

# DATA SHEET

## UN-ARMoured PVC SHEATHED CABLE AS PER IEC 60502-1



# Ducab دوكاب

	ITEM	No.	1	2	3	4	5	6	7	8	9	10	11	12	13
Sr #	Cu (Cl2)/XLPE/ VC	UNIT	3 x 1.5	3 x 2.5	3 x 4	3 x 6	3 x 10	3x16	3x25	3x35	3x50	3x70	3x95	3x120	3x240
1	Type of Cable		Cu (Cl2)/XLP E/P VC												
2	Product Standard		IEC 60502 - 1												
3	Performance Standard (Flame / Fire - Test)		IEC 60332 - 1												
4	Rated voltage (Uo/U) (Um)	kV	0.6/1 (1.2)												
5	Circular Stranded Copper Class : 2 Conductor														
6	Number of Core(s)	Nos	3	3	3	3	3	3	3	3	3	3	3	3	3
7	Nominal cross sectional area	mm <sup>2</sup>	1.5	2.5	4	6	10	16	25	35	50	70	95	120	240
8	Approx. Diameter of Conductor	mm	1.44	1.85	2.38	2.92	3.72	4.7	Sectoral	Sectoral	Sectoral	Sectoral	Sectoral	Sectoral	Sectoral
9	Insulation - XLPE														
10	Color (s)		Red, Yellow, Blue												
11	Nominal Thickness	mm	0.7	0.7	0.7	0.7	0.7	0.7	0.9	0.9	1	1.1	1.1	1.2	1.7
12	Approx. Diameter over Insulation	mm	2.9	3.4	3.9	4.4	5.2	6.2	Sectoral	Sectoral	Sectoral	Sectoral	Sectoral	Sectoral	Sectoral
13	3 Core Laid up														
14	Approx. Diameter over Laid Up	mm	6.4	7.2	8.4	9.6	11.3	13.4	15.5	17.5	21.1	23.2	26.7	30	42.7
15	Extruded Outer Sheath - PVC (Black)														
16	Nominal Thickness	mm	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2	2.1	2.6
17	Approx. Diameter over outer sheath	mm	9.3	10.2	11.3	12.5	14.2	16.4	18.5	20.5	24.1	26.3	30.1	33.6	47.2

18	Approx. Weight of complete cable	kg / km	130	169	229	302	443	592	884	1139	1526	2136	2900	3620	7334
19	Electrical Parameters														
20	Max. DC Resistance of Conductor at 20°C	Ω/km	12.1	7.41	4.61	3.08	1.83	1.15	0.727	0.524	0.387	0.268	0.193	0.153	0.0754
21	Approx. AC Resistance of Conductor at Maximum Operating Temperature	Ω/km	15.429	9.449	5.878	3.927	2.334	1.467	0.9273	0.6686	0.4941	0.3426	0.2474	0.1968	0.0995
22	Approx. Capacitance	μF / km	0.33	0.37	0.44	0.5	0.61	0.4	0.41	0.46	0.48	0.51	0.59	0.61	0.62
23	Approx. Inductance	mH / km	0.33	0.32	0.31	0.3	0.29	0.26	0.25	0.25	0.24	0.24	0.23	0.23	0.23
24	Approx. Inductive Reactance	Ω/km	0.1	0.098	0.092	0.088	0.083	0.081	0.079	0.077	0.076	0.075	0.073	0.072	0.072
25	Approx. Impedance	Ω/km	15.4	9.45	5.88	3.93	2.33	1.47	0.93	0.67	0.5	0.35	0.26	0.21	0.12
26	Approx. Voltage Drop	mV/Amp/mt	27	16	10	6.8	4	2.5	1.65	1.15	0.87	0.6	0.45	0.37	0.21
27	Installation Type (Single Circuit)		3 core	3 core	3 core	3 core	3 core	3 core	3 core	3 core	3 core	3 core	3 core	3 core	3 core
28	Soil Thermal Resistivity	°C.m/W	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
29	Ground temperature	°C	15	15	15	15	15	15	15	15	15	15	15	15	15
30	Ambient air temperature	°C	30	30	30	30	30	30	30	30	30	30	30	30	30
31	Burial depth	mm	500	500	500	500	500	500	500	500	500	500	500	500	500
32	Laid in ground	Amps	32	42	55	69	92	120	145	180	215	265	315	365	540
33	Laid in Duct	Amps	26	34	45	56	75	93	125	145	175	215	255	300	440
34	In air	Amps	25	33	44	56	78	100	127	158	192	246	298	346	538
35	Maximum conductor	°C	90/250	90/250	90/250	90/250	90/250	90/250	90/250	90/250	90/250	90/250	90/250	90/250	90/250

	temperature for continuous operation / Short Circuit Operation														
36	Conductor	kA/ 1 sec	0.2145	0.358	0.572	0.858	1.43	2.288	3.575	5.005	7.15	10.01	13.585	17.16	34.32
37	Installation Parameters														
38	Maximum pulling force (For Conductor)	kgf	27	45	72	108	180	288	450	630	900	1260	1710	2000	2000
39	Minimum Bending Radius	mm	60	66	72	78	90	102	152	168	200	216	248	272	384