 x 240 CU/XLPE/CUWIRES/PVC 18/30 kV to IEC:60502-2		KEMA, The Netherlands.
1 x 800 AL/XLPE/LEAD/PE 18/30 kV to IEC:60502-2 & MEW specification TND-068		KEMA, The Netherlands.

	3 x 300 CU/XLPE/CUTAPE/PVC/GSWA/PVC 6/10 kV to IEC:60502-2	<b>KEMA, The Netherlands.</b>
	3 x 240 CU/XLPE/CUTAPE+Interstitial Conductors/PE/GSTA/PE 18/30 kV to IEC:60502-2 & ADWEA Contract Specification	<b>KEMA, The Netherlands.</b>
	Earth fault current withstand capability of Metallic screen (Interstitial Copper conductors + Copper Tape) of 3 x 240 CU/XLPE/CUTAPE+Interstitial Conductors/PE/GSTA/PE 18/30 kV cable to IEC:60502-2 & ADWEA Contract Specification	<b>CPRI, India</b>
	Abrasion, Penetration & Saline Bath test on PE sheath as per IEC:229/1982 (Cable :- 3 x 240 33 kV ADWEA).	<b>LLOYD's Register</b>
	3 x 240 CU/XLPE/CUTAPE+Interstitial Conductors/PVC/GSTA/PVC 6.35/11 kV to IEC:60502-2 & ADWEA/11kV-3C/2000 Specification	<b>KEMA, The Netherlands.</b>
	1 x 630 CU/XLPE/CUTAPE/PVC/AWA/PVC 19/33 kV to IEC:60502-2 & ADWEA/33kV-SC/2000 Specification	<b>KEMA, The Netherlands.</b>
	1 x 500 CU/XLPE/CUWIRES/PVC 19/33 kV to IEC:60502-2 & FEWA Specification No. 6.1	<b>KEMA, The Netherlands.</b>
	1 x 630 CU/XLPE/LEAD/PVC 19/33 kV to IEC:60502-2 & SAMSUNG Specification no. 1718-4472	<b>KEMA, The Netherlands.</b>
	3x400, CU/XLPE/CTS+CWS/GSWA/PE, 19/33 KV to DEWA spec. 1.5.1.3.3.01-Rev 01 & IEC 60502-2	<b>KEMA, The Netherlands.</b>
	1x800, CU/XLPE/CWS/PE, 6.35/11 KV to DEWA spec. 1.5.1.3.4.01-Rev 5 & IEC 60502-2	<b>KEMA, The Netherlands.</b>
<b>9</b>	<b>19 core Pilot Cable</b>	
	<b>MEW, OMAN STANDARD OES2 (Specification No. UG4)</b>	<b>CPRI, India</b>
<b>10</b>	<b>PE Insulated Multipair Instrumentation Cable</b>	
	<b>BS 5308 Part 1 TYPE:1, TYPE:2 AND TYPE: 3</b>	<b>LLOYD'S Register</b>
	300/500V, 1,2,5,10,15,20,30 and 50 Pairs; X Sectional Area=0.5,1 and 1.5 mm <sup>2</sup>	

<b>11</b>	<b>600/1000V Armoured Fire Resistant Cable</b>	
	<p><b>BS 7846 :2000 Category F2</b></p> <p>600/1000V. 2,3,4,5&amp;7-48(AUX) Cores; X Sectional Area=1.5-400mm<sup>2</sup></p>	<b>LLOYD'S Register</b>
	<p><b>BS 7846 : 2000 Category F2 &amp; F3</b></p> <p>600/1000V 4X240mm<sup>2</sup></p> <p>600/1000 V 3X2.5 mm<sup>2</sup></p> <p>600/1000V 4X50mm<sup>2</sup></p> <p>600/1000V 4X50mm<sup>2</sup> (incorporating amendments nos. 1 &amp; 2) clause 17.4.3 (category F2)</p> <p>600/1000V 5X1.5mm<sup>2</sup> (incorporating amendments nos. 1 &amp; 2) clause 17.4.4 (category F3)</p> <p>600/1000V 5X1.5mm<sup>2</sup> (incorporating amendments nos. 1 &amp; 2) clause 17.4.3 (category F2)</p> <p>4x400 sqmm cable to BSEN 50266-2-4:2001</p> <p>2x50 sqmm cable to BSEN 50266-2-4:2001</p>	<b>BRE, UK</b>
<b>12</b>	<b>76/132 kV 1 CX800mm<sup>2</sup> Cu/XLPE TO IEC60840, BS:7912 &amp;ADWEA SPECN S-CAB-132-HDPE-1( Rev. 0-2002)</b>	<b>KEMA, The Netherlands.</b>
<b>13</b>	<b>1CX240mm<sup>2</sup> 12/20kV Cu/XLPE TO IEC60502-2 AND BS:7835</b>	<b>KEMA, The Netherlands.</b>
<b>14</b>	<b>BS 7629 Cables - Wiring cable for essential safety circuits</b>	
	450/750 V 1 core 1.5 to 10 mm <sup>2</sup>	<b>BRE, UK</b>
<b>15</b>	<b>Water treeing susceptibility tests</b>	<b>KEMA, The Netherlands</b>