



CABLE STRUCTURE

Conductor	Electrolytic annealed, class 5 stranded plain copper wires (tinned conductor on request)
Separator	A suitable tape may be applied over the conductor
Insulation	El4 Type rubber (EPR) compound
Core Identification	Acc. to HD 308
Inner Sheath	EM2 or EM3 type elastomer compound (if outer sheath thickness is greater than 2.4 mm)
Outer Sheath	EM2 Type elastomer compound
Color	Black (other colors on request)

STANDARDS & MAIN CHARACTERISTICS

Construction	EN 50525-2-21, DIN VDE 0282-4, BS 6500 BS 7919, IEC 60245-4
General Requirements	EN 50525-1, HD 22.1, DN VDE 0282-1, IEC 60245-1
Guide to Use	HD 516, DIN VDE 0298-300
Electrical Tests	EN 50395, IEC 60245-2
Non - Electrical Tests	EN 50396, IEC 60245-2
Conductor Resistance	EN / IEC 60228, HD 383, DIN VDE 0295, BS 6360
Working Temperature	
In Mobile Use	-25°C / +60°C
in Fixed Use	-35°C / +90°C
Conductor Short - Circuit Temp.	Max. 200°C
Temp. on Cable Surface	Max. +50°C
Min. Installation Temp.	-25°C
Min. Bending Radius	EN 50565-1 Table. 3
Max. Tensile Load	15 N / mm ²
Current Carrying Capacities	IEC 60364-5-52, VDE 0298-4, EN 50565-1
Flame Retardant	EN 60332-1-2, DIN VDE 0482-332-1-2
Oil Resistant	EN 50363-2-1, IEC 60811-404

It's allowed up to 1.000 V AC or DC using for fixed and protected installations.

Application

This flexible cable is suitable to use as power supply and control cable in fixed or mobile connections and equipments like heavy machineries, switch boards, industrial equipments, power sources etc.



UV
Resistant



Rated
Voltage



Working
Temperature



Bending
Radius



No
Corrosivity

Cross Section (mm²)	Nominal Overall Diameter (mm)	Approximate Weight (kg / km)	Min. Bending Radius Fixed Installed (mm)	Max Resistance of Conductors at 20°C (ohm / km)	Current Carrying Capacity for flexing usage (A)	Current Carrying Capacity for fixed usage (A)
1x1,5	6,00	50	18	13,3	16,5	24
1x2,5	6,40	63	19	7,98	22	33
1x4	7,30	85	22	4,95	30	45
1x6	8,10	111	24	3,3	38	58
1x10	10,20	179	31	1,91	53	80
1x16	11,00	238	33	1,21	71	107
1x25	13,80	365	55	0,780	94	135
1x35	15,30	475	61	0,554	117	169
1x50	17,80	657	71	0,386	148	207
1x70	19,40	864	78	0,272	185	268
1x95	22,10	1118	88	0,206	222	328
1x120	24,40	1404	98	0,161	260	383
1x150	16,60	1698	66	0,129	300	444
1x185	29,70	2100	119	0,106	341	510
1x240	32,60	2396	130	0,0801	407	607
1x300	35,60	3256	142	0,0641	468	703
1x400	40,90	4377	164	0,0486	553	823
1x500	45,60	5632	182	0,0384	634	946
1x630	49,30	6975	197	0,0287	742	10883
2x1	8,40	94	25	19,5	15	19
2x1,5	9,30	117	28	13,3	18,5	26
2x2,5	10,60	160	32	7,98	25	36
2x4	12,20	221	49	4,95	34	49
2x6	13,60	288	54	3,30	43	63
2x10	19,20	555	77	1,91	60	86
2x16	21,00	717	84	1,21	79	115
2x25	26,70	1124	107	0,780	105	149
2x35	29,40	1421	118	0,554	129	185
2x50	34,40	1968	138	0,386	162	225
2x70	38,30	2564	153	0,272	202	289
2x95	43,70	3330	175	0,206	240	352

Cross Section (mm²)	Nominal Overall Diameter (mm)	Approximate Weight (kg / km)	Min. Bending Radius Fixed Installed (mm)	Max Resistance of Conductors at 20°C (ohm / km)	Current Carrying Capacity for flexing usage (A)	Current Carrying Capacity for fixed usage (A)
3x1	9,10	114	27	19,5	12,5	17
3x1,5	9,90	140	30	13,3	15,5	23
3x2,5	11,40	196	34	7,98	21	32
3x4	13,10	273	52	4,95	29	42
3x6	14,60	358	58	3,30	36	54
3x10	20,60	682	82	1,91	51	75
3x16	22,50	892	90	1,21	67	100
3x25	28,60	1390	114	0,780	89	127
3x35	31,70	1789	127	0,554	110	158
3x50	37,00	2474	148	0,386	138	192
3x70	40,90	3231	164	0,272	172	246
3x95	46,90	4220	188	0,206	204	298
3x120	51,60	5248	206	0,161	238	346
3x150	56,20	6319	225	0,129	273	399
3x185	62,30	7806	249	0,106	309	456
3x240	69,50	9963	278	0,0801	365	538
4x1	10,10	143	30	19,5	13	17
4x1,5	11,00	175	33	13,3	16	23
4x2,5	12,60	244	50	7,98	22	32
4x4	14,50	342	58	4,95	30	42
4x6	16,30	456	65	3,3	37	54
4x10	22,60	845	90	1,91	52	75
4x16	24,70	1114	99	1,21	69	100
4x25	31,80	1760	127	0,780	92	127
4x35	35,20	2265	141	0,554	114	158
4x50	41,10	3136	164	0,386	143	192
4x70	45,00	4098	180	0,272	178	246
4x95	52,00	5393	208	0,206	210	298
4x120	56,80	6657	227	0,161	246	346
4x150	62,20	8067	249	0,129	282	399
4x185	69,70	10030	279	0,106	319	456
4x240	77,60	12786	310	0,0801	377	538

Cross Section (mm²)	Nominal Overall Diameter (mm)	Approximate Weight (kg / km)	Min. Bending Radius Fixed Installed (mm)	Max Resistance of Conductors at 20°C (ohm / km)	Current Carrying Capacity for flexing usage (A)	Current Carrying Capacity for fixed usage (A)
5x1	11,10	170	33	19,5	13,5	17
5x1,5	12,10	208	48	13,3	16,5	23
5x2,5	13,80	290	55	7,98	23	32
5x4	16,10	415	64	4,95	30	42
5x6	18,10	554	72	3,30	38	54
5x10	24,90	1033	100	1,91	54	75
5x16	27,40	1377	110	1,21	71	100
5x25	35,40	2183	142	0,78	94	127
5x35	38,90	2788	156	0,554	117	158
5x50	45,80	3902	183	0,386	148	192
5x70	50,20	5113	201	0,272	185	246
7x1,5	15,40	337	62	13,3	10	16
7x2,5	17,50	463	70	7,98	14	22
12x1,5	18,70	486	75	13,3	9	13
12x2,5	21,20	669	85	7,98	11	18
18x1,5	22,00	690	88	13,3	7	12
18x2,5	25,00	964	100	7,98	9	16
24x1,5	25,70	894	103	13,3	6	9
24x2,5	29,40	1263	118	7,98	8,5	13
36x1,5	29,40	1245	118	13,3	6	8
36x2,5	33,80	1781	135	7,98	8	11

Notes for current carrying capacities:

Current carrying capacities are according to in open air, with adequate ventilation and ambient temperature of 30 °C

For fixed installation :

Based on IEC 60364-5-52 : 2009 Table B.52.1 and Table B.52.12

Referred to

- Reference installation method F for Single cores and three loaded cores in trefoil installation.
- Reference installation method E for Multi cores for 2 core cables; two cores loaded and for 3-4-5 core cables; three cores loaded
- Reference installation method E for Multi cores for 6 cores and above; All cores loaded except green / yellow (earth) core
- Correction factors for ambient temperature according to Table B.52.14
- The current ratings are based on conductor operating temperature of 90 °C

For mobile flexing installation :

Based on EN 50565-1:2014 Table C.2, C.3 and VDE 0298-4 Table 13

Referred to

- Single cores are bunched. (installed as 3 cables in trefoil)
- The current ratings are based on conductor operating temperature of 60 °C
- For 2 core cables, 2 cores are loaded.
- For 3,4 and 5 core cables, 3 cores are loaded.
- For Multi core cables has 6 cores and above, all cores loaded except green/yellow (earth) core
- For current rating derating factors of Multi core cables according to VDE 0298-4 Table 26
- Correction factors for ambient temperature according to VDE 0298-4 Table 17 and EN 50565-1 Table C.3

Temperature correction factors

Ambient temperature °C	30	35	40	45	50	55
Correction factor for fixed installation	1,00	0,96	0,91	0,87	0,82	0,76
Correction factor for mobile installation	1,00	0,91	0,82	0,71	0,58	0,41