AmerCable INCORPORATED
Marine Cables

37-105

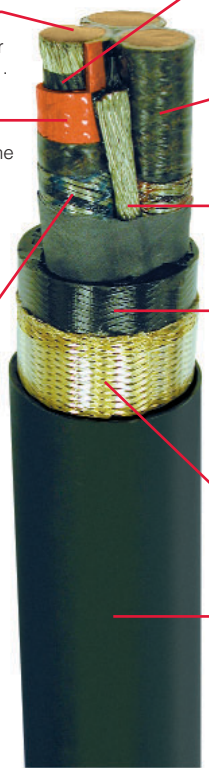
Type MMV Medium Voltage Cable

Single Conductor: 5kV – 15kV, 100% & 133% Insulation Levels. Rated 90°C
Multi-Conductor: 5kV – 15kV, 100% & 133% Insulation Levels. Rated 90°C

Conductors
Soft annealed flexible stranded tinned copper per IEEE 1580 Table 11.

Insulation
Extruded thermosetting 90°C Ethylene Propylene Rubber (EPR), meeting UL 1309 (Type E), IEEE 1580 (Type E), ICEA S-68-516 and UL 1072.

Metallic Shield
Composite shield consisting of 0.0126" tinned copper braided with nylon providing 60% copper Shielded coverage meeting UL 1309, IEEE Std. 1580, ICEA S-68-516 and UL 1072. The nylon is colored for easy phase identification (three conductor = black, blue, red) without the need to remove the shield to find an underlying colored tape.



Conductor Shield
A combination of semi-conducting tape and extruded thermosetting semi-conducting material meeting UL 1309, IEEE 1580, ICEA S-68-516 and UL1072.

Insulation Shield
Semi-conducting tape, with overlap, for fast and easy termination meeting UL 1309, IEEE 1580, ICEA S-68-516 and UL 1072.

Grounding Conductor (optional)
One uninsulated soft annealed flexible stranded tinned copper conductor per ASTM B 33 and sized according to Table 21.1 of UL 1072.

Jacket
A black, arctic grade, flame retardant, oil, abrasion, chemical and sunlight resistant thermosetting compound meeting UL 1309, IEEE 1580, ICEA S-68-516 and UL 1072. Colored jackets for signifying different voltage levels are also available on special request (ie. yellow = 5kV, orange = 8kV and red = 15kV).

Armor (optional)
(Optional) 0.0126" bronze braid providing 88% minimum coverage meeting UL 1309 and IEEE Std. 45-1998.

Sheath (optional)
A black, arctic grade, flame retardant, oil, abrasion, chemical, and sunlight resistant thermosetting compound meeting UL 1309, IEEE 1580, ICEA S-68-516 and UL 1072. Colored jackets for signifying different voltage levels is also available on special request (ie. yellow = 5kV, orange = 8kv and red = 15kV).

Applications

AmerCable's Type MMV medium voltage marine cables are for use aboard commercial ships, mobile offshore drilling units (MODUs), and fixed or floating offshore facilities.

Features

- These cables utilize flexible stranded conductors, braided shields and a braided armor (when armored) which make them very suitable for applications involving repeated flexing and high vibration.
- These cables have a small minimum bending radius (6xOD for unarmored cables and 8xOD for armored cables) for easy installation.
- Optional uninsulated grounding conductors sized per UL 1072.
- The increased flexibility of this cable allows for termination of one end and coiling on multiple module offshore platforms. Then coiling and terminating other end when modules are mated at sea thereby reducing installation time.
- Passes IEC 332-3 Category A and IEEE 1202 flame tests.

Ratings & Approvals

- UL Listed as Marine Shipboard Cable (E111461)
- American Bureau of Shipping (ABS)
- Det Norske Veritas (DNV) Pending
- Lloyd's Register of Shipping (LRS) Pending
- 90˚C Temperature Rating
- Voltage Rating – 5kV to 15kV (25kV available on request)

Termination Kits

AmerCable recommends Raychem's HVT series terminations for single conductor constructions and HVT-M series terminations for multi-conductor constructions.

Hawke Gland Types	Unarmored	Armored & Sheathed
Industrial & Safe Area (IP68)	121	153-X
Increased Safety "EExe"	501/421	501/453/U
Explosion Proof	710 Class 1 Div. 2 Class 1, Zone 2	753 Class 1 Div. 1 Class 1, Zone 1 & 2
Flameproof "EExd"	501/421 Zone 1 & 2	501/453/U (2 liter or < enclosures) ICG 653/U (2 liter or > enclosures) Zone 1 & 2

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Type MMV Medium Voltage Cable

Single Conductor: 5kV – 15kV, 100% & 133% Insulation Levels. Rated 90°C
Multi-Conductor: 5kV – 15kV, 100% & 133% Insulation Levels. Rated 90°C

Single Conductor Type MMV Marine Medium Voltage – 5kV, 100/133% Insulation Level

			Unarmored				Armored & Sheathed (BS)				Ampacity				
Size AWG/ kcmil	mm2	Part No. 37-105	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts/amp/ 1000 ft.)	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts/amp/ 1000 ft.)	In Free Air (amps)	Triangular Configuration (amps)	Single Banked in Tray (amps)	DC Resistance at 25°C (ohms/1000 ft.)	AC Resistance at 90°C, 60 Hz (ohms/1000 ft.)
8	7.6	-101	0.564	204	0.054	1.282	0.751	401	0.061	1.288	80	69	68	0.694	0.885
6	12.5	-102	0.604	252	0.050	0.822	0.836	502	0.058	0.830	107	92	91	0.436	0.556
4	21	-103	0.686	344	0.044	0.566	0.918	622	0.051	0.573	141	121	120	0.286	0.376
2	34	-104	0.750	449	0.041	0.361	0.981	748	0.047	0.367	186	159	158	0.175	0.230
1	43	-105	0.790	528	0.040	0.296	1.064	894	0.047	0.303	214	184	182	0.140	0.184
1/0	54	-106	0.877	659	0.039	0.245	1.108	1004	0.045	0.250	247	212	210	0.111	0.147
2/0	70	-107	0.937	787	0.038	0.202	1.168	1160	0.043	0.207	285	244	242	0.089	0.117
3/0	86	-108	0.980	910	0.037	0.278	1.212	1298	0.042	0.173	328	281	279	0.070	0.094
4/0	109	-109	1.042	1086	0.035	0.141	1.274	1496	0.040	0.146	381	325	324	0.056	0.075
262	132	-110	1.121	1272	0.034	0.122	1.353	1708	0.038	0.127	435	371	370	0.046	0.063
313	159	-111	1.187	1467	0.033	0.108	1.419	1926	0.037	0.112	486	413	413	0.038	0.053
373	189	-112	1.252	1692	0.032	0.095	1.484	2174	0.036	0.099	544	460	462	0.032	0.045
444	227	-113	1.327	1968	0.032	0.086	1.559	2476	0.035	0.090	606	510	515	0.027	0.039
535	273	-114	1.408	2294	0.031	0.077	1.706	2949	0.035	0.082	682	570	580	0.022	0.033
646	326	-115	1.496	2672	0.030	0.070	1.793	3361	0.034	0.075	767	635	652	0.019	0.028
777	394	-116	1.599	3154	0.030	0.065	1.881	3859	0.033	0.069	865	709	735	0.015	0.025
1111	562	-117	1.883	4414	0.029	0.054	2.169	5255	0.033	0.057	1084	853	921	0.011	0.017

Single Conductor Type MMV Marine Medium Voltage – 8kV, 100% Insulation Level

			Unarmored				Armored & Sheathed (BS)				Ampacity				
Size AWG/ kcmil	mm2	Part No. 37-105	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts/amp/ 1000 ft.)	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts/amp/ 1000 ft.)	In Free Air (amps)	Triangular Configuration (amps)	Single Banked in Tray (amps)	DC Resistance at 25°C (ohms/1000 ft.)	AC Resistance at 90°C, 60 Hz (ohms/1000 ft.)
6	12.5	-118	0.656	283	0.052	0.824	0.888	549	0.059	0.831	107	92	91	0.436	0.556
4	21	-119	0.738	378	0.046	0.567	0.970	673	0.052	0.574	141	121	120	0.286	0.376
2	34	-120	0.801	486	0.043	0.362	1.033	806	0.048	0.368	186	159	158	0.175	0.230
1	43	-121	0.884	604	0.042	0.298	1.108	942	0.047	0.304	214	184	182	0.140	0.184
1/0	54	-122	0.929	702	0.041	0.246	1.160	1072	0.046	0.251	247	212	210	0.111	0.147
2/0	70	-123	0.989	835	0.039	0.203	1.220	1226	0.044	0.208	285	244	242	0.089	0.117
3/0	86	-124	1.032	956	0.038	0.169	1.264	1363	0.043	0.174	328	281	279	0.070	0.094
4/0	109	-125	1.094	1135	0.036	0.142	1.326	1563	0.041	0.147	381	325	324	0.056	0.075
262	132	-126	1.173	1324	0.035	0.123	1.405	1779	0.039	0.128	435	371	370	0.046	0.063
313	159	-127	1.239	1522	0.034	0.109	1.471	1999	0.038	0.113	486	413	413	0.038	0.053
373	189	-128	1.304	1750	0.033	0.096	1.536	2250	0.037	0.100	544	460	462	0.032	0.045
444	227	-129	1.379	2029	0.033	0.087	1.603	2538	0.036	0.091	606	510	515	0.027	0.039
535	273	-130	1.460	2359	0.032	0.078	1.746	3012	0.036	0.082	682	570	580	0.022	0.033
646	326	-131	1.548	2741	0.031	0.071	1.833	3428	0.035	0.075	767	635	652	0.019	0.028
777	394	-132	1.651	3186	0.030	0.066	1.949	3944	0.034	0.070	865	709	735	0.015	0.025
1111	562	-133	1.935	4498	0.030	0.055	2.233	5388	0.033	0.058	1084	853	921	0.011	0.017

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Single Conductor Type MMV Marine Medium Voltage – 8kV, 133% Insulation Level

			Unarmored				Armored & Sheathed (BS)				Ampacity				
Size AWG/ kcmil	mm2	Part No. 37-105	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts/amp/ 1000 ft.)	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts/amp/ 1000 ft.)	In Free Air (amps)	Triangular Configuration (amps)	Single Banked in Tray (amps)	DC Resistance at 25°C (ohms/1000 ft.)	AC Resistance at 90°C, 60 Hz (ohms/1000 ft.)
6	12.5	-134	0.710	317	0.054	0.826	0.942	603	0.060	0.832	107	92	91	0.436	0.556
4	21	-135	0.792	417	0.047	0.569	1.016	725	0.053	0.575	141	121	120	0.286	0.376
2	34	-136	0.898	565	0.045	0.365	1.129	916	0.050	0.370	186	159	158	0.175	0.230
1	43	-137	0.938	648	0.044	0.300	1.170	1022	0.049	0.305	214	184	182	0.140	0.184
1/0	54	-138	0.983	751	0.042	0.247	1.214	1140	0.047	0.252	247	212	210	0.111	0.147
2/0	70	-139	1.043	884	0.040	0.204	1.274	1293	0.045	0.209	285	244	242	0.089	0.117
3/0	86	-140	1.086	1007	0.039	0.171	1.318	1432	0.044	0.175	328	281	279	0.070	0.094
4/0	109	-141	1.148	1189	0.038	0.143	1.380	1635	0.042	0.148	381	325	324	0.056	0.075
262	132	-142	1.227	1381	0.036	0.124	1.459	1854	0.040	0.129	435	371	370	0.046	0.063
313	159	-143	1.293	1584	0.035	0.110	1.524	2081	0.039	0.114	486	413	413	0.038	0.053
373	189	-144	1.358	1813	0.034	0.097	1.582	2318	0.038	0.101	544	460	462	0.032	0.045
444	227	-145	1.433	2095	0.033	0.088	1.719	2734	0.038	0.093	606	510	515	0.027	0.039
535	273	-146	1.460	2359	0.032	0.078	1.758	3034	0.036	0.083	682	570	580	0.022	0.033
646	326	-147	1.602	2814	0.032	0.072	1.888	3529	0.036	0.076	767	635	652	0.019	0.028
777	394	-148	1.767	3376	0.032	0.067	2.065	4181	0.036	0.071	865	709	735	0.015	0.025
1111	562	-149	1.989	4587	0.031	0.055	2.275	5470	0.034	0.058	1084	853	921	0.011	0.017

Single Conductor Type MMV Marine Medium Voltage – 15kV, 100% Insulation Level

			Unarmored				Armored & Sheathed (BS)				Ampacity				
Size AWG/ kcmil	mm2	Part No. 37-105	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts/amp/ 1000 ft.)	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts/amp/ 1000 ft.)	In Free Air (amps)	Triangular Configuration (amps)	Single Banked in Tray (amps)	DC Resistance at 25°C (ohms/1000 ft.)	AC Resistance at 90°C, 60 Hz (ohms/1000 ft.)
2	34	-150	1.050	692	0.049	0.369	1.269	1088	0.053	0.373	186	164	158	0.175	0.230
1	43	-151	1.088	778	0.047	0.303	1.308	1186	0.051	0.308	214	189	182	0.140	0.184
1/0	54	-152	1.133	883	0.045	0.251	1.352	1301	0.049	0.255	247	217	210	0.111	0.147
2/0	70	-153	1.191	1024	0.044	0.208	1.410	1462	0.047	0.212	284	250	241	0.089	0.117
3/0	86	-154	1.236	1154	0.042	0.174	1.456	1608	0.046	0.178	327	288	278	0.070	0.094
4/0	109	-155	1.298	1343	0.040	0.146	1.518	1817	0.044	0.150	378	332	321	0.056	0.075
262	132	-156	1.397	1568	0.039	0.128	1.616	2077	0.042	0.131	431	377	366	0.046	0.063
313	159	-157	1.463	1778	0.038	0.113	1.744	2422	0.042	0.117	481	418	409	0.038	0.053
373	189	-158	1.528	2015	0.037	0.100	1.809	2685	0.041	0.104	536	464	456	0.032	0.045
444	227	-159	1.603	2313	0.036	0.091	1.884	3014	0.040	0.095	598	514	508	0.027	0.039
535	273	-160	1.742	2762	0.036	0.082	2.024	3520	0.039	0.086	672	574	571	0.022	0.033
646	326	-161	1.830	3165	0.035	0.075	2.112	3960	0.038	0.079	754	638	641	0.019	0.028
777	394	-162	1.965	3729	0.034	0.070	2.246	4578	0.037	0.073	848	709	721	0.015	0.025
1111	562	-163	2.187	4930	0.033	0.057	2.468	5870	0.036	0.060	1061	857	902	0.011	0.017

Ordering Type MMV Medium Voltage Cables

Example:
- 3 conductor power cable
- 8kV 100%
- #2 AWG
- ground
- bronze armored & sheathed

37–102 – 319 BS G

- 37–102 – AmerCable Type MMV Prefix
- 319 – Specific Cable Number (from charts)
- BS – Armor Requirement: BS – armored & sheathed; Blank – no armor
- G – Ground Conductor: G – with ground; Blank – no ground

AmerCable INCORPORATED
Marine Cables

37-105

Type MMV Medium Voltage Cable

Single Conductor: 5kV – 15kV, 100% & 133% Insulation Levels. Rated 90°C
Multi-Conductor: 5kV – 15kV, 100% & 133% Insulation Levels. Rated 90°C

Single Conductor Type MMV Marine Medium Voltage – 15kV, 133% Insulation Level

			Unarmored				Armored & Sheathed (BS)				Ampacity				
Size AWG/ kcmil	mm2	Part No. 37-105	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts/amp/ 1000 ft.)	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts/amp/ 1000 ft.)	In Free Air (amps)	Triangular Configuration (amps)	Single Banked in Tray (amps)	DC Resistance at 25°C (ohms/1000 ft.)	AC Resistance at 90°C, 60 Hz (ohms/1000 ft.)
2	34	-164	1.132	771	0.050	0.370	1.352	1194	0.055	0.375	186	164	158	0.175	0.230
1	43	-165	1.170	863	0.049	0.305	1.390	1299	0.053	0.309	214	189	182	0.140	0.184
1/0	54	-166	1.215	970	0.047	0.252	1.434	1416	0.051	0.256	247	217	210	0.111	0.147
2/0	70	-167	1.273	1112	0.045	0.209	1.492	1578	0.049	0.213	284	250	241	0.089	0.117
3/0	86	-168	1.338	1267	0.044	0.176	1.558	1756	0.047	0.179	327	288	278	0.070	0.094
4/0	109	-169	1.400	1461	0.042	0.148	1.620	1971	0.046	0.151	378	332	321	0.056	0.075
262	132	-170	1.479	1670	0.040	0.129	1.761	2320	0.044	0.133	431	377	366	0.046	0.063
313	159	-171	1.545	1884	0.039	0.114	1.827	2561	0.043	0.118	481	418	409	0.038	0.053
373	189	-172	1.610	2132	0.038	0.101	1.892	2836	0.042	0.105	536	464	456	0.032	0.045
444	227	-173	1.747	2541	0.038	0.093	2.029	3301	0.041	0.096	598	514	508	0.027	0.039
535	273	-174	1.824	2889	0.037	0.084	2.106	3680	0.040	0.087	672	574	571	0.022	0.033
646	326	-175	1.944	3350	0.036	0.077	2.226	4191	0.039	0.080	754	638	641	0.019	0.028
777	394	-176	2.047	3870	0.035	0.071	2.329	4753	0.038	0.074	848	709	721	0.015	0.025
1111	562	-177	2.269	5083	0.034	0.058	2.551	6057	0.036	0.061	1061	857	902	0.011	0.017

Three Conductor Type MMV Marine Medium Voltage – 5kV, 100/133% Insulation Level

			Unarmored		Armored & Sheathed (BS)		Ampacity						
Size AWG/ kcmil	mm2	Part No. 37-105	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	In Free Air (amps)	Single Banked in Trays (amps)	DC Resistance at 25°C (ohms/1000 ft.)	AC Resistance at 90°C, 60Hz (ohms/1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts per amp per 1000 ft.)	Optional Grounding Conductor
8	7.6	-301	1.137	781	1.369	1218	66	56	0.708	0.885	0.048	1.275	8
6	12.5	-302	1.226	955	1.457	1424	88	75	0.445	0.556	0.044	0.815	6
4	21	-303	1.402	1307	1.625	1824	116	99	0.300	0.376	0.039	0.560	6
2	34	-304	1.538	1690	1.824	2372	152	129	0.184	0.230	0.036	0.356	6
1	43	-305	1.626	1974	1.911	2692	175	149	0.147	0.184	0.035	0.291	4
1/0	54	-306	1.783	2423	2.081	3232	201	171	0.117	0.147	0.034	0.239	4
2/0	70	-307	1.913	2884	2.210	3749	232	197	0.093	0.117	0.033	0.196	4
3/0	86	-308	2.007	3315	2.305	4220	266	226	0.074	0.094	0.032	0.163	3
4/0	109	-309	2.140	3937	2.438	4899	306	260	0.058	0.075	0.031	0.136	3
262	132	-310	2.310	4619	2.608	5654	348	296	0.048	0.063	0.030	0.118	3
313	159	-311	2.453	5319	2.796	6549	386	328	0.040	0.053	0.029	0.104	2
373	189	-312	2.589	6107	3.000	7402	429	365	0.034	0.045	0.029	0.092	2
444	227	-313	2.818	7280	3.161	8684	455	387	0.028	0.039	0.028	0.083	1
535	273	-314	2.974	8463	3.317	9964	528	449	0.024	0.033	0.028	0.074	1
646	326	-315	3.164	9814	3.507	11407	584	496	0.020	0.028	0.027	0.067	1
777	394	-316	3.385	11526	3.729	13226	647	550	0.016	0.025	0.027	0.062	1/0

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Three Conductor Type MMV Marine Medium Voltage – 8kV, 100% Insulation Level

			Unarmored		Armored & Sheathed (BS)		Ampacity						
Size AWG/ kcmil	mm2	Part No. 37-105	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	In Free Air (amps)	Single Banked in Trays (amps)	DC Resistance at 25°C (ohms/1000 ft.)	AC Resistance at 90°C, 60Hz (ohms/1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts per amp per 1000 ft.)	Optional Grounding Conductor
6	12.5	-317	1.338	1094	1.561	1589	88	75	0.445	0.556	0.046	0.818	6
4	21	-318	1.514	1462	1.799	2134	116	99	0.300	0.376	0.041	0.562	6
2	34	-319	1.650	1970	1.998	2725	152	129	0.184	0.230	0.038	0.357	6
1	43	-320	1.800	2263	2.085	3054	175	149	0.147	0.184	0.037	0.293	4
1/0	54	-321	1.895	2617	2.181	3454	201	171	0.117	0.147	0.036	0.241	4
2/0	70	-322	2.025	3100	2.310	3989	232	197	0.093	0.117	0.034	0.198	4
3/0	86	-323	2.119	3531	2.404	4458	266	226	0.074	0.094	0.033	0.165	3
4/0	109	-324	2.252	4162	2.537	5140	306	260	0.058	0.075	0.032	0.138	3
262	132	-325	2.422	4864	2.707	5913	348	296	0.048	0.063	0.031	0.119	3
313	159	-326	2.565	5581	2.914	6884	386	328	0.040	0.053	0.030	0.105	2
373	189	-327	2.704	6392	3.054	7760	429	365	0.034	0.045	0.030	0.093	2
444	227	-328	2.930	7582	3.280	9059	455	387	0.028	0.039	0.029	0.084	1
535	273	-329	3.096	8806	3.439	10366	528	449	0.024	0.033	0.029	0.075	1
646	326	-330	3.267	10137	3.611	11780	584	496	0.020	0.028	0.028	0.068	1
777	394	-331	3.512	11959	3.855	13708	647	550	0.016	0.025	0.028	0.063	1/0

Three Conductor Type MMV Marine Medium Voltage – 8kV, 133% Insulation Level

			Unarmored		Armored & Sheathed (BS)		Ampacity						
Size AWG/ kcmil	mm2	Part No. 37-105	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	In Free Air (amps)	Single Banked in Trays (amps)	DC Resistance at 25°C (ohms/1000 ft.)	AC Resistance at 90°C, 60Hz (ohms/1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts per amp per 1000 ft.)	Optional Grounding Conductor
6	12.5	-332	1.454	1249	1.740	1896	88	75	0.445	0.556	0.048	0.820	6
4	21	-333	1.630	1639	1.916	2359	116	99	0.300	0.376	0.043	0.564	6
2	34	-334	1.829	2162	2.114	2964	152	129	0.184	0.230	0.040	0.359	6
1	43	-335	1.916	2467	2.202	3306	175	149	0.147	0.184	0.038	0.294	4
1/0	54	-336	2.012	2838	2.297	3717	201	171	0.117	0.147	0.037	0.242	4
2/0	70	-337	2.141	3327	2.427	4259	232	197	0.093	0.117	0.036	0.199	4
3/0	86	-338	2.236	3763	2.521	4734	266	226	0.074	0.094	0.035	0.166	3
4/0	109	-339	2.369	4417	2.654	5443	306	260	0.058	0.075	0.033	0.139	3
262	132	-340	2.539	5133	2.888	6422	348	296	0.048	0.063	0.032	0.121	3
313	159	-341	2.680	5870	3.031	7227	386	328	0.040	0.053	0.032	0.106	2
373	189	-342	2.885	6884	3.235	8340	429	365	0.034	0.045	0.031	0.094	2
444	227	-343	3.036	7959	3.380	9491	455	387	0.028	0.039	0.030	0.085	1
535	273	-344	3.210	9167	3.552	10782	528	449	0.024	0.033	0.030	0.076	1
646	326	-345	3.400	10554	3.742	12261	584	496	0.020	0.028	0.029	0.069	1

Type MMV Medium Voltage Cable

AmerCable INCORPORATED
Marine Cables

Single Conductor: 5kV – 15kV, 100% & 133% Insulation Levels. Rated 90°C
Multi-Conductor: 5kV – 15kV, 100% & 133% Insulation Levels. Rated 90°C

Three Conductor Type MMV Marine Medium Voltage – 15kV, 100% Insulation Level

			Unarmored		Armored & Sheathed (BS)		Ampacity						
Size AWG/ kcmil	mm2	Part No. 37-105	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Nominal Diameter (inches	Weight (Lbs./ 1000 ft.)	In Free Air (amps)	Single Banked in Trays (amps)	DC Resistance at 25°C (ohms/1000 ft.)	AC Resistance at 90°C, 60Hz (ohms/1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts per amp per 1000 ft.)	Optional Grounding Conductor
2	34	-346	2.157	2759	2.443	3697	156	133	0.184	0.230	0.042	0.361	6
1	43	-347	2.239	3073	2.524	4045	178	151	0.147	0.184	0.040	0.296	4
1/0	54	-348	2.335	3466	2.620	4477	205	174	0.117	0.147	0.039	0.244	4
2/0	70	-349	2.461	3991	2.810	5242	234	199	0.093	0.117	0.037	0.201	4
3/0	86	-350	2.559	4466	2.910	5764	269	229	0.074	0.094	0.036	0.168	3
4/0	109	-351	2.691	5150	3.041	6513	309	263	0.058	0.075	0.035	0.141	3
262	132	-352	2.749	5749	3.152	7348	352	299	0.048	0.063	0.034	0.122	3
313	159	-353	2.881	6483	3.287	8184	389	331	0.040	0.053	0.033	0.107	2
373	189	-354	3.021	7331	3.365	8856	432	367	0.034	0.045	0.032	0.095	2
444	227	-355	3.183	8380	3.527	9983	456	388	0.028	0.039	0.031	0.086	1
535	273	-356	3.357	9599	3.701	11285	528	449	0.024	0.033	0.031	0.077	1

Three Conductor Type MMV Marine Medium Voltage – 15kV, 133% Insulation Level

			Unarmored		Armored & Sheathed (BS)		Ampacity						
Size AWG/ kcmil	mm2	Part No. 37-105	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	Nominal Diameter (inches)	Weight (Lbs./ 1000 ft.)	In Free Air (amps)	Single Banked in Trays (amps)	DC Resistance at 25°C (ohms/1000 ft.)	AC Resistance at 90°C, 60Hz (ohms/1000 ft.)	Inductive Reactance (ohms/ 1000 ft.)	Voltage Drop (Volts per amp per 1000 ft.)	Optional Grounding Conductor
2	34	-357	2.334	3125	2.619	4137	156	133	0.184	0.230	0.044	0.364	6
1	43	-358	2.416	3470	2.701	4515	178	151	0.147	0.184	0.043	0.299	4
1/0	54	-359	2.512	3874	2.861	5150	205	174	0.117	0.147	0.041	0.246	4
2/0	70	-360	2.637	4411	2.987	5748	234	199	0.093	0.117	0.039	0.203	4
3/0	86	-361	2.842	5206	3.192	6640	269	229	0.074	0.094	0.038	0.170	3
4/0	109	-362	2.976	5930	3.325	7430	309	263	0.058	0.075	0.037	0.142	3
262	132	-363	2.989	6412	3.340	7831	352	299	0.048	0.063	0.035	0.124	3
313	159	-364	3.091	6990	3.394	8529	389	331	0.040	0.053	0.034	0.109	2
373	189	-365	3.204	7897	3.548	9510	432	367	0.034	0.045	0.034	0.097	2
444	227	-366	3.347	8879	3.690	10560	456	388	0.028	0.039	0.033	0.088	1
535	273	-367	3.521	10144	3.865	11910	528	449	0.024	0.033	0.033	0.079	1

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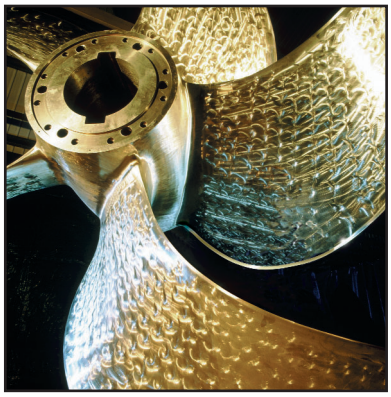
Size AWG/kcmil	Number of Strands	Individual Strand Dia. (inches)	Closest IEEE 45 Std. Size	Equivalent Metric Size (mm2)	Uninsulated Conductor Dia. (inches)
8	37	0.0201	16	7.57	0.136
6	61	0.0201	26	12.49	0.175
4	133	0.0177	41	21.11	0.258
2	133	0.0223	66	33.51	0.324
1	209	0.0201	83	42.79	0.361
1/0	266	0.0201	106	54.45	0.407
2/0	342	0.0201	133	70.01	0.461
3/0	418	0.0201	168	85.57	0.510
4/0	532	0.0201	212	108.91	0.575
262	646	0.0201	262	132.25	0.654
313	777	0.0201	313	159.06	0.720
373	925	0.0201	373	189.36	0.785
444	1110	0.0201	444	227.23	0.860
535	1332	0.0201	535	272.68	0.941
646	1591	0.0201	646	325.70	1.029
777	1924	0.0201	777	393.87	1.132
1111	2745	0.0201	1111	561.94	1.354



Ampacities & Electrical Data

Ampacities are based on API RP 14F (June 1999) Table 4 or 5 for single conductor cables and Table 3 for multi-conductor cables. The notes to these tables are also applicable. Ampacities are also based on a 90°C conductor temperature and a 45°C ambient temperature.

Inductive reactance and voltage drop values are based on a 90°C conductor temperature and 60 Hz operation. Values for single conductor cables are based on a symmetrical triangular configuration.

Please consult AmerCable on values for other configurations.

Bend Radius			
	Unarmored	Armored	Armored & Sheathed
IEEE 45	6X Diameter	8X Diameter	8X Diameter
IEC 92	<1" (25mm) 4 x Diameter >1" (25mm) 6X Diameter	6X Diameter	8X Diameter
Transport Canada	<1" (25mm) 4X Diameter >1" (25mm) 6X Diameter	6X Diameter	6X Diameter