Contact
Industrial Cables
Phone: 866-663-9267
USA.IndustrialCable@nexans.com

CORFLEX® MC

Corflex® MC Armored Power and Control Cable

Part Number: Corflex® MC

Armored Power and Control Cable UL Type MC HL, 600 V, 90°C rated - LEAD FREE

Description

Multiple conductors and composites, with ground wire(s), continuous corrugated aluminum sheath, PVC jacket.

Standards

National UL 1569;UL 44

Construction

Conductor: Bare, annealed copper conforming to ASTM B3 and Class B stranded in accordance with ASTM B8.

Insulation: Cross linked polyethylene type XHHW-2 per UL 44.

Assembly: Conductors are cabled in concentric layers with or without grounding wire(s), interstices are filled with suitable non-hygroscopic fillers, as required. A binder tape of synthetic material assembles the core in an essentially round configuration.

Armor: Continuous corrugated aluminum sheath with no more than 0.2% trace copper providing complete protection against liquid & gas ingress. It also provides excellent mechanical protection, additional electrostatic shielding, and serves as an easy means of grounding equipment.

Jacket: Overall black polyvinyl chloride jacket per UL 1569, 90ºC temperature rating; low gas emission; limited flame spread and excellent corrosion resistance.

Bending Radius

Fixed position: 7 x cable overall diameter
During pulling: 12 x cable overall diameter

Specifications

- Meets UL 44, XHHW-2 600 V conductors
- Meets UL 1569 requirements for Type MC, Metal Clad cables
- Meets UL 2225 for Hazardous Locations
- Designated Type MC as per NEC Article 330

Product features

Maximum operating temperature
90 °C

Contact
Industrial Cables
Phone: 866-663-9267
USA.IndustrialCable@nexans.com

CORFLEX® MC

Corflex® MC Armored Power and Control Cable

- UL approved cables Type MC, 600 V; File No. E47409
- UL approved insulated conductors
- Cables pass UL 1685 and IEEE 383 vertical tray fire tests at 70,000 BTU/hr, ICEA T-29-520 fire test at 210,000 BTU/hr, IEC 332-3 category A fire test, IEEE 1202 and CSA FT4
- Cables are American Bureau of Shipping (ABS) listed as CWC MC Type MC
- Cables exhibit a low temperature rating of -40ºC impact and –40ºC bend with suitable precautions
- Temperature rating of 90ºC dry and wet
- 130ºC emergency rating & 250ºC short circuit rating
- Continuous, impervious metallic sheath corrugated for flexibility, prevents ingress of moisture, gases and liquids
- Aluminum sheath cross-section exceeds requirements of the NEC Section 250.122 for grounding conductor
- Sheath provides good electronic shielding so that Corflex® can be used in certain instrumentation applications when adequately grounded
- Excellent mechanical & physical properties
- Sunlight resistant jacket
- Suitable for direct burial and use in cable tray and embedment in concrete
- LEAD FREE

For CORFLEX® MC Armored Identification of Conductors click here

Characteristics

Construction characteristics	
Armour type	Armoured
Electrical characteristics	
Maximum operating voltage	600 V
Usage characteristics	
Maximum operating temperature	90 °C

Maximum operating temperature
90 °C

Contact
Industrial Cables
Phone: 866-663-9267
USA.IndustrialCable@nexans.com

CORFLEX® MC

Corflex® MC Armored Power and Control Cable

Part Number: Corflex® MC

Multiconductors, with Bare Ground(s)

# of Cond.	Cond. Size	Insulation Thickness		Ground Wire Size	Nominal Diameter over Core		Nominal Diameter over Sheath		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity
	AWG	mils	mm	AWG	inches	mm	inches	mm	mils	mm	inches	mm	lb/kft	kg/km	amps (1,3)
2	14(7w)	30	0.76	14(7w)	0.280	7.11	0.494	12.55	50	1.27	0.596	15.14	160	238	25
3	14(7w)	30	0.76	3x18(7w)	0.390	9.91	0.555	14.10	50	1.27	0.660	16.80	200	298	25
4	14(7w)	30	0.76	14(7w)	0.345	8.76	0.522	13.26	50	1.27	0.627	15.93	203	302	20/25(2)
5	14(7w)	30	0.76	14(7w)	0.380	9.65	0.532	13.51	50	1.27	0.634	16.10	224	333	20
7	14(7w)	30	0.76	14(7w)	0.430	10.92	0.602	15.29	50	1.27	0.710	18.03	287	427	17.5
9	14(7w)	30	0.76	14(7w)	0.510	12.95	0.748	19.00	50	1.27	0.855	21.72	368	548	17.5
12	14(7w)	30	0.76	14(7w)	0.560	14.22	0.788	20.02	50	1.27	0.893	22.68	425	632	12.5
15	14(7w)	30	0.76	14(7w)	0.630	16.00	0.814	20.68	50	1.27	0.920	23.37	486	723	12.5
19	14(7w)	30	0.76	14(7w)	0.670	17.02	0.918	23.32	50	1.27	1.022	25.96	594	884	12.5
25	14(7w)	30	0.76	14(7w)	0.800	20.32	1.000	25.40	50	1.27	1.099	27.91	726	1080	11.5
37	14(7w)	30	0.76	14(7w)	0.940	23.88	1.216	30.89	50	1.27	1.320	33.53	1030	1533	10
2	12(7W)	30	0.76	12(7w)	0.320	8.13	0.498	12.65	50	1.27	0.602	15.29	196	292	30
3	12(7W)	30	0.76	3x16(7w)	0.340	8.64	0.555	14.10	50	1.27	0.660	16.80	226	336	30
4	12(7W)	30	0.76	12(7w)	0.380	9.65	0.550	13.97	50	1.27	0.654	16.61	246	366	24/30(2)
5	12(7W)	30	0.76	12(7w)	0.430	10.92	0.606	15.39	50	1.27	0.706	17.93	302	449	24
7	12(7W)	30	0.76	12(7w)	0.490	12.45	0.642	16.31	50	1.27	0.743	18.87	362	539	21
9	12(7W)	30	0.76	12(7w)	0.580	14.73	0.785	19.94	50	1.27	0.890	22.61	458	682	21
12	12(7W)	30	0.76	12(7w)	0.640	16.26	0.831	21.11	50	1.27	0.935	23.75	545	811	15
15	12(7W)	30	0.76	12(7w)	0.720	18.29	0.950	24.13	50	1.27	1.049	26.64	664	988	15
19	12(7W)	30	0.76	12(7w)	0.770	19.56	0.981	24.92	50	1.27	1.080	27.43	779	1159	15
25	12(7W)	30	0.76	12(7w)	0.920	23.37	1.196	30.38	50	1.27	1.300	33.02	1040	1548	13.5
37	12(7W)	30	0.76	12(7w)	1.070	27.18	1.380	35.05	50	1.27	1.498	38.05	1430	2128	12
2	10(7w)	30	0.76	10(7w)	0.370	9.40	0.556	14.12	50	1.27	0.658	16.71	240	357	40
3	10(7w)	30	0.76	3x14(7w)	0.450	11.43	0.620	15.75	50	1.27	0.725	18.40	312	464	40
4	10(7w)	30	0.76	10(7w)	0.457	11.61	0.626	15.90	50	1.27	0.730	18.54	343	510	32/40(2)
5	10(7w)	30	0.76	10(7w)	0.490	12.45	0.751	19.08	50	1.27	0.855	21.72	423	630	32
7	10(7w)	30	0.76	10(7w)	0.570	14.48	0.782	19.86	50	1.27	0.882	22.40	509	757	28
9	10(7w)	30	0.76	10(7w)	0.670	17.02	0.915	23.24	50	1.27	1.020	25.91	630	938	28
12	10(7w)	30	0.76	10(7w)	0.740	18.80	0.971	24.66	50	1.27	1.077	27.36	758	1128	20
37	10(7w)	30	0.76	10(7w)	1.230	31.24	1.570	39.88	60	1.52	1.715	43.56	2070	3081	16

Contact
Industrial Cables
Phone: 866-663-9267
USA.IndustrialCable@nexans.com

CORFLEX® MC

Corflex® MC Armored Power and Control Cable

Composite - 3 Power Conductors with 4 Control Conductors and 1 Bare Ground

Control Size	Insulation Thickness		Power Size	Insulation Thickness		Ground Size	Nominal Diameter over Core		Nominal Diameter over Sheath		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Control Ampacity	Power Ampacity
AWG	mils	mm	AWG	mils	mm	AWG	inches	mm	inches	mm	mils	mm	inches	mm	lb/kft	kg/km	amps (1)	amps (1)
12(7w)	30	0.76	10(7w)	30	0.76	10(7w)	0.530	13.46	0.765	19.43	50	1.27	0.880	22.35	444	661	21	28
12(7w)	30	0.76	8(7w)	45	1.14	10(7w)	0.680	17.27	0.940	23.88	50	1.27	1.050	26.67	519	772	21	38
12(7w)	30	0.76	6(7w)	45	1.14	8(7w)	0.775	19.69	0.991	25.17	50	1.27	1.096	27.84	691	1028	21	52
12(7w)	30	0.76	4(7w)	45	1.14	6(7w)	0.865	21.97	1.164	29.57	50	1.27	1.270	32.26	967	1439	21	66
12(7w)	30	0.76	2(7w)	45	1.14	6(7w)	0.872	22.15	1.170	29.72	50	1.27	1.272	32.31	1212	1804	21	91

(1) Ampacities are in accordance with Table 310.16 of NEC for conductors in raceway or direct buried at 30°C ambient temperature and 90°C conductor temperature. The overcurrent protection shall not exceed 15 amperes for 14 AWG, 20 amperes for 12 AWG and 30 amperes for 10 AWG copper conductors after any correction factors for ambient temperature and number of conductors have been applied (NEC Article 240.4(D)). For correction factors for different ambient temperatures and ampacities at different conductor temperatures see Table 310.16 of NEC. Ampacities for cables having more than three conductors have been derated per Article 310.15(B)(2)(a) of NEC.
(2) Where the 4th conductor is the neutral of a balanced 3 phase system.
(3) With load diversity of 50% (see Table B.310.11 of NEC).

3 Conductors with 3 Bare Grounds*

Cond. Size	Insulation Thickness		Ground Wire Size	Nominal Diameter over Core		Nominal Diameter over Sheath		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity
AWG/kcmil	mils	mm	AWG	inches	mm	inches	mm	mils	mm	inches	mm	lb/kft	kg/km	amps (1)
14(7w)	30	0.76	3x18(7w)	0.390	9.91	0.555	14.10	50	1.27	0.660	16.80	200	298	20
12(7w)	30	0.76	3x16(7w)	0.340	8.64	0.555	14.10	50	1.27	0.660	16.80	226	336	30
10(7w)	30	0.76	3x14(7w)	0.450	11.43	0.620	15.75	50	1.27	0.725	18.40	312	464	40
8(7w)	45	1.14	3x14(7w)	0.520	13.21	0.753	19.10	50	1.27	0.856	21.70	413	615	55
6(7w)	45	1.14	3x12(7w)	0.600	15.24	0.802	20.37	50	1.27	0.905	22.99	542	807	75
4(7w)	45	1.14	3x12(7w)	0.700	17.78	0.937	23.80	50	1.27	1.043	26.50	735	1094	95
2(7w)	45	1.14	3x10(7w)	0.830	21.08	1.127	28.63	50	1.27	1.232	31.29	1097	1633	130
1(19w)	55	1.40	3x10(7w)	0.950	24.13	1.230	31.24	50	1.27	1.320	33.53	1330	1979	150
1/0(19w)	55	1.40	3x10(7w)	1.040	26.42	1.350	34.29	50	1.27	1.456	37.00	1592	2369	170
2/0(19w)	55	1.40	3x10(7w)	1.126	28.61	1.422	36.12	50	1.27	1.526	38.77	1882	2801	195
3/0(19w)	55	1.40	3x8(7w)	1.250	31.75	1.605	40.79	60	1.52	1.739	44.18	2400	3570	225
4/0(19w)	55	1.40	3x8(7w)	1.360	34.55	1.734	44.04	60	1.52	1.867	47.43	2910	4330	260
250(37w)	65	1.65	3x8(7w)	1.477	37.52	1.925	48.89	60	1.52	2.058	52.27	3316	4934	290
350(37w)	65	1.65	3x6(7w)	1.730	43.94	2.220	56.39	60	1.52	2.350	59.69	4560	6786	350
500(37w)	65	1.65	3x6(7w)	2.010	51.05	2.403	62.99	75	1.91	2.640	67.06	6245	9294	430
750(61w)	80	2.03	3x4(7w)	2.477	62.92	3.172	80.57	85	2.16	3.356	85.24	9530	14182	530

* The constructions with three grounds are excellent for use with variable frequency drives.

Contact
Industrial Cables
Phone: 866-663-9267
USA.IndustrialCable@nexans.com

CORFLEX® MC

Corflex® MC Armored Power and Control Cable

4 Conductors with 1 Bare Ground

Cond. Size	Insulation Thickness		Ground Wire Size	Nominal Diameter over Core		Nominal Diameter over Sheath		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity
AWG/kcmil	mils	mm	AWG	inches	mm	inches	mm	mils	mm	inches	mm	lb/kft	kg/km	amps (1,2)
14(7w)	30	0.76	14(7w)	0.345	8.76	0.522	13.26	50	1.27	0.630	16.00	200	298	20
12(7w)	30	0.76	12(7w)	0.396	10.06	0.618	15.70	50	1.27	0.730	18.54	245	365	30
10(7w)	30	0.76	10(7w)	0.458	11.63	0.618	15.70	50	1.27	0.730	18.54	340	506	40
8(7w)	45	1.14	10(7w)	0.607	15.42	0.789	20.04	50	1.27	0.900	22.86	468	697	55
6(7w)	45	1.14	8(7w)	0.709	18.01	0.961	24.41	50	1.27	1.070	27.18	685	1019	75
4(7w)	45	1.14	8(7w)	0.821	20.85	1.181	30.00	50	1.27	1.290	32.77	980	1458	95
2(7w)	45	1.14	6(7w)	0.971	24.66	1.370	34.80	50	1.27	1.490	37.85	1410	2098	130
1(19w)	55	1.40	6(7w)	1.065	27.05	1.370	34.80	50	1.27	1.490	37.85	1670	2485	150
1/0(19w)	55	1.40	6(7w)	1.162	29.51	1.573	39.95	60	1.52	1.710	43.43	2075	3088	170
2/0(19w)	55	1.40	6(7w)	1.268	38.21	1.573	39.95	60	1.52	1.710	43.43	2440	3615	195
3/0(19w)	55	1.40	4(7w)	1.389	35.28	1.734	44.04	60	1.52	1.870	47.50	3010	4479	225
4/0(19w)	55	1.40	4(7w)	1.530	38.86	1.959	49.76	60	1.52	2.090	53.09	3670	5462	260
250(37w)	65	1.65	4(7w)	1.653	41.98	2.012	51.10	60	1.52	2.147	54.53	4136	6155	290
350(37w)	65	1.65	3(7w)	1.938	49.23	2.480	62.99	75	1.91	2.610	66.29	5835	8684	350
500(37w)	65	1.65	2(7w)	2.250	57.15	2.800	71.12	75	1.91	2.930	74.42	8190	12188	430
750(61w)	80	2.03	1(19w)	2.757	70.03	3.400	86.36	85	2.16	3.580	90.93	12028	17900	535

(1) Ampacities are in accordance with Table 310.16 of NEC for conductors in raceway or direct buried at 30°C ambient temperature and 90°C conductor temperature. The overcurrent protection shall not exceed 15 amperes for 14 AWG, 20 amperes for 12 AWG and 30 amperes for 10 AWG copper conductors after any correction factors for ambient temperature and number of conductors have been applied (NEC Article 240.4(D)). For correction factors for different ambient temperatures and ampacities at different conductor temperatures see Table 310.16 of NEC.
(2) Where the 4th conductor is the neutral of a balanced 3 phase system, otherwise the ampacity is 80% of the value shown.

Selling delivery information

Options

The following constructions can be provided on special orders:

- Aluminum conductors
- Extra ground wires
- Special color or number coding
- Specially colored jackets
- Other constructions and combinations (some manufacturing restrictions apply)
- Oil Resistant I or II jackets
- UL 1309 listing and marking