115 kV XLPE Power Cable

SW STANDARD WALL XLPE CORRUGATED SHEATH

CABLE CONSTRUCTION

- Concentric Stranded, Compact, or Segmental Copper or Alumimum Conductor
- Smooth Conductor Shield
- Super Clean XLPE Insulation
- True Triple Extrusion and Dry Cured
- Firmly Bonded Insulation Shield
- Copper or Aluminum Moisture Impervious Sheath
- Polyethylene Jacket with Extruded Semi-Conductive Outer Layer

CABLE DATA	
Voltage Characteristics (kV)	
Max Voltage Rating	121
BIL Rating	550
Temperatures (°C)	
Nominal Conductor	90
Max. Emergency Conductor	105
Short Circuit Conductor	250
Minimum Installation	-10
Design Characteristics	
Design Standards	AEIC, IEC
Factory Test Voltages	135 kV / 60 min.
XLPE Loss Factor	0.0005
Relative Permittivity	2.3

Conductor Size (kcmil[1])	Conductor Dia.	Insulation Thickness	Diameter Over Insulation	Overall Jacket Diameter	Min. Bending Radius (install / perm.)	Capacitance	Charging Current	CU Cond & CU Sheath		AL Cond & AL Sheath	
								Cable Weight	30 mil Sheath[2] Short Ckt @ 0.5s	Cable Weight	50 mil Sheath[2] Short Ckt @ 0.5s
	(inches)	(mils)	(inches)	(inches)	(inches)	(pF/ft)	(A/kft)	(lbs/ft)	(kA)	(lbs/ft)	(kA)
750	0.91	512	2.03	2.78	50/34	57.76	1.45	5.13	31.6	3.06	35.7
1000	1.06	512	2.19	2.98	54/36	64.51	1.62	6.18	33.9	3.53	38.3
1250	1.19	512	2.32	3.13	57/38	69.78	1.75	7.10	35.7	3.92	40.3
1500	1.32	512	2.45	3.28	60/40	75.08	1.88	8.10	37.5	4.36	42.3
1750	1.43	512	2.58	3.44	62/42	80.36	2.01	9.10	39.3	4.80	44.3
2000	1.50	512	2.66	3.53	64/43	83.23	2.08	10.00	40.4	5.14	45.4
2500	1.73	512	2.95	3.87	70/47	95.22	2.38	12.10	44.4	6.14	49.9
3000	1.89	512	3.18	4.14	75/50	104.40	2.61	14.03	47.5	6.97	53.4
3500	2.07	512	3.28	4.26	77/52	108.68	2.72	15.74	49.0	7.60	55.0
4000	2.17	512	3.38	4.38	79/53	112.64	2.82	17.45	50.3	8.22	56.5
5000	2.48	512	3.69	4.74	86/57	125.09	3.13	21.75	54.6	9.65	61.3
6000	2.67	512	3.88	5.13	93/62	132.86	3.33	24.47	57.2	10.90	64.2

Copper Conductor Size (kcmil[1]) Load Factor @ 75%													
Ampacity[3] @ 90°C; per Figures on Page 2		750	1000	1250	1500	1750	2000	2500	3000	3500	4000	5000	6000
Single Circuit (Fig 1)	Amps	750	870	970	1060	1130	1200	1440	1560	1670	1760	1900	2000
Power Rating	MVA	149	173	193	211	225	239	287	311	333	351	378	398
Double Circuit (Fig 2)	Amps	640	740	820	890	940	990	1180	1280	1360	1430	1530	1620
Power Rating	MVA	127	147	163	177	187	197	235	255	271	285	305	323

Aluminum Conductor Size (kcmil[1]) Load Factor @ 75%													
Ampacity[3] @ 90°C; per Figures on Page 2		750	1000	1250	1500	1750	2000	2500	3000	3500	4000	5000	6000
Single Circuit (Fig 1)	Amps	590	690	780	860	920	980	1130	1250	1350	1440	1620	1760
Power Rating	MVA	118	137	155	171	183	195	225	249	269	287	323	351
Double Circuit (Fig 2)	Amps	500	580	650	720	770	820	940	1030	1110	1180	1310	1410
Power Rating	MVA	100	116	129	143	153	163	187	205	221	235	261	281

[1]2500–6000 kcmil conductors are 5 segment Milliken conductors.
[2]Thicker sheath can accommodate more FAULT current.
[3]Based upon single point or cross bonding scheme.

115 kV XLPE Power Cable

SW STANDARD WALL XLPE LAMINATE SHEATH

CABLE CONSTRUCTION

- Concentric Stranded, Compact, or Segmental Copper or Alumimum Conductor
- Smooth Conductor Shield
- Super Clean XLPE Insulation
- True Triple Extrusion and Dry Cured
- Firmly Bonded Insulation Shield
- Copper or Aluminum screen wires/ laminate combination
- Polyethylene Jacket with Extruded Semi-Conductive Outer Layer

CABLE DATA	
Voltage Characteristics (kV)	
Max Voltage Rating	121
BIL Rating	550
Temperatures (°C)	
Nominal Conductor	90
Max. Emergency Conductor	105
Short Circuit Conductor	250
Minimum Installation	-10
Design Characteristics	
Design Standards	AEIC, IEC
Factory Test Voltages	135 kV / 60 min.
XLPE Loss Factor	0.0005
Relative Permittivity	2.3

Conductor Size (kcmil[1])	Conductor Dia.	Insulation Thickness	Diameter Over Insulation	Overall Jacket Diameter	Min. Bending Radius (install / perm.)	Capacitance	Charging Current	CU Cond, CU Screen Wires, CU Laminate	AL Cond, CU Screen Wires, AL Laminate
								Cable Weight[2]	Cable Weight[2]
	(inches)	(mils)	(inches)	(inches)	(inches)	(pF/ft)	(A/kft)	(lbs/ft)	(lbs/ft)
750	0.91	512	2.03	2.62	48/32	57.76	1.45	5.07	3.55
1000	1.06	512	2.19	2.80	51/34	64.51	1.62	6.04	3.99
1250	1.19	512	2.32	2.94	53/36	69.78	1.75	6.90	4.35
1500	1.32	512	2.45	3.08	56/37	75.08	1.88	7.83	4.74
1750	1.43	512	2.58	3.21	58/39	80.36	2.01	8.76	5.15
2000	1.50	512	2.66	3.31	60/40	83.23	2.08	9.63	5.48
2500	1.73	512	2.95	3.61	65/44	95.22	2.38	11.60	6.39
3000	1.89	512	3.18	3.85	70/47	104.40	2.61	13.68	7.16
3500	2.07	512	3.28	3.96	72/48	108.68	2.72	15.07	7.77
4000	2.17	512	3.38	4.07	74/49	112.64	2.82	16.72	8.36
5000	2.48	512	3.69	4.41	80/53	125.09	3.13	20.86	9.66
6000	2.67	512	3.88	4.62	84/56	132.86	3.33	23.50	10.93

Copper Conductor Size (kcmil[1]) Load Factor @ 75%													
Ampacity[3] @ 90°C; per Figures on Page 2		750	1000	1250	1500	1750	2000	2500	3000	3500	4000	5000	6000
Single Circuit (Fig 1)	Amps	760	890	990	1080	1160	1230	1480	1620	1750	1850	2040	2190
Power Rating	MVA	151	177	197	215	231	245	295	323	349	368	406	436
Double Circuit (Fig 2)	Amps	640	740	830	900	960	1020	1220	1330	1430	1510	1660	1770
Power Rating	MVA	127	147	165	179	191	203	243	265	285	301	331	353
Aluminum Conductor Size (kcmil[1]) Load Factor @ 75%													
Ampacity[3] @ 90°C; per Figures on Page 2		750	1000	1250	1500	1750	2000	2500	3000	3500	4000	5000	6000
Single Circuit (Fig 1)	Amps	600	710	800	880	950	1010	1170	1300	1410	1510	1740	1900
Power Rating	MVA	120	141	159	175	189	201	233	259	281	301	347	378
Double Circuit (Fig 2)	Amps	510	590	670	730	790	840	970	1070	1160	1240	1410	1540
Power Rating	MVA	102	118	133	145	157	167	193	213	231	247	281	307

[1]2500–6000 kcmil conductors are 5 segment Milliken conductors.
[2]Weight based on screen sized at 279 kcmil which is calculated to accommodate 30 kA for 0.5 sec.
[3]Based upon single point or cross bonding scheme.