NEELKANTH CABLES

Low Voltage Power Cable

COPPER/ALUMINIUM CONDUCTOR, XLPE INSULATED, ARMOURED, 600/1000V LOW VOLTAGE POWER CABLE

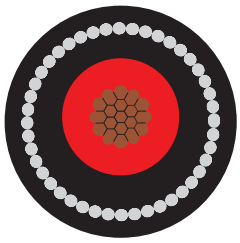
These cables are used for electricity supply in low voltage installation system.
They are well adapted to underground, outdoors, use in industrial applications where mechanical protections are needed.

Standard	:	IEC 60502-1
Construction Conductor	:	Aluminium or Copper conductor, round stranded or shaped class 2 to IEC 60228
Heat Brrier (Optional)	:	Mica Tape (High Temperature Sustaining Tape for Specical requirment of Fire Survival Cables Known as CIRCUIT INTEGRITY CABLES)
Insulation	:	Cross linked polyethylene (XLPE) to IEC 60502-1
Insulation colour	:	2C: Red & Black 3C: Red, Yellow & Blue 4C: Red, Yellow, Blue & Black 5C: Red, Yellow, Blue, Black & Green / Yellow (Other core colour also available on request)
Filler (Optional)	:	Non Hygroscopic filler
Binder Tape (Optional)	:	Polyester (Mylar)Tape
Inner Sheath	:	Extruded PVC compatible with the operating temperature of the conductor in Black colour. (Specical Requirment Low Halogen Flame Retardent & Low Smoke Zero Halogen)
Armour	:	Single Core: A single layer of Aluminium Wire Armour (AWA) Multi core: A single layer of Galvanized Steel Wire Armour (GSWA)
Outer Sheath	:	Extruded PVC (Polyvinyl Chloride) type ST-2 to IEC 60502-1 in Black colour. (Specical Requirement Low Halogen Flame Retardent & Low Smoke Zero Halogen) (Other sheath colour also available on request)

Technical Characteristic

Voltage Grade	:	600/1000V
Temperature Rating	:	-15°C to +90°C
Flame Retardent	:	IEC 60332-1-2
Fire Resistance (Circuit Integrity Test)	:	IEC 60331, Category CWZ Test as per BS 6387 (Applicable only for Fire Survival Cable)
Halogen Acid Gas Emission	:	Max. 0.5% (IEC 60754-1: Applicable only for LSZH cables)

1 CORE CABLES - 600/1000 V



Stranded Copper Conductor
XLPE Insulation
Aluminium Wire Armour
PVC Outer Sheath

1 Core Cables - 600/1000 V, CU Conductor, XLPE Insulation, AL.Wire Armoured, PVC Sheathed

PHYSICAL PROPERTIES

Catalouge Number	Nominal Cross Section Area	Nominal Insulation Thickness	Thickness of Inner Sheath	Nominal Steel Wire Armour Dia.	Nominal Outer Sheath Thickness	Approx Overall Dia
	SQ.MM	**MM**	**MM**	**MM**	**MM**	**MM**
NLV*2XAWYSC0500DST10	50	1.0	1.0	1.25	1.5	18.0
NLV*2XAWYSC0700DST10	70	1.1	1.0	1.25	1.5	19.4
NLV*2XAWYSC0950DST10	95	1.1	1.0	1.25	1.6	21.4
NLV*2XAWYSC1200DST10	120	1.2	1.0	1.6	1.7	22.8
NLV*2XAWYSC1500DST10	150	1.4	1.0	1.6	1.7	25.7
NLV*2XAWYSC1850DST10	185	1.6	1.0	1.6	1.8	27.9
NLV*2XAWYSC2400DST10	240	1.7	1.0	1.6	1.9	30.3
NLV*2XAWYSC3000DST10	300	1.8	1.0	1.6	1.9	32.8
NLV*2XAWYSC4000DST10	400	2.0	1.2	2.0	2.1	37.8
NLV*2XAWYSC5000DST10	500	2.2	1.2	2.0	2.2	41.2
NLV*2XAWYSC6300DST10	630	2.4	1.2	2.0	2.3	45.3
NLV*2XAWYSC8000ST10	800*	2.6	1.4	2.5	2.5	54.7
NLV*2XAWYSC10000ST10	1000*	2.8	1.4	2.5	2.7	59.8

Notes: *Non-Compacted circular conductor, other compacted circular conductor
N(*) Add "A"for Aluminium Conductor & "C" for Copper Conductor
The above data is indicative & may be changed without prior information.
Cables can be supplied in multiples of 1000/500/250 mtrs.or required by customer.

Operating Conditions:
Ambient air temperature: 30 °C
Ground temperature: 15 °C
Depth of Laying: 0.50 m
Thermal resistivity of Soil: 1.2 K.m/W

1 Core Cables - 1000/600 V, CU Conductor, XLPE Insulation, AL.Wire Armoured, PVC Sheathed

ELECTRICAL PROPERTIES

Nominal Cross Section Area	Current Rating			Approx Voltage Drop of Single core cables	Reactance at 50 Hz	Capacitance	Maximum DC Resistance at 20°C	Short Circuit Rating for 1 Sec.
	In Air	In Ground	In Duct		Single Core Cable (Approx)	Single Core Cable (Approx)		
	Nominal Insulation Thickness							
	CU.			CU.			CU.	CU.
SQ.MM	**Amps(A)**			**V/A/km**	**Ohm/Km**	**µF/Km**	**Ohm/Km**	**kA(rms)**
50	207	183	164	0.828	0.114	0.50	0.387	7.15
70	268	225	203	0.587	0.106	0.55	0.268	10.01
95	328	270	239	0.442	0.102	0.64	0.193	13.585
120	383	306	271	0.365	0.097	0.67	0.153	17.16
150	444	343	306	0.314	0.099	0.67	0.124	21.45
185	510	387	343	0.268	0.095	0.67	0.0991	26.455
240	607	448	395	0.229	0.093	0.72	0.0754	34.32
300	703	490	446	0.206	0.092	0.75	0.0601	42.9
400	823	567	505	0.191	0.090	0.75	0.0470	57.2
500	946	650	604	0.178	0.089	0.77	0.0366	71.5
630	1045	700	654	0.166	0.087	0.81	0.0283	90.09
800	1145	750	694	0.161	0.086	0.88	0.0221	114.4
1000	1235	800	724	0.156	0.085	0.88	0.0176	143