



Medium Voltage Al-Cu TR-XLPE Insulated URD Cable

15kV, 25kV, 35kV Medium Voltage TR-XLPE URD Power Cable



SPECIFICATIONS AND STANDARDS

1. ICEA S-94-649, AEIC CS-8, Made in accordance to RUS.
2. Rated Voltage: 15kV, 25kV, 35kV.
3. Maximum Conductor Temperature : Normal continuous 90°C ; Overload 130°C ; Short Circuit 250°C .

APPLICATIONS

Medium voltage UD-P suitable for Primary underground Distribution System; buried directly or installed in underground ducts or conduits or exposed to sunlight for above ground application. To be used a 15,000 volts or less. Rated for continuous operation at 90°C conductor temperature.

CONSTRUCTION

Conductor: Bare aluminum or copper stranded class B conductor (compressed stranding).

Strand Shield: Extruded semi-conducting strand shield.

Insulation: Cross-linked polyethylene (XLPE) or tree-retardant cross-linked polyethylene (XLPE-TR) insulation.

Insulation Shield: Extruded semi-conducting insulation shield.

Neutral Wires: Coated or uncoated copper concentric neutral wires.

Embedded Jacket: Non-conducting linear low density PE (LLDPE) encapsulating jacket with extruded red stripes. Optional semi-conducting PE jacket.

Six kinds of Main Series:

15kV TR-XLPE URD Cable	100% Insulation Level
15kV TR-XLPE URD Cable	133% Insulation Level
25kV TR-XLPE URD Cable	100% Insulation Level
25kV TR-XLPE URD Cable	133% Insulation Level
35kV TR-XLPE URD Cable	100% Insulation Level
35kV TR-XLPE URD Cable	133% Insulation Level

Technical Parameter of Medium Voltage TR-XLPE Insulated URD Cable :



Medium Voltage Al-Cu TR-XLPE Insulated URD Cable

15kV, 25kV, 35kV Medium Voltage TR-XLPE URD Power Cable

1) 15kV 133% Insulation Level (TR-)XLPE URD Cable.

	Conductor		Copper Neutral		Diameters					Weights		Ampacity		
	AWG	Stranding	NO. of Wires	Size AWG	Cond.	Over Insl ±.030"	Over Insl Shield ±.050"	Over Neutral Wires	Over Embedded Jacket	Total w/o jacket	Total w/ Embedded Jacket	1/C Direct Buried	1/C Duct Buried	1/C Duct In Air
Aluminum Conductor	FULL NEUTRAL													
	2	solid	10	14	.258	.760	.840	.968	1.068	401	537	170	115	100
	2	7	10	14	.283	.785	.865	.993	1.093	415	549	170	115	100
	1	solid	13	14	.289	.790	.870	.998	1.098	470	604	195	140	123
	1	19	13	14	.322	.820	.900	1.028	1.128	487	619	195	140	123
	1/0	solid	16	14	.325	.825	.905	1.033	1.133	544	680	230	155	135
	1/0	19	16	14	.362	.860	.940	1.068	1.168	562	697	230	155	135
	2/0	19	13	12	.405	.905	.985	1.147	1.247	670	830	270	185	162
	3/0	19	16	12	.456	.955	1.035	1.197	1.297	787	946	295	210	184
	4/0	19	20	12	.512	1.010	1.090	1.252	1.352	934	1148	335	240	210
	ONE THIRD NEUTRAL											3/C Direct Buried	3/C Triplex in Duct	3/C Duct In Air
	1/0	solid	6	14	.325	.825	.905	1.033	1.133	423	562	230	165	145
	1/0	19	6	14	.362	.860	.940	1.068	1.168	441	580	230	165	145
	2/0	19	7	14	.405	.905	.985	1.113	1.213	490	643	250	190	167
	3/0	19	9	14	.456	.955	1.035	1.163	1.263	567	725	280	215	189
	4/0	19	11	14	.512	1.010	1.090	1.218	1.318	656	842	320	245	215
	250	37	13	14	.558	1.070	1.190	1.318	1.418	781	1013	345	270	237
	350	37	11	12	.660	1.170	1.290	1.452	1.612	987	1266	405	325	285
	500	37	16	12	.789	1.300	1.420	1.582	1.742	1284	1597	460	385	338
	750	61	15	10	.968	1.490	1.610	1.814	1.974	1774	2230	515	475	417
1000	61	20	10	1.117	1.635	1.795	1.999	2.159	2301	2718	565	540	475	
Copper Conductor	Conductor		Copper Neutral		Diameters					Weights		Ampacity		
	AWG	Stranding	NO. of Wires	Size AWG	Cond.	Over Insl ±.030"	Over Insl Shield ±.050"	Over Neutral Wires	Over Embedded Jacket	Total w/o jacket	Total w/ Embedded Jacket	1/C Direct Buried	1/C Duct Buried	1/C Duct In Air
	FULL NEUTRAL													
	2	7	16	14	.283	.785	.865	.993	1.093	695	760	225	160	140
	1	19	13	12	.322	.820	.900	1.062	1.162	559	633	260	185	162



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1/0	19	16	12	.362	.860	.940	1.102	1.202	982	1060	295	210	185
2/0	19	20	12	.405	.905	.985	1.147	1.247	1169	1246	330	240	210
3/0	19	25	12	.456	.955	1.035	1.197	1.293	1399	1475	375	270	237
4/0	19	32	12	.512	1.010	1.090	1.294	1.394	1747	1825	430	305	268
ONE THIRD NEUTRAL											3/C Direct Buried	3/C Triplex in Duct	3/C Duct In Air
1/0	19	9	14	.362	.860	.940	1.068	1.168	767	842	290	210	185
2/0	19	11	14	.405	.905	.985	1.113	1.213	897	975	320	240	210
3/0	19	14	14	.456	.955	1.035	1.163	1.263	1066	1145	350	275	241
4/0	19	11	12	.512	1.010	1.090	1.294	1.394	1333	1434	390	315	276
250	37	13	12	.558	1.070	1.190	1.352	1.452	1539	1673	415	340	298
350	37	12	10	.660	1.170	1.290	1.494	1.654	1987	2149	475	415	364
500	37	17	10	.789	1.300	1.420	1.624	1.784	2754	2924	525	480	420
750	61	25	10	.968	1.490	1.610	1.814	1.974	3952	4138	560	530	465
1000	61	33	10	1.117	1.635	1.795	1.999	2.159	5061	5251	600	590	518

Note : Also available 4/0 AWG solid conductor.

2) 25kV 100% Insulation Level (TR-)XLPE URD Cable.

Code Word	Conductor		Copper Neutral		Diameters					Weights		Ampacity			
	AWG	Stranding	Number of Wires	Size AWG	Cond.	Over Insl ±.030"	Over Insl Shield ±.050"	Over Neutral Wires	Over Embedded Jacket	Total w/o jacket	Total w/ Embedded Jacket	1/C Direct Buried	1/C Duct Buried	1/C Duct In Air	
FULL NEUTRAL															
	1	Solid	13	14	.289	.870	.950	1.078	1.178	518	671	195	145	127	
Liszt	1	19	13	14	.322	.900	.980	1.108	1.208	535	687	195	145	127	
	1/0	Solid	16	14	.325	.905	.989	1.117	1.217	590	748	220	165	145	
Aluminum Conductor	Verdi	1/0	19	16	14	.362	.940	1.022	1.150	1.250	614	767	220	165	145
	Ives	2/0	19	13	12	.405	.985	1.065	1.227	1.327	722	905	250	190	167
	Bach	3/0	19	16	12	.456	1.035	1.155	1.317	1.417	875	1065	290	210	185
	Mozart	4/0	19	20	12	.512	1.090	1.210	1.372	1.472	1025	1241	325	245	215
ONE THIRD NEUTRAL											3/C Direct Buried	3/C Triplex in Duct	3/C Duct In Air		
	1/0	Solid	6	14	.325	.905	.989	1.117	1.217	460	631	225	165	145	
	1/0	19	6	14	.362	.940	1.022	1.150	1.250	475	650	225	165	145	
	2/0	19	7	14	.405	.985	1.065	1.193	1.293	540	715	250	180	158	
	3/0	19	9	14	.456	1.035	1.155	1.283	1.383	655	842	275	205	180	



Medium Voltage Al-Cu TR-XLPE Insulated URD Cable

15kV, 25kV, 35kV Medium Voltage TR-XLPE URD Power Cable

Code	Conductor		Copper Neutral		Diameters					Weights		Ampacity		
	Word	AWG	Stranding	Number of Wires	Size AWG	Cond.	Over Insl ±.030"	Over Insl Shield ±.050"	Over Neutral Wires	Over Embedded Jacket	Total w/o jacket	Total w/ Embedded Jacket	1/C Direct Buried	1/C Duct Buried
	4/0	19	11	14	.512	1.090	1.210	1.338	1.438	750	966	310	240	210
Wagner	250	37	13	14	.558	1.160	1.280	1.408	1.508	852	1117	335	260	228
Gould	350	37	11	12	.660	1.260	1.380	1.542	1.702	1060	1380	395	325	285
Schubert	500	37	16	12	.789	1.390	1.510	1.672	1.832	1369	1721	445	390	342
Strauss	750	61	15	10	.968	1.580	1.740	1.944	2.104	1920	2373	515	475	417
	1000	61	20	10	1.117	1.725	1.885	2.089	2.249	2405	2870	560	525	460
FULL NEUTRAL														
Handel	1	19	13	12	.322	.900	.980	1.142	1.242	615	701	245	185	162
Haydn	1/0	19	16	12	.362	.940	1.022	1.184	1.284	1044	1133	280	215	189
Brahms	2/0	19	20	12	.405	.985	1.065	1.227	1.327	1232	1321	315	240	210
Ravel	3/0	19	25	12	.456	1.035	1.155	1.317	1.417	1502	1594	360	275	241
Chopin	4/0	19	32	12	.512	1.090	1.210	1.372	1.472	1828	1919	415	315	276
ONE THIRD NEUTRAL												3/C Direct Buried	3/C Triplex in Duct	3/C Duct In Air
	1/0	19	9	14	.352	.940	1.022	1.150	1.250	826	912	275	215	189
	2/0	19	11	14	.405	.985	1.065	1.193	1.293	960	1048	310	250	220
	3/0	19	14	14	.456	1.035	1.155	1.283	1.383	1166	1261	345	285	250
	4/0	19	11	12	.512	1.090	1.210	1.371	1.471	1414	1528	385	320	280
Dufay	250	37	13	12	.558	1.160	1.280	1.442	1.602	1628	1780	410	345	303
Schuetz	350	37	12	10	.660	1.260	1.380	1.584	1.744	2083	2266	460	405	355
Lully	500	37	17	10	.789	1.390	1.510	1.714	1.874	2858	3050	520	470	412
	750	61	25	10	.968	1.580	1.740	1.944	2.104	4071	4280	567	550	483
	1000	61	33	10	1.117	1.725	1.885	2.089	2.249	5190	5404	625	615	540

Note: Code names are for unjacketed cables

3) 35kV 100% Insulation Level (TR-)XLPE URD Cable.

Aluminum Conductor	Conductor		Copper Neutral		Diameters					Weights		Ampacity		
	AWG or KCMIL	NO. of Strands	NO. of Wires	Size AWG	Cond.	Over Insl ±.030"	Over Insl Shield ±.050"	Over Neutral Wires	Over Embedded Jacket	Total w/o jacket	Total w/ Embedded Jacket	1/C Direct Buried	1/C Duct Buried	1/C Duct In Air
FULL NEUTRAL														
	1/0	Solid	16	14	.325	1.075	1.195	1.323	1.432	745	934	220	165	145
	1/0	19	16	14	.362	1.110	1.230	1.358	1.458	768	957	220	165	145



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2/0	19	13	12	.405	1.155	1.275	1.437	1.593	885	1105	250	195	310
3/0	19	16	12	.456	1.205	1.325	1.487	1.647	1010	1231	285	220	193
4/0	19	20	12	.512	1.260	1.380	1.542	1.702	1170	1421	325	250	220
ONE THIRD NEUTRAL											3/C	3/C	3/C
											Direct Buried	Triplex in Duct	Duct In Air
1/0	Solid	6	14	.325	1.075	1.195	1.323	1.432	610	817	215	165	145
1/0	19	6	14	.362	1.110	1.230	1.358	1.458	635	840	215	165	145
2/0	19	7	14	.405	1.155	1.275	1.403	1.503	703	911	245	190	167
3/0	19	9	14	.456	1.205	1.325	1.453	1.613	790	1003	275	215	189
4/0	19	11	14	.512	1.260	1.380	1.508	1.668	890	1120	305	245	215
250	37	13	14	.558	1.335	1.455	1.583	1.743	1005	1305	335	270	238
350	37	11	12	.660	1.435	1.555	1.717	1.877	1225	1584	390	320	280
500	37	16	12	.789	1.565	1.725	1.887	2.047	1599	2001	440	385	338
750	61	15	10	.968	1.755	1.915	2.119	2.279	2125	2623	515	475	417
1000	61	20	10	1.117	1.900	2.060	2.264	2.424	2730	3137	570	535	470
Conductor		Copper Neutral		Diameters					Weights		Ampacity		
AWG or KCMIL	NO. of Strands	NO. of Wires	Size AWG	Cond.	Over Insl ±.030"	Over Insl Shield ±.050"	Over Neutral Wires	Over Embedded Jacket	Total w/o jacket	Total w/ Embedded Jacket	1/C Direct Buried	1/C Duct Buried	1/C Duct In Air
FULL NEUTRAL													
1/0	19	16	12	.362	1.110	1.230	1.392	1.492	1218	1327	280	215	189
2/0	19	20	12	.405	1.155	1.275	1.437	1.597	1414	1522	310	240	211
3/0	19	25	12	.456	1.205	1.325	1.487	1.647	1653	1760	355	275	241
4/0	19	32	12	.512	1.260	1.380	1.542	1.702	1992	2099	410	315	276
ONE THIRD NEUTRAL											3/C	3/C	3/C
											Direct Buried	Triplex in Duct	Duct In Air
1/0	19	9	14	.362	1.110	1.230	1.358	1.458	999	1102	270	215	189
2/0	19	11	14	.405	1.155	1.275	1.403	1.503	1139	1244	305	240	211
3/0	19	14	14	.456	1.205	1.325	1.453	1.613	1316	1423	340	280	246
4/0	19	11	12	.512	1.260	1.380	1.542	1.702	1576	1707	380	315	276
250	37	13	12	.558	1.335	1.455	1.617	1.777	1799	1971	405	340	298
350	37	12	10	.660	1.435	1.555	1.759	1.919	2269	2474	460	400	350
500	37	17	10	.789	1.565	1.725	1.929	2.089	3117	3337	520	470	412
750	61	25	10	.968	1.755	1.915	2.119	2.279	4300	4531	567	550	483
1000	61	33	10	1.117	1.900	2.060	2.264	2.424	5435	5671	625	615	540