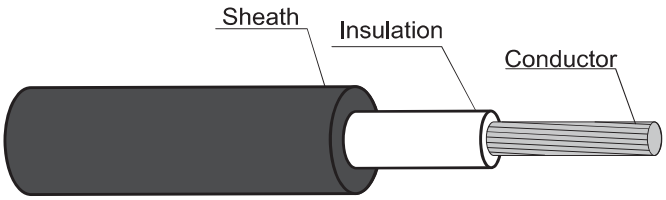
FD-0.6/1KV-AL-CV

0.6/1 kV 90°C ALUMINIUM CONDUCTOR CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

IEC 60502-1



Category C
FLAME RETARDANT

CABLE STRUCTURE

Conductor : Compacted stranded hard drawn aluminium
Single-core : Sizes 10 mm² up to 500 mm²

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts

Rated voltage : 600 Volts between Line to Earth
: 1,000 Volts between Line to Line

Testing voltage : 3,500 Volts
Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1
IEC 60332-3-24 (Cat.C)

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

Number of core	Nominal cross sectional area	Number of wires minimum	Insulation thickness nominal	Sheath thickness nominal	Overall diameter approx.	Conductor resistance at 20°C maximum	Insulation resistance at 20°C minimum	Continuous current rating in free air at 40°C maximum (A)			Continuous current rating in ground at 30°C maximum	Cable weight approx.	Standard Length
								Spaced (2D)	Touching	Trefoil			
	(mm^2)	(No.)	(mm)	(mm)	(mm)	(Ω/km)	(MΩ-km)				(A)	(kg/km)	(m)
1	10	6	0.7	1.4	8.5	3.08	1,250	72	55	54	64	96	500/D
	16	6	0.7	1.4	9.4	1.91	1,000	95	74	72	82	126	500/D
	25	6	0.9	1.4	11.0	1.20	1,050	128	100	97	107	163	500/D
	35	6	0.9	1.4	12.0	0.868	900	156	122	119	128	196	500/D
	50	6	1.0	1.4	13.5	0.641	850	189	149	145	151	232	500/D
	70	12	1.1	1.4	15.5	0.443	800	240	190	184	185	285	500/D
	95	15	1.1	1.5	17.0	0.320	650	295	236	228	221	342	500/D
	120	15	1.2	1.5	19.0	0.253	650	345	277	268	252	390	500/D
	150	15	1.4	1.6	21	0.206	700	393	317	308	282	436	500/D
	185	30	1.6	1.6	23	0.164	700	458	371	360	321	495	500/D
	240	30	1.7	1.7	26	0.125	650	548	446	432	373	575	500/D
	300	30	1.8	1.8	29	0.100	600	633	518	501	420	649	500/D
	400	53	2.0	1.9	32	0.0778	600	745	612	591	481	743	500/D
	500	53	2.2	2.0	36	0.0605	600	878	724	698	550	850	500/D

D : Packing in drum

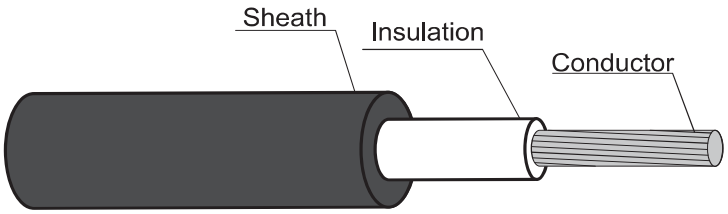
Remark : Thermal resistivity of soil 1.2 K.m/W or °C.m/W
Deep of laying (For cable laid direct in ground) 0.8 m

C

FD-0.6/1KV-AL-CV

0.6/1 kV 90°C ALUMINIUM CONDUCTOR CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

IEC 60502-1



Category C
FLAME RETARDANT

CABLE STRUCTURE

Conductor : Compacted stranded hard drawn aluminium
Single-core : Sizes 10 mm² up to 500 mm²

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts

Rated voltage : 600 Volts between Line to Earth
: 1,000 Volts between Line to Line

Testing voltage : 3,500 Volts
Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1
IEC 60332-3-24 (Cat.C)

APPLICATION

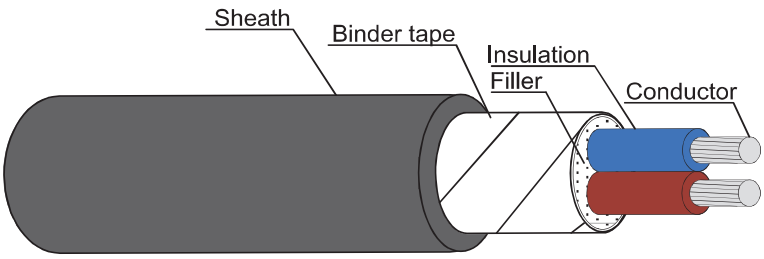
For installation exposed, or in raceway, wet or dry location, or direct burial in ground

C

Number of core	Nominal cross sectional area (mm^2)	A.C.Resistance R (Ω/km)			Inductance L (mH/km)			Reactance XL (Ω/km)			Impedance Z (Ω/km)		
		Space	Touching	Trefoil	Space	Touching	Trefoil	Space	Touching	Trefoil	Space	Touching	Trefoil
1	10	3.9489	3.9489	3.9489	0.5529	0.4143	0.3681	0.1737	0.1302	0.1156	3.9527	3.9510	3.9506
	16	2.4488	2.4489	2.4489	0.5267	0.3881	0.3419	0.1655	0.1219	0.1074	2.4544	2.4519	2.4512
	25	1.5386	1.5386	1.5386	0.5141	0.3755	0.3292	0.1615	0.1180	0.1034	1.5470	1.5431	1.5421
	35	1.1129	1.1130	1.1130	0.5002	0.3616	0.3154	0.1571	0.1136	0.0991	1.1240	1.1188	1.1174
	50	0.8219	0.8220	0.8220	0.4921	0.3535	0.3072	0.1546	0.1110	0.0965	0.8364	0.8295	0.8277
	70	0.5681	0.5682	0.5683	0.4707	0.3321	0.2859	0.1479	0.1043	0.0898	0.5871	0.5777	0.5753
	95	0.4105	0.4106	0.4107	0.4635	0.3248	0.2786	0.1456	0.1020	0.0875	0.4356	0.4231	0.4199
	120	0.3247	0.3248	0.3250	0.4576	0.3190	0.2728	0.1438	0.1002	0.0857	0.3551	0.3399	0.3361
	150	0.2645	0.2647	0.2648	0.4571	0.3185	0.2723	0.1436	0.1001	0.0855	0.3010	0.2830	0.2783
	185	0.2107	0.2110	0.2112	0.4526	0.3139	0.2677	0.1422	0.0986	0.0841	0.2542	0.2329	0.2273
	240	0.1609	0.1612	0.1615	0.4470	0.3083	0.2621	0.1404	0.0969	0.0823	0.2135	0.1881	0.1813
	300	0.1290	0.1294	0.1298	0.4432	0.3046	0.2584	0.1392	0.0957	0.0812	0.1898	0.1610	0.1531
	400	0.1008	0.1013	0.1018	0.4394	0.3008	0.2546	0.1381	0.0945	0.0800	0.1709	0.1386	0.1295
	500	0.0789	0.0796	0.0802	0.4365	0.2979	0.2517	0.1371	0.0936	0.0791	0.1582	0.1229	0.1126

FD-0.6/1KV-AL-CV

0.6/1 kV 90°C ALUMINIUM CONDUCTOR CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE



IEC 60502-1

Category C
FLAME RETARDANT

CABLE STRUCTURE

Conductor : Compacted stranded hard drawn aluminium
Multi-core : Sizes 10 mm² up to 400 mm²

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
2 cores : Blue, Brown

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts

Rated voltage : 600 Volts between Line to Earth
: 1,000 Volts between Line to Line

Testing voltage : 3,500 Volts
Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1
IEC 60332-3-24 (Cat.C)

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

Number of cores	Nominal cross sectional area (mm²)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air at 40°C maximum (A)	Continuous current rating in ground at 30°C maximum (A)	Cable weight approx. (kg/km)	Standard Length (m)
2	10	6	0.7	1.8	15.5	3.08	1,250	61	77	220	500/D
	16	6	0.7	1.8	17.0	1.91	1,000	82	100	290	500/D
	25	6	0.9	1.8	21	1.20	1,050	110	130	400	500/D
	35	6	0.9	1.8	23	0.868	900	134	154	500	500/D
	50	6	1.0	1.8	25	0.641	850	164	180	600	500/D
	70	12	1.1	1.8	29	0.443	800	208	220	800	500/D
	95	15	1.1	2.0	33	0.320	650	254	365	1,100	500/D
	120	15	1.2	2.1	37	0.253	650	296	300	1,300	500/D
	150	15	1.4	2.2	40	0.206	700	338	335	1,600	500/D
	185	30	1.6	2.3	45	0.164	700	392	380	1,900	500/D
	240	30	1.7	2.5	51	0.125	650	464	440	2,500	500/D
	300	30	1.8	2.7	56	0.100	600	531	496	3,000	500/D
	400	53	2.0	2.9	63	0.0778	600	619	565	3,800	500/D

Number of cores	Nominal cross sectional area (mm²)	A.C.Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
2	10	3.9489	0.2774	0.0871	3.9499
	16	2.4489	0.2619	0.0823	2.4503
	25	1.5386	0.2637	0.0829	1.5409
	35	1.1130	0.2567	0.0807	1.1159
	50	0.8220	0.2551	0.0801	0.8259
	70	0.5683	0.2409	0.0757	0.5733
	95	0.4107	0.2337	0.0734	0.4172
	120	0.3249	0.2325	0.0731	0.3331
	150	0.2648	0.2337	0.0734	0.2748
	185	0.2111	0.2333	0.0733	0.2235
	240	0.1614	0.2300	0.0723	0.1769
	300	0.1297	0.2278	0.0716	0.1481
	400	0.1016	0.2260	0.0710	0.1240

Remark : Thermal resistivity of soil 1.2 K.m/W or °C.m/W
Deep of laying (For cable laid direct in ground) 0.8 m

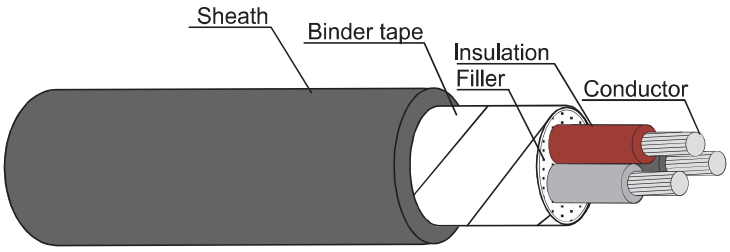
D : Packing in drum

C

FD-0.6/1KV-AL-CV

0.6/1 kV 90°C ALUMINIUM CONDUCTOR CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

IEC 60502-1



Category C
FLAME RETARDANT

CABLE STRUCTURE

Conductor : Compacted stranded hard drawn aluminium
Multi-core : Sizes 10 mm² up to 400 mm²

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
3 cores : Brown, Black, Grey

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts

Rated voltage : 600 Volts between Line to Earth
: 1,000 Volts between Line to Line

Testing voltage : 3,500 Volts
Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1
IEC 60332-3-24 (Cat.C)

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

Number of cores	Nominal cross sectional area (mm^2)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air at 40°C maximum (A)	Continuous current rating in ground at 30°C maximum (A)	Cable weight approx. (kg/km)	Standard Length (m)
3	10	6	0.7	1.8	16.0	3.08	1,250	51	65	260	500/D
	16	6	0.7	1.8	18.0	1.91	1,000	68	84	350	500/D
	25	6	0.9	1.8	22	1.20	1,050	91	110	490	500/D
	35	6	0.9	1.8	24	0.868	900	113	130	650	500/D
	50	6	1.0	1.8	27	0.641	850	136	154	750	500/D
	70	12	1.1	1.9	31	0.443	800	172	188	1100	500/D
	95	15	1.1	2.0	35	0.320	650	210	225	1400	500/D
	120	15	1.2	2.1	39	0.253	650	248	255	1700	500/D
	150	15	1.4	2.3	43	0.206	700	283	285	2100	500/D
	185	30	1.6	2.4	48	0.164	700	329	325	2600	500/D
	240	30	1.7	2.6	55	0.125	650	389	375	3300	500/D
	300	30	1.8	2.8	60	0.100	600	446	420	4000	500/D
	400	53	2.0	3.1	68	0.078	600	519	480	5000	500/D

Number of cores	Nominal cross sectional area (mm^2)	A.C.Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
3	10	3.9489	0.2774	0.0871	3.9499
	16	2.4489	0.2619	0.0823	2.4503
	25	1.5386	0.2637	0.0829	1.5409
	35	1.1130	0.2567	0.0807	1.1159
	50	0.8220	0.2551	0.0801	0.8259
	70	0.5683	0.2409	0.0757	0.5733
	95	0.4107	0.2337	0.0734	0.4172
	120	0.3249	0.2325	0.0731	0.3331
	150	0.2648	0.2337	0.0734	0.2748
	185	0.2111	0.2333	0.0733	0.2235
	240	0.1614	0.2300	0.0723	0.1769
	300	0.1297	0.2278	0.0716	0.1481
	400	0.1016	0.2260	0.0710	0.1240

Remark : Thermal resistivity of soil 1.2 K.m/W or °C.m/W
Deep of laying (For cable laid direct in ground) 0.8 m

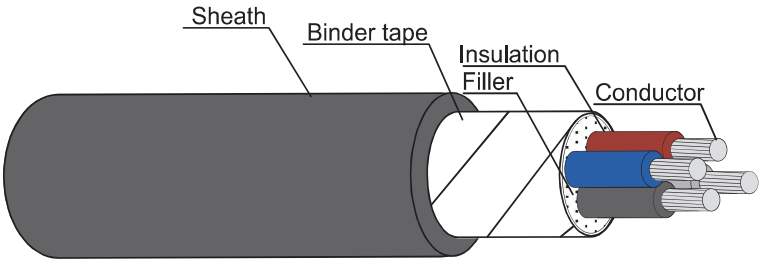
D : Packing in drum

C

FD-0.6/1KV-AL-CV

0.6/1 kV 90°C ALUMINIUM CONDUCTOR CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

IEC 60502-1



Category C
FLAME RETARDANT

CABLE STRUCTURE

Conductor : Compacted stranded hard drawn aluminium
Multi-core : Sizes 10 mm² up to 400 mm²

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
4 cores : Blue, Brow, Black, Grey

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts

Rated voltage : 600 Volts between Line to Earth
: 1,000 Volts between Line to Line

Testing voltage : 3,500 Volts
Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1
IEC 60332-3-24 (Cat.C)

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

Number of cores	Nominal cross sectional area (mm^2)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air at 40°C maximum (A)	Continuous current rating in ground at 30°C maximum (A)	Cable weight approx. (kg/km)	Standard Length (m)
4	10	6	0.7	1.8	17.5	3.08	1,250	51	65	310	500/D
	16	6	0.7	1.8	20	1.91	1,000	68	84	420	500/D
	25	6	0.9	1.8	24	1.20	1,050	91	110	600	500/D
	35	6	0.9	1.8	27	0.868	900	113	130	750	500/D
	50	6	1.0	1.9	30	0.641	850	136	154	1000	500/D
	70	12	1.1	2.0	35	0.443	800	172	188	1400	500/D
	95	15	1.1	2.1	39	0.320	650	210	225	1700	500/D
	120	15	1.2	2.3	44	0.253	650	248	255	2200	500/D
	150	15	1.4	2.4	48	0.206	700	283	285	2600	500/D
	185	30	1.6	2.6	54	0.164	700	329	325	3300	500/D
	240	30	1.7	2.8	61	0.125	650	389	375	4200	500/D
	300	30	1.8	3.0	67	0.100	600	446	420	5000	500/D
	400	53	2.0	3.3	76	0.0778	600	519	480	6500	300/D

Number of cores	Nominal cross sectional area (mm^2)	A.C.Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
4	10	3.9489	0.2774	0.0871	3.9499
	16	2.4489	0.2619	0.0823	2.4503
	25	1.5386	0.2637	0.0829	1.5409
	35	1.1130	0.2567	0.0807	1.1159
	50	0.8220	0.2551	0.0801	0.8259
	70	0.5683	0.2409	0.0757	0.5733
	95	0.4107	0.2337	0.0734	0.4172
	120	0.3249	0.2325	0.0731	0.3331
	150	0.2648	0.2337	0.0734	0.2748
	185	0.2111	0.2333	0.0733	0.2235
	240	0.1614	0.2300	0.0723	0.1769
	300	0.1297	0.2278	0.0716	0.1481
	400	0.1016	0.2260	0.0710	0.1240

Remark : Thermal resistivity of soil 1.2 K.m/W or °C.m/W
Deep of laying (For cable laid direct in ground) 0.8 m

D : Packing in drum

C