

PROVEEDORES MINEROS
EXPERTOS EN SOLUCIONES ELÉCTRICAS CERTIFICADAS

CABLES CATALOGUE



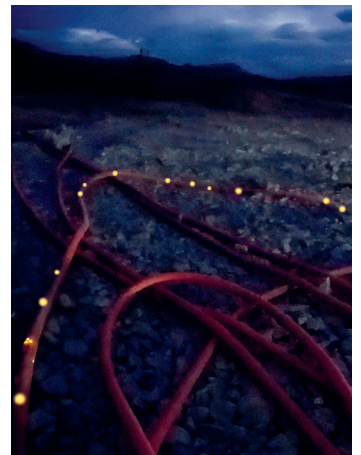
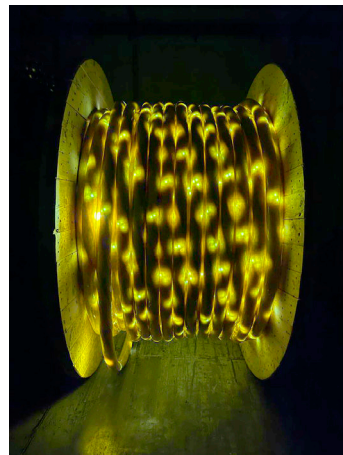
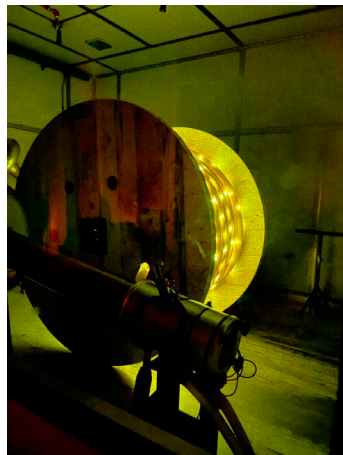
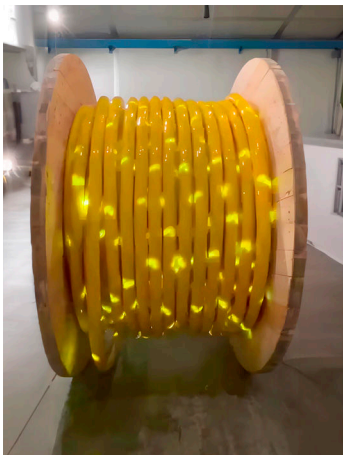
MINING GRADE – CABLE TYPES

- Type G-GC CPE 2KV
- Type SHD-GC CPE 2KV
- Type SHD-GC TPU 5, 6/10, 8, 15KV
- Type LED SHD-GC 5, 6/10, 8, 15 KV
- Type PUMP CABLE 0.6/ 2KV,
2KV CPE



ADVANCED CONSTRUCTIONS

Our mining cables are designed under current MSHA, UL, CSA, ICEA regulations. Our mining cables grade are constructed for durability and long life.



ROUND TYPE, 2KV, W/GROUND-CHECK, EPR/CPE, 90°C, THREE CONDUCTOR.



PRODUCT CONSTRUCTION

CONDUCTOR:

6 AWG thru 500 kcmil coated annealed copper, bunched wires, rope-lay-stranded per ASTM B172.

INSULATION:

Ethylene Propylene Rubber (EPR) insulation colored (Black, White and red).

GROUND-CHECK-CONDUCTOR:

Annealed copper, rope-lay-stranded per ASTM B172, insulated with high-strength yellow polypropylene.

JACKET:

Reinforced, two-layer, extra heavy duty, lead-cured Chlorinated Polyethylene (CPE).

OPTIONS:

Colored jackets are available.

APPLICATIONS:

- Designed for use as trailing cables on AC mining equipment.
- Where a ground-check conductor is required for fail-safe monitoring.
- Where induced voltages in the grounding system Will not present a Hazard.

FEATURES:

- Ground-Check conductor provides fail-safe ground monitoring for maximum safety.
- Improved ground-check conductor has longer flex life and durability.
- Rope-lay-stranded conductors are extremely flexible and resistant to wire breakage.

6 TRHU 500 KCMIL CONDUCTORS, THREE CONDUCTOR, ROUND PORTABLE W/GROUND-CHECK, TYPE G-GC, 2000 VOLTS

CATALOG NUMBER	# OF COND.	COND. SIZE (AWG)	COND. STRAND	NOMINAL INSULATION THICKNESS		GRD. COND. SIZE (AWG)	GRD. CHECK COND. SIZE (AWG)	NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT		AMPACIT Y
				INCHES	mm			INCHES	mm	LBS/1000FT	KG/KM	LBS/1000FT	KG/KM	
PMGC-3C6-2	3	6	133	0.060	1.5	10	10	1.05	26.6	360	536	735	1094	79
PMGC-3C4-2	3	4	259	0.060	1.5	8	10	1.19	30.2	533	794	1065	1585	104
PMGC-3C3-2	3	3	259	0.060	1.5	8	10	1.24	31.5	654	974	1245	1853	120
PMGC-3C2-2	3	2	259	0.060	1.5	7	10	1.34	34.0	791	1178	1480	2202	138
PMGC-3C1-2	3	1	259	0.080	2.0	6	8	1.51	38.3	1016	1512	1885	2805	161
PMGC-3C1/0-2	3	1/0	259	0.080	2.0	5	8	1.65	41.9	1263	1880	2290	3408	186
PMGC-3C2/0-2	3	2/0	329	0.080	2.0	4	8	1.75	44.4	1581	2352	2710	4033	215
PMGC-3C3/0-2	3	3/0	413	0.080	2.0	3	8	1.89	48.0	2023	3010	3270	4866	249
PMGC-3C4/0-2	3	4/0	532	0.080	2.0	2	8	2.04	51.8	2535	3773	3975	5915	287
PMGC-3C250-2	3	250	608	0.095	2.4	2	6	2.39	60.7	2932	4364	4950	7366	320
PMGC-3C350-2	3	350	851	0.095	2.4	1/0	6	2.68	68.0	4068	6054	6625	9859	394
PMGC-3C500-2	3	500	1221	0.095	2.4	2/0	6	3.03	76.9	5831	8677	8890	13230	487

SHD-GC

SHIELDED ROUND TYPE W/GROUND-CHECK,
EPR/CPE, 2000 VOLTS, 90°C, THREE CONDUCTOR.



PRODUCT CONSTRUCTION

CONDUCTOR:

6 AWG thru 500 kcmil coated annealed copper, bunched wires, rope-lay-stranded per ASTM B172.

INSULATION:

Ethylene Propylene Rubber (EPR) insulation colored.

INSULATION SHIELD:

A flexible coated copper/textile braid shield is applied over non-conducting overlapped tape.

GROUND-CHECK-CONDUCTOR:

Annealed copper, rope-lay-stranded per ASTM B172, insulated with high-strength yellow polypropylene.

GROUND CONDUCTORS:

- Coated copper, rope-lay-stranded per ASTM B172.
- Two conductors in contact with the flexible copper braid shield.

JACKET:

Reinforced, two-layer, extra heavy duty, lead-cured Chlorinated Polyethylene (CPE).

OPTIONS:

- Colored jackets are available.
- TPU (Thermoplastic Polyurethane) jacket.

APPLICATIONS:

- Designed for use as trailing cables on AC mining equipment:
- Where a ground-check conductor is required for fail-safe monitoring.
- With Brebty-type cable handling devices on longwall shearers.
- Where induced voltages in the grounding system Will not present a Hazard.
- On low and médium voltaje AC circuits where shielding is desired or required.

FEATURES:

- Flexible insulation shield provides shock Hazard protection.
- Excellent heat, moisture, steam, oil, chemical and radiation resistance.

6 TRHU 500 KCMIL CONDUCTORS, THREE CONDUCTOR, SHIELDED ROUND PORTABLE W/GROUND-CHECK, TYPE SHD-GC, 2000 VOLTS

CATALOG NUMBER	# OF COND.	COND. SIZE (AWG)	COND. STRAND	NOMINAL INSULATION THICKNESS	GRD. COND. SIZE (AWG)	COND. STRAND	NOMINAL JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT		AMPACITY
				INCHES			INCHES	mm	INCHES	mm	LBS/1000FT	KG/K M	LBS/1000FT	KG/K M	
PMSHD-3C6-2	3	6	133	0.070	10	10	0.155	3.9	1.29	32.8	502	748	1130	1682	93
PMSHD-3C4-2	3	4	259	0.070	8	10	0.155	3.9	1.40	35.6	678	1009	1460	2173	122
PMSHD-3C3-2	3	3	259	0.070	7	10	0.170	4.3	1.51	38.3	831	1237	1680	2500	140
PMSHD-3C2-2	3	2	259	0.070	6	8	0.170	4.3	1.59	40.4	1007	1499	1990	2961	159
PMSHD-3C1-2	3	1	259	0.080	5	8	0.190	4.8	1.76	44.7	1228	1828	2385	3549	184
PMSHD-3C1/0-2	3	1/0	259	0.080	4	8	0.190	4.8	1.86	47.2	1485	2210	2765	4115	211
PMSHD-3C2/0-2	3	2/0	329	0.080	3	8	0.205	5.2	2.00	50.8	1832	2726	3255	4844	243
PMSHD-3C3/0-2	3	3/0	413	0.080	2	8	0.205	5.2	2.13	54.1	2249	3347	3890	5789	279
PMSHD-3C4/0-2	3	4/0	532	0.080	1	8	0.220	5.6	2.31	58.7	2854	4248	4720	7024	321
PMSHD-3C250-2	3	250	608	0.095	1/0	6	0.220	5.6	2.51	63.8	3325	4949	5460	8125	355
PMSHD-3C300-2	3	300	741	0.095	1/0	6	0.235	6.0	2.68	68.1	3946	5873	6395	9517	398
PMSHD-3C350-2	3	350	851	0.095	2/0	6	0.235	6.4	2.81	71.4	4493	6686	7280	10834	435
PMSHD-3C500-2	3	500	1221	0.095	4/0	6	0.265	6.7	3.19	81.0	6641	9883	9820	14614	536

SHD-GC

SHIELDED ROUND TYPE W/GROUND-CHECK,
EPR/TPU, 5000 VOLTS, 90°C, THREE CONDUCTOR.



PRODUCT CONSTRUCTION

CONDUCTOR:

Flexible tinner copper.

INSULATION:

Ethylene Propylene Rubber (EPR) insulation colored.

GROUND-CHECK-CONDUCTOR:

Annealed copper, rope-lay-stranded per ASTM B172, insulated with high-strength yellow polypropylene.

INSULATION SHIELD:

Tinner copper and color coded nylon braid.

GROUND WIRES (2):

Flexible tinner copper.

GROUND-CHECK-CONDUCTOR:

Flexible tinner copper with yellow polypropylene insulation.

STRAND SHIELD:

Semi-conducting layer.

TAPE:

Non-conducting.

JACKET:

- Thermoplastic Polyurethane (TPU) jacket.
- Cable identification via permanent marking.
- Black jacket is standard.

OPTIONS:

- Colored jackets are available.
- CPE and Hypalon Jacket are available.

APPLICATIONS:

- Heavy duty portable power cable for use in circuits not exceeding 5000 volts.
- Designed for applications such as drills, conveyors, pumps and mobile equipment where grounding conductors, a ground check conductor and metallic shielding are required.
- Recommended maximum continuous conductor temperature is 90°C.
- Suitable for shallow water submersion.
- Cable carries P-184-MSHA marking indicating acceptance as flame resistant by the Pennsylvania Department of Environmental Protection and the Mine Safety and Health Administration.
- Cables meet or exceed ICEA Standards S-75-381/NEMA WC-58, ASTM B-172 and B-33.

6 TRHU 500 KCMIL CONDUCTORS, THREE CONDUCTOR, ROUND PORTABLE W/GROUND-CHECK, TYPE G-GC, 2000 VOLTS

CATALOG NUMBER	# OF COND.	COND. SIZE (AWG)	# OF WIRES PER CONDUCTOR	INSULATION THICKNESS MILS	GRD. COND. SIZE (AWG)	# OF WIRES PER CONDUCTOR	JACKET THICKNESS MILS	NOMINAL OUTSIDE DIMENSION S IN.	APROX WEIGHT	AMPACITY
									LBS/1000FT	
PMSHD-3C6-5	3	6	133	110	10	49	185	1.56	1342	93
PMSHD-3C4-5	3	4	259	110	8	133	185	1.68	1629	122
PMSHD-3C2-5	3	2	259	110	6	133	205	1.87	2228	159
PMSHD-3C1-5	3	1	259	110	5	133	205	1.95	2447	184
PMSHD-3C1/0-5	3	1/0	266	110	4	259	220	2.08	2760	211
PMSHD-3C2/0-5	3	2/0	323	110	3	259	220	2.20	3238	243
PMSHD-3C3/0-5	3	3/0	418	110	2	259	235	2.36	3792	279
PMSHD-3C4/0-5	3	4/0	532	110	1	259	235	2.50	4548	321
PMSHD-3C250-5	3	250	627	120	1/0	266	250	2.69	5427	355
PMSHD-3C350-5	3	350	888	120	2/0	323	265	2.95	7070	435
PMSHD-3C500-5	3	500	1221	120	4/0	532	280	3.31	9407	536

SHD-GC

SHIELDED ROUND TYPE W/GROUND-CHECK,
EPR/TPU, 6/10KV, 90°C, THREE CONDUCTOR.



PRODUCT CONSTRUCTION

CONDUCTORS:

Flexible, stranded, tinned annealed copper in line with ICEA S-75-381 § 3.11, ASTM B-3/B-173 and IEC 60228 class 5.

INSULATION:

Ethylene Propylene Rubber (EPR), compound 3GJ3 acc. to DIN VDE 0207 part 20.

INSULATION SHIELD:

Mixed braid with tinned copper wires and colour-coded yarn. Colour code: black, white and red.

GROUNDING CONDUCTORS (2):

Conductor: Flexible, stranded, tinned, annealed copper in accordance to ASTM B-3 and IEC 60228 class 5.

GROUND-CHECK-CONDUCTOR:

Flexible tinner copper with yellow polypropylene insulation.

STRAND SHIELD:

Semi-conducting layer

TAPE:

Non-conducting.

JACKET:

- Thermoplastic Polyurethane (TPU) jacket.
- Colour: Yellow or Orange.

APPLICATIONS:

- Heavy duty portable power cable for use in circuits not exceeding 5000 volts.
- Designed for applications such as drills, conveyors, pumps and mobile equipment where grounding conductors, a ground check conductor and metallic shielding are required.
- Recommended maximum continuous conductor temperature is 90°C.
- Suitable for shallow water submersion.
- Cable carries P-184-MSHA marking indicating acceptance as flame resistant by the Pennsylvania Department of Environmental Protection and the Mine Safety and Health Administration.

TEST:

- General: DIN VDE 0250 part 1.
- Conductor resistance: DIN VDE 0295 / IEC 60228.

*70 TRHU 185 MM2 CONDUCTORS, THREE CONDUCTOR, SHIELDED
ROUND PORTABLE W/GROUND-CHECK, TYPE SHD-GC, 6/10KV*

CATALOG NUMBER	COND. SIZE	SIZE GROUNDING CONDUCTOR	GROUND CONDUCTOR	APROX. OVERAL DIAMETER	APROX WEIGHT	AMPACITY (A)
	mm		SIZE (mm)	mm	KG/M	
PMSHD-3C70-6/10	70	35	10	54-60	4.2	263
PMSHD-3C95-6/10	95	35	10	58-61	5.0	317
PMSHD-3C120-6/10	120	50	10	58-62	6.4	370
PMSHD-3C185-6/10	185	70	10	70-73	9.4	485

*OTHER GROUND CONDUCTOR SIZE ARE AVAILABLE.

*OTHER OUTER DIAMETER SIZE ARE AVAILABLE.

SHD-GC

SHIELDED ROUND TYPE W/GROUND-CHECK, EPR/TPU, 8000 VOLTS, 90°C, THREE CONDUCTOR.



PRODUCT CONSTRUCTION

CONDUCTORS:

Flexible tinner copper.

INSULATION:

Ethylene Propylene Rubber (EPR) insulation colored.

INSULATION SHIELD:

Tinner copper and color coded nylon braid.

GROUND WIRES (2):

Flexible tinner copper.

GROUND-CHECK-CONDUCTOR:

Flexible tinner copper with yellow polypropylene insulation.

STRAND SHIELD:

Semi-conducting layer

JACKET:

- Thermoplastic Polyurethane (TPU) jacket.
- Cable identification via permanent marking.
- Black jacket is standard.

OPTIONS:

- Colored jackets are available.
- CPE and Hypalon Jacket are available.

APPLICATIONS:

- Heavy duty portable power cable for use in circuits not exceeding 8000 volts.
- Designed for applications such as drills, conveyors, pumps and mobile equipment where grounding conductors, a ground check conductor and metallic shielding are required.
- Recommended maximum continuous conductor temperature is 90°C.
- Suitable for shallow water submersion.
- Cable carries P-184-MSHA marking indicating acceptance as flame resistant by the Pennsylvania Department of Environmental Protection and the Mine Safety and Health Administration.
- Cables meet or exceed ICEA Standards S-75-381/NEMA WC-58, ASTM B-172 and B-33.

4 TRHU 500 KCMIL CONDUCTORS, THREE CONDUCTOR, SHIELDED ROUND PORTABLE W/GROUND-CHECK, TYPE SHD-GC, 8000 VOLTS

CATALOG NUMBER	# OF COND.	COND. SIZE (AWG)	# OF WIRES PER CONDUCTOR	INSULATION THICKNESS MILS	GRD. COND. SIZE (AWG)	# OF WIRES PER CONDUCTOR	JACKET THICKNESS MILS	NOMINAL OUTSIDE DIMENSION S IN.	APROX WEIGHT	AMPACITY
									LBS/1000FT	
PMSHD-3C4-8	3	4	259	150	8	133	205	1.94	2019	122
PMSHD-3C2-8	3	2	259	150	6	133	220	2.12	2603	159
PMSHD-3C1-8	3	1	259	150	5	133	220	2.21	2913	184
PMSHD-3C1/0-8	3	1/0	266	150	4	259	220	2.32	3351	211
PMSHD-3C2/0-8	3	2/0	323	150	3	259	235	2.46	3946	243
PMSHD-3C3/0-8	3	3/0	418	150	2	259	250	2.62	4582	279
PMSHD-3C4/0-8	3	4/0	532	150	1	259	250	2.75	5321	321
PMSHD-3C250-8	3	250	627	150	1/0	266	250	2.89	6101	355
PMSHD-3C350-8	3	350	888	150	2/0	323	280	3.20	7696	435
PMSHD-3C500-8	3	500	1221	150	4/0	532	295	3.56	10199	536

SHD-GC

SHIELDED ROUND TYPE W/GROUND-CHECK, EPR/TPU, 15000 VOLTS, 90°C, THREE CONDUCTOR.



PRODUCT CONSTRUCTION

CONDUCTORS:

Flexible tinner copper.

INSULATION:

Ethylene Propylene Rubber (EPR) insulation colored.

INSULATION SHIELD:

Tinner copper and color coded nylon braid.

GROUND WIRES (2):

Flexible tinner copper.

GROUND-CHECK-CONDUCTOR:

Flexible tinner copper with yellow polypropylene insulation.

STRAND SHIELD:

Semi-conducting layer

JACKET:

- Thermoplastic Polyurethane (TPU) jacket.
- Cable identification via permanent marking.
- Black jacket is standard.

OPTIONS:

- Colored jackets are available.
- CPE and Hypalon Jacket are available.

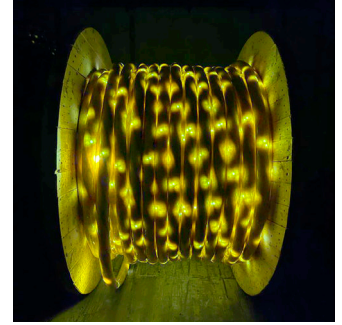
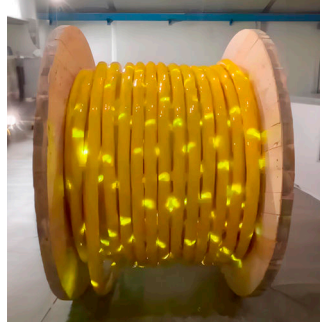
APPLICATIONS:

- Heavy duty portable power cable for use in circuits not exceeding 15000 volts.
- Designed for applications such as drills, conveyors, pumps and mobile equipment where grounding conductors, a ground check conductor and metallic shielding are required.
- Recommended maximum continuous conductor temperature is 90°C.
- Suitable for shallow water submersion.
- Cable carries P-184-MSHA marking indicating acceptance as flame resistant by the Pennsylvania Department of Environmental Protection and the Mine Safety and Health Administration.
- Cables meet or exceed ICEA Standards S-75-381/NEMA WC-58, ASTM B-172 and B-33.

2 TRHU 500 KCMIL CONDUCTORS, THREE CONDUCTOR, SHIELDED ROUND PORTABLE W/GROUND-CHECK, TYPE SHD-GC, 15000 VOLTS

CATALOG NUMBER	# OF COND.	COND. SIZE (AWG)	# OF WIRES PER CONDUCTOR	INSULATION THICKNESS MILS	GRD. COND. SIZE (AWG)	# OF WIRES PER CONDUCTOR	JACKET THICKNESS MILS	NOMINAL OUTSIDE DIMENSION S IN.	APROX WEIGHT		AMPACITY
									LBS/1000FT		
PMSHD-3C2-15	3	2	259	210	6	133	235	2.41	3145		164
PMSHD-3C1-15	3	1	259	210	5	133	235	2.52	3567		187
PMSHD-3C1/0-15	3	1/0	266	210	4	259	250	2.64	3976		215
PMSHD-3C2/0-15	3	2/0	323	210	3	259	255	2.73	4526		246
PMSHD-3C3/0-15	3	3/0	418	210	2	259	265	2.90	5231		283
PMSHD-3C4/0-15	3	4/0	532	210	1	259	265	3.05	6033		325
PMSHD-3C250-15	3	250	627	210	1/0	266	265	3.15	6602		359
PMSHD-3C350-15	3	350	888	210	2/0	323	280	3.40	8306		437
PMSHD-3C500-15	3	500	1221	210	4/0	532	280	3.68	10497		534

**SHIELDED ROUND TYPE
W/GROUND-CHECK, EPR/TPU,
8 – 15KV, 105°C, THREE
CONDUCTOR**



PRODUCT CONSTRUCTION

CONDUCTORS:

Tinned flexible copper, Class 5, acc. to VDE 0295, IEC 60228.

INSULATION:

EPR rubber compound.

- Inner semiconductive rubber layer over the semiconductive tape.
- Outer semiconductive rubber layer.

PHASE CONDUCTORS SCREEN:

Tinned copper wire braid + textile fiber colour: Red – White(*) – Black (*) : the White textile fiber is substituted with the WHITE efEHT LED element.

GROUNDING CONDUCTORS:

Tinned flexible copper, Class 5, acc. to VDE 0295, IEC 60228.

GROUND CHECK CONDUCTOR:

Tinned flexible copper, stranded construction with central filler KEVLAR® support, insulated with thermoset heavy duty special compound (Yellow).

OUTER SHEATH:

Halogen Free Flame Retardant, polyurethane TPU.

COLOUR:

Transparent (on request available also slightly coloured red or yellow or green).

**OPTIONAL CURRENT TECHNOLOGY*

**AVAILABLE IN MM2 (TABLE 1)*

WORKING DATA

Nominal rated voltage U0/U	5 – 15KV
Maximum short circuit temperatura	+ 250 °C
Maximum working temperatura on the conductor	+ 90 °C
Minimum ambient temperature	- 40° C
Minimum bending radius	Freely flexing acc. to VDE 0298 part 3
Oil resistance	Acc. to IEC 60811-404
Ozone resistance	Acc. to IEC 60811-403
Burning behaviour	Flame retardant acc. to IEC 60332-1-2 Halogen free acc. to IEC 60754-1 and IEC 60754-2

LIGHT ALL TIME:

As the efEHT tape harvests energy related with electric field (related to voltage), the cable has flashing lights all time the cable is connected (with a previous technology, EHT led, was needed that the machinery powered by the cable was in operation to have the light, flow of current; in this new efEHT system the simply connection to the cable to the power line allows to have the light).

PLUG AND PLAY CONCEPT:

As the tape harvests energy from the cable, it does not need an external power source. Just plug it on and it will glow!.

UNCHANGED DIMENSION:

The tape is so thin that the technology inside does not increase the external diameter of the cable (matter that do not happens with previous technology). This implies same flexibility and weight per meter of the cable with equivalent cable of same voltage and cross-section.

SAFETY:

Cables with efEHT inside indicate cable presence and voltage presence all time the cable is plugged on (while the previous EHT does not allow to know if the cable is or not under tension but only if what it is connected is operating or not), a step forward in safety.

4 TRHU 500 KCMIL CONDUCTORS, THREE CONDUCTOR, SHIELDED ROUND PORTABLE W/GROUND-CHECK, TYPE SHD-GC LED VOLTAGE, 8000 VOLTS

CATALOG NUMBER	COND. SIZE	POWER COND.		GROUND CONDUCTOR			NOMINAL INSULATION THICKNESS	APROX. OVERAL DIAMETER	APROX. WEIGHT		AMPACITY (A)
	AWG OR MCM	STRANDING		SIZE (AWG)	STRANDING		INCHES	INCHES	LBS/1000FT	KG/KM	
PMSHDLED-3C4-8	4	259	7x37	8	133	7x19	0.150	1.93	2152	3203	122
PMSHDLED-3C2-8	2	259	7x37	6	133	7x19	0.150	2.02	2767	3672	159
PMSHDLED-3C1-8	1	259	7x37	5	133	7x19	0.150	2.10	3131	4660	184
PMSHDLED-3C1/0-8	1/0	266	19x14	4	259	7x37	0.150	2.21	3646	5427	211
PMSHDLED-3C2/0-8	2/0	342	19x18	3	259	7x37	0.150	2.34	4161	6193	243
PMSHDLED-3C3/0-8	3/0	418	19x22	2	259	7x37	0.150	4.49	4912	7310	279
PMSHDLED-3C4/0-8	4/0	532	19x28	1	259	7x37	0.150	2.63	5561	8276	321
PMSHDLED-3C250-8	250	627	19x33	1/0	266	19x14	0.150	2.75	6445	9592	355
PMSHDLED-3C350-8	350	888	37x24	2/0	342	19x18	0.150	3.05	8106	12064	435
PMSHDLED-3C500-8	500	1221	37x33	4/0	532	19x28	0.150	3.39	10590	15762	536

4 TRHU 500 KCMIL CONDUCTORS, THREE CONDUCTOR, SHIELDED ROUND PORTABLE W/GROUND-CHECK, TYPE SHD-GC LED VOLTAGE, 15000 VOLTS

CATALOG NUMBER	COND. SIZE	POWER COND.		GROUND CONDUCTOR			NOMINAL INSULATION THICKNESS	APROX. OVERAL DIAMETER	APROX. WEIGHT		AMPACITY (A)
	AWG OR MCM	STRANDING		SIZE (AWG)	STRANDING		INCHES	INCHES	LBS/1000FT	KG/KM	
PMSHDLED-3C2-15	2	259	7x37	6	133	7x19	0.210	2.31	2973	4425	164
PMSHDLED-3C1-15	1	259	7x37	5	133	7x19	0.210	2.40	3832	5703	187
PMSHDLED-3C1/0-15	1/0	266	19x14	4	259	7x37	0.210	2.52	4410	6563	215
PMSHDLED-3C2/0-15	2/0	342	19x18	3	259	7x37	0.210	2.60	4830	7188	246
PMSHDLED-3C3/0-15	3/0	418	19x22	2	259	7x37	0.210	2.79	5695	8476	283
PMSHDLED-3C4/0-15	4/0	532	19x28	1	259	7x37	0.210	2.90	6381	9497	325
PMSHDLED-3C250-15	250	627	19x33	1/0	266	19x14	0.210	3.05	7260	10806	355
PMSHDLED-3C350-15	350	888	37x24	2/0	342	19x18	0.210	3.31	8861	13188	435
PMSHDLED-3C500-15	500	1221	37x33	4/0	532	19x28	0.210	3.72	11590	17250	536

70 TRHU 185 MM2 CONDUCTORS, THREE CONDUCTOR, SHIELDED ROUND PORTABLE W/GROUND-CHECK, TYPE SHD-GC, 6/10KV

CATALOG NUMBER	COND. SIZE	SIZE GROUNDING CONDUCTOR	GROUND CONDUCTOR	APROX. OVERAL DIAMETER	APROX WEIGHT	AMPACITY (A)
	mm		SIZE (mm)	mm	KG/M	
PMSHD-3C70-6/10	70	35	10	54-60	4.2	263
PMSHD-3C95-6/10	95	35	10	58-61	5.0	317
PMSHD-3C120-6/10	120	50	10	58-62	6.4	370
PMSHD-3C185-6/10	185	70	10	70-73	9.4	485

*OTHER GROUND CONDUCTOR SIZE ARE AVAILABLE.

*OTHER OUTER DIAMETER SIZE ARE AVAILABLE.

PUMP CABLE

FLAT TYPE W/GROUND-CHECK, EPR/CPE,
0.6/2KV, 90°C, THREE CONDUCTOR. BASED
ON: ASTM B3, UL44, ICEA S-75-381



PRODUCT CONSTRUCTION

CONDUCTORS:

Flexible tinner copper.

INSULATION:

Ethylene Propylene Rubber (EPR) insulation colored.

SEPARATOR:

A suitable tape separator between the conductor and insulation.

CIRCUIT IDENTIFICATION:

Black, red, yellow.

GROUND-CHECK-CONDUCTOR:

Flexible tinner copper with green-yellow.

JACKET:

Reinforced, two-layer, extra heavy duty, lead-cured Chlorinated Polyethylene (CPE).

OPTIONS:

Colored jackets are available.
TPU jacket is available.

APPLICATIONS:

- Heavy duty flexible for supplying power to pumps.
- Other industrial applications.

FEATURES:

- Excellent flexibility
- Water, ozone, sun, weather and flame resistant
- Temperature range -40°C to + 90°C
- Oil and heat resistant
- Suitable for shallow water immersion
- Ink jet or indeed printed for easy identification

*10 TRHU 500 KCMIL CONDUCTORS, THREE CONDUCTOR,
FLAT PORTABLE W/GROUND-CHECK, 0.6/2KV*

CATALOG NUMBER	COND. SIZE	POWER COND. STRANDING	NOMINAL INSULATION THICKNESS		APROX. OUTSIDE DIMENSIONS		APROX. WEIGHT	AMPACITY (A)
	AWG OR MCM	NO. OF WIRES	INCHES	mm	INCHES	mm	KG/KM	
	3x10 + 10	104x0.254	0.06	1.52	131x0.51	33.3x12.9	1302	42
	3x8 + 10	166x0.254	0.06	1.52	1.47x0.56	37.2x14.1	961	54
PMPUMP-3C6-8-0.6/2	3x6 + 8	259x0.254	0.06	1.52	1.70x0.63	43.1x16.1	749	72
PMPUMP-3C4-6-0.6/2	3x4 + 6	412x0.254	0.06	1.52	1.81x0.67	46.1x17.0	1664	93
PMPUMP-3C2-5-0.6/2	3x2 + 5	259x0.404	0.06	1.52	2.07x0.73	52.5x18.6	2188	122
PMPUMP-3C1-4-0.6/2	3x1 + 4	331x0.404	0.08	2.03	2.44x0.83	61.9x21.1	3100	143
PMPUMP-3C1/0-3-0.6/2	3x1/0 + 3	414x0.404	0.08	2.03	2.53x0.87	64.3x22.2	3379	165
PMPUMP-3C2/0-2-0.6/2	3x2/0 + 2	522x0.404	0.08	2.03	2.75x0.92	69.8x23.3	4032	192
PMPUMP-3C4/0-1/0-0.6/2	3x4/0 + 1/0	829x0.404	0.08	2.03	3.31x1.14	84.2x29.0	5830	255
PMPUMP-3C250-2/0-0.6/2	3x250 + 2/0	973x0.404	0.095	2.41	3.85x1.33	97.8x33.9	7425	280
PMPUMP-3C300-3/0-0.6/2	3x300 + 3/0	1166x0.404	0.095	2.41	4.22x1.41	102.9x35.1	8730	310
PMPUMP-3C350-3/0-0.6/2	3x350 + 3/0	1361x0.404	0.095	2.41	4.27x1.44	108.6x36.6	9600	335
PMPUMP-3C500-250-0.6/2	3x500 + 250	1921x0.404	0.095	2.41	4.83x1.56	123.8x40.4	12700	395

PUMP CABLE

FLAT TYPE W/GROUND-CHECK, EPR/CPE,
2000 VOLTS, 90°C, THREE CONDUCTOR.
BASED ON: ASTM B3, UL44, ICEA S-75-381



PRODUCT CONSTRUCTION

CONDUCTORS:

Flexible tinner copper.

INSULATION:

Ethylene Propylene Rubber (EPR) insulation colored.

SEPARATOR:

A suitable tape separator between the conductor and insulation.

CIRCUIT IDENTIFICATION:

Black, red, yellow.

GROUND-CHECK-CONDUCTOR:

Flexible tinner copper with green-yellow.

JACKET:

Reinforced, two-layer, extra heavy duty, lead-cured Chlorinated Polyethylene (CPE).

OPTIONS:

- Colored jackets are available.
- TPU jacket is available.

APPLICATIONS:

- Heavy duty flexible for supplying power to pumps.
- Other industrial applications.

FEATURES:

- Excellent flexibility
- Water, ozone, sun, weather and flame resistant
- Temperature range-40°C to + 90°C
- Oil and heat resistant
- Suitable for shallow water immersion
- Ink jet or indeed printed for easy identification

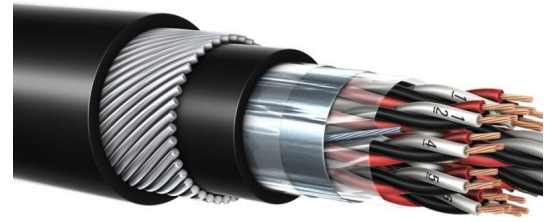
*6 TRHU 500 KCMIL CONDUCTORS, THREE CONDUCTOR,
FLAT PORTABLE W/GROUND-CHECK, 2000 VOLTS*

CATALOG NUMBER	COND. SIZE		POWER COND. STRANDING		NOMINAL INSULATION THICKNESS		APROX. OUTSIDE DIMENSIONS		APROX. WEIGHT		AMPACITY (A)
	AWG OR MCM	NO. OF WIRES	INCHES	mm	INCHES	mm	LBS/1000FT	KG/KM			
PMPUMP-3C6-8-2	3x6 + 8	259x0.01	0.07	1.78	0.60x1.72	15.3x43.6	986	1467	75		
PMPUMP-3C4-6-2	3x4 + 6	412x0.01	0.07	1.78	0.67x1.87	17.0x47.4	1086	1616	95		
PMPUMP-3C2-5-2	3x2 + 5	259x0.0159	0.07	1.78	0.72x2.08	18.2x52.8	1428	2125	130		
PMPUMP-3C1-4-2	3x1 + 4	332x0.0159	0.09	2.29	0.82x2.41	20.8x61.2	2105	3133	145		
PMPUMP-3C1/0-3-2	3x1/0 + 3	414x0.0159	0.09	2.29	0.87x2.58	22.1x65.5	2217	3299	170		
PMPUMP-3C2/0-2-2	3x2/0 + 2	522x0.0159	0.09	2.29	0.85x2.70	21.5x68.5	2623	3903	195		
PMPUMP-3C4/0-1/0-2	3x4/0 + 1/0	829x0.0159	0.09	2.29	1.14x3.37	29.0x85.6	4045	6019	260		
PMPUMP-3C250-2/0-2	3x250 + 2/0	973x0.0159	0.105	2.67	1.33x3.89	33.9x98.8	5109	7602	290		
PMPUMP-3C350-3/0-2	3x350 + 3/0	1361x0.0159	0.105	2.67	1.41x4.28	35.8x108.7	6395	9517	350		
PMPUMP-3C500-250-2	3x500 + 250	1921x0.0159	0.105	2.67	1.56x4.89	39.7x124.1	8477	12618	430		

INSTRUMENTAL CABLE

CONDUCTORS:

Soft bare annealed copper per ASTM B-3, Class B stranding per ASTM B-8. Tinned copper conductors are available upon request, it may have minimum run length.



INSULATION:

300 to 600 volts (in 90°C and 105°C)

CODE COLOR:

K-1 (Black, White & Red Triads). According standards.

INDIVIDUAL SHIELD:

Aluminum-polyester tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

OVERALL SHIELD:

Aluminum-polyester tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

ARMOR:

Available in armor such as, Steel wire armor (SWA), Corrugated and Continuous Welded aluminum alloy armor (CCW) and Aluminum alloy Interlocked armor (AIA). Option Steel Armor (SIA).

COMMUNICATION CABLE (IF REQUIRED):

Stranded bare copper conductor 22AWG FR-XLPE (90°C) insulated. Usually Orange color to contrast K-1 color code.

FLAME TESTS:

- IEEE 383 70,000 BTU /hr flame test.
- CEC/CSA - (FT-4).
- UL1581 (Sunlight Resistant).

OTHER STANDARDS:

UL Listed 13, 2250 UL 1581. NEC Artículo 725 / NEC Artículo 727 / NEC Listed. Tipo PLTC/ITC/CL3. IEEE 383 70,000 BTU. ICEA T-29-520 210,000 BTU / ICEA S-61-402. CEC/CSA - (FT-4).

APPLICATION:

- For use in instrumentation and process control applications where protection from electrostatic interference is required.
- UL listed as Type TC and UL 1277 approved for installation indoors or outdoors, aerially, in conduits, ducts and cable trays in circuits not exceeding 300 or 600 volts, as requested.

INNER & OUTER JACKET:

Sunlight-resistant PVC. A ripcord is applied longitudinally under the jacket to facilitate stripping.

TIPO CABLE	PAIRS	TRIADS	COPPER	300V-PLTC	600V (90°C)-TC	600V (105°C)-TC	Copper Mesh	Aluminum/Polyester
Instrumentation Cable Estandar	X	X	X	X	X	X		
Instrumentation Cable CCW Armored	X	X	X	X	X	X		
Instrumentation Cable AIA Armored	X	X	X	X	X	X		
Instrumentation Cable Swa Armored	X	X	X	X	X	X		
Thermocouple EX	X		X	X				X
Thermocouple JX								
Thermocouple KX								
Thermocouple SX								
Thermocouple TX								
Devicenet Cable(Grey Or Black)	X		X	X			X	
Profibus DP Cable(Violet)	X		X	X				X
Profibus PA Cable(Black)	X		X	X				X
Foundation Fieldbus Type A(Orange)	X		X	X				X
Foundation Fieldbus Type B(Orange)	X		X	X				X

TIPO CABLE	Overall Shield	Individual Shield	AIA	SWA	SIA	CCW	PVC	LSOH	TPU
Instrumentation Cable Estandar	X	X	X	X			X	X	
Instrumentation Cable CCW Armored	X	X	X	X			X	X	
Instrumentation Cable AIA Armored	X	X	X	X			X	X	
Instrumentation Cable Swa Armored	X	X	X	X			X	X	
Thermocouple EX	X	X	X	X			X	X	
Thermocouple JX									
Thermocouple KX									
Thermocouple SX									
Thermocouple TX									
Devicenet Cable(Grey Or Black)			X	X	X	X	X	X	
Profibus DP Cable(Violet)			X	X	X	X	X	X	
Profibus PA Cable(Black)			X	X	X	X	X	X	
Foundation Fieldbus Type A(Orange)			X	X	X	X	X	X	
Foundation Fieldbus Type B(Orange)			X	X	X	X	X	X	

CALIBERS

FROM: 20AWG, 18AWG, 16AWG, 14AWG

FROM: 0.75 mm², 1.0 mm², 1.5 mm², 2.5 mm²

SECTORFLEX/EVA RZ1-K

3xC+1xT mm² Cu 0,6/1Kv

PHASE CONDUCTORS (3):

Extra-flexible sector copper conductor.

GROUND CONDUCTOR (1):

Extra-flexible round copper conductor.

INSULATION:

Extruded cross-linked polyethylene (XLPE). Blue, black and red colored phases. Green colored earth.

EXTERNAL COVER:

Halogen-free compound, low smoke emission and flame retardant, black color.

APPLICATION:

These cables are suitable for use in fixed installations; due to the complexity of the installation, the use of flexible cables is necessary. In fire conditions, SECTORFLEX cables show low smoke emission (LS), do not contain halogen gases (OH) and have a high retardation of the spread of flame and fire, making them ideal for use in places with large concentration of public. SECTORFLEX cables use flexible sector conductors that, maintaining identical electrical performance and using the same conventional terminals and accessories as the circular cable, achieves a smaller diameter



and weight of the cable, significantly increasing its maneuverability and ease of installation.

APPLICABLE STANDARDS:

- IEC 60332-1-2: No vertical flame spread with a minimum power of 1kW.
- IEC 60332-3-24: Non-spread of fire in vertical tray for 70,000 BTU/h, category C. IEC 60754-1: Bajo contenido de gases halógenos y ácidos.
- IEC 60754-2: Non-corrosive gases (by measurement of pH and conductivity)
- IEC 61034: Low smoke emission in case of fire.
- IEC 60684-2: Test methods on electrical conductor insulation.

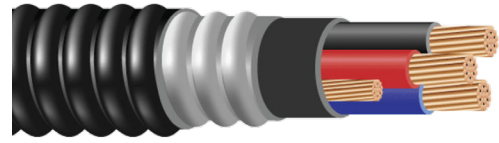
OPERATING TEMPERATURE:

- SERVICE: 90°C
- EMERGENCY: 130°C
- SHORT CIRCUIT: 250°C

TECHNICAL CHARACTERISTICS

PARAMETER	UNIT	VALUE			
CABLE CONSTRUCTION	mm ²	3x70+1x35	3x95+1x50	3x120+1x70	3x185+1x95
PHASE CONDUCTOR CALIBER (3)	mm ²	70	95	120	185
CONDUCTOR DIAMETER APPROX.	mm	10,5	12,2	13,7	17,4
NOMINAL/MINIMUM INSULATION THICKNESS	mm	1,1/0,89	1,1/0,89	1,2/0,98	1,6/1,34
GROUND CONDUCTOR CALIBER (1)	mm ²	35	50	70	95
GROUND CONDUCTOR DIAMETER APPROX.	mm	7,4	8,8	10,5	12,2
TOTAL DIAMETER APPROX.	mm	31	35	40	49
TOTAL WEIGHT APPROX.	kg/km	2580	3360	4460	6420
MINIMUM BEND RADIUS DURING INSTALLATION	mm	372	420	480	588
MINIMUM RADIUS OF CURVATURE FINAL INSTALLATION	mm	248	280	320	392
CATALOG		RZ1S-7035	RZ1S-9550	RZ1S-12070	RZ1S-18595

XLPE/PVC/AIA/PVC, CONTROL AND POWER, ARMORED 1000 V, CSA TECK90, THREE CONDUCTOR 600 V, CSA TECK90, MULTI-CONDUCTOR



CONDUCTOR:

14 AWG thru 8 AWG bare copper Class B compressed concentric round to ASTM B8 6 AWG thru 1000 kcmil bare copper compact Class B strand

INSULATION:

Cross-linked Polyethylene (XLPE), Type RW90

Color-coded: 14 AWG to 2 AWG—black, red and blue; 1 AWG to 1000 kcmil—printed numbers Ground (Bonding) Conductor:

The conductor consists of one uninsulated stranded bare copper conductor

INNER JACKET:

Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

ARMOR:

Aluminum Interlocked Armor (AIA)

OVERALL JACKET:

Lead-free, ACID-FLAME-CHECK ✓✓ ® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

APPLICATIONS:

For exposed and concealed wiring in dry, damp or wet locations

APPLICATIONS (CONT'D.):

For use in ventilated, non-ventilated and ladder- type cable trays in dry, damp or wet locations

For direct earth burial (with protection as required by inspection authority)

For wiring in all hazardous locations when

used with certified HL cable glands

FEATURES:

Rated at 90°C wet or dry

Excellent crush resistance, oil and chemical resistance

Provides long service life

Meets cold bend and impact tests at -40°C

COMPLIANCES:

Industry Compliances:

- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:

- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

COMPLIANCES (CONT'D.):

Other Compliances:

- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)					
				INSULATION		ARMOR		CABLE	
				INCHES	mm	INCHES	mm	INCHES	mm
				14 AWG THRU 1000 kcmil—THREE CONDUCTOR—1000 V					
PMTECK-3C14-0.6	3	14	14	0.17	4.2	0.67	17	0.76	19.3
PMTECK-3C12-0.6	3	12	14	0.18	4.6	0.72	18.3	0.8	20.3
PMTECK-3C10-0.6	3	10	12	0.21	5.3	0.79	20.1	0.88	22.4
PMTECK-3C8-0.6	3	8	10	0.24	6.1	0.86	21.9	0.94	23.9
PMTECK-3C6-0.6	3	6	8	0.31	7.8	1.03	26.2	1.13	28.7
PMTECK-3C4-0.6	3	4	8	0.35	8.8	1.16	29.5	1.25	31.8
PMTECK-3C3-0.6	3	3	6	0.38	9.8	1.22	31	1.3	33
PMTECK-3C2-0.6	3	2	6	0.42	10.5	1.28	32.5	1.37	34.8
PMTECK-3C1-0.6	3	1	6	0.49	12.5	1.44	36.6	1.54	39.1
PMTECK-3C1/0-0.6	3	1/0	6	0.53	13.5	1.56	39.6	1.68	42.7
PMTECK-3C2/0-0.6	3	2/0	6	0.58	14.8	1.65	41.9	1.77	45
PMTECK-3C3/0-0.6	3	3/0	4	0.63	15.9	1.75	44.5	1.87	47.5
PMTECK-3C4/0-0.6	3	4/0	4	0.69	17.5	1.86	47.2	1.98	50.3
PMTECK-3C250-0.6	3	250	4	0.75	19.2	2.05	52.1	2.17	55.1
PMTECK-3C350-0.6	3	350	3	0.86	21.7	2.26	57.4	2.4	61
PMTECK-3C500-0.6	3	500	3	0.99	25	2.52	64	2.66	67.6
PMTECK-3C750-0.6	3	750	2	1.16	29.4	2.89	73.4	3.03	77
PMTECK-3C1000-0.6	3	1000	1	1.31	33.2	3.28	83.3	3.44	87.4

CATALOG NUMBER	COPPER WEIGHT		NET WEIGHT W/ARMOR				AMPACITY ** (30 °C AMBIENT)
	LBS/ 1000 FT	kg/ km	LBS/1000 FT		kg/km		
			AL	STEEL	AL	STEEL	
PMTECK-3C14-0.6	52	77	261	398	388	592	25
PMTECK-3C12-0.6	75	112	299	445	445	662	30
PMTECK-3C10-0.6	124	185	374	539	557	802	40
PMTECK-3C8-0.6	189	281	486	666	723	991	55
PMTECK-3C6-0.6	300	447	724	836	1078	1244	75
PMTECK-3C4-0.6	447	665	970	1327	1444	1975	95
PMTECK-3C3-0.6	582	866	1136	1509	1691	2246	115
PMTECK-3C2-0.6	710	1056	1311	1702	1951	2533	130
PMTECK-3C1-0.6	866	1288	1593	2045	2371	3043	145
PMTECK-3C1/0-0.6	1069	1590	1906	2389	2837	3555	170
PMTECK-3C2/0-0.6	1327	1974	2225	2732	3311	4066	195
PMTECK-3C3/0-0.6	1670	2485	2666	3261	3967	4853	225
PMTECK-3C4/0-0.6	2109	3138	3207	3806	4772	5664	260
PMTECK-3C250-0.6	2470	3675	3800	4513	5655	6716	290
PMTECK-3C350-0.6	3437	5114	4979	5906	7409	8789	350
PMTECK-3C500-0.6	4839	7200	6586	7627	9798	11349	430
PMTECK-3C750-0.6	7225	10751	9267	10470	13790	15580	535
PMTECK-3C1000-0.6	9612	14303	12184	13566	18130	20187	615

Dimensions and weights are nominal; subject to industry tolerances.

*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

**Ampacity is based on CE Code Part 1, Table 2 (Three conductors in raceway [conduit]) and Rule 4-004.

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)					
				INSULATION		ARMOR		CABLE	
				INCHES	mm	INCHES	mm	INCHES	mm
14 AWG—MULTI-CONDUCTOR—30 MILS INS. (.76 mm), 600 V									
PMTECK-2C14-0.6	2	14	14	0.13	3.4	0.58	14.8	0.67	16.9
PMTECK-3C14-0.6	3	14	14	0.13	3.4	0.6	15.4	0.69	17.4
PMTECK-4C14-0.6	4	14	14	0.13	3.4	0.64	16.2	0.72	18.3
PMTECK-5C14-0.6	5	14	14	0.13	3.4	0.68	17.3	0.76	19.3
PMTECK-6C14-0.6	6	14	14	0.13	3.4	0.72	18.3	0.8	20.3
PMTECK-7C14-0.6	7	14	14	0.13	3.4	0.74	18.8	0.82	20.8
PMTECK-8C14-0.6	8	14	14	0.13	3.4	0.79	20.1	0.87	22.2
PMTECK-10C14-0.6	10	14	14	0.13	3.4	0.88	22.3	0.96	24.3
PMTECK-12C14-0.6	12	14	14	0.13	3.4	0.9	23	0.99	25
PMTECK-15C14-0.6	15	14	14	0.13	3.4	0.96	24.3	1.04	26.3
PMTECK-20C14-0.6	20	14	14	0.13	3.4	1.13	28.7	1.21	30.8
PMTECK-25C14-0.6	25	14	14	0.13	3.4	1.22	30.9	1.3	33
PMTECK-30C14-0.6	30	14	14	0.13	3.4	1.28	32.5	1.36	34.6
PMTECK-40C14-0.6	40	14	14	0.13	3.4	1.4	35.6	1.48	37.7
PMTECK-50C14-0.6	50	14	14	0.13	3.4	1.52	38.5	1.6	40.6

CATALOG NUMBER	COPPER WEIGHT		NET WEIGHT W/ARMOR				AMPACITY ** (30 °C AMBIENT)
	LBS/ 1000 FT	kg/ km	LBS/1000 FT		kg/km		
			AL	STEEL	AL	STEEL	
PMTECK-2C14-0.6	39	58	195	310	290	462	25
PMTECK-3C14-0.6	52	78	226	346	336	515	25
PMTECK-4C14-0.6	68	101	256	385	381	573	25
PMTECK-5C14-0.6	81	121	290	430	432	640	20
PMTECK-6C14-0.6	95	142	316	464	471	691	20
PMTECK-7C14-0.6	104	155	338	490	503	730	17.5
PMTECK-8C14-0.6	117	174	373	537	555	799	17.5
PMTECK-10C14-0.6	149	222	451	637	671	948	17.5
PMTECK-12C14-0.6	176	262	511	702	761	1045	17.5
PMTECK-15C14-0.6	217	323	586	791	872	1177	17.5
PMTECK-20C14-0.6	285	424	789	1117	1174	1662	17.5
PMTECK-25C14-0.6	337	502	958	1315	1426	1957	15
PMTECK-30C14-0.6	402	599	1015	1390	1511	2069	15
PMTECK-40C14-0.6	531	791	1234	1649	1837	2454	15
PMTECK-50C14-0.6	661	984	1463	1916	2178	2851	12.5

Dimensions and weights are nominal; subject to industry tolerances.

*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

** Ampacity is based on CE Code Part 1, Table 2 for 3 conductors in raceway (conduit). Ampacity of 4 conductor cable is based on 3 current-carrying conductors and 1 neutral. Ampacity at 5 or more conductors is modified by Table 5C.

CCW ARMORED POWER, 3/C VFD AND 4/C

- UL Type MC-HL, CSA Type HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant
- Direct Burial, UL Marine Shipboard Cable, ABS CWCMC



PRODUCT CONSTRUCTION:

- Bare annealed copper per ASTM B3
- 10 AWG and smaller are Class B compressed stranding per ASTM B8
- 8 AWG and larger are compact stranding per ASTM B496

INSULATION:

- Cross-linked Polyethylene (XLPE) insulation per ICEA S-95-658 and UL 44, Listed XHHW-2
- 6 AWG and smaller are color-coded per ICEA Method 1, Table E2
- 4 AWG and larger are black with printed numbers per ICEA Method 4
- Color-coded per CSA C22.2 No. 123 where applicable

GROUNDING CONDUCTOR(S):

- Class B stranded bare annealed copper per ASTM B3 and B8
- Where specified, single or three split grounding wires are sized in accordance with NEC Table 250.122

CABLE ASSEMBLY:

- Insulated conductors and grounding wire(s) are cabled together with non-hygroscopic fillers when required
- A binder tape is applied over the cabled core

CCW ARMOR:

- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569 and UL 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

JACKET:

- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Meets CSA Low Acid Gas requirements

APPLICATIONS:

- Variable Frequency Drives: 3-conductor CCW armored cables with three (3) symmetrical grounding wires are the preferred wiring method for use with AC motors controlled by

pulse-width modulated inverters in VFD applications

- CCW armored cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

FEATURES:

- 3-conductor CCW power cables with three grounding wires are recommended for use with pulse-width modulated AC drives
- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems

FEATURES: (CONT'D.):

- Meets cold impact at -40°C
- 90°C continuous operating temperature, wet or dry
- 130°C emergency rating
- 250°C short circuit rating

SPECIFICATIONS:

- Design Adherence:
 - ICEA S-95-658/WC70 Standard for Non-Shielded Power Cable, 2 kV or Less
 - UL 44 Rubber Insulated Wires and Cables
 - UL 1569 Metal Clad Cables
 - UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
 - UL 1309 Marine Shipboard Cable
 - CSA C22.2 No. 123 Metal Sheathed Cables
 - CSA C22.2 No. 174 Cables and Cable Glands for Use in Hazardous Locations

- Flame Tests:

- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

- Compliances:

- UL Type MC-HL, XHHW-2, SUN RES, CT USE, DIR BUR, -40°C, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- CSA certified1 Type RA90, XLPE, HL, SR, FT4, and -40°C, CSA File # 7319
- RoHS Compliant

COND. SIZE (AWG/kcmil)	NO. OF COND.	INSULATION THICKNESS		BARE GROUND (AWG)	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS	
		mils	mm		INCHES	mm	INCHES	mm	mils	mm
14 (7/W) (2.08 mm ²)	3	30	0.76	3 x #18	0.33	8.4	0.53	13.5	50	1.27
	4	30	0.76	3 x #18	0.37	9.4	0.58	14.7	50	1.27
12 (7/W) (3.31 mm ²)	3	30	0.76	3 x #16	0.37	9.4	0.58	14.7	50	1.27
	4	30	0.76	3 x #16	0.45	11.4	0.67	17	50	1.27
10 (7/W) (5.26 mm ²)	3	30	0.76	3 x #14	0.41	10.4	0.62	15.7	50	1.27
	4	30	0.76	3 x #14	0.45	11.4	0.67	17	50	1.27
8 (7/W) (8.36 mm ²)	3	45	1.14	3 x #14	0.5	12.7	0.71	18	50	1.27
	4	45	1.14	1 x #10	0.58	14.7	0.8	20.3	50	1.27
6 (7/W) (13.3 mm ²)	3	45	1.14	3 x #12	0.58	14.7	0.8	20.3	50	1.27
	4	45	1.14	1 x #8	0.66	16.8	0.89	22.6	50	1.27
4 (7/W) (21.2 mm ²)	3	45	1.14	3 x #12	0.68	17.3	0.89	22.6	50	1.27
	4	45	1.14	1 x #8	0.77	19.6	0.97	24.6	50	1.27
2 (7/W) (33.6 mm ²)	3	45	1.14	3 x #10	0.8	20.3	1.02	25.9	50	1.27
	4	45	1.14	1 x #6	0.92	23.4	1.15	29.2	50	1.27
1 (19/W) (42.4 mm ²)	3	55	1.4	3 x #10	0.92	23.4	1.15	29.2	50	1.27
	4	55	1.4	1 x #6	1.04	26.4	1.29	32.8	50	1.27
1/0 (19/W) (53.5 mm ²)	3	55	1.4	3 x #10	1	25.4	1.24	31.5	50	1.27
	4	55	1.4	1 x #6	1.12	28.4	1.37	34.8	50	1.27
2/0 (19/W) (67.4 mm ²)	3	55	1.4	3 x #10	1.09	27.7	1.34	34	50	1.27
	4	55	1.4	1 x #6	1.23	31.2	1.51	38.4	60	1.52
3/0 (19/W) (85.0 mm ²)	3	55	1.4	3 x #8	1.21	30.7	1.47	37.3	60	1.52
	4	55	1.4	1 x #4	1.36	34.5	1.65	41.9	60	1.52
4/0 (19/W) (107 mm ²)	3	55	1.4	3 x #8	1.33	33.8	1.6	40.6	60	1.52
	4	55	1.4	1 x #4	1.49	37.8	1.78	45.2	60	1.52
250 (37/W) (127 mm ²)	3	65	1.65	3 x #8	1.48	37.6	1.74	44.2	60	1.52
	4	65	1.65	1 x #4	1.64	41.7	1.96	49.8	60	1.52
350 (37/W) (177 mm ²)	3	65	1.65	3 x #7	1.66	42.2	1.96	49.8	60	1.52
	4	65	1.65	1 x #3	1.89	48	2.19	55.6	75	1.91
500 (37/W) (253 mm ²)	3	65	1.65	3 x #6	1.94	49.3	2.28	57.9	75	1.91
	4	65	1.65	1 x #2	2.14	54.4	2.49	63.2	75	1.91
750 (61/W) (380 mm ²)	3	80	2.03	3 x #5	2.37	60.2	2.75	69.9	75	1.91
	4	80	2.03	1 x #1	2.61	66.3	3.03	77	85	2.16
1000 (61/W) (507 mm ²)	3	80	2.03	1 x #1/0	2.67	67.8	3.11	79	85	2.16
	4	80	2.03	1 x #1/0	3.07	78	3.63	92.2	85	2.16

COND. SIZE (AWG/kcmil)	NOMINAL OVERALL O.D.		CROSS SECTIONAL AREA ¹	APPROXIMATE NET WEIGHT		90°C AMPACITY @ 30°C
	INCHE S	mm	SQ. IN.	LBS/1000 FT	kg/1000 m	AMBIENT ²
14 (7/W) (2.08 mm ²)	0.64	16.3	0.33	163	242	15
	0.69	17.5	0.38	226	336	15
12 (7/W) (3.31 mm ²)	0.69	17.5	0.38	243	362	20
	0.78	19.8	0.48	291	433	20
10 (7/W) (5.26 mm ²)	0.73	18.5	0.42	305	454	30
	0.78	19.8	0.48	354	527	30
8 (7/W) (8.36 mm ²)	0.81	20.6	0.52	392	583	55
	0.9	22.9	0.64	473	704	44
6 (7/W) (13.3 mm ²)	0.9	22.9	0.64	534	795	75
	0.99	25.1	0.78	641	954	60
4 (7/W) (21.2 mm ²)	0.99	25.1	0.78	716	1,066	95
	1.08	27.4	0.93	860	1,280	76
2 (7/W) (33.6 mm ²)	1.13	28.7	1.02	1,013	1,507	130
	1.26	32	1.26	1,267	1,885	104
1 (19/W) (42.4 mm ²)	1.26	32	1.26	1,119	1,666	150
	1.4	35.6	1.56	1,526	2,272	120
1/0 (19/W) (53.5 mm ²)	1.34	34	1.43	1,496	2,226	170
	1.48	37.6	1.74	1,862	2,771	136
2/0 (19/W) (67.4 mm ²)	1.44	36.6	1.65	1,801	2,681	195
	1.64	41.7	2.14	2,351	3,498	156
3/0 (19/W) (85.0 mm ²)	1.58	40.1	1.99	2,262	3,367	225
	1.78	45.2	2.52	2,921	4,346	180
4/0 (19/W) (107 mm ²)	1.73	43.9	2.38	2,722	4,051	260
	1.91	48.5	2.9	3,491	5,194	208
250 (37/W) (127 mm ²)	1.87	47.5	—	3,195	4,755	290
	2.09	53.1	—	4,142	6,164	232
350 (37/W) (177 mm ²)	2.09	53.1	—	4,284	6,376	350
	2.35	59.7	—	5,536	8,238	280
500 (37/W) (253 mm ²)	2.44	62	—	6,035	8,981	430
	2.65	67.3	—	7,704	11,464	344
750 (61/W) (380 mm ²)	2.92	74.2	—	8,854	13,176	535
	3.21	81.5	—	11,449	17,037	428
1000 (61/W) (507 mm ²)	3.3	83.8	—	11,611	17,280	615
	3.81	96.8	—	15,377	22,883	492

MV CABLES / CABLES DE MT

CONDUCTORS:

Unipolar and three-polar conductors, in copper and aluminum.

INSULATION:

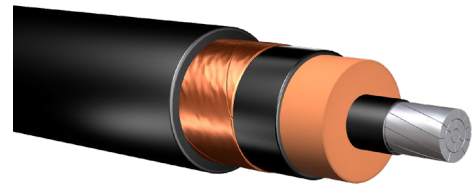
5KV to 18/30 (36) KV, in XLPE (90°) and EPR (105°)

SHIELD:

Metal screen copper (tapes or wires).

ARMOR:

Available in armor such as, Steel wire armor (SWA), Corrugated and Aluminum alloy Interlocked armor (AIA).



JACKET:

PVC, LSOH, CPE or TPU.

OTHER STANDARDS:

UL, CSA, ASTM, NEMA, ICEA, IEC, IEEE

TIPO CABLE	TRIPOLARES	UNIPOLARES	ALUMINIO	COBRE	XLPE(90°C)	EPR(105°C)	METAL SCREEN COPPER
							(tape/ wires)
MV90 ^(1,2)	X	X		X	X		X
MV105 ^(1,2)	X	X		X		X	X
XAT ^(1,2)	X	X		X	X		X
URSUS MT ^(**)	X			X	X		X
N2XSY ^(**)		X		X	X		X
N2XSOH ^(**)	X	X		X	X		X
NA2XSY ^(**)	X		X		X		X
N2XSEY ^(**)	X			X	X		X
N2XSEOHROH ^(**)	X			X	X		X
TECK90(AIA) ^(*)	X	X		X	X		X
DURALOX ^(*)	X	X		X		X	X
MC-HL(CCW) ^(1,2)	X	X		X	X	X	X

TIPO CABLE	5KV	8KV	15KV	25/35KV	6/10(12)KV	8.7/15(17.5)KV	12/20(24)KV	18/30(36)KV
MV90 ^(1,2)	X	X	X	X				
MV105 ^(1,2)	X	X		X				
XAT ^(1,2)	X	X	X	X				
URSUS MT ^(**)					X	X	X	X
N2XSY ^(**)					X	X	X	X
N2XSOH ^(**)					X	X	X	X
NA2XSY ^(**)					X	X	X	X
N2XSEY ^(**)					X	X	X	X
N2XSEOHROH ^(**)					X	X	X	X
TECK90(AIA) ^(*)	X	X	X	X				
DURALOX ^(*)	X	X	X	X				
MC-HL(CCW) ^(1,2)	X	X	X	X				

TIPO CABLE	AIA	SWA	PVC	LSOH	CPE	TPU	NORMAS/ESTANDARES
MV90 ^(1,2)			X				UL, CSA, ASTM, NEMA
MV105 ^(1,2)			X				UL CSA, ASTM, NEMA
XAT ^(1,2)			X	X			UL CSA, ASTM, NEMA, ICEA, IEC
URSUS MT ^(**)			X	X	X	X	IEC, VDE, NTP
N2XSY ^(**)			X	X			IEC, NTP, UL
N2XSOH ^(**)				X			IEC, NTP, UL
NA2XSY ^(**)			X	X			IEC, NTP, UL
N2XSEY ^(**)			X	X			IEC, NTP, UL
N2XSEOHROH ^(**)		X	X	X	X	X	IEC, UL, CSA
TECK90(AIA) ^(*)	X		X				CSA, ASTM, NEMA, UL, ICEA, IEEE
DURALOX ^(*)	X		X				UL, ASTM, NEMA, ICEA
MC-HL(CCW) ^(1,2)	X		X				UL, ASTM, NEMA, IEEE

(1) Ampacities are in accordance with Table 310.60©(75) of the NEC for three conductor copper cable in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(79) of the NEC for three conductor copper cable in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on three conductor Type MV-105 cables in single layer in an uncovered tray with maintained spacing of not less than one cable diameter between cables, in accordance with Section 392.80(B)(1) of the NEC at an ambient air temperature of 40°C (104°F); the ampacities are per Table 310.60(C)(71), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 95% of the values in NEC Table 310.60(C)(75).

*Ampacity based on CE Code Table D17M and Rule 4-004.

**CALCULATION OF CURRENT CONDITION BASED ON NTP-IEC 60502-2 Annex B Maximum conductor temperature: 90°C. Ambient air temperature: 30°C. Ground temperature: 20°C. Depth of laying: 0,8 m. Thermal resistivity of soil: 1,5 K.m/W. Screens bonded at both ends.