HELLENIC CABLES

Member of CENERGY HOLDINGS

Medium Voltage Cables

www.hellenic-cables.com

Hellenic Cables is one of the largest cable producers with a wide portfolio of reliable and sustainable cable solutions for international customers.

The Company is globally active in the energy transmission and distribution markets, in the renewable energy sources, telecommunications and data transmission, construction, and industry sectors, and is distinguished for its strong export orientation.

Hellenic Cables represents the cables segment of Cenergy Holdings, a subsidiary of Viohalco, specializing in energy and cable solutions. The Company started its activities in 1950 as a Viohalco plant and, in 1973, was incorporated as an independent subsidiary under the name Hellenic Cables, expanding its production and trade operations.

The Company has four cable production plants in Thiva, Eleonas, Corinth (Greece), and Bucharest (Romania), producing power, telecommunication, and submarine cables, as well as compounds. The Corinth plant is one of the world's largest and most advanced submarine cable factories. Additionally, a new cable production plant is under development in Baltimore, Maryland, which is expected to be operational by 2027, further expanding the Company's manufacturing capabilities and market presence.

With a strong focus on developing value-added products, such as high and extra-high voltage cables and submarine cables, the Company implements significant investments to enrich its product portfolio and enhance its sustainability profile. The Company has implemented an investment plan of approximately EUR 600 million since 2012 to produce high and extra-high voltage submarine and underground cables.

The Company's wide product range extends to PVC, EPR, and XLPE insulated power cables (rated up to 500kV), marine and low-smoke halogen-free cables, fire-resistant cables, telecommunication, signal and data cables with copper conductors or optical fibers, as well as fire-retardant halogen-free plastic and elastomer compounds. Cables are supplied to a variety of international standards, such as VDE, CEI, ICEA, NF, SEN, BS, UL, NEMA, JIS, ASTM, DIN, IEC, ITU, and ELDT. Many of the Company's products are certified by BASEC, VDE, IMQ, NF-USE, NETWORK RAIL, KEMA, DNV, and UL. Technical know-how is combined with continual investment in state-of-the-art machinery to ensure efficiency and quality that meet the strictest standards.

The Company's Quality Management System is certified to ISO 9001:2015, its Environmental Management System to ISO 14001:2015, and its Occupational Health and Safety to ISO 45001:2018. Hellenic Cables has the necessary expertise to develop and offer turnkey solutions that meet the specific demands of its customers.

Commitment to quality and sustainable development has been a key factor in enabling Hellenic Cables to establish a strong international market position. The Company's highly experienced technical and managerial staff have a strong commitment to innovation, technological excellence, and outstanding quality, which ensures that users of Hellenic Cables' products have made a reliable and sustainable choice. Hellenic Cables aims to constantly improve its offering and respond swiftly to changes in customer requirements worldwide with reliable and safe products based on environmentally friendly technologies.

At the same time, the Company places strong emphasis on developing its people and creating value for its shareholders, partners, and the communities in which it operates. Looking ahead, the Company plans additional investments in technology and innovative cable solutions to contribute to creating a sustainable future for its stakeholders.

Submarine & Power Cables.
| Corinth , Greece

Power & Telecommunications Cables.
| Eleonas, Greece

Power Cables.
| Thiva, Greece

Telecommunication & Data Cables.
| Bucharest, Romania

>800 EUR million total investments (since 2012)

Exports to 50 countries

Established 1950

5 manufacturing plants in 3 countries

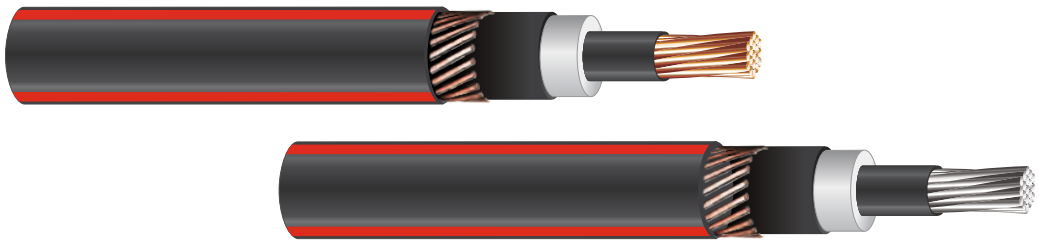
State of the art facilities

HELLENIC CABLES

Medium Voltage Cables with TRXLPE insulation

Cable type CU or AL TRXLPE (100% or 133%) CN LLDPE 15 kV, 25 kV, 35 kV

Standards ANSI/ICEA S-94-649, AEIC CS-8, UL 1072 MV-90 (UL)



Construction:

1. **Conductor:** Concentric lay stranded Copper per ASTM B-3 class B round compressed per ASTM B-8 or compacted per ASTM B-496 according to ICEA S-94-649, AEIC CS-8 and UL 1072 Or concentric lay stranded Aluminum per ASTM B-609 or ASTM B-230 class B round compressed per ASTM B-231 or compacted per ASTM B-400 according to ICEA S-94-649, AEIC CS-8 and UL 1072
2. **Conductor Shield:** Extruded semiconducting compound according to ICEA S-94-649, AEIC CS-8 and UL 1072
3. **Insulation:** Tree Retardant Cross Linked Polyethylene (TRXLPE) according to ICEA S-94-649, AEIC CS-8 and UL 1072
4. **Insulation Shield:** Extruded semiconducting compound strippable with insulation shield marking according to ICEA S-94-649, AEIC CS-8 and UL 1072
5. **Concentric Neutral:** Annealed round copper wires per ASTM B-3 helically applied over insulation shield
6. **Jacket:** LLDPE extruded to fill spaces between copper wires according to ICEA S-94-649, AEIC CS-8 and UL 1072

Application:

Cables are designed for transfer of electrical energy for use in dry or wet locations in MV grids with rated voltage 15kV, 25kV or 35kV. Dedicated for fixed installation directly in ground, in concrete, in cable channel, in ducts or conduits made of non-magnetic material and directly in air.

Rated voltage	15kV, 25kV, 35kV
Conductor Sizes	2 AWG - 2000 KCMIL
Maximum conductor temperature (°C) Normal Operation/ Emergency Overload	90/130
Maximum short-circuit temperature (°C)	250
Frequency (Hz)	60
Insulation Level	100% or 133%
Minimum/Maximum ambient temperature during installation (°C)	-10/70
Jacket Color	Black with three longitudinal red stripes or Black or Other upon request

Alternative designs:

The cables can also be designed with:

1. Round solid Aluminum conductors per ASTM B-609
2. Conductor center strand identification
3. Filled Strand conductors tested in accordance with ICEA T-31-610
4. Full or 1/3 or other concentric neutral
   The concentric neutral can be designed to fit the customer's fault current and time duration requirements.
5. Longitudinally waterblocked concentric neutral tested in accordance with ICEA T-34-664
6. SCPE jacket black colored
7. Overlaying jacket

The cables can be provided in triplex or parallel assembly, as well.

15kV 133% Ins. Level Full Neutral - Aluminum Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_5526_0039	AL	STR Compressed	2	0.283	Full	16 x #16	220	0.81	0.89	45	1.08	542
FC_5526_0040	AL	STR Compacted	2	0.268	Full	16 x #16	220	0.79	0.87	45	1.07	535
FC_5526_0037	AL	STR Compressed	1/0	0.362	Full	25 x #16	220	0.89	0.96	45	1.16	692
FC_5526_0038	AL	STR Compacted	1/0	0.336	Full	25 x #16	220	0.85	0.94	45	1.14	682
FC_5526_0041	AL	STR Compressed	4/0	0.512	Full	32 x #14	220	1.02	1.10	45	1.34	1110
FC_5526_0042	AL	STR Compacted	4/0	0.475	Full	32 x #14	220	1.00	1.08	45	1.30	1105
FC_5526_0043	AL	STR Compressed	350	0.661	Full	33 x #12	220	1.18	1.28	45	1.54	1655
FC_5526_0044	AL	STR Compacted	350	0.616	Full	33 x #12	220	1.14	1.24	45	1.50	1643

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Single- phase Directly Buried (A) [5]	Single-phase in Duct (A) [5]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A)[5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_5526_0039	AL	STR Compressed	2	170	125	150	120	150	21.6	16.2
FC_5526_0040	AL	STR Compacted	2	165	120	145	115	145	21.4	16.1
FC_5526_0037	AL	STR Compressed	1/0	220	160	195	155	195	23.2	17.4
FC_5526_0038	AL	STR Compacted	1/0	215	155	190	150	190	22.8	17.1
FC_5526_0041	AL	STR Compressed	4/0	320	240	285	235	285	26.8	20.1
FC_5526_0042	AL	STR Compacted	4/0	315	235	280	230	280	26.0	19.5
FC_5526_0043	AL	STR Compressed	350	425	310	370	305	365	30.8	23.1
FC_5526_0044	AL	STR Compacted	350	420	305	365	300	360	30.0	22.5

15kV 133% Ins. Level 1/3 Neutral - Aluminum Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_5526_0013	AL	STR Compressed	2	0.283	1/3	6 x #16	220	0.81	0.89	45	1.08	457
FC_5526_0027	AL	STR Compacted	2	0.268	1/3	6 x #16	220	0.79	0.87	45	1.07	450
FC_5526_0009	AL	STR Compressed	1/0	0.362	1/3	9 x #16	220	0.89	0.96	45	1.16	557
FC_5526_0023	AL	STR Compacted	1/0	0.336	1/3	9 x #16	220	0.85	0.94	45	1.14	547
FC_5526_0011	AL	STR Compressed	4/0	0.512	1/3	17 x #16	220	1.02	1.10	45	1.32	796
FC_5526_0025	AL	STR Compacted	4/0	0.475	1/3	17 x #16	220	1.00	1.08	45	1.28	790
FC_5526_0015	AL	STR Compressed	350	0.661	1/3	28 x #16	220	1.18	1.28	45	1.48	1122
FC_5526_0029	AL	STR Compacted	350	0.616	1/3	28 x #16	220	1.14	1.24	45	1.44	1112
FC_5526_0017	AL	STR Compressed	500	0.789	1/3	25 x #14	220	1.30	1.42	45	1.63	1464
FC_5526_0031	AL	STR Compacted	500	0.736	1/3	25 x #14	220	1.26	1.36	45	1.59	1461
FC_5526_0019	AL	STR Compressed	750	0.968	1/3	24 x #12	220	1.50	1.59	70	1.91	2123
FC_5526_0033	AL	STR Compacted	750	0.908	1/3	24 x #12	220	1.44	1.54	70	1.85	2090
FC_5526_0021	AL	STR Compressed	1000	1.117	1/3	32 x #12	220	1.65	1.77	70	2.09	2638
FC_5526_0035	AL	STR Compacted	1000	1.060	1/3	32 x #12	220	1.57	1.71	70	2.03	2603

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross- section (AWG or KCMIL) [2]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A) [5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_5526_0013	AL	STR Compressed	2	150	120	150	21.6	16.2
FC_5526_0027	AL	STR Compacted	2	145	115	145	21.4	16.1
FC_5526_0009	AL	STR Compressed	1/0	195	155	195	23.2	17.4
FC_5526_0023	AL	STR Compacted	1/0	190	150	190	22.8	17.1
FC_5526_0011	AL	STR Compressed	4/0	285	235	285	26.4	19.8
FC_5526_0025	AL	STR Compacted	4/0	280	230	280	25.6	19.2
FC_5526_0015	AL	STR Compressed	350	375	310	370	29.6	22.2
FC_5526_0029	AL	STR Compacted	350	370	305	365	28.8	21.6
FC_5526_0017	AL	STR Compressed	500	450	370	445	32.6	24.5
FC_5526_0031	AL	STR Compacted	500	445	365	440	31.8	23.9
FC_5526_0019	AL	STR Compressed	750	545	460	525	38.2	28.7
FC_5526_0033	AL	STR Compacted	750	540	455	520	37.0	27.8
FC_5526_0021	AL	STR Compressed	1000	620	520	575	41.8	31.4
FC_5526_0035	AL	STR Compacted	1000	615	515	570	40.6	30.5

15kV 133% Ins. Level Full Neutral - Copper Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross- section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_5526_0045	CU	STR Compressed	2	0.283	Full	26 x #16	220	0.81	0.89	45	1.08	765
FC_5526_0046	CU	STR Compacted	2	0.268	Full	26 x #16	220	0.79	0.87	45	1.07	757
FC_5526_0047	CU	STR Compressed	1/0	0.362	Full	26 x #14	220	0.89	0.96	45	1.19	1084
FC_5526_0048	CU	STR Compacted	1/0	0.336	Full	26 x #14	220	0.85	0.94	45	1.16	1069
FC_5526_0049	CU	STR Compressed	4/0	0.512	Full	33 x #12	220	1.02	1.10	45	1.36	1847
FC_5526_0050	CU	STR Compacted	4/0	0.475	Full	33 x #12	220	1.00	1.08	45	1.33	1857

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross- section (AWG or KCMIL)[2]	Single- phase Directly Buried (A) [5]	Single-phase in Duct (A) [5]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A) [5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_5526_0045	CU	STR Compressed	2	210	160	195	155	195	21.6	16.2
FC_5526_0046	CU	STR Compacted	2	205	155	190	150	190	21.4	16.1
FC_5526_0047	CU	STR Compressed	1/0	270	205	250	200	250	23.8	17.9
FC_5526_0048	CU	STR Compacted	1/0	265	200	245	195	245	23.2	17.4
FC_5526_0049	CU	STR Compressed	4/0	405	305	320	295	355	27.2	20.4
FC_5526_0050	CU	STR Compacted	4/0	400	300	315	290	350	26.6	20.0

15kV 133% Ins. Level 1/3 Neutral - Copper Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_5526_0014	CU	STR Compressed	2	0.283	1/3	9 x #16	220	0.81	0.89	45	1.08	624
FC_5526_0028	CU	STR Compacted	2	0.268	1/3	9 x #16	220	0.79	0.87	45	1.07	617
FC_5526_0010	CU	STR Compressed	1/0	0.362	1/3	14 x #16	220	0.89	0.96	45	1.16	828
FC_5526_0024	CU	STR Compacted	1/0	0.336	1/3	14 x #16	220	0.85	0.94	45	1.14	815
FC_5526_0012	CU	STR Compressed	4/0	0.512	1/3	28 x #16	220	1.02	1.10	45	1.32	1323
FC_5526_0026	CU	STR Compacted	4/0	0.475	1/3	28 x #16	220	1.00	1.08	45	1.28	1335
FC_5526_0016	CU	STR Compressed	350	0.661	1/3	29 x #14	220	1.18	1.28	45	1.52	2074
FC_5526_0030	CU	STR Compacted	350	0.616	1/3	29 x #14	220	1.14	1.24	45	1.48	2048
FC_5526_0018	CU	STR Compressed	500	0.789	1/3	26 x #12	220	1.30	1.42	45	1.67	2816
FC_5526_0032	CU	STR Compacted	500	0.736	1/3	26 x #12	220	1.26	1.36	45	1.61	2788
FC_5526_0020	CU	STR Compressed	750	0.968	1/3	24 x #10	220	1.50	1.59	70	1.97	4093
FC_5526_0034	CU	STR Compacted	750	0.908	1/3	24 x #10	220	1.44	1.54	70	1.89	4057
FC_5526_0022	CU	STR Compressed	1000	1.117	1/3	33 x #10	220	1.65	1.77	70	2.15	5294
FC_5526_0036	CU	STR Compacted	1000	1.060	1/3	33 x #10	220	1.57	1.71	70	2.09	5279

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL) [2]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A) [5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_5526_0014	CU	STR Compressed	2	195	160	195	21.6	16.2
FC_5526_0028	CU	STR Compacted	2	190	155	190	21.4	16.1
FC_5526_0010	CU	STR Compressed	1/0	250	200	250	23.2	17.4
FC_5526_0024	CU	STR Compacted	1/0	245	195	245	22.8	17.1
FC_5526_0012	CU	STR Compressed	4/0	325	300	360	26.4	19.8
FC_5526_0026	CU	STR Compacted	4/0	320	295	355	25.6	19.2
FC_5526_0016	CU	STR Compressed	350	475	390	460	30.4	22.8
FC_5526_0030	CU	STR Compacted	350	470	385	455	29.6	22.2
FC_5526_0018	CU	STR Compressed	500	555	455	525	33.4	25.1
FC_5526_0032	CU	STR Compacted	500	550	450	520	32.2	24.2
FC_5526_0020	CU	STR Compressed	750	650	545	580	39.4	29.6
FC_5526_0034	CU	STR Compacted	750	645	540	575	37.8	28.4
FC_5526_0022	CU	STR Compressed	1000	685	600	660	43.0	32.3
FC_5526_0036	CU	STR Compacted	1000	680	595	655	41.8	31.4

25kV 100% Ins. Level Full Neutral - Aluminum Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_0374_0026	AL	STR Compressed	2	0.283	Full	16 x #16	260	0.87	0.94	45	1.16	588
FC_0374_0027	AL	STR Compacted	2	0.268	Full	16 x #16	260	0.85	0.93	45	1.14	580
FC_0374_0024	AL	STR Compressed	1/0	0.362	Full	25 x #16	260	0.94	1.04	45	1.24	743
FC_0374_0025	AL	STR Compacted	1/0	0.336	Full	25 x #16	260	0.93	1.00	45	1.22	731
FC_0374_0028	AL	STR Compressed	4/0	0.512	Full	32 x #14	260	1.10	1.20	45	1.43	1191
FC_0374_0029	AL	STR Compacted	4/0	0.475	Full	32 x #14	260	1.06	1.14	45	1.38	1162

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Single- phase Directly Buried (A) [5]	Single-phase in Duct (A) [5]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A) [5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_0374_0026	AL	STR Compressed	2	170	125	150	120	150	23.2	17.4
FC_0374_0027	AL	STR Compacted	2	165	120	145	115	145	22.8	17.1
FC_0374_0024	AL	STR Compressed	1/0	220	160	195	155	195	24.8	18.6
FC_0374_0025	AL	STR Compacted	1/0	215	155	190	150	190	24.4	18.3
FC_0374_0028	AL	STR Compressed	4/0	320	240	285	235	285	28.6	21.5
FC_0374_0029	AL	STR Compacted	4/0	315	235	280	230	280	27.6	20.7

25kV 100% Ins. Level 1/3 Neutral - Aluminum Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_0374_0006	AL	STR Compressed	2	0.283	1/3	6 x #16	260	0.87	0.94	45	1.16	505
FC_0374_0016	AL	STR Compacted	2	0.268	1/3	6 x #16	260	0.85	0.93	45	1.14	497
FC_0374_0002	AL	STR Compressed	1/0	0.362	1/3	9 x #16	260	0.94	1.04	45	1.24	610
FC_0374_0012	AL	STR Compacted	1/0	0.336	1/3	9 x #16	260	0.93	1.00	45	1.22	598
FC_0374_0004	AL	STR Compressed	4/0	0.512	1/3	17 x #16	260	1.10	1.20	45	1.40	876
FC_0374_0014	AL	STR Compacted	4/0	0.475	1/3	17 x #16	260	1.06	1.14	45	1.36	848
FC_0374_0023	AL	STR Compressed	350	0.661	1/3	18 x #14	260	1.24	1.34	45	1.57	1230
FC_0374_0036	AL	STR Compacted	350	0.616	1/3	18 x #14	260	1.19	1.30	45	1.53	1214
FC_0374_0037	AL	STR Compressed	500	0.789	1/3	25 x #14	260	1.34	1.44	70	1.73	1572
FC_0374_0038	AL	STR Compacted	500	0.736	1/3	25 x #14	260	1.32	1.42	45	1.65	1528
FC_0374_0008	AL	STR Compressed	750	0.968	1/3	24 x #12	260	1.56	1.65	70	1.97	2208
FC_0374_0018	AL	STR Compacted	750	0.908	1/3	24 x #12	260	1.50	1.61	70	1.93	2174
FC_0374_0010	AL	STR Compressed	1000	1.117	1/3	32 x #12	260	1.71	1.85	70	2.15	2733
FC_0374_0020	AL	STR Compacted	1000	1.060	1/3	32 x #12	260	1.65	1.79	70	2.11	2694

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A) [5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_0374_0006	AL	STR Compressed	2	150	120	150	23.2	17.4
FC_0374_0016	AL	STR Compacted	2	145	115	145	22.8	17.1
FC_0374_0002	AL	STR Compressed	1/0	195	155	195	24.8	18.6
FC_0374_0012	AL	STR Compacted	1/0	190	150	190	24.4	18.3
FC_0374_0004	AL	STR Compressed	4/0	285	235	285	28.0	21.0
FC_0374_0014	AL	STR Compacted	4/0	280	230	280	27.2	20.4
FC_0374_0023	AL	STR Compressed	350	375	310	370	31.4	23.6
FC_0374_0036	AL	STR Compacted	350	370	305	365	30.6	23.0
FC_0374_0037	AL	STR Compressed	500	450	370	445	34.6	26.0
FC_0374_0038	AL	STR Compacted	500	445	365	440	33.0	24.8
FC_0374_0008	AL	STR Compressed	750	545	460	525	39.4	29.6
FC_0374_0018	AL	STR Compacted	750	540	455	520	38.6	29.0
FC_0374_0010	AL	STR Compressed	1000	620	520	575	43.0	32.3
FC_0374_0020	AL	STR Compacted	1000	615	515	570	42.2	31.7

25 kV 100% Ins. Level Full Neutral – Copper Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_0374_0030	CU	STR Compressed	2	0.283	Full	26 x #16	260	0.87	0.94	45	1.16	813
FC_0374_0031	CU	STR Compacted	2	0.268	Full	26 x #16	260	0.85	0.93	45	1.14	805
FC_0374_0032	CU	STR Compressed	1/0	0.362	Full	26 x #14	260	0.94	1.04	45	1.26	1136
FC_0374_0033	CU	STR Compacted	1/0	0.336	Full	26 x #14	260	0.93	1.00	45	1.23	1122
FC_0374_0034	CU	STR Compressed	4/0	0.512	Full	33 x #12	260	1.10	1.20	45	1.45	1931
FC_0374_0035	CU	STR Compacted	4/0	0.475	Full	33 x #12	260	1.06	1.14	45	1.41	1918

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Single- phase Directly Buried (A) [5]	Single-phase in Duct (A) [5]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A)[5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_0374_0030	CU	STR Compressed	2	210	160	195	155	195	23.2	17.4
FC_0374_0031	CU	STR Compacted	2	205	155	190	150	190	22.8	17.1
FC_0374_0032	CU	STR Compressed	1/0	270	205	250	200	250	25.2	18.9
FC_0374_0033	CU	STR Compacted	1/0	265	200	245	195	245	24.6	18.5
FC_0374_0034	CU	STR Compressed	4/0	405	305	320	295	355	29.0	21.8
FC_0374_0035	CU	STR Compacted	4/0	400	300	315	290	350	28.2	21.2

25kV 100% Ins. Level 1/3 Neutral - Copper Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_0374_0007	CU	STR Compressed	2	0.283	1/3	9 x #16	260	0.87	0.94	45	1.16	672
FC_0374_0017	CU	STR Compacted	2	0.268	1/3	9 x #16	260	0.85	0.93	45	1.14	664
FC_0374_0003	CU	STR Compressed	1/0	0.362	1/3	14 x #16	260	0.94	1.04	45	1.24	880
FC_0374_0013	CU	STR Compacted	1/0	0.336	1/3	14x #16	260	0.93	1.00	45	1.22	867
FC_0374_0005	CU	STR Compressed	4/0	0.512	1/3	28 x #16	260	1.10	1.20	45	1.40	1403
FC_0374_0015	CU	STR Compacted	4/0	0.475	1/3	28 x #16	260	1.06	1.14	45	1.36	1392
FC_0374_0039	CU	STR Compressed	350	0.661	1/3	29 x #14	260	1.24	1.34	45	1.57	2144
FC_0374_0040	CU	STR Compacted	350	0.616	1/3	29 x #14	260	1.19	1.30	45	1.53	2112
FC_0374_0041	CU	STR Compressed	500	0.789	1/3	26 x #12	260	1.37	1.47	70	1.79	2959
FC_0374_0042	CU	STR Compacted	500	0.736	1/3	26 x #12	260	1.29	1.40	70	1.72	2894
FC_0374_0009	CU	STR Compressed	750	0.968	1/3	24 x #10	260	1.56	1.65	70	2.03	4182
FC_0374_0019	CU	STR Compacted	750	0.908	1/3	24 x #10	260	1.50	1.61	70	1.97	4142
FC_0374_0011	CU	STR Compressed	1000	1.117	1/3	33 x #10	260	1.71	1.85	70	2.20	5391
FC_0374_0021	CU	STR Compacted	1000	1.060	1/3	33 x #10	260	1.65	1.79	70	2.15	5374

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A) [5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_0374_0007	CU	STR Compressed	2	195	160	195	23.2	17.4
FC_0374_0017	CU	STR Compacted	2	190	155	190	22.8	17.1
FC_0374_0003	CU	STR Compressed	1/0	250	200	250	24.8	18.6
FC_0374_0013	CU	STR Compacted	1/0	245	195	245	24.4	18.3
FC_0374_0005	CU	STR Compressed	4/0	325	300	360	28.0	21.0
FC_0374_0015	CU	STR Compacted	4/0	320	295	355	27.2	20.4
FC_0374_0039	CU	STR Compressed	350	475	390	460	31.4	23.6
FC_0374_0040	CU	STR Compacted	350	470	385	455	30.6	23.0
FC_0374_0041	CU	STR Compressed	500	555	455	525	35.8	26.9
FC_0374_0042	CU	STR Compacted	500	550	450	520	34.4	25.8
FC_0374_0009	CU	STR Compressed	750	650	545	580	40.6	30.5
FC_0374_0019	CU	STR Compacted	750	645	540	575	39.4	29.6
FC_0374_0011	CU	STR Compressed	1000	685	600	660	44.0	33.0
FC_0374_0021	CU	STR Compacted	1000	680	595	655	43.0	32.3

35kV 100% Ins. Level Full Neutral - Aluminum Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_5135_0034	AL	STR Compressed	2	0.283	Full	16 x #16	345	1.04	1.12	45	1.34	718
FC_5135_0035	AL	STR Compacted	2	0.268	Full	16 x #16	345	1.02	1.10	45	1.32	709
FC_5135_0036	AL	STR Compressed	1/0	0.362	Full	25 x #16	345	1.12	1.22	45	1.44	904
FC_5135_0037	AL	STR Compacted	1/0	0.336	Full	25 x #16	345	1.10	1.20	45	1.40	889
FC_5135_0013	AL	STR Compressed	4/0	0.512	Full	32 x #14	345	1.26	1.38	45	1.59	1353
FC_5135_0033	AL	STR Compacted	4/0	0.475	Full	32 x #14	345	1.24	1.34	45	1.56	1343

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Single- phase Directly Buried (A) [5]	Single-phase in Duct (A) [5]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A) [5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_5135_0034	AL	STR Compressed	2	205	165	145	125	150	26.8	20.1
FC_5135_0035	AL	STR Compacted	2	200	160	140	120	145	26.4	19.8
FC_5135_0036	AL	STR Compressed	1/0	205	165	195	160	195	28.8	21.6
FC_5135_0037	AL	STR Compacted	1/0	200	160	190	155	190	28.0	21.0
FC_5135_0013	AL	STR Compressed	4/0	310	240	285	240	280	31.8	23.9
FC_5135_0033	AL	STR Compacted	4/0	305	235	280	235	275	31.2	23.4

35kV 100% Ins. Level 1/3 Neutral - Aluminum Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_5135_0007	AL	STR Compressed	2	0.283	1/3	6 x #16	345	1.04	1.12	45	1.34	636
FC_5135_0022	AL	STR Compacted	2	0.268	1/3	6 x #16	345	1.02	1.10	45	1.32	627
FC_5135_0003	AL	STR Compressed	1/0	0.362	1/3	9 x #16	345	1.12	1.22	45	1.44	772
FC_5135_0018	AL	STR Compacted	1/0	0.336	1/3	9x #16	345	1.10	1.20	45	1.40	756
FC_5135_0005	AL	STR Compressed	4/0	0.512	1/3	17 x #16	345	1.26	1.38	45	1.57	1034
FC_5135_0020	AL	STR Compacted	4/0	0.475	1/3	17 x #16	345	1.24	1.34	45	1.54	1023
FC_5135_0047	AL	STR Compressed	350	0.661	1/3	28 x #16	345	1.40	1.51	70	1.77	1423
FC_5135_0051	AL	STR Compacted	350	0.616	1/3	28 x #16	345	1.36	1.47	70	1.73	1403
FC_5135_0017	AL	STR Compressed	500	0.789	1/3	25 x #14	345	1.51	1.61	70	1.90	1787
FC_5135_0052	AL	STR Compacted	500	0.736	1/3	25 x #14	345	1.46	1.57	70	1.85	1769
FC_5135_0009	AL	STR Compressed	750	0.968	1/3	24 x #12	345	1.73	1.87	70	2.19	2480
FC_5135_0024	AL	STR Compacted	750	0.908	1/3	24 x #12	345	1.67	1.81	70	2.13	2440
FC_5135_0011	AL	STR Compressed	1000	1.117	1/3	33 x #12	345	1.89	2.01	70	2.32	2974
FC_5135_0026	AL	STR Compacted	1000	1.060	1/3	33 x #12	345	1.83	1.95	70	2.28	2931

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL) [2]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A) [5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_5135_0007	AL	STR Compressed	2	150	125	150	26.8	20.1
FC_5135_0022	AL	STR Compacted	2	145	120	145	26.4	19.8
FC_5135_0003	AL	STR Compressed	1/0	195	160	195	28.8	21.6
FC_5135_0018	AL	STR Compacted	1/0	190	155	190	28.0	21.0
FC_5135_0005	AL	STR Compressed	4/0	285	235	285	31.4	23.6
FC_5135_0020	AL	STR Compacted	4/0	280	230	280	30.8	23.1
FC_5135_0047	AL	STR Compressed	350	370	315	370	35.4	26.6
FC_5135_0051	AL	STR Compacted	350	365	310	365	34.6	26.0
FC_5135_0017	AL	STR Compressed	500	450	380	445	38.0	28.5
FC_5135_0052	AL	STR Compacted	500	445	375	440	37.0	27.8
FC_5135_0009	AL	STR Compressed	750	545	470	530	43.8	32.9
FC_5135_0024	AL	STR Compacted	750	540	465	525	42.6	32.0
FC_5135_0011	AL	STR Compressed	1000	620	530	585	46.4	34.8
FC_5135_0026	AL	STR Compacted	1000	615	525	580	45.6	34.2

sustainability

35kV 100% Ins. Level Full Neutral - Copper Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_5135_0038	CU	STR Compressed	2	0.283	Full	26 x #16	345	1.04	1.12	45	1.34	944
FC_5135_0039	CU	STR Compacted	2	0.268	Full	26 x #16	345	1.02	1.10	45	1.32	934
FC_5135_0040	CU	STR Compressed	1/0	0.362	Full	26 x #14	345	1.12	1.22	45	1.45	1304
FC_5135_0041	CU	STR Compacted	1/0	0.336	Full	26 x #14	345	1.10	1.20	45	1.42	1285
FC_5135_0042	CU	STR Compressed	4/0	0.512	Full	33 x #12	345	1.26	1.38	45	1.62	2097
FC_5135_0043	CU	STR Compacted	4/0	0.475	Full	33 x #12	345	1.24	1.34	45	1.60	2104

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Single- phase Directly Buried (A) [5]	Single-phase in Duct (A) [5]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A) [5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_5135_0038	CU	STR Compressed	2	255	210	190	160	190	26.8	20.1
FC_5135_0039	CU	STR Compacted	2	250	205	185	155	185	26.4	19.8
FC_5135_0040	CU	STR Compressed	1/0	265	210	250	205	245	29.0	21.8
FC_5135_0041	CU	STR Compacted	1/0	260	205	245	200	240	28.4	21.3
FC_5135_0042	CU	STR Compressed	4/0	395	305	360	305	350	32.4	24.3
FC_5135_0043	CU	STR Compacted	4/0	390	300	355	300	345	32.0	24.0

35kV 100% Ins. Level 1/3 Neutral - Copper Conductor

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	Nominal Conductor Diameter (in)	Concentric Neutral Size	Concentric Neutral (No. x AWG) [3]	Insulation nominal thickness (mils)	Approx. Insulation Diameter (in) [4]	Approx. Insulation Shield Diameter (in) [4]	Sheath minimum thickness (mils)	Approx. Overall Jacket diameter (in)[4]	Approx. cable weight (Lbs/1000ft)[4]
FC_5135_0008	CU	STR Compressed	2	0.283	1/3	9 x #16	345	1.04	1.12	45	1.34	803
FC_5135_0023	CU	STR Compacted	2	0.268	1/3	9 x #16	345	1.02	1.10	45	1.32	794
FC_5135_0004	CU	STR Compressed	1/0	0.362	1/3	14 x #16	345	1.12	1.22	45	1.44	1042
FC_5135_0019	CU	STR Compacted	1/0	0.336	1/3	14 x #16	345	1.10	1.20	45	1.40	1024
FC_5135_0006	CU	STR Compressed	4/0	0.512	1/3	28 x #16	345	1.26	1.38	45	1.57	1560
FC_5135_0021	CU	STR Compacted	4/0	0.475	1/3	28 x #16	345	1.24	1.34	45	1.54	1567
FC_5135_0053	CU	STR Compressed	350	0.661	1/3	29 x #14	345	1.41	1.51	70	1.80	2386
FC_5135_0054	CU	STR Compacted	350	0.616	1/3	29 x #14	345	1.36	1.47	70	1.76	2348
FC_5135_0055	CU	STR Compressed	500	0.789	1/3	26 x #12	345	1.54	1.64	70	1.96	3160
FC_5135_0056	CU	STR Compacted	500	0.736	1/3	26 x #12	345	1.46	1.57	70	1.89	3089
FC_5135_0010	CU	STR Compressed	750	0.968	1/3	24 x #10	345	1.73	1.87	70	2.22	4461
FC_5135_0025	CU	STR Compacted	750	0.908	1/3	24 x #10	345	1.67	1.81	70	2.17	4415
FC_5135_0012	CU	STR Compressed	1000	1.117	1/3	33 x #10	345	1.89	2.01	70	2.38	5639
FC_5135_0027	CU	STR Compacted	1000	1.060	1/3	33 x #10	345	1.83	1.95	70	2.32	5615

Cable Design Code [1]	Conductor Material	Conductor Shape	Conductor cross-section (AWG or KCMIL)[2]	3-phase Triangular configuration Directly Buried (A) [5]	3-phase Triangular configuration in Duct (A) [5]	3-phase Flat formation Directly Buried (A) [5]	Minimum bending radius during permanent installation (in)	Minimum bending radius adjacent to joints and terminations (in)
FC_5135_0008	CU	STR Compressed	2	190	160	190	26.8	20.1
FC_5135_0023	CU	STR Compacted	2	185	155	185	26.4	19.8
FC_5135_0004	CU	STR Compressed	1/0	250	210	250	28.8	21.6
FC_5135_0019	CU	STR Compacted	1/0	245	205	245	28.0	21.0
FC_5135_0006	CU	STR Compressed	4/0	360	300	360	31.4	23.6
FC_5135_0021	CU	STR Compacted	4/0	355	295	355	30.8	23.1
FC_5135_0053	CU	STR Compressed	350	470	400	460	36.0	27.0
FC_5135_0054	CU	STR Compacted	350	465	395	455	35.2	26.4
FC_5135_0055	CU	STR Compressed	500	555	470	525	39.2	29.4
FC_5135_0056	CU	STR Compacted	500	550	465	520	37.8	28.4
FC_5135_0010	CU	STR Compressed	750	650	560	590	44.4	33.3
FC_5135_0025	CU	STR Compacted	750	645	555	585	43.4	32.6
FC_5135_0012	CU	STR Compressed	1000	690	605	660	47.6	35.7
FC_5135_0027	CU	STR Compacted	1000	685	600	655	46.4	34.8

Notes:

(1) The cables are designed with filled strand conductors and longitudinally waterblocked concentric neutral.

(2) Any conductor cross- section between 2 AWG and 2000 KCMIL can be offered upon request.

(3) Concentric neutral wire size and number of wires may vary. The resulting combination meets the concentric neutral size requirement.

(4) The above values are approximate and subject to normal manufacturing tolerances.

(5) Ampacities are based on ICEA P-117-734. Where this standard is not applicable, ampacities have been calculated considering the conditions below.

Highest permissible operating temperature: 90 °C

Operating frequency: 60 Hz

Multiple bonded and grounded shield

Cables in earth:

- Continuous operation - Load factor: 1.0
- Laying depth: 36"
- Three single-core cables in close trefoil formation laid throughout the cable length
- Three single-core cables in flat touching formation
- Duct size (where applicable) based on minimum of ½" clearance for three phase circuits and AEIC CG5 Section 6.4.1 for single-phase circuits
- PVC (Schedule 40) ducts (where applicable) were assumed to be directly buried without encasement in concrete
- Ambient temperature: 25 °C
- Soil thermal resistivity: 90° C·cm/W

Why Thiva MV Production

- Advanced insulation extrusion lines
- Triple-layer co-extrusion
- Full or 1/3 other concentric neutrals
- Water-blocked design available
- Continuous monitoring & AEIC, ANSI/ICEA, CSA & UL compliant testing

HELLENIC CABLES

Notes

HELLENIC CABLES

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