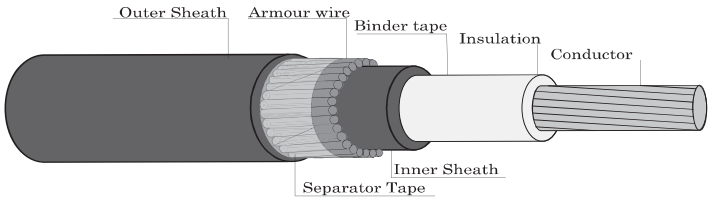
FD-0.6/1KV-AL-CV-AWA

0.6/1 kV 90°C ALUMINIUM CODUCTOR CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED, WITH ALUMINIUM WIRE ARMORED 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 500 mm²

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)

Inner Sheath : Black polyvinyl chloride (PVC)

Armor : Aluminium wires

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 (mm²)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Inner Sheath thickness approx. (mm)	Dia. Of inner sheath approx. (mm)	Diameter of steel wire armor nominal (mm)	Outer 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)
											Spaced	Touching	Trefoil			
1	10	6	0.7	1.2	8.1	1.25	1.8	14.5	3.08	1,250	80	66	64	96	270	500/D
	16	6	0.7	1.2	9.0	1.25	1.8	15.5	1.91	1,000	105	86	84	125	310	500/D
	25	6	0.9	1.2	10.5	1.25	1.8	17.0	1.20	1,050	139	114	111	161	380	500/D
	35	6	0.9	1.2	11.5	1.25	1.8	18.5	0.868	900	169	139	135	194	440	500/D
	50	6	1.0	1.2	13.0	1.25	1.8	19.5	0.641	850	202	167	162	229	500	500/D
	70	12	1.1	1.2	15.0	1.25	1.8	22	0.443	800	253	209	203	281	600	500/D
	95	15	1.1	1.2	16.5	1.60	1.8	24	0.320	650	312	258	251	339	800	500/D
	120	15	1.2	1.2	18.5	1.60	1.8	26	0.253	650	362	300	291	387	900	500/D
	150	15	1.4	1.2	20	1.60	1.8	27	0.206	700	410	341	331	432	1,000	500/D
	185	30	1.6	1.2	22	2.00	1.9	31	0.164	700	479	400	388	492	1,300	500/D
	240	30	1.7	1.2	25	2.00	1.9	33	0.125	650	569	476	461	573	1,600	500/D
	300	30	1.8	1.2	28	2.00	2.0	36	0.100	600	655	550	532	648	1,900	500/D
	400	53	2.0	1.2	31	2.00	2.2	40	0.0778	600	766	644	624	741	2,300	500/D
	500	53	2.2	1.2	34	2.00	2.3	43	0.0605	600	897	756	731	848	2,800	500/D

C

Number of core	Nominal cross sectional area (mm²)	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	0.6639	0.5252	0.4790	0.2086	0.1650	0.1505	3.9544	3.9523	3.9518
	16	2.4488	2.4488	2.4489	0.6293	0.4907	0.4445	0.1977	0.1542	0.1396	2.4568	2.4537	2.4528
	25	1.5386	1.5386	1.5386	0.6040	0.4654	0.4191	0.1897	0.1462	0.1317	1.5502	1.5455	1.5442
	35	1.1129	1.1130	1.1130	0.5835	0.4449	0.3986	0.1833	0.1398	0.1252	1.1279	1.1217	1.1200
	50	0.8219	0.8220	0.8220	0.5687	0.4301	0.3838	0.1787	0.1351	0.1206	0.8411	0.8330	0.8308
	70	0.5681	0.5682	0.5682	0.5393	0.4007	0.3544	0.1694	0.1259	0.1114	0.5929	0.5819	0.5790
	95	0.4105	0.4106	0.4106	0.5278	0.3891	0.3429	0.1658	0.1223	0.1077	0.4427	0.4284	0.4245
	120	0.3247	0.3247	0.3248	0.5167	0.3781	0.3319	0.1623	0.1188	0.1043	0.3630	0.3458	0.3411
	150	0.2645	0.2646	0.2647	0.5101	0.3715	0.3252	0.1602	0.1167	0.1022	0.3092	0.2892	0.2837
	185	0.2107	0.2108	0.2110	0.5082	0.3695	0.3233	0.1596	0.1161	0.1016	0.2644	0.2407	0.2341
	240	0.1608	0.1610	0.1612	0.4960	0.3573	0.3111	0.1558	0.1123	0.0977	0.2239	0.1963	0.1885
	300	0.1289	0.1292	0.1294	0.4894	0.3507	0.3045	0.1537	0.1102	0.0957	0.2007	0.1698	0.1609
	400	0.1007	0.1011	0.1014	0.4836	0.3450	0.2987	0.1519	0.1084	0.0939	0.1823	0.1482	0.1381
	500	0.0788	0.0793	0.0797	0.4760	0.3373	0.2911	0.1495	0.1060	0.0915	0.1690	0.1324	0.1213

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