

MV-RIG[®]
Flexible & Flame-Retardant
IEEE 1580 Type E Medium-Voltage
Power Cables



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Offshore and
Marine Shipboard
Cables

Introduction

General Cable is a **world leader** in cable manufacture and one of the world's largest suppliers to the Offshore and Marine Shipboard sector. General Cable's **extensive experience** in the offshore market translates into a clear understanding of international standards and specifications that the global market demands.

When **global demand** for oil and petroleum-based byproducts reached record levels in 2006, investment in new and deeper oilfields boomed. To assist our customers, who include some of the world's top oil companies, General Cable offers **a full range of international cables**, with emphasis on land and sea drilling, exploration and production. Diminishing global shallow water oil reserves are forcing exploration and production to move deeper and into **extreme environments**. With a legacy that spans over 100 years, our experience and record of innovation heighten our ability to develop solutions to the complex challenges deep-water applications pose.

Our company has **best-in-class research and development**, testing and production facilities in North America, Europe and Asia Pacific, employing more than 11,000 associates worldwide. The development of unique compounds, designed and tested to meet specific needs and stringent specifications, **differentiates General Cable** from all others.

General Cable's **breadth of product** is very extensive, including IEEE Type, IEC Type, and NEK 606 Type, low- and medium-voltage, and instrumentation cables, as well as offshore copper and fiber optic communications products.

IEEE Specification

General Cable's extensive range of products leads with one-of-a-kind solutions like **IEEE 1580 Type P** mud oil resistant, flexible signal, control and low-voltage **MOR® Polyrad®** cables for oil and gas drilling platforms, ships and FPSOs, as well as land-based drilling rig installations. To support production platform applications, **IEEE 1580** extreme crush- and impact-resistant, flexible **RIGTUFF®** marine shipboard cables were designed and engineered as a significantly more flexible, lightweight and easier-to-install alternative to Type MC-HL. General Cable has developed a complete line of **IEEE 1580 Type E MV-RIG®** cables, engineered to meet the industry demands for greater medium-voltage power generation and distribution in the offshore environment.

IEC Specification

To support the ongoing expansion of global demand, General Cable offers a full line of **IEC** specified **Exzhellent®** products, while continuing to develop innovative solutions for our evolving world. General Cable's global presence includes products like the **IEC 60092-350** series of instrumentation, low-voltage and medium-voltage cables with NEK 606 low-smoke and mud oil resistant capabilities, as well as **IEC 60331** circuit integrity constructions.

Communications

General Cable offers a full line of offshore and marine shipboard low-smoke, zero-halogen copper and fiber optic **Commodore®** communications cables. From standard RS serial data and popular fieldbus solutions to advanced copper and fiber data communications cables, General Cable has the communications cables you need for your regional and global offshore and marine shipboard applications.

Application-Specific Cable Assemblies

General Cable specializes in engineering distinctive high-end, precision breakout-type cable assemblies utilizing vertically integrated in-house capabilities. From application-specific cable design, engineering and manufacturing, to custom-engineered cable assemblies with fully documented and traceable test procedures in accordance with customer specifications, General Cable offers quantifiable quality cabling solutions.

Quality Assurance Guaranteed

Through an ongoing quality assurance initiative, General Cable ensures the quality of product design, manufacture, installation and expected service life, as well as environmentally sound products, processes and policies. Continuous research and development, combined with process control, quality audits and prolonged stringent testing, provide an ever-growing range of specialty materials and designs that meet offshore and marine shipboard industry approvals and standards.





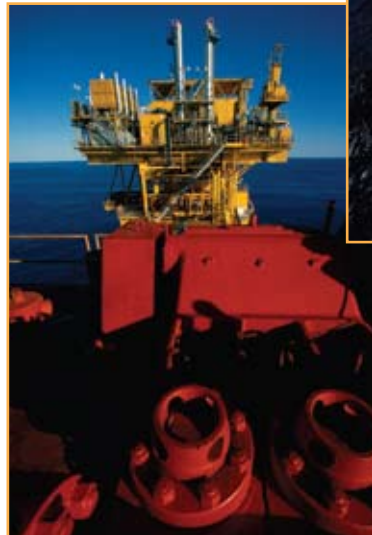
Offshore and
Marine Shipboard
Cables

MV-RIG® Flexible & Flame-Retardant Medium-Voltage Power Cables

Today's competitive offshore environment demands advanced cabling systems that meet requirements well into the future. General Cable's highly reliable and low-maintenance cables meet specific industry demands and specifications, ensuring the utmost performance. Nowhere is the need for robust, high-functioning cable designs greater than in the offshore environment. As a world-class manufacturer, General Cable understands the need to deliver cabling infrastructures that reduce downtime for improved productivity, as well as meeting increased needs for advanced exploration.

With the increasing power demands of offshore rigs, FPSOs and production platforms, the industry is requiring greater medium-voltage power generation and distribution in the offshore environment. General Cable has developed a complete line of MV-RIG® cables engineered to meet the performance criteria of IEEE 1580 Type E, and available in single or three-conductor 5 kV, 8 kV and 15 kV unarmored and armored constructions, depending upon the application. MV-RIG® cables are ideally suited for increasing power distribution requirements in production platforms and FPSOs. This premium medium-voltage power cable has a thermoset insulation/jacket system that provides excellent flexibility for easy handling, exceptional flame, moisture, oil and chemical resistance, and ease of installation. When you specify General Cable medium-voltage cable, you are assured of product excellence.

General Cable...highly engineered performance cables to meet any specifications.



MV-RIG®

Flexible & Flame-Retardant

IEEE 1580 Type E

Medium-Voltage Power Cables

Unarmored

5 kV, 8 kV & 15 kV

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MV-RIG®

Flexible & Flame-Retardant

IEEE 1580 Type E

Medium-Voltage Power Cables

Armored & Sheathed

5 kV, 8 kV & 15 kV

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MV-RIG®

Flexible & Flame-Retardant

IEEE 1580 Type E

Medium-Voltage Power Cables

5 kV, 8 kV & 15 kV

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MV-RIG®

Flexible & Flame-Retardant IEEE 1580 Type E Medium-Voltage Power Cables Unarmored

5 kV, 8 kV & 15 kV

Single Conductor

- Unarmored Single Conductor:
5 kV 100% / 133% Ins. Levels; 8 kV 100% Ins. Level;
8 kV 133% Ins. Level; 15 kV 100% Ins. Level;
15 kV 133% Ins. Level..... 4-7

Three Conductor

- Unarmored Three Conductor:
5 kV 100% / 133% Ins. Levels; 8 kV 100% Ins. Level;
8 kV 133% Ins. Level; 15 kV 100% Ins. Level;
15 kV 133% Ins. Level..... 8-11

Three Conductor VFD

- Unarmored Three Conductor VFD:
8 kV 100% Ins. Level; 8 kV 133% Ins. Level;
15 kV 100% Ins. Level; 15 kV 133% Ins. Level 12-14



FLAME-RETARDANT



FLEXIBLE



OIL-RESISTANT



SUNLIGHT-RESISTANT

MV-RIG® IEEE 1580 Type E, Unarmored



Flexible & Flame-Retardant Medium-Voltage Power Cable Single Conductor, Unarmored 5 kV, 8 kV & 15 kV, 90°C



Product Construction:

- 1. Conductor:**
 - 6 AWG thru 777 kcmil fully annealed flexible tinned copper
- 2. Conductor Shield:**
 - Semi-conducting tape and extruded semi-conducting material
- 3. Insulation:**
 - Thermoset 90°C Ethylene Propylene Rubber – Type E
- 4. Insulation Shield:**
 - Extruded semi-conducting material and semi-conducting tape
- 5. Metallic Shield:**
 - A composite braid consisting of tinned copper/colored nylon – Black
- 6. Separator Tape**
- 7. Sheath:**
 - Black Thermoset Chlorinated Polyethylene – Type XL-CPE
- 8. Print:** (Including but not limited to)
 - GENERAL CABLE® MV-RIG® E85994 1/C XXAWG OR KCMIL 90C TYPE E (UL)
 - MARINE SHIPBOARD SPEC 245/1309 (VOLTAGE) kV % INSULATION LEVEL
 - SUN RES ALSO CLASSIFIED IN ACCORDANCE WITH IEEE 1580-2001
 - FT4 IEC 60332-3-22
- 9. Options:**
 - Colored sheaths available upon request: 5 kV Yellow, 8 kV Orange, 15 kV Red
 - Bronze braid armor, 88% minimum coverage

Applications:

- Mobile offshore drilling units and production platforms
- Fixed and floating offshore production platforms
- Commercial and marine ships
- Suitable for use in Class I, Division 2 per API-RP14F

Features:

- Premium medium-voltage power cable for increased power distribution
- Excellent flame resistance
- Flexible for easy handling
- Faster and easier to install
- Meets cold bend test at -40°C per UL 1309 and IEEE 1580
- Meets cold impact test at -35°C per IEEE 1580



Compliances:

Industry:

- API-RP14F
- CSA C22.2 No. 245 Type E
- ICEA S-93-639
- IEEE 1580 Type E
- UL 1072
- UL 1309 Type E

Flame Test:

- IEEE 1202
- IEC 60332-3-22 Cat. A
- CSA C22.2 No. 245
- UL 1309

MV-RIG®

IEEE 1580 Type E, 5 kV, Unarmored



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Single Conductor, Unarmored**



5 kV, 100% / 133% INSULATION LEVELS – 90 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
			INCHES	mm	LBS/1000 FT	kg/km	
21010.010600	1	6	0.607	15.42	253	377	107
21010.010400	1	4	0.689	17.51	346	515	141
21010.010200	1	2	0.754	19.15	451	672	186
21010.015100	1	1/0	0.881	22.39	662	986	247
21010.015200	1	2/0	0.942	23.92	791	1177	285
21010.015400	1	4/0	1.047	26.60	1091	1624	381
21010.016000	1	262	1.127	28.62	1278	1902	435
21010.016200	1	313	1.193	30.30	1474	2194	486
21010.016300	1	373	1.258	31.96	1700	2531	544
21010.016400	1	444	1.334	33.87	1978	2943	606
21010.016600	1	535	1.415	35.94	2305	3431	682
21010.016800	1	646	1.503	38.19	2685	3996	767
21010.017000	1	777	1.607	40.82	3170	4717	865

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.

MV-RIG®

IEEE 1580 Type E, 8 kV, Unarmored



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Single Conductor, Unarmored**



8 kV, 100% INSULATION LEVEL – 115 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21020.010600	1	6	0.659	16.75	284	423	107
21020.010400	1	4	0.742	18.84	380	565	141
21020.010200	1	2	0.805	20.45	488	727	186
21020.015100	1	1/0	0.934	23.71	706	1050	247
21020.015200	1	2/0	0.994	25.25	839	1249	285
21020.015400	1	4/0	1.099	27.93	1141	1698	381
21020.016000	1	262	1.179	29.94	1331	1980	435
21020.016200	1	313	1.245	31.63	1530	2276	486
21020.016300	1	373	1.311	33.29	1759	2617	544
21020.016400	1	444	1.386	35.20	2039	3035	606
21020.016600	1	535	1.467	37.27	2371	3528	682
21020.016800	1	646	1.556	39.52	2755	4100	767
21020.017000	1	777	1.659	42.15	3202	4765	865

8 kV, 133% INSULATION LEVEL – 140 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21030.010600	1	6	0.714	18.12	319	474	107
21030.010400	1	4	0.796	20.22	419	624	141
21030.010200	1	2	0.902	22.92	568	845	186
21030.015100	1	1/0	0.988	25.09	755	1123	247
21030.015200	1	2/0	1.048	26.62	888	1322	285
21030.015400	1	4/0	1.154	29.30	1195	1778	381
21030.016000	1	262	1.233	31.32	1388	2065	435
21030.016200	1	313	1.299	33.01	1592	2369	486
21030.016300	1	373	1.365	34.67	1822	2712	544
21030.016400	1	444	1.440	36.58	2105	3133	606
21030.016600	1	535	1.467	37.27	2371	3528	682
21030.016800	1	646	1.610	40.89	2828	4209	767
21030.017000	1	777	1.776	45.11	3393	5049	865

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.

MV-RIG®

IEEE 1580 Type E, 15 kV, Unarmored



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Single Conductor, Unarmored**



15 kV, 100% INSULATION LEVEL – 175 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21040.010200	1	2	1.055	26.80	695	1035	186
21040.015100	1	1/0	1.139	28.92	887	1321	247
21040.015200	1	2/0	1.197	30.40	1029	1532	284
21040.015400	1	4/0	1.304	33.13	1350	2009	378
21040.016000	1	262	1.404	35.66	1576	2345	431
21040.016200	1	313	1.470	37.35	1787	2659	481
21040.016300	1	373	1.536	39.01	2025	3014	536
21040.016400	1	444	1.611	40.92	2325	3459	598
21040.016600	1	535	1.751	44.47	2776	4131	672
21040.016800	1	646	1.839	46.71	3181	4734	754
21040.017000	1	777	1.975	50.16	3748	5577	848

15 kV, 133% INSULATION LEVEL – 220 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21050.010200	1	2	1.138	28.90	775	1153	186
21050.015100	1	1/0	1.221	31.02	975	1451	247
21050.015200	1	2/0	1.279	32.50	1118	1663	284
21050.015400	1	4/0	1.407	35.74	1468	2185	378
21050.016000	1	262	1.486	37.75	1678	2498	431
21050.016200	1	313	1.553	39.44	1893	2818	481
21050.016300	1	373	1.618	41.10	2143	3189	536
21050.016400	1	444	1.756	44.60	2554	3800	598
21050.016600	1	535	1.833	46.56	2903	4321	672
21050.016800	1	646	1.954	49.62	3367	5010	754
21050.017000	1	777	2.057	52.25	3889	5788	848

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.



Offshore and
Marine Shipboard
Cables

March, 2009

MV-RIG® IEEE 1580 Type E, Unarmored



Flexible & Flame-Retardant Medium-Voltage Power Cable Three Conductor, Unarmored 5 kV, 8 kV & 15 kV, 90°C



Product Construction:

- 1. Conductor:**
 - 6 AWG thru 777 kcmil fully annealed flexible tinned copper
- 2. Conductor Shield:**
 - Semi-conducting tape and extruded semi-conducting material
- 3. Insulation:**
 - Thermoset 90°C Ethylene Propylene Rubber – Type E
- 4. Insulation Shield:**
 - Extruded semi-conducting material and semi-conducting tape
- 5. Metallic Shield:**
 - A composite braid consisting of tinned copper/colored nylon – Black, Blue, Red
- 6. Ground:**
 - Stranded tinned copper, bare
- 7. Separator Tape**
- 8. Sheath:**
 - Black Thermoset Chlorinated Polyethylene – Type XL-CPE
- 9. Print:** (Including but not limited to)
 - GENERAL CABLE® MV-RIG® E85994 3/C XXAWG OR KCMIL 90C TYPE E (UL)
 - MARINE SHIPBOARD SPEC 245/1309 (VOLTAGE) kV % INSULATION LEVEL
 - SUN RES ALSO CLASSIFIED IN ACCORDANCE WITH IEEE 1580-2001
 - FT4 IEC 60332-3-22
- 10. Options:**
 - Colored sheaths available upon request: 5 kV Yellow, 8 kV Orange, 15 kV Red
 - Bronze braid armor, 88% minimum coverage
 - UL Type MV-105 listing available upon request

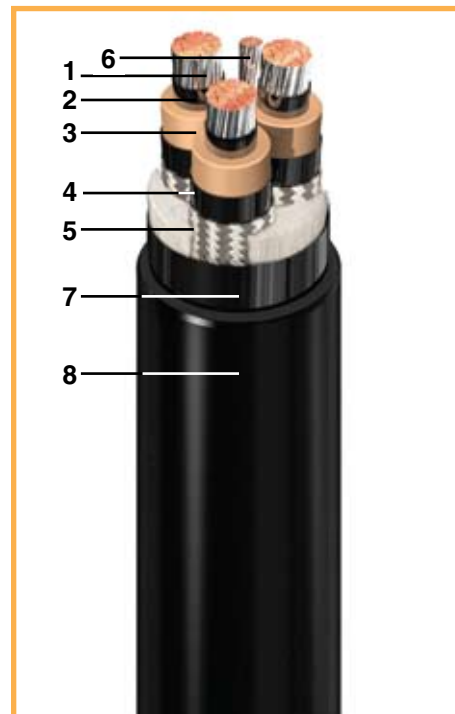
Applications:

- Mobile offshore drilling units and production platforms
- Fixed and floating offshore production platforms
- Commercial ships
- Suitable for use in Class I, Division 2 per API-RP14F

Features:

- Premium medium-voltage power cable for increased power distribution
- Excellent flame resistance
- Flexible for easy handling
- Faster and easier to install
- Meets cold bend test at -40°C per UL 1309 and IEEE 1580
- Meets cold impact test at -35°C per IEEE 1580

8



Compliances:

Industry:

- API-RP14F
- CSA C22.2 No. 245 Type E
- ICEA S-93-639
- IEEE 1580 Type E
- UL 1072
- UL 1309 Type E

Flame Test:

- IEEE 1202
- IEC 60332-3-22 Cat. A
- CSA C22.2 No. 245
- UL 1309

MV-RIG®

IEEE 1580 Type E, 5 kV, Unarmored



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Three Conductor, Unarmored**



5 kV, 100% / 133% INSULATION LEVELS – 90 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
			INCHES	mm	LBS/1000 FT	kg/km	
21310.030600	3	6	1.232	31.30	960	1428	88
21310.030400	3	4	1.409	35.79	1314	1955	116
21310.030200	3	2	1.546	39.26	1698	2528	152
21310.035100	3	1/0	1.792	45.51	2435	3624	201
21310.035200	3	2/0	1.923	48.83	2898	4313	232
21310.035400	3	4/0	2.151	54.63	3957	5888	306
21310.036000	3	262	2.322	58.97	4642	6908	348
21310.036200	3	313	2.465	62.62	5346	7955	386
21310.036300	3	373	2.602	66.09	6138	9134	429
21310.036400	3	444	2.832	71.94	7316	10888	455
21310.036600	3	535	2.989	75.92	8505	12658	528
21310.036800	3	646	3.180	80.77	9863	14678	584
21310.037000	3	777	3.402	86.41	11584	17239	647

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.

MV-RIG®

IEEE 1580 Type E, 8 kV, Unarmored



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Three Conductor, Unarmored**



8 kV, 100% INSULATION LEVEL – 115 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21320.030600	3	6	1.345	34.16	1099	1636	88
21320.030400	3	4	1.522	38.65	1469	2187	116
21320.030200	3	2	1.658	42.12	1980	2946	152
21320.035100	3	1/0	1.904	48.37	2630	3914	201
21320.035200	3	2/0	2.035	51.69	3116	4636	232
21320.035400	3	4/0	2.263	57.49	4183	6225	306
21320.036000	3	262	2.434	61.83	4888	7275	348
21320.036200	3	313	2.578	65.48	5609	8347	386
21320.036300	3	373	2.718	69.03	6424	9560	429
21320.036400	3	444	2.945	74.79	7620	11340	455
21320.036600	3	535	3.111	79.03	8850	13171	528
21320.036800	3	646	3.283	83.40	10188	15161	584
21320.037000	3	777	3.530	89.65	12019	17886	647

8 kV, 133% INSULATION LEVEL – 140 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21330.030600	3	6	1.461	37.12	1255	1868	88
21330.030400	3	4	1.638	41.61	1647	2451	116
21330.030200	3	2	1.838	46.69	2173	3234	152
21330.035100	3	1/0	2.022	51.36	2852	4245	201
21330.035200	3	2/0	2.152	54.65	3344	4976	232
21330.035400	3	4/0	2.381	60.47	4439	6606	306
21330.036000	3	262	2.552	64.81	5159	7677	348
21330.036200	3	313	2.693	68.41	5899	8779	386
21330.036300	3	373	2.899	73.65	6918	10296	429
21330.036400	3	444	3.051	77.50	7999	11904	455
21330.036600	3	535	3.226	81.94	9213	13711	528
21330.036800	3	646	3.417	86.79	10607	15785	584

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.



Offshore and
Marine Shipboard
Cables

MV-RIG®

IEEE 1580 Type E, 15 kV, Unarmored



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Three Conductor, Unarmored**



15 kV, 100% INSULATION LEVEL – 175 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21340.030200	3	2	2.168	55.06	2773	4126	156
21340.035100	3	1/0	2.347	59.61	3483	5184	205
21340.035200	3	2/0	2.473	62.82	4011	5969	234
21340.035400	3	4/0	2.704	68.69	5176	7703	309
21340.036000	3	262	2.763	70.17	5778	8598	352
21340.036200	3	313	2.895	73.54	6515	9696	389
21340.036300	3	373	3.036	77.12	7368	10965	432
21340.036400	3	444	3.199	81.25	8422	12533	456
21340.036600	3	535	3.374	85.69	9647	14357	528

15 kV, 133% INSULATION LEVEL – 220 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21350.030200	3	2	2.346	59.58	3141	4674	156
21350.035100	3	1/0	2.525	64.12	3893	5794	205
21350.035200	3	2/0	2.650	67.31	4433	6597	234
21350.035400	3	4/0	2.991	75.97	5960	8869	309
21350.036000	3	262	3.004	76.30	6444	9590	352
21350.036200	3	313	3.106	78.90	7025	10455	389
21350.036300	3	373	3.220	81.79	7936	11811	432
21350.036400	3	444	3.364	85.44	8923	13280	456
21350.036600	3	535	3.539	89.88	10195	15172	528

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.

MV-RIG® IEEE 1580 Type E, Unarmored



Flexible & Flame-Retardant Medium-Voltage VFD Power Cable Three Conductor, Unarmored 8 kV & 15 kV, 90°C



Product Construction:

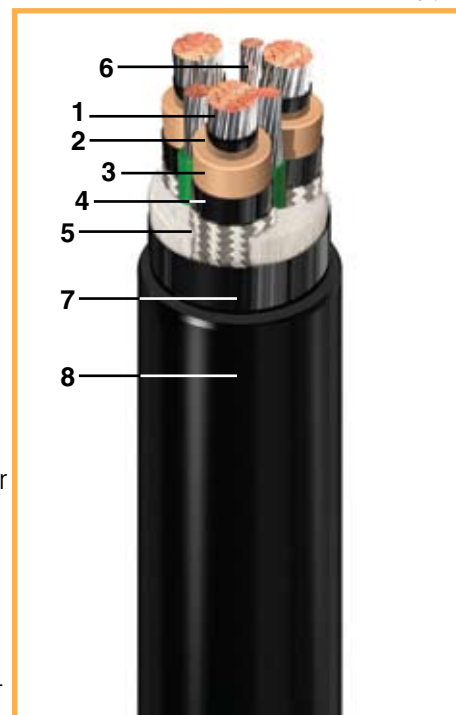
- 1. Conductor:**
 - 6 AWG thru 777 kcmil fully annealed flexible tinned copper
- 2. Conductor Shield:**
 - Semi-conducting tape and extruded semi-conducting material
- 3. Insulation:**
 - Thermoset 90°C Ethylene Propylene Rubber – Type E
- 4. Insulation Shield:**
 - Extruded semi-conducting material and semi-conducting tape
- 5. Metallic Shield:**
 - A composite braid consisting of tinned copper/colored nylon – Black, Blue, Red
- 6. Ground:**
 - 3 green covered tinned copper grounding conductors
- 7. Shield:**
 - Overall tinned copper braid with aluminum/polyester tape – 100% coverage for shield effectiveness
- 8. Sheath:**
 - Black Thermoset Chlorinated Polyethylene – Type XL-CPE
- 9. Print:** (Including but not limited to)
 - GENERAL CABLE® MV-RIG® E85994 3/C XXAWG OR KCMIL 90C TYPE E (UL) VFD MARINE SHIPBOARD SPEC 245/1309 (VOLTAGE) kV % INSULATION LEVEL SUN RES ALSO CLASSIFIED IN ACCORDANCE WITH IEEE 1580-2001 FT4 IEC 60332-3-22
- 10. Options:**
 - Colored sheaths available upon request: 8 kV Orange, 15 kV Red
 - Bronze braid armor, 88% minimum coverage with overall Type XL-CPE sheath

Applications:

- AC motor Variable Frequency Drives (VFD)
- Offshore oil and gas drilling and production platforms requiring medium voltage
- Mobile offshore drilling units and production platforms
- Fixed and floating offshore production platforms
- Commercial ships
- Suitable for use in Class I, Division 2 per API-RP14F

Features:

- Premium medium-voltage power cable for distribution
- Excellent flame resistance
- Flexible for easy handling
- Faster and easier to install
- Meets cold bend test at -40°C per UL 1309 and IEEE 1580
- Meets cold impact test at -35°C per IEEE 1580



Compliances:

Industry:

- API-RP14F
- CSA C22.2 No. 245 Type E90
- ICEA S-93-639
- IEEE 1580 Type E
- UL 1072
- UL 1309 Type E90

Flame Test:

- IEEE 1202
- IEC 60332-3-22 Cat. A
- CSA C22.2 No. 245
- UL 1309

MV-RIG®

IEEE 1580 Type E, 8 kV, Unarmored



**Flexible & Flame-Retardant
Medium-Voltage VFD Power Cable
Three Conductor, Unarmored**



8 kV, 100% INSULATION LEVEL – 115 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUNDING COND. SIZE (AWG)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
				INCHES	mm	LBS/1000 FT	kg/km	
24320.030600	3	6	3—#10	1.345	34.16	1099	1636	88
24320.030400	3	4	3—#10	1.522	38.65	1469	2187	116
24320.030200	3	2	3—#10	1.658	42.12	1980	2946	152
24320.035100	3	1/0	3—#8	1.904	48.37	2630	3914	201
24320.035200	3	2/0	3—#8	2.035	51.69	3116	4636	232
24320.035400	3	4/0	3—#7	2.263	57.49	4183	6225	306
24320.036000	3	262	3—#7	2.434	61.83	4888	7275	348
24320.036200	3	313	3—#6	2.578	65.48	5609	8347	386
24320.036300	3	373	3—#6	2.718	69.03	6424	9560	429
24320.036400	3	444	3—#5	2.945	74.79	7620	11340	455
24320.036600	3	535	3—#5	3.111	79.03	8850	13171	528
24320.036800	3	646	3—#5	3.283	83.40	10188	15161	584
24320.037000	3	777	3—#4	3.530	89.65	12019	17886	647

8 kV, 133% INSULATION LEVEL – 140 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUNDING COND. SIZE (AWG)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
				INCHES	mm	LBS/1000 FT	kg/km	
24330.030600	3	6	3—#10	1.461	37.12	1255	1868	88
24330.030400	3	4	3—#10	1.638	41.61	1647	2451	116
24330.030200	3	2	3—#10	1.838	46.69	2173	3234	152
24330.035100	3	1/0	3—#8	2.022	51.36	2852	4245	201
24330.035200	3	2/0	3—#8	2.152	54.65	3344	4976	232
24330.035400	3	4/0	3—#7	2.381	60.47	4439	6606	306
24330.036000	3	262	3—#7	2.552	64.81	5159	7677	348
24330.036200	3	313	3—#6	2.693	68.41	5899	8779	386
24330.036300	3	373	3—#6	2.899	73.65	6918	10296	429
24330.036400	3	444	3—#5	3.051	77.50	7999	11904	455
24330.036600	3	535	3—#5	3.226	81.94	9213	13711	528
24330.036800	3	646	3—#5	3.417	86.79	10607	15785	584

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.

MV-RIG®

IEEE 1580 Type E, 15 kV, Unarmored



**Flexible & Flame-Retardant
Medium-Voltage VFD Power Cable
Three Conductor, Unarmored**



15 kV, 100% INSULATION LEVEL – 175 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUNDING COND. SIZE (AWG)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
				INCHES	mm	LBS/1000 FT	kg/km	90°C
24340.030200	3	2	3—#10	2.168	55.06	2773	4126	156
24340.035100	3	1/0	3—#8	2.347	59.61	3483	5184	205
24340.035200	3	2/0	3—#8	2.473	62.82	4011	5969	234
24340.035400	3	4/0	3—#7	2.704	68.69	5176	7703	309
24340.036000	3	262	3—#7	2.763	70.17	5778	8598	352
24340.036200	3	313	3—#6	2.895	73.54	6515	9696	389
24340.036300	3	373	3—#6	3.036	77.12	7368	10965	432
24340.036400	3	444	3—#5	3.199	81.25	8422	12533	456
24340.036600	3	535	3—#5	3.374	85.69	9647	14357	528

15 kV, 133% INSULATION LEVEL – 220 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUNDING COND. SIZE (AWG)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
				INCHES	mm	LBS/1000 FT	kg/km	90°C
24350.030200	3	2	3—#10	2.346	59.58	3141	4674	156
24350.035100	3	1/0	3—#8	2.525	64.12	3893	5794	205
24350.035200	3	2/0	3—#8	2.650	67.31	4433	6597	234
24350.035400	3	4/0	3—#7	2.991	75.97	5960	8869	309
24350.036000	3	262	3—#7	3.004	76.30	6444	9590	352
24350.036200	3	313	3—#6	3.106	78.90	7025	10455	389
24350.036300	3	373	3—#6	3.220	81.79	7936	11811	432
24350.036400	3	444	3—#5	3.364	85.44	8923	13280	456
24350.036600	3	535	3—#5	3.539	89.88	10195	15172	528

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.



MV-RIG® **Flexible & Flame-Retardant** **IEEE 1580 Type E** **Medium-Voltage Power Cables** **Armored & Sheathed** **5 kV, 8 kV & 15 kV**

Single Conductor

- Armored & Sheathed Single Conductor:
5 kV 100% / 133% Ins. Levels; 8 kV 100% Ins. Level;
8 kV 133% Ins. Level; 15 kV 100% Ins. Level;
15 kV 133% Ins. Level..... 17-20

Three Conductor

- Armored & Sheathed Three Conductor:
5 kV 100% / 133% Ins. Levels; 8 kV 100% Ins. Level;
8 kV 133% Ins. Level; 15 kV 100% Ins. Level;
15 kV 133% Ins. Level..... 21-24

Three Conductor VFD

- Armored & Sheathed Three Conductor VFD:
8 kV 100% Ins. Level; 8 kV 133% Ins. Level;
15 kV 100% Ins. Level; 15 kV 133% Ins. Level 25-27



FLAME-RETARDANT



FLEXIBLE



OIL-RESISTANT



SUNLIGHT-RESISTANT



Offshore and
Marine Shipboard
Cables

MV-RIG® IEEE 1580 Type E, Armored & Sheathed



Flexible & Flame-Retardant Medium-Voltage Power Cable Single Conductor, Armored & Sheathed 5 kV, 8 kV & 15 kV, 90°C

Product Construction:

1. **Conductor:**
 - 6 AWG thru 777 kcmil fully annealed flexible tinned copper
2. **Conductor Shield:**
 - Semi-conducting tape and extruded semi-conducting material
3. **Insulation:**
 - Thermoset 90°C Ethylene Propylene Rubber – Type E
4. **Insulation Shield:**
 - Extruded semi-conducting material and semi-conducting tape
5. **Metallic Shield:**
 - A composite braid consisting of tinned copper/colored nylon – Black
6. **Separator Tape**
7. **Sheath:**
 - Black Thermoset Chlorinated Polyethylene – Type XL-CPE
8. **Armor:**
 - Bronze braid, 88% minimum coverage
9. **Separator Tape**
10. **Sheath:**
 - Black Thermoset Chlorinated Polyethylene – Type XL-CPE
11. **Print:** (Including but not limited to)
 - GENERAL CABLE® MV-RIG® E85994 1/C XXAWG OR KCMIL 90C TYPE E (UL) MARINE SHIPBOARD SPEC 245/1309 (VOLTAGE) kV % INSULATION LEVEL SUN RES ALSO CLASSIFIED IN ACCORDANCE WITH IEEE 1580-2001 FT4 IEC 60332-3-22
12. **Option:**
 - Colored sheaths available upon request: 5 kV Yellow, 8 kV Orange, 15 kV Red

Applications:

- Mobile offshore drilling units and production platforms
- Fixed and floating offshore production platforms
- Commercial and marine ships
- Suitable for use in Class I, Division 1 per API-RP14F

Features:

- Maximum mechanical protection provided by bronze armor and sheath
- Premium medium-voltage power cable for increased power distribution
- Excellent flame resistance
- Flexible for easy handling
- Faster and easier to install
- Meets cold bend test at -40°C per UL 1309 and IEEE 1580
- Meets cold impact test at -35°C per IEEE 1580



Compliances:

Industry:

- API-RP14F
- CSA C22.2 No. 245 Type E
- ICEA S-93-639
- IEEE 1580 Type E
- UL 1072
- UL 1309 Type E

Flame Test:

- IEEE 1202
- IEC 60332-3-22 Cat. A
- CSA C22.2 No. 245
- UL 1309

MV-RIG®

IEEE 1580 Type E, 5 kV, Armored & Sheathed



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Single Conductor, Armored & Sheathed**



5 kV, 100% / 133% INSULATION LEVELS – 90 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
			INCHES	mm	LBS/1000 FT	kg/km	
21115.010600	1	6	0.840	21.34	505	751	107
21115.010400	1	4	0.923	23.43	625	930	141
21115.010200	1	2	0.986	25.04	752	1119	186
21115.015100	1	1/0	1.114	28.28	1009	1502	247
21115.015200	1	2/0	1.174	29.82	1166	1735	285
21115.015400	1	4/0	1.280	32.52	1503	2237	381
21115.016000	1	262	1.360	34.54	1717	2555	435
21115.016200	1	313	1.426	36.22	1936	2881	486
21115.016300	1	373	1.491	37.88	2185	3252	544
21115.016400	1	444	1.567	39.80	2488	3703	606
21115.016600	1	535	1.715	43.55	2964	4411	682
21115.016800	1	646	1.802	45.77	3378	5027	767
21115.017000	1	777	1.890	48.02	3878	5772	865

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.

MV-RIG® IEEE 1580 Type E, 8 kV, Armored & Sheathed



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Single Conductor, Armored & Sheathed**



8 kV, 100% INSULATION LEVEL – 115 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
			INCHES	mm	LBS/1000 FT	kg/km	
21125.010600	1	6	0.892	22.67	552	821	107
21125.010400	1	4	0.975	24.76	676	1007	141
21125.010200	1	2	1.038	26.37	810	1205	186
21125.015100	1	1/0	1.166	29.61	1077	1603	247
21125.015200	1	2/0	1.226	31.14	1232	1834	285
21125.015400	1	4/0	1.333	33.85	1571	2338	381
21125.016000	1	262	1.412	35.87	1788	2661	435
21125.016200	1	313	1.478	37.55	2009	2990	486
21125.016300	1	373	1.544	39.21	2261	3365	544
21125.016400	1	444	1.611	40.92	2551	3796	606
21125.016600	1	535	1.755	44.57	3027	4505	682
21125.016800	1	646	1.842	46.79	3445	5127	767
21125.017000	1	777	1.959	49.75	3964	5899	865

8 kV, 133% INSULATION LEVEL – 140 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
			INCHES	mm	LBS/1000 FT	kg/km	
21135.010600	1	6	0.947	24.05	606	902	107
21135.010400	1	4	1.021	25.94	729	1084	141
21135.010200	1	2	1.135	28.82	921	1370	186
21135.015100	1	1/0	1.220	30.99	1146	1705	247
21135.015200	1	2/0	1.280	32.52	1299	1934	285
21135.015400	1	4/0	1.387	35.23	1643	2445	381
21135.016000	1	262	1.466	37.24	1863	2773	435
21135.016200	1	313	1.532	38.90	2091	3112	486
21135.016300	1	373	1.590	40.38	2330	3467	544
21135.016400	1	444	1.728	43.88	2748	4089	606
21135.016600	1	535	1.767	44.88	3049	4538	682
21135.016800	1	646	1.897	48.19	3547	5278	767
21135.017000	1	777	2.075	52.71	4202	6253	865

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.

MV-RIG®

IEEE 1580 Type E, 15 kV, Armored & Sheathed



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Single Conductor, Armored & Sheathed**



15 kV, 100% INSULATION LEVEL – 175 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21145.010200	1	2	1.275	32.39	1093	1627	186
21145.015100	1	1/0	1.359	34.51	1308	1946	247
21145.015200	1	2/0	1.417	35.99	1469	2187	284
21145.015400	1	4/0	1.526	38.75	1826	2718	378
21145.016000	1	262	1.624	41.25	2087	3106	431
21145.016200	1	313	1.753	44.52	2434	3622	481
21145.016300	1	373	1.818	46.18	2698	4016	536
21145.016400	1	444	1.893	48.09	3029	4508	598
21145.016600	1	535	2.034	51.67	3538	5265	672
21145.016800	1	646	2.123	53.91	3980	5923	754
21145.017000	1	777	2.257	57.33	4601	6847	848

15 kV, 133% INSULATION LEVEL – 220 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21155.010200	1	2	1.359	34.51	1200	1786	186
21155.015100	1	1/0	1.441	36.61	1423	2118	247
21155.015200	1	2/0	1.499	38.09	1586	2360	284
21155.015400	1	4/0	1.628	41.35	1981	2948	378
21155.016000	1	262	1.770	44.95	2332	3470	431
21155.016200	1	313	1.836	46.64	2574	3830	481
21155.016300	1	373	1.901	48.30	2850	4242	536
21155.016400	1	444	2.039	51.79	3318	4937	598
21155.016600	1	535	2.117	53.76	3698	5504	672
21155.016800	1	646	2.237	56.82	4212	6268	754
21155.017000	1	777	2.341	59.45	4777	7109	848

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.



Offshore and
Marine Shipboard
Cables

MV-RIG® IEEE 1580 Type E, Armored & Sheathed



Flexible & Flame-Retardant Medium-Voltage Power Cable Three Conductor, Armored & Sheathed 5 kV, 8 kV & 15 kV, 90°C



Product Construction:

1. **Conductor:**
 - 6 AWG thru 777 kcmil fully annealed flexible tinned copper
2. **Conductor Shield:**
 - Semi-conducting tape and extruded semi-conducting material
3. **Insulation:**
 - Thermoset 90°C Ethylene Propylene Rubber – Type E
4. **Insulation Shield:**
 - Extruded semi-conducting material and semi-conducting tape
5. **Metallic Shield:**
 - A composite braid consisting of tinned copper/colored nylon – Black, blue, red
6. **Ground:**
 - Stranded tinned copper
7. **Separator Tape**
8. **Sheath:**
 - Black Thermoset Chlorinated Polyethylene – Type XL-CPE
9. **Armor:**
 - Bronze braid, 88% minimum coverage
10. **Separator Tape**
11. **Sheath:**
 - Black Thermoset Chlorinated Polyethylene – Type XL-CPE
12. **Print:** (Including but not limited to)
 - GENERAL CABLE® MV-RIG® E85994 3/C XXAWG OR KCMIL 90C TYPE E (UL) MARINE SHIPBOARD SPEC 245/1309 (VOLTAGE) kV % INSULATION LEVEL SUN RES ALSO CLASSIFIED IN ACCORDANCE WITH IEEE 1580-2001 FT4 IEC 60332-3-22
13. **Option:**
 - Colored sheaths available upon request: 5 kV Yellow, 8 kV Orange, 15 kV Red

Applications:

- Mobile offshore drilling units and production platforms
- Fixed and floating offshore production platforms
- Commercial and marine ships
- Suitable for use in Class I, Division 1 per API-RP14F

Features:

- Maximum mechanical protection provided by bronze armor and sheath
- Premium medium-voltage power cable for increased power distribution
- Excellent flame resistance
- Flexible for easy handling
- Faster and easier to install
- Meets cold bend test at -40°C per UL 1309 and IEEE 1580
- Meets cold impact test at -35°C per IEEE 1580



Compliances:

Industry:

- API-RP14F
- CSA C22.2 No. 245 Type E
- ICEA S-93-639
- IEEE 1580 Type E
- UL 1072
- UL 1309 Type E

Flame Test:

- IEEE 1202
- IEC 60332-3-22 Cat. A
- CSA C22.2 No. 245
- UL 1309

MV-RIG®

IEEE 1580 Type E, 5 kV, Armored & Sheathed



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Three Conductor, Armored & Sheathed**



5 kV, 100% / 133% INSULATION LEVELS – 90 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
			INCHES	mm	LBS/1000 FT	kg/km	
21415.030600	3	6	1.464	37.19	1431	2130	88
21415.030400	3	4	1.633	41.48	1833	2728	116
21415.030200	3	2	1.833	46.56	2384	3548	152
21415.035100	3	1/0	2.091	53.12	3248	4834	201
21415.035200	3	2/0	2.221	56.41	3768	5607	232
21415.035400	3	4/0	2.450	62.23	4923	7327	306
21415.036000	3	262	2.621	66.57	5682	8456	348
21415.036200	3	313	2.810	71.37	6582	9795	386
21415.036300	3	373	3.015	76.58	7439	11071	429
21415.036400	3	444	3.177	80.69	8727	12988	455
21415.036600	3	535	3.334	84.67	10014	14903	528
21415.036800	3	646	3.525	89.52	11464	17061	584
21415.037000	3	777	3.748	95.19	13292	19781	647

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.

MV-RIG®

IEEE 1580 Type E, 8 kV, Armored & Sheathed



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Three Conductor, Armored & Sheathed**



8 kV, 100% INSULATION LEVEL – 115 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
			INCHES	mm	LBS/1000 FT	kg/km	
21425.030600	3	6	1.569	39.85	1597	2377	88
21425.030400	3	4	1.808	45.92	2145	3192	116
21425.030200	3	2	2.008	51.00	2739	4076	152
21425.035100	3	1/0	2.192	55.67	3471	5166	201
21425.035200	3	2/0	2.322	58.97	4009	5966	232
21425.035400	3	4/0	2.550	64.76	5166	7688	306
21425.036000	3	262	2.721	69.10	5943	8844	348
21425.036200	3	313	2.929	74.39	6918	10296	386
21425.036300	3	373	3.069	77.96	7799	11606	429
21425.036400	3	444	3.296	83.73	9104	13549	455
21425.036600	3	535	3.456	87.79	10418	15504	528
21425.036800	3	646	3.629	92.18	11839	17619	584
21425.037000	3	777	3.874	98.41	13777	20502	647

8 kV, 133% INSULATION LEVEL – 140 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
			INCHES	mm	LBS/1000 FT	kg/km	
21435.030600	3	6	1.749	44.42	1905	2836	88
21435.030400	3	4	1.926	48.91	2371	3528	116
21435.030200	3	2	2.125	53.96	2979	4433	152
21435.035100	3	1/0	2.308	58.64	3736	5559	201
21435.035200	3	2/0	2.439	61.95	4280	6370	232
21435.035400	3	4/0	2.667	67.75	5470	8141	306
21435.036000	3	262	2.902	73.72	6454	9605	348
21435.036200	3	313	3.046	77.37	7263	10809	386
21435.036300	3	373	3.251	82.58	8382	12474	429
21435.036400	3	444	3.397	86.28	9538	14195	455
21435.036600	3	535	3.570	90.67	10836	16126	528
21435.036800	3	646	3.761	95.52	12322	18338	584

* Ampacities are based on API-RP14F.
Note: Dimensions and weights are nominal; subject to industry tolerances.

MV-RIG®

IEEE 1580 Type E, 15 kV, Armored & Sheathed



**Flexible & Flame-Retardant
Medium-Voltage Power Cable
Three Conductor, Armored & Sheathed**



15 kV, 100% INSULATION LEVEL – 175 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21445.030200	3	2	2.455	62.36	3715	5529	156
21445.035100	3	1/0	2.633	66.88	4499	6696	205
21445.035200	3	2/0	2.824	71.73	5268	7840	234
21445.035400	3	4/0	3.056	77.63	6546	9741	309
21445.036000	3	262	3.168	80.46	7385	10990	352
21445.036200	3	313	3.303	83.91	8225	12240	389
21445.036300	3	373	3.382	85.90	8900	13245	432
21445.036400	3	444	3.545	90.03	10033	14931	456
21445.036600	3	535	3.720	94.48	11341	16878	528

15 kV, 133% INSULATION LEVEL – 220 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
			INCHES	mm	LBS/1000 FT	kg/km	90°C
21455.030200	3	2	2.632	66.86	4158	6187	156
21455.035100	3	1/0	2.875	73.03	5176	7703	205
21455.035200	3	2/0	3.002	76.25	5777	8597	234
21455.035400	3	4/0	3.342	84.88	7467	11113	309
21455.036000	3	262	3.357	85.26	7870	11712	352
21455.036200	3	313	3.411	86.64	8572	12756	389
21455.036300	3	373	3.566	90.57	9558	14224	432
21455.036400	3	444	3.708	94.19	10613	15794	456
21455.036600	3	535	3.884	98.66	11970	17813	528

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.



Offshore and
Marine Shipboard
Cables

MV-RIG® IEEE 1580 Type E, Armored & Sheathed



Flexible & Flame-Retardant Medium-Voltage VFD Power Cable Three Conductor, Armored & Sheathed 8 kV & 15 kV, 90°C



Product Construction:

- 1. Conductor:**
 - 6 AWG thru 777 kcmil fully annealed flexible tinned copper
- 2. Conductor Shield:**
 - Semi-conducting tape and extruded semi-conducting material
- 3. Insulation:**
 - Thermoset 90°C Ethylene Propylene Rubber – Type E
- 4. Insulation Shield:**
 - Extruded semi-conducting material and semi-conducting tape
- 5. Metallic Shield:**
 - A composite braid consisting of tinned copper/colored nylon– Black, Blue, Red
- 6. Ground:**
 - 3 green covered tinned copper grounding conductors
- 7. Shield:**
 - Overall tinned copper braid with aluminum/polyester tape – 100% coverage for shield effectiveness
- 8. Sheath:**
 - Black Thermoset Chlorinated Polyethylene – Type XL-CPE
- 9. Armor:**
 - Bronze braid, 88% minimum coverage
- 10. Separator Tape**
- 11. Sheath:**
 - Black Thermoset Chlorinated Polyethylene – Type XL-CPE
- 12. Print:** (Including but not limited to)
 - GENERAL CABLE® MV-RIG® E85994 3/C XXAWG OR KCMIL 90C TYPE E (UL) VFD MARINE SHIPBOARD SPEC 245/1309 (VOLTAGE) kV % INSULATION LEVEL SUN RES ALSO CLASSIFIED IN ACCORDANCE WITH IEEE 1580-2001 FT4 IEC 60332-3-22
- 13. Option:**
 - Colored sheaths available upon request: 8 kV Orange, 15 kV Red

Applications:

- AC motor Variable Frequency Drives (VFD)
- Offshore oil and gas drilling and production platforms requiring medium voltage
- Mobile offshore drilling units and production platforms
- Fixed and floating offshore production platforms and commercial ships
- Suitable for use in Class I, Division 1 per API-RP14F

Features:

- Premium medium-voltage power cable for increased power distribution
- Excellent flame resistance
- Flexible for easy handling
- Faster and easier to install
- Meets cold bend test at -40°C per UL 1309 and IEEE 1580
- Meets cold impact test at -35°C per IEEE 1580



Compliances:

Industry:

- API-RP14F
- CSA C22.2 No. 245 Type E90
- ICEA S-93-639
- IEEE 1580 Type E
- UL 1072
- UL 1309 Type E90

Flame Test:

- IEEE 1202
- IEC 60332-3-22 Cat. A
- CSA C22.2 No. 245
- UL 1309

MV-RIG®

IEEE 1580 Type E, 8 kV, Armored & Sheathed



**Flexible & Flame-Retardant
Medium-Voltage VFD Power Cable
Three Conductor, Armored & Sheathed**



8 kV, 100% INSULATION LEVEL – 115 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUNDING COND. SIZE (AWG)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
				INCHES	mm	LBS/1000 FT	kg/km	90°C
25320.030600	3	6	3—#10	1.569	39.85	1597	2377	88
25320.030400	3	4	3—#10	1.808	45.92	2145	3192	116
25320.030200	3	2	3—#10	2.008	51.00	2739	4076	152
25320.035100	3	1/0	3—#8	2.192	55.67	3471	5166	201
25320.035200	3	2/0	3—#8	2.322	58.97	4009	5966	232
25320.035400	3	4/0	3—#7	2.550	64.76	5166	7688	306
25320.036000	3	262	3—#7	2.721	69.10	5943	8844	348
25320.036200	3	313	3—#6	2.929	74.39	6918	10296	386
25320.036300	3	373	3—#6	3.069	77.96	7799	11606	429
25320.036400	3	444	3—#5	3.296	83.73	9104	13549	455
25320.036600	3	535	3—#5	3.456	87.79	10418	15504	528
25320.036800	3	646	3—#5	3.629	92.18	11839	17619	584
25320.037000	3	777	3—#4	3.874	98.41	13777	20502	647

8 kV, 133% INSULATION LEVEL – 140 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUNDING COND. SIZE (AWG)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT
				INCHES	mm	LBS/1000 FT	kg/km	90°C
25330.030600	3	6	3—#10	1.749	44.42	1905	2836	88
25330.030400	3	4	3—#10	1.926	48.91	2371	3528	116
25330.030200	3	2	3—#10	2.125	53.96	2979	4433	152
25330.035100	3	1/0	3—#8	2.308	58.64	3736	5559	201
25330.035200	3	2/0	3—#8	2.439	61.95	4280	6370	232
25330.035400	3	4/0	3—#7	2.667	67.75	5470	8141	306
25330.036000	3	262	3—#7	2.902	73.72	6454	9605	348
25330.036200	3	313	3—#6	3.046	77.37	7263	10809	386
25330.036300	3	373	3—#6	3.251	82.58	8382	12474	429
25330.036400	3	444	3—#5	3.397	86.28	9538	14195	455
25330.036600	3	535	3—#5	3.570	90.67	10836	16126	528
25330.036800	3	646	3—#5	3.761	95.52	12322	18338	584

* Ampacities are based on API-RP14F.
Note: Dimensions and weights are nominal; subject to industry tolerances.



Offshore and
Marine Shipboard
Cables

MV-RIG® IEEE 1580 Type E, 15 kV, Armored & Sheathed



**Flexible & Flame-Retardant
Medium-Voltage VFD Power Cable
Three Conductor, Armored & Sheathed**



15 kV, 100% INSULATION LEVEL – 175 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUNDING COND. SIZE (AWG)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
				INCHES	mm	LBS/1000 FT	kg/km	
25340.030200	3	2	3—#10	2.455	62.36	3715	5529	156
25340.035100	3	1/0	3—#8	2.633	66.88	4499	6696	205
25340.035200	3	2/0	3—#8	2.824	71.73	5268	7840	234
25340.035400	3	4/0	3—#7	3.056	77.63	6546	9741	309
25340.036000	3	262	3—#7	3.168	80.46	7385	10990	352
25340.036200	3	313	3—#6	3.303	83.91	8225	12240	389
25340.036300	3	373	3—#6	3.382	85.90	8900	13245	432
25340.036400	3	444	3—#5	3.545	90.03	10033	14931	456
25340.036600	3	535	3—#5	3.720	94.48	11341	16878	528

15 kV, 133% INSULATION LEVEL – 220 MILS

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUNDING COND. SIZE (AWG)	NOMINAL CABLE DIAMETER		NET WEIGHT		AMPACITY* IN FREE AIR @ 45°C AMBIENT 90°C
				INCHES	mm	LBS/1000 FT	kg/km	
25350.030200	3	2	3—#10	2.632	66.86	4158	6187	156
25350.035100	3	1/0	3—#8	2.875	73.03	5176	7703	205
25350.035200	3	2/0	3—#8	3.002	76.25	5777	8597	234
25350.035400	3	4/0	3—#7	3.342	84.88	7467	11113	309
25350.036000	3	262	3—#7	3.357	85.26	7870	11712	352
25350.036200	3	313	3—#6	3.411	86.64	8572	12756	389
25350.036300	3	373	3—#6	3.566	90.57	9558	14224	432
25350.036400	3	444	3—#5	3.708	94.19	10613	15794	456
25350.036600	3	535	3—#5	3.884	98.66	11970	17813	528

* Ampacities are based on API-RP14F.

Note: Dimensions and weights are nominal; subject to industry tolerances.





MV-RIG®
Flexible & Flame-Retardant
IEEE 1580 Type E
Medium-Voltage Power Cables
5 kV, 8 kV & 15 kV

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Standard Conductor Chart

APPROXIMATE AREA		APPROX. SIZE (AWG/kcmil)	COND. STRAND	NOMINAL DIAMETER		NET WEIGHT	
kcmil	mm ²			INCHES	mm	LBS/1000 FT	kg/km
24.4	12.4	6	61/.0201	0.185	4.7	82	147
42.0	21.3	4	105/.0201	0.262	6.7	132	197
61.6	31.2	2	154/.0201	0.315	8.0	204	304
89.6	45.4	1	224/.0201	0.375	9.5	282	420
112.0	56.8	1/0	280/.0201	0.435	11.0	365	544
131.6	66.7	2/0	329/.0201	0.465	11.8	416	620
182.4	92.4	3/0	456/.0201	0.535	13.6	577	860
220.4	111.7	4/0	551/.0201	0.600	15.2	687	1023
258.4	130.9	262	646/.0201	0.650	16.5	816	1216
310.8	157.5	313	777/.0201	0.680	17.3	982	1463
370.0	187.5	373	925/.0201	0.745	18.9	1174	1749
444.0	225.0	444	1110/.0201	0.815	20.7	1397	2081
532.8	270.0	535	1332/.0201	0.890	22.6	1674	2494
643.6	326.1	646	1609/.0201	0.975	24.8	2051	3056
769.6	390.0	777	1924/.0201	1.070	27.2	2528	3767



Offshore and
Marine Shipboard
Cables

MV-RIG® IEEE 1580 Type E



Approvals / Certifications



American Bureau of Shipping (ABS)

Certificate of Design Assessment:
08-HS304628/1-PDA



Canadian Standards Association International (CSA)

Project Number: 1745099



Transport Canada Marine Safety



Underwriters Laboratories Inc. (UL)

Certification: 01ME08208 (E85994)



United States Coast Guard (USCG)



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24330.035200.....	13	25320.035100.....	26	25340.036400.....	27
24330.035400.....	13	25320.035200.....	26	25340.036600.....	27
24330.036000.....	13	25320.035400.....	26	25350.030200.....	27
24330.036200.....	13	25320.036000.....	26	25350.035100.....	27
24330.036300.....	13	25320.036200.....	26	25350.035200.....	27
24330.036400.....	13	25320.036300.....	26	25350.035400.....	27
24330.036600.....	13	25320.036400.....	26	25350.036000.....	27
24330.036800.....	13	25320.036600.....	26	25350.036200.....	27
24340.030200.....	14	25320.036800.....	26	25350.036300.....	27
24340.035100.....	14	25320.037000.....	26	25350.036400.....	27
24340.035200.....	14	25330.030200.....	26	25350.036600.....	27
24340.035400.....	14	25330.030400.....	26		



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