

## ICEA THREE CORE CABLES MV90 Description

The three core cables are designed for distribution of electrical power with nominal voltage  $U_0/U$  ranging from 5KV to 46KV and frequency 50Hz. Three core cables are made of stranded copper or aluminium conductor, triple extruding insulating system consisting of thermosetting semi-conducting conductor shield, XLPE/TR-XLPE/EPR insulation and thermosetting semiconducting insulation shield. There are a number of designs of metallic shields including the copper tape helically applied with overlap, copper wire shield, concentric neutral, longitudinally applied corrugated copper tape and metal sheath available, which are surrounded with fillers and grounding conductor, overall binder tape and overall PVC, LSZH or PE jacket.

### Standards

National Fire Protection Standard (NEPA 70): National Electric Code

AEIC CS8

ICEA S-93-639 (NEMA WC74), Standard for shielded power cable 5KV-46KV

ICEA S-97-682

IEEE 1202 – Flame Testing of cables for use in cable tray

ICEA T29-520 Vertical

UL 1072 for medium voltage cables.

### Construction

**Conductor:** The conductor consists of uncoated Class B compressed concentric stranded aluminium alloy 1350 or soft drawn annealed copper meeting the requirement of ASTM B3. Unless otherwise specified, the conductor shall be supplied class B as per ASTM B496.

**Conductor Shield**

Conductor shield consists of extruded thermosetting semi conducting compound which is free stripping from conductor and bonded to the insulation

**Insulation**

The insulation is either XLPE or EPR extruded concentrically over the conductor. High dielectric strength tree retardant XLPE (TR-XLPE) can be offered as option to provide an optimum balance of mechanical and electrical properties, insuring resistance to treeing.

100% or 133% insulation level is available upon request. The insulation meets or exceeds electrical and physical requirements of ICEA S-96-659/NEMA WC71, and UL 1072.

**Insulation Shield**

Insulation shield consists of extruded thermosetting semi-conducting compound with controlled adhesion to the insulation, providing required balance between electrical integrity and ease of stripping

**Metallic Shielding**

1) Copper Tape

For Copper tape shield, helically bare 5 mil copper tape shield over the insulation shield with minimum overlap of 20%. A mylar ribbon may be longitudinally applied under the copper tape for core identification. 1C red 1C Blue and 1C none. There are grounding conductor made of bare stranded copper conductor per each interstices, per UL, ICEA and AST

2) Wire Shield

Bare copper wire shield is evenly spaced with 5000 circular mils minimum per inch of core diameter. The shield insures a reliable shield that can be easily terminated.

3) Concentric Neutral

Either bare or tinned copper wire (#6 to #9AWG) is helically applied around the cores.

**Assembly**

Cables are cabled together with a left hand lay and suitable filler to make the cable round. A binder tape is applied to maintain core geometry and mechanical stability. Fillers may be PP yarn, ramie yarn, plastics or other filler material.

**Armour (optional)**

For armouring options, inner PVC jacket is applied over the binder type. Corrugated aluminium interlocking armour (AIA) is applied over the inner jacket

**Jacket**

A protective sunlight and ozone resistant jacket of PVC is extruded for a tight fit over the welded armour or the core assembly.

Options

- TR-XLPE insulation
- Compact stranded conductor
- Super smooth conductor shield
- Zero or one grounding conductor
- CPE, LLLPE, LSOH or low temperature PVC jacket
- Oil resistant jacket

XLPE INSULATED CABLES MV-90

Wire Shielded Cables

5KV 100% TO ICEA STANDARD

CONDUCTOR	INSULATION THICKNESS (MM/MILS)	SHEATH THICKNESS (MM/MILS)	OVERALL DIAMETER (MM/IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C IN AIR	
			(D)		CU		AL		CU	AL	CU	AL
4 AWG	2.29/90	2.03/80	33.5	1.32	1632	1097	1239	833	100	80	105	81
2 AWG	2.29/90	2.03/80	36.6	1.44	2101	1412	1477	993	135	105	140	110
1 AWG	2.29/90	2.03/80	38.9	1.53	2502	1682	1626	1093	155	120	160	125
1/0 AWG	2.29/90	2.03/80	40.9	1.61	2898	1948	1812	1218	175	140	185	145
2/0 AWG	2.29/90	2.80/110	43.4	1.71	3379	2271	2264	1522	200	160	215	170
3/0 AWG	2.29/90	2.80/110	47.8	1.88	4184	2812	2537	1705	230	180	250	195
4/0 AWG	2.29/90	2.80/110	50.8	2.00	4935	3317	2871	1930	265	205	285	225
250 MCM	2.29/90	2.80/110	53.6	2.11	5596	3761	3171	2131	290	230	320	250
350 MCM	2.29/90	2.80/110	59.4	2.34	7317	4918	3932	2643	355	280	395	310
500 MCM	2.29/90	2.80/110	67.3	2.65	9921	6668	5094	3424	430	340	485	385
750 MCM	2.29/90	3.56/140	79.2	3.12	14326	9629	7075	4755	530	425	615	495
1000 MCM	2.29/90	3.56/140	87.4	3.44	18281	12287	8757	5886	600	495	705	585

5kv 133% to ICEA Standard

4 AWG	2.92/115	2.03/80	36.1	1.42	1775	1193	1382	929	100	80	105	81
2 AWG	2.92/115	2.03/80	39.4	1.55	2254	1515	1629	1095	135	105	140	110
1 AWG	2.92/115	2.03/80	41.7	1.64	2662	1789	1785	1200	155	120	160	125
1/0 AWG	2.92/115	2.03/80	45.2	1.78	3211	2158	2126	1429	175	140	185	145
2/0 AWG	2.92/115	2.80/110	47.8	1.88	3709	2493	2447	1645	200	160	215	170

3/0 AWG	2.92/115	2.80/110	50.5	1.99	4376	2941	2729	1834	230	180	250	195
4/0 AWG	2.92/115	2.80/110	53.6	2.11	5137	3453	3074	2066	265	205	285	225
250 MCM	2.92/115	2.80/110	56.4	2.22	5807	3903	3382	2273	290	230	320	250
350 MCM	2.92/115	2.80/110	62.0	2.44	7546	5072	4161	2797	355	280	395	310
500 MCM	2.92/115	2.80/110	70.1	2.76	10175	6839	5349	3595	430	340	485	385
750 MCM	2.92/115	3.56/140	81.8	3.22	14624	9829	7372	4955	530	425	615	495
1000 MCM	2.92/115	3.56/140	90.2	3.55	18604	12504	9080	6103	600	495	705	585

**8KV 100% TO ICEA STANDARD**

CONDUCTOR	INSULATION THICKNESS (MM/MILS)	SHEATH THICKNESS (MM/MILS)	OVERALL DIAMETER (MM/IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C IN AIR	
									CU	AL	CU	AL
			(D)		CU	AL			CU	AL	CU	AL
4 AWG	2.92/115	2.03/80	36.1	1.42	1775	1193	1382	929	115	89	120	95
2 AWG	2.92/115	2.03/80	39.4	1.55	2254	1515	1629	1095	150	115	165	125
1 AWG	2.92/115	2.03/80	41.7	1.64	2662	1789	1785	1200	170	135	185	145
1/0 AWG	2.92/115	2.80/110	45.2	1.78	3211	2158	2126	1429	195	150	215	170
2/0 AWG	2.92/115	2.80/110	47.8	1.88	3709	2493	2447	1645	220	170	245	190
3/0 AWG	2.92/115	2.80/110	50.5	1.99	4376	2941	2729	1834	250	195	285	220
4/0 AWG	2.92/115	2.80/110	53.6	2.11	5137	3453	3074	2066	285	220	325	255
250 MCM	2.92/115	2.80/110	56.4	2.22	5807	3903	3382	2273	310	245	360	280
350 MCM	2.92/115	2.80/110	62.0	2.44	7546	5072	4161	2797	375	295	435	345
500 MCM	2.92/115	3.56/140	70.1	2.76	10175	6839	5349	3595	450	355	535	425
750 MCM	2.92/115	3.56/140	81.8	3.22	14624	9829	7372	4955	545	440	670	540
1000 MCM	2.92/115	3.56/140	90.2	3.55	18604	12504	9080	6103	615	510	770	635

**8kv 133% to ICEA Standard**

2 AWG	3.56/140	2.03/80	42.2	1.66	2415	1623	1791	1204	150	115	165	125
1 AWG	3.56/140	2.80/110	45.7	1.80	2979	2002	2102	1413	170	135	185	145
1/0 AWG	3.56/140	2.80/110	48.0	1.89	3395	2282	2311	1553	195	150	215	170

2/0 AWG	3.56/140	2.80/110	50.5	1.99	3901	2622	2639	1774	220	170	245	190
3/0 AWG	3.56/140	2.80/110	53.1	2.09	4576	3076	2929	1969	250	195	285	220
4/0 AWG	3.56/140	2.80/110	56.4	2.22	5347	3594	3285	2208	285	220	325	255
250 MCM	3.56/140	2.80/110	59.2	2.33	6027	4051	3602	2421	310	245	360	280
350 MCM	3.56/140	2.80/110	64.8	2.55	7784	5232	4399	2957	375	295	435	345
500 MCM	3.56/140	3.56/140	74.4	2.93	10682	7180	5856	3936	450	355	535	425
750 MCM	3.56/140	3.56/140	84.6	3.33	14929	10034	7679	5161	545	440	670	540
1000 MCM	3.56/140	3.56/140	93.0	3.66	18937	12728	9413	6327	615	510	770	635

15KV 100% TO ICEA STANDARD

CONDUCTOR	INSULATION THICKNESS (MM/ MILS)	SHEATH THICKNESS (MM/ MILS)	OVERALL DIAMETER (MM / IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C IN AIR	
					CU	AL	CU	AL	CU	AL		
			(D)									
2 AWG	4.45/175	2.80/110	47.5	1.87	2809	1888	2186	1469	150	115	165	125
1 AWG	4.45/175	2.80/110	49.8	1.96	3242	2179	2366	1590	170	135	185	145
1/0 AWG	4.45/175	2.80/110	51.8	2.04	3669	2466	2583	1736	195	150	215	170
2/0 AWG	4.45/175	2.80/110	54.4	2.14	4185	2813	2924	1965	220	170	245	190
3/0 AWG	4.45/175	2.80/110	56.9	2.24	4873	3275	3226	2168	250	195	285	220
4/0 AWG	4.45/175	2.80/110	60.2	2.37	5658	3803	3595	2416	285	220	325	255
250 MCM	4.45/175	2.80/110	63.0	2.48	6350	4268	3925	2638	310	245	360	280
350 MCM	4.45/175	3.56/140	69.6	2.74	8226	5529	4841	3254	375	295	435	345
500 MCM	4.45/175	3.56/140	78.2	3.08	11080	7447	6253	4203	450	355	535	425
750 MCM	4.45/175	3.56/140	88.4	3.48	15374	10333	8122	5459	545	440	670	540
1000 MCM	4.45/175	3.56/140	97.5	3.84	19547	13138	10023	6737	615	510	770	635

15kv 133% to ICEA Standard

2 AWG	5.59/220	2.80/110	52.3	2.06	3160	2124	2537	1705	150	115	165	125
1 AWG	5.59/220	2.80/110	54.6	2.15	3606	2424	2729	1834	170	135	185	145
1/0 AWG	5.59/220	2.80/110	56.9	2.24	4045	2719	2959	1989	195	150	215	170

2/0 AWG	5.59/220	2.80/110	59.2	2.33	4575	3075	3313	2227	220	170	245	190
3/0 AWG	5.59/220	2.80/110	62.0	2.44	5279	3548	3632	2441	250	195	285	220
4/0 AWG	5.59/220	2.80/110	65.0	2.56	6082	4088	4019	2701	285	220	325	255
250 MCM	5.59/220	2.80/110	68.8	2.71	6884	4627	4459	2997	310	245	360	280
350 MCM	5.59/220	3.56/140	75.9	2.99	8954	6018	5569	3743	375	295	435	345
500 MCM	5.59/220	3.56/140	83.1	3.27	11617	7808	6790	4564	450	355	535	425
750 MCM	5.59/220	3.56/140	93.5	3.68	15969	10733	8717	5859	545	440	670	540
1000 MCM	5.59/220	3.56/140	102.6	4.04	20196	13574	10672	7173	615	510	770	635

25KV 100% TO ICEA STANDARD

CONDUCTOR	INSULATION THICKNESS (MM/MILS)	SHEATH THICKNESS (MM/MILS)	OVERALL DIAMETER (MM / IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C IN AIR	
					CU	AL	CU	AL	CU	AL		
			(D)									
1 AWG	6.60/260	2.80/110	58.9	2.32	3953	2657	3077	2068	170	135	185	145
1/0 AWG	6.60/260	2.80/110	61.2	2.41	4404	2960	3318	2230	195	150	215	170
2/0 AWG	6.60/260	2.80/110	63.5	2.50	4945	3324	3684	2476	220	170	245	190
3/0 AWG	6.60/260	2.80/110	67.3	2.65	5755	3868	4108	2761	250	195	285	220
4/0 AWG	6.60/260	3.56/140	70.4	2.77	6578	4421	4514	3034	285	220	325	255
250 MCM	6.60/260	3.56/140	74.7	2.94	7548	5073	5124	3444	310	245	360	280
350 MCM	6.60/260	3.56/140	80.3	3.16	9418	6330	6033	4055	375	295	435	345
500 MCM	6.60/260	3.56/140	87.6	3.45	12117	8144	7290	4900	450	355	535	425
750 MCM	6.60/260	3.56/140	98.8	3.89	16653	11193	9401	6319	545	440	670	540
1000 MCM	6.60/260	3.56/140	106.9	4.21	20797	13978	11273	7577	615	510	770	635

25kv 133% to ICEA Standard

1/0 AWG	8.76/345	3.56/140	73.2	2.88	5596	3761	4510	3031	195	150	215	170
2/0 AWG	8.76/345	3.56/140	75.4	2.97	6176	4151	4914	3303	220	170	245	190
3/0 AWG	8.76/345	3.56/140	78.2	3.08	6936	4662	5289	3555	250	195	285	220
4/0 AWG	8.76/345	3.56/140	81.5	3.21	7804	5245	5741	3859	285	220	325	255

250 MCM	8.76/345	3.56/140	84.3	3.32	8573	5762	6148	4132	310	245	360	280
350 MCM	8.76/345	3.56/140	89.9	3.54	10504	7060	7119	4785	375	295	435	345
500 MCM	8.76/345	3.56/140	98.0	3.86	13413	9015	8586	5771	450	355	535	425

**35KV 100% TO ICEA STANDARD**

CONDUCTOR	INSULATION THICKNESS (MM/MILS)	SHEATH THICKNESS (MM/MILS)	OVERALL DIAMETER (MM / IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C IN AIR	
									CU	AL	CU	AL
			(D)		CU	AL		CU	AL	CU	AL	
1/0 AWG	8.76/345	3.56/140	73.2	2.88	5596	3761	4510	3031	195	150	215	170
2/0 AWG	8.76/345	3.56/140	75.4	2.97	6176	4151	4914	3303	220	170	245	190
3/0 AWG	8.76/345	3.56/140	78.2	3.08	6936	4662	5289	3555	250	195	285	220
4/0 AWG	8.76/345	3.56/140	81.5	3.21	7804	5245	5741	3859	285	220	325	255
250 MCM	8.76/345	3.56/140	84.3	3.32	8573	5762	6148	4132	310	245	360	280
350 MCM	8.76/345	3.56/140	89.9	3.54	10504	7060	7119	4785	375	295	435	345
500 MCM	8.76/345	3.56/140	98.0	3.86	13413	9015	8586	5771	450	355	535	425

**35kv 133% to ICEA Standard**

1/0 AWG	10.67/420	3.56/140	81.5	3.21	6481	4356	5395	3626	195	150	215	170
2/0 AWG	10.67/420	3.56/140	84.1	3.31	7083	4761	5823	3914	220	170	245	190
3/0 AWG	10.67/420	3.56/140	86.6	3.41	7872	5291	6225	4184	250	195	285	220
4/0 AWG	10.67/420	3.56/140	89.9	3.54	8771	5895	6709	4509	285	220	325	255
250 MCM	10.67/420	3.56/140	92.7	3.65	9567	6430	7141	4800	310	245	360	280
350 MCM	10.67/420	3.56/140	99.3	3.91	11685	7854	8302	5580	375	295	435	345
500 MCM	10.67/420	3.56/140	106.4	4.19	14543	9775	9717	6531	450	355	535	425

**Armoured Tape Shielded Cables**

aluminum interlocked armor

three core

**5KV 100% THREE CONDUCTOR AIA**

CONDUCTOR	INSULATION THICKNESS (MM/MILS)	SHEATH THICKNESS (MM/MILS)	OVERALL DIAMETER (MM/IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C IN AIR	

			(D)		CU		AL		CU	AL	CU	AL
4 AWG	2.29/90	2.03/80	37.6	1.48	1839	1236	1448	973	100	80	105	81
2 AWG	2.29/90	2.03/80	40.9	1.61	2325	1563	1702	1144	135	105	140	110
1 AWG	2.29/90	2.79/110	43.7	1.72	2787	1873	1910	1284	155	120	160	125
1/0 AWG	2.29/90	2.79/110	45.7	1.80	3197	2149	2111	1419	175	140	185	145
2/0 AWG	2.29/90	2.79/110	48.8	1.92	3773	2536	2511	1688	200	160	215	170
3/0 AWG	2.29/90	2.79/110	51.6	2.03	4444	2987	2797	1880	230	180	250	195
4/0 AWG	2.29/90	2.79/110	54.6	2.15	5210	3502	3148	2116	265	205	285	225
250 MCM	2.29/90	2.79/110	57.4	2.26	5886	3956	3461	2326	290	230	320	250
350 MCM	2.29/90	3.56/140	63.8	2.51	7738	5201	4355	2927	355	280	395	310
500 MCM	2.29/90	3.56/140	71.9	2.83	10394	6986	5567	3742	430	340	485	385
750 MCM	2.29/90	3.56/140	82.6	3.25	14700	9880	7448	5006	530	425	615	495
1000 MCM	2.29/90	3.56/140	90.9	3.58	18690	12562	9166	6161	600	495	705	585
<b>5kv 133% Three Conductor AIA</b>												
4 AWG	2.92/115	2.03/80	40.4	1.59	1997	1342	1604	1078	100	80	105	81
2 AWG	2.92/115	2.79/110	44.2	1.74	2541	1708	1918	1289	135	105	140	110
1 AWG	2.92/115	2.79/110	46.2	1.82	2965	1993	2087	1403	155	120	160	125
1/0 AWG	2.92/115	2.79/110	49.0	1.93	3461	2326	2375	1596	175	140	185	145
2/0 AWG	2.92/115	2.79/110	51.6	2.03	3969	2668	2708	1820	200	160	215	170
3/0 AWG	2.92/115	2.79/110	54.1	2.13	4651	3126	3002	2018	230	180	250	195
4/0 AWG	2.92/115	2.79/110	57.4	2.26	5426	3647	3364	2261	265	205	285	225
250 MCM	2.92/115	2.79/110	60.2	2.37	6110	4107	3685	2477	290	230	320	250
350 MCM	2.92/115	3.56/140	66.5	2.62	7987	5368	4602	3093	355	280	395	310
500 MCM	2.92/115	3.56/140	74.7	2.94	10668	7170	5841	3926	430	340	485	385
750 MCM	2.92/115	3.56/140	85.3	3.36	15009	10088	7757	5214	530	425	615	495
1000 MCM	2.92/115	3.56/140	93.7	3.69	19025	12787	9501	6386	600	495	705	585

**8KV 100% THREE CONDUCTOR AIA**

CONDUCTOR	INSULATION	SHEATH	OVERALL	CABLE WEIGHT (KG/KM /	AMPACITY (AMPS)
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	THICKNESS (MM/MILS)	THICKNESS (MM/MILS)	DIAMETER (MM/IN.)		LBS/KFT)				90°C IN DUCT		90°C IN AIR	
					(D)		CU		AL		CU	AL
4 AWG	2.92/115	2.03/80	40.4	1.59	1997	1342	1604	1078	115	89	120	95
2 AWG	2.92/115	2.79/110	44.2	1.74	2541	1708	1918	1289	150	115	165	125
1 AWG	2.92/115	2.79/110	46.2	1.82	2965	1993	2087	1403	170	135	185	145
1/0 AWG	2.92/115	2.79/110	49.0	1.93	3461	2326	2375	1596	195	150	215	170
2/0 AWG	2.92/115	2.79/110	51.6	2.03	3969	2668	2708	1820	220	170	245	190
3/0 AWG	2.92/115	2.79/110	54.1	2.13	4651	3126	3002	2018	250	195	285	220
4/0 AWG	2.92/115	2.79/110	57.4	2.26	5426	3647	3364	2261	285	220	325	255
250 MCM	2.92/115	2.79/110	60.2	2.37	6110	4107	3685	2477	310	245	360	280
350 MCM	2.92/115	3.56/140	66.5	2.62	7987	5368	4602	3093	375	295	435	345
500 MCM	2.92/115	3.56/140	74.7	2.94	10668	7170	5841	3926	450	355	535	425
750 MCM	2.92/115	3.56/140	85.3	3.36	15009	10088	7757	5214	545	440	670	540
1000 MCM	2.92/115	3.56/140	93.7	3.69	19025	12787	9501	6386	615	510	770	635

**8kV 133% Three Conductor AIA**

2 AWG	3.56/140	2.79/110	47.5	1.87	2724	1831	2101	1412	150	115	165	125
1 AWG	3.56/140	2.79/110	49.5	1.95	3230	2171	2354	1582	170	135	185	145
1/0 AWG	3.56/140	2.79/110	51.8	2.04	3659	2459	2572	1729	195	150	215	170
2/0 AWG	3.56/140	2.79/110	54.1	2.13	4175	2806	2913	1958	220	170	245	190
3/0 AWG	3.56/140	2.79/110	56.9	2.24	4865	3270	3217	2162	250	195	285	220
4/0 AWG	3.56/140	2.79/110	59.9	2.36	5651	3798	3587	2411	285	220	325	255
250 MCM	3.56/140	3.56/140	63.8	2.51	6448	4334	4023	2704	310	245	360	280
350 MCM	3.56/140	3.56/140	69.3	2.73	8242	5540	4858	3265	375	295	435	345
500 MCM	3.56/140	3.56/140	77.2	3.04	10950	7360	6124	4116	450	355	535	425
750 MCM	3.56/140	3.56/140	88.1	3.47	15327	10302	8076	5428	545	440	670	540
1000 MCM	3.56/140	3.56/140	96.3	3.79	19370	13019	9846	6618	615	510	770	635

**15KV 100% THREE CONDUCTOR AIA**



CONDUCTOR	INSULATION THICKNESS (MM/ MILS)	SHEATH THICKNESS (MM/ MILS)	OVERALL DIAMETER (MM / IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C IN AIR	
			(D)		CU		AL		CU	AL	CU	AL
2 AWG	4.45/175	2.79/110	51.3	2.02	3069	2063	2444	1643	150	115	165	125
1 AWG	4.45/175	2.79/110	53.3	2.10	3513	2361	2636	1772	170	135	185	145
1/0 AWG	4.45/175	2.79/110	55.6	2.19	3950	2655	2864	1925	195	150	215	170
2/0 AWG	4.45/175	2.79/110	57.9	2.28	4477	3009	3217	2162	220	170	245	190
3/0 AWG	4.45/175	2.79/110	60.7	2.39	5179	3481	3532	2374	250	195	285	220
4/0 AWG	4.45/175	3.56/140	64.8	2.55	6085	4090	4023	2704	285	220	325	255
250 MCM	4.45/175	3.56/140	67.6	2.66	6796	4568	4371	2938	310	245	360	280
350 MCM	4.45/175	3.56/140	74.2	2.92	8714	5857	5331	3583	375	295	435	345
500 MCM	4.45/175	3.56/140	81.3	3.20	11359	7635	6533	4391	450	355	535	425
750 MCM	4.45/175	3.56/140	91.9	3.62	15787	10611	8536	5737	545	440	670	540
1000 MCM	4.45/175	3.56/140	101.1	3.98	20001	13443	10477	7042	615	510	770	635
<b>15kV 133% Three Conductor AIA</b>												
2 AWG	5.59/220	2.79/110	56.1	2.21	3444	2315	2819	1895	150	115	165	125
1 AWG	5.59/220	2.79/110	58.4	2.30	3901	2622	3023	2032	170	135	185	145
1/0 AWG	5.59/220	2.79/110	60.5	2.38	4350	2924	3264	2194	195	150	215	170
2/0 AWG	5.59/220	3.56/140	63.8	2.51	4996	3358	3734	2510	220	170	245	190
3/0 AWG	5.59/220	3.56/140	66.5	2.62	5719	3844	4071	2736	250	195	285	220
4/0 AWG	5.59/220	3.56/140	69.6	2.74	6542	4397	4478	3010	285	220	325	255
250 MCM	5.59/220	3.56/140	73.4	2.89	7368	4952	4942	3322	310	245	360	280
350 MCM	5.59/220	3.56/140	79.0	3.11	9226	6201	5841	3926	375	295	435	345
500 MCM	5.59/220	3.56/140	86.6	3.41	12007	8070	7180	4826	450	355	535	425
750 MCM	5.59/220	3.56/140	97.0	3.82	16405	11026	9153	6152	545	440	670	540
1000 MCM	5.59/220	3.56/140	106.2	4.18	20670	13893	11147	7492	615	510	770	635

25KV 100% THREE CONDUCTOR AIA

CONDUCTOR	INSULATION THICKNESS (MM/MILS)	SHEATH THICKNESS (MM/MILS)	OVERALL DIAMETER (MM / IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C IN AIR	
									CU	AL	CU	AL
			(D)		CU	AL			CU	AL	CU	AL
1 AWG	6.60/260	3.56/140	63.5	2.50	4373	2939	3496	2350	170	135	185	145
1/0 AWG	6.60/260	3.56/140	65.8	2.59	4837	3251	3752	2522	195	150	215	170
2/0 AWG	6.60/260	3.56/140	68.1	2.68	5395	3626	4135	2779	220	170	245	190
3/0 AWG	6.60/260	3.56/140	71.6	2.82	6228	4186	4581	3079	250	195	285	220
4/0 AWG	6.60/260	3.56/140	74.9	2.95	7072	4753	5009	3367	285	220	325	255
250 MCM	6.60/260	3.56/140	77.7	3.06	7817	5254	5392	3624	310	245	360	280
350 MCM	6.60/260	3.56/140	83.8	3.30	9796	6584	6412	4310	375	295	435	345
500 MCM	6.60/260	3.56/140	90.9	3.58	12527	8420	7701	5176	450	355	535	425
750 MCM	6.60/260	3.56/140	102.1	4.02	17111	11501	9860	6627	545	440	670	540
<b>25kV 133% Three Conductor AIA</b>												
1/0 AWG	8.76/345	3.56/140	76.2	3.00	5859	3938	4773	3208	195	150	215	170
2/0 AWG	8.76/345	3.56/140	78.5	3.09	6447	4333	5185	3485	220	170	245	190
3/0 AWG	8.76/345	3.56/140	81.3	3.20	7217	4851	5569	3743	250	195	285	220
4/0 AWG	8.76/345	3.56/140	84.8	3.34	8187	5503	6125	4117	285	220	325	255
250 MCM	8.76/345	3.56/140	87.9	3.46	8969	6028	6543	4398	310	245	360	280
350 MCM	8.76/345	3.56/140	93.5	3.68	10925	7343	7540	5068	375	295	435	345
500 MCM	8.76/345	3.56/140	101.3	3.99	13868	9321	9041	6077	450	355	535	425

<b>35KV 100% THREE CONDUCTOR AIA</b>												
CONDUCTOR	INSULATION THICKNESS (MM/MILS)	SHEATH THICKNESS (MM/MILS)	OVERALL DIAMETER (MM / IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C IN AIR	
									CU	AL	CU	AL
			(D)		CU	AL			CU	AL	CU	AL
1/0 AWG	8.76/345	3.56/140	76.2	3.00	5859	3938	4773	3208	195	150	215	170
2/0 AWG	8.76/345	3.56/140	78.5	3.09	6447	4333	5185	3485	220	170	245	190
3/0 AWG	8.76/345	3.56/140	81.3	3.20	7217	4851	5569	3743	250	195	285	220

4/0 AWG	8.76/345	3.56/140	84.8	3.34	8187	5503	6125	4117	285	220	325	255
250 MCM	8.76/345	3.56/140	87.9	3.46	8969	6028	6543	4398	310	245	360	280
350 MCM	8.76/345	3.56/140	93.5	3.68	10925	7343	7540	5068	375	295	435	345
500 MCM	8.76/345	3.56/140	101.3	3.99	13868	9321	9041	6077	450	150	535	170

**35kV 133% t Three Conductor AIA**

1/0 AWG	10.67/420	3.56/140	85.1	3.35	6865	4614	5779	3884	195	150	215	170
2/0 AWG	10.67/420	3.56/140	87.4	3.44	7479	5027	6218	4179	220	170	245	190
3/0 AWG	10.67/420	3.56/140	90.2	3.55	8280	5565	6631	4457	250	195	285	220
4/0 AWG	10.67/420	3.56/140	93.5	3.68	9192	6178	7128	4791	285	220	325	255
250 MCM	10.67/420	3.56/140	96.3	3.79	10000	6721	7574	5091	310	245	360	280
350 MCM	10.67/420	3.56/140	102.9	4.05	12146	8164	8762	5889	375	295	435	345

galvanized steel interlocked armor

**5KV 100% THREE CONDUCTOR GSIA**

CONDUCTOR	INSULATION THICKNESS (MM/MILS)	SHEATH THICKNESS (MM/MILS)	OVERALL DIAMETER (MM / IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C DIRECT BURIED	
									CU	AL	CU	AL
			(D)		CU	AL	CU	AL	CU	AL	CU	AL
4 AWG	2.29/90	2.03/80	37.1	1.46	2200	1479	1808	1215	100	80	105	81
2 AWG	2.29/90	2.03/80	40.4	1.59	2723	1830	2099	1411	135	105	140	110
1 AWG	2.29/90	2.79/110	43.2	1.70	3209	2157	2333	1568	155	120	160	125
1/0 AWG	2.29/90	2.79/110	45.2	1.78	3644	2449	2559	1720	175	140	185	145
2/0 AWG	2.29/90	2.79/110	48.5	1.91	4393	2953	3133	2106	200	160	215	170
3/0 AWG	2.29/90	2.79/110	51.3	2.02	5106	3432	3459	2325	230	180	250	195
4/0 AWG	2.29/90	2.79/110	54.4	2.14	5919	3978	3856	2592	265	205	285	225
250 MCM	2.29/90	2.79/110	57.2	2.25	6636	4460	4210	2830	290	230	320	250
350 MCM	2.29/90	3.56/140	63.5	2.50	8571	5761	5188	3487	355	280	395	310
500 MCM	2.29/90	3.56/140	71.6	2.82	11346	7626	6520	4382	430	340	485	385
750 MCM	2.29/90	3.56/140	82.3	3.24	15802	10621	8552	5748	530	425	615	495
1000 MCM	2.29/90	3.56/140	90.7	3.57	19914	13385	10391	6984	600	495	705	585

5kV 133% Three Conductor GSIA

4 AWG	2.92/115	2.03/80	39.9	1.57	2389	1606	1997	1342	100	80	105	81
2 AWG	2.92/115	2.03/80	43.7	1.72	2970	1996	2346	1577	135	105	140	110
1 AWG	2.92/115	2.79/110	45.7	1.80	3419	2298	2541	1708	155	120	160	125
1/0 AWG	2.92/115	2.79/110	48.8	1.92	4087	2747	3001	2017	175	140	185	145
2/0 AWG	2.92/115	2.79/110	51.3	2.02	4632	3113	3370	2265	200	160	215	170
3/0 AWG	2.92/115	2.79/110	53.8	2.12	5353	3598	3705	2490	230	180	250	195
4/0 AWG	2.92/115	2.79/110	57.2	2.25	6174	4150	4112	2764	265	205	285	225
250 MCM	2.92/115	2.79/110	59.9	2.36	6902	4639	4477	3009	290	230	320	250
350 MCM	2.92/115	3.56/140	66.3	2.61	8860	5955	5475	3680	355	280	395	310
500 MCM	2.92/115	3.56/140	74.4	2.93	11660	7837	6834	4593	430	340	485	385
750 MCM	2.92/115	3.56/140	85.1	3.35	16153	10857	8902	5983	530	425	615	495
1000 MCM	2.92/115	3.56/140	93.5	3.68	20291	13638	10767	7237	600	495	705	585

8KV 100% THREE CONDUCTOR GSIA

CONDUCTOR	INSULATION THICKNESS (MM/MILS)	SHEATH THICKNESS (MM/MILS)	OVERALL DIAMETER (MM / IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C DIRECT BURIED	
									CU	AL	CU	AL
			(D)		CU		AL		CU	AL	CU	AL
4 AWG	2.92/115	2.03/80	39.9	1.57	2389	1606	1997	1342	115	89	120	95
2 AWG	2.92/115	2.03/80	43.7	1.72	2970	1996	2346	1577	150	115	165	125
1 AWG	2.92/115	2.79/110	45.7	1.80	3419	2298	2541	1708	170	135	185	145
1/0 AWG	2.92/115	2.79/110	48.8	1.92	4087	2747	3001	2017	195	150	215	170
2/0 AWG	2.92/115	2.79/110	51.3	2.02	4632	3113	3370	2265	220	170	245	190
3/0 AWG	2.92/115	2.79/110	53.8	2.12	5353	3598	3705	2490	250	195	285	220
4/0 AWG	2.92/115	2.79/110	57.2	2.25	6174	4150	4112	2764	285	220	325	255
250 MCM	2.92/115	2.79/110	59.9	2.36	6902	4639	4477	3009	310	245	360	280
350 MCM	2.92/115	2.79/110	66.3	2.61	8860	5955	5475	3680	375	295	435	345
500 MCM	2.92/115	3.56/140	74.4	2.93	11660	7837	6834	4593	450	355	535	425

750 MCM	2.92/115	3.56/140	85.1	3.35	16153	10857	8902	5983	545	440	670	540
1000 MCM	2.92/115	3.56/140	93.5	3.68	20291	13638	10767	7237	615	510	770	635
<b>8kV 133% Three Conductor GSIA</b>												
2 AWG	3.56/140	2.79/110	47.2	1.86	3187	2142	2562	1722	150	115	165	125
1 AWG	3.56/140	2.79/110	49.3	1.94	3865	2598	2989	2009	170	135	185	145
1/0 AWG	3.56/140	2.79/110	51.6	2.03	4325	2907	3239	2177	195	150	215	170
2/0 AWG	3.56/140	2.79/110	53.8	2.12	4877	3278	3617	2431	220	170	245	190
3/0 AWG	3.56/140	2.79/110	56.6	2.23	5608	3769	3961	2662	250	195	285	220
4/0 AWG	3.56/140	2.79/110	59.7	2.35	6439	4328	4377	2942	285	220	325	255
250 MCM	3.56/140	2.79/110	63.5	2.50	7280	4893	4855	3263	310	245	360	280
350 MCM	3.56/140	2.79/110	69.1	2.72	9156	6154	5771	3879	375	295	435	345
500 MCM	3.56/140	3.56/140	77.0	3.03	11983	8054	7156	4810	450	355	535	425
750 MCM	3.56/140	3.56/140	87.9	3.46	16512	11098	9260	6224	545	440	670	540
1000 MCM	3.56/140	3.56/140	96.0	3.78	20675	13896	11151	7495	615	510	770	635

<b>15KV 100% THREE CONDUCTOR GSIA</b>												
CONDUCTOR	THICKNESS	HEATH THICKNESS /MILS)	OVERALL DIAMETER (MM / IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C DIRECT BURIED	
									CU	AL	CU	AL
			(D)		CU		AL		CU	AL	CU	AL
2 AWG	4.45/175	2.79/110	51.1	2.01	3728	2506	3104	2086	150	115	165	125
1 AWG	4.45/175	2.79/110	53.1	2.09	4205	2826	3327	2236	170	135	185	145
1/0 AWG	4.45/175	2.79/110	55.4	2.18	4673	3141	3589	2412	195	150	215	170
2/0 AWG	4.45/175	2.79/110	57.7	2.27	5237	3520	3975	2672	220	170	245	190
3/0 AWG	4.45/175	2.79/110	60.5	2.38	5980	4019	4331	2911	250	195	285	220
4/0 AWG	4.45/175	2.79/110	64.5	2.54	6930	4658	4868	3272	285	220	325	255
250 MCM	4.45/175	2.79/110	67.3	2.65	7685	5165	5259	3535	310	245	360	280
350 MCM	4.45/175	3.56/140	73.9	2.91	9699	6519	6314	4244	375	295	435	345
500 MCM	4.45/175	3.56/140	81.0	3.19	12448	8367	7622	5123	450	355	535	425

750 MCM	4.45/175	3.56/140	91.7	3.61	17028	11445	9776	6571	545	440	670	540
1000 MCM	4.45/175	3.56/140	100.8	3.97	21375	14367	11852	7966	615	510	770	635
15kV 133% Three Conductor GSIA												
2 AWG	5.59/220	2.79/110	55.9	2.20	4176	2807	3551	2387	150	115	165	125
1 AWG	5.59/220	2.79/110	58.2	2.29	4664	3135	3788	2546	170	135	185	145
1/0 AWG	5.59/220	2.79/110	60.2	2.37	5146	3459	4060	2729	195	150	215	170
2/0 AWG	5.59/220	2.79/110	63.5	2.50	5828	3917	4568	3070	220	170	245	190
3/0 AWG	5.59/220	2.79/110	66.3	2.61	6591	4430	4942	3322	250	195	285	220
4/0 AWG	5.59/220	2.79/110	69.3	2.73	7460	5014	5396	3627	285	220	325	255
250 MCM	5.59/220	2.79/110	73.2	2.88	8341	5606	5916	3976	310	245	360	280
350 MCM	5.59/220	3.56/140	78.7	3.10	10282	6911	6897	4636	375	295	435	345
500 MCM	5.59/220	3.56/140	86.4	3.40	13169	8851	8342	5607	450	355	535	425
750 MCM	5.59/220	3.56/140	96.8	3.81	17718	11909	10467	7035	545	440	670	540
1000 MCM	5.59/220	3.56/140	105.9	4.17	22118	14866	12594	8465	615	510	770	635

25KV 100% THREE CONDUCTOR GSIA												
CONDUCTOR	THICKNESS	HEATH THICKNESS (M/MILS)	OVERALL DIAMETER (MM / IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C DIRECT BURIED	
									CU	AL	CU	AL
			(D)		CU		AL		CU	AL	CU	AL
1 AWG	6.60/260	2.79/110	63.2	2.49	5201	3496	4325	2907	170	135	185	145
1/0 AWG	6.60/260	2.79/110	65.5	2.58	5698	3830	4612	3100	195	150	215	170
2/0 AWG	6.60/260	2.79/110	67.8	2.67	6292	4229	5030	3381	220	170	245	190
3/0 AWG	6.60/260	2.79/110	71.4	2.81	7179	4825	5530	3717	250	195	285	220
4/0 AWG	6.60/260	3.56/140	74.7	2.94	8067	5422	6005	4036	285	220	325	255
250 MCM	6.60/260	3.56/140	77.5	3.05	8855	5952	6430	4322	310	245	360	280
350 MCM	6.60/260	3.56/140	83.6	3.29	10918	7338	7533	5063	375	295	435	345
500 MCM	6.60/260	3.56/140	90.7	3.57	13753	9244	8927	6000	450	355	535	425
750 MCM	6.60/260	3.56/140	101.9	4.01	18502	12436	11251	7562	545	440	670	540

**25kV 133% Three Conductor GSIA**

1/0 AWG	8.76/345	3.56/140	75.9	2.99	6874	4620	5788	3890	195	150	215	170
2/0 AWG	8.76/345	3.56/140	78.2	3.08	7497	5039	6235	4191	220	170	245	190
3/0 AWG	8.76/345	3.56/140	81.0	3.19	8308	5584	6659	4476	250	195	285	220
4/0 AWG	8.76/345	3.56/140	84.6	3.33	9324	6267	7262	4881	285	220	325	255
250 MCM	8.76/345	3.56/140	87.6	3.45	10147	6820	7722	5190	310	245	360	280
350 MCM	8.76/345	3.56/140	93.2	3.67	12187	8191	8802	5916	375	295	435	345
500 MCM	8.76/345	3.56/140	101.1	3.98	15249	10249	10422	7005	450	355	535	425

**35KV 100% THREE CONDUCTOR GSIA**

CONDUCTOR	INSULATION THICKNESS (MM/MILS)	SHEATH THICKNESS (MM/MILS)	OVERALL DIAMETER (MM / IN.)		CABLE WEIGHT (KG/KM / LBS/KFT)				AMPACITY (AMPS)			
									90°C IN DUCT		90°C DIRECT BURIED	
									CU	AL	CU	AL
			(D)		CU	AL		CU	AL	CU	AL	
1/0 AWG	8.76/345	3.56/140	75.9	2.99	6874	4620	5788	3890	195	150	215	170
2/0 AWG	8.76/345	3.56/140	78.2	3.08	7497	5039	6235	4191	220	170	245	190
3/0 AWG	8.76/345	3.56/140	81.0	3.19	8308	5584	6659	4476	250	195	285	220
4/0 AWG	8.76/345	3.56/140	84.6	3.33	9324	6267	7262	4881	285	220	325	255
250 MCM	8.76/345	3.56/140	87.6	3.45	10147	6820	7722	5190	310	245	360	280
350 MCM	8.76/345	3.56/140	93.2	3.67	12187	8191	8802	5916	375	295	435	345
500 MCM	8.76/345	3.56/140	101.1	3.98	15249	10249	10422	7005	450	355	535	425

**35kV 133% Three Conductor GSIA**

1/0 AWG	10.67/420	3.56/140	84.8	3.34	8004	5380	6918	4650	195	150	215	170
2/0 AWG	10.67/420	3.56/140	87.1	3.43	8653	5816	7393	4969	220	170	245	190
3/0 AWG	10.67/420	3.56/140	89.9	3.54	9494	6381	7847	5274	250	195	285	220
4/0 AWG	10.67/420	3.56/140	93.2	3.67	10452	7025	8390	5639	285	220	325	255
250 MCM	10.67/420	3.56/140	96.0	3.78	11303	7597	8878	5967	310	245	360	280
350 MCM	10.67/420	3.56/140	102.6	4.04	13546	9105	10162	6830	375	295	435	345