



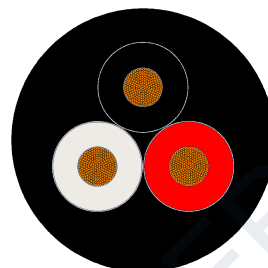
TEBAOFLEX CABLE

DATA SHEET

Mining&Industrialcable

H07RN-F FLEXIBLE RUBBER CABLE

450/750 V BS EN 50525-2-21 flexible rubber cable



APPLICATION

Flexible rubber cable designed for high flexibility and resistance to weather, oil, grease, mechanical stress and thermal stress. Typical applications include handling equipment, mobile power supplies, worksites, stage and audio-visual equipment, port areas, dams, drainage, water treatment, cold environments and severe industrial service.

CONSTRUCTION

Parameter	Value
Conductor	Class 5 flexible copper conductor according to BS EN 60228
Insulation	EPR (Ethylene Propylene Rubber), Type EI4 according to BS EN 50363
Sheath	PCP (Polychloroprene), Type EM2 according to BS EN 50363
Core identification	2 core: Blue, Brown; 3 core: Green/Yellow, Blue, Brown; 4 core: Green/Yellow, Brown, Black, Grey; 5 core: Green/Yellow, Blue, Brown, Black, Grey; 6 cores and above: Black with white numbers plus Green/Yellow
Sheath colour	Black

OPERATING CHARACTERISTICS

Parameter	Value
Rated voltage U ₀ /U	450/750 V
Temperature - fixed	-30 deg C to +60 deg C; +85 deg C for fixed protected installations
Temperature - flexed	-15 deg C to +60 deg C
Minimum bending radius - fixed	4 x overall diameter
Minimum bending radius - flexed	6 x overall diameter

STANDARDS AND PERFORMANCE

- BS EN 50525-2-21 (BS 7919)
- BS EN 60811-2-1
- BS EN/IEC 60332-1-2
- BS EN 60228 class 5 flexible conductor
- BS EN 50363 EI4 insulation and EM2 sheath compounds
- Suitable for demanding indoor and outdoor industrial service
- Low Voltage Directive 2014/35/EU
- RoHS Directive 2015/65/EU and REACH Regulation EC 1907/2006

TECHNICAL DATA

Nominal dimensional data. Source ordering codes and brand-specific references have been omitted.

Dimensions (1)				
Cores	Area mm2	Insulation mm	Diameter mm	Weight kg/km
1	1.5	0.8	5.8	52
1	2.5	0.9	6.5	67
1	4	1.0	7.4	92
1	6	1.0	8.1	119
1	10	1.2	9.8	185
1	16	1.2	11.35	258
1	25	1.4	13.3	375
1	35	1.4	14.6	485
1	50	1.6	17.2	669
1	70	1.6	19.35	892
1	95	1.8	22.2	1160
1	120	1.8	24.3	1436
1	150	2.0	25.9	1748
1	185	2.2	29.7	2142
1	240	2.4	31.5	2698
1	300	2.6	36.5	3348
1	400	2.8	40.4	4293
1	500	3.0	42.6	5262
1	630	3.0	47.2	6790
2	1	0.8	8.1	94
2	1.5	0.8	9.0	120
2	2.5	0.9	10.7	173

TECHNICAL DATA

Nominal dimensional data. Source ordering codes and brand-specific references have been omitted.

Dimensions (2)				
Cores	Area mm2	Insulation mm	Diameter mm	Weight kg/km
2	4	1.0	12.3	239
2	6	1.0	13.8	313
2	10	1.2	18.6	563
2	16	1.2	21.7	830
2	25	1.4	25.8	1211
3	1	0.8	8.74	117
3	1.5	0.8	9.68	147
3	2.5	0.9	11.48	123
3	4	1.0	13.2	297
3	6	1.0	14.78	390
3	10	1.2	19.9	705
3	16	1.2	23.31	1031
3	25	1.4	27.7	1512
3	35	1.4	30.2	1907
3	50	1.6	35.8	2651
3	70	1.6	40.1	3484
3	95	1.8	46.4	4594
4	1	0.8	9.63	142
4	1.5	0.8	10.63	180
4	2.5	0.9	12.6	260
4	4	1.0	14.6	336
4	6	1.0	16.4	449

TECHNICAL DATA

Nominal dimensional data. Source ordering codes and brand-specific references have been omitted.

Dimensions (3)				
Cores	Area mm2	Insulation mm	Diameter mm	Weight kg/km
4	10	1.2	21.8	833
4	16	1.2	25.4	1138
4	25	1.4	30.7	1714
4	35	1.4	33.4	2204
4	50	1.6	39.6	3029
4	70	1.6	44.9	4121
4	95	1.8	51.9	5361
5	1.5	0.8	11.8	206
5	2.5	0.9	14.0	297
5	4	1.0	16.2	422
5	6	1.0	18.2	567
5	10	1.2	24.0	1010
5	16	1.2	28.2	1400
5	25	1.4	33.9	2096
5	35	1.4	37.2	2700
5	50	1.6	44.0	3730
7	1.5	0.8	15.13	315
7	2.5	0.9	17.6	445
12	1.5	0.8	18.2	493
12	2.5	0.9	21.4	702
19	1.5	0.8	22.1	710

TECHNICAL DATA

Class 5 Flexible Copper Conductors		
Area mm ²	Max wire diameter mm	Max resistance at 20 deg C ohm/km
1	0.21	19.5
1.5	0.26	13.3
2.5	0.26	7.98
4	0.31	4.95
6	0.31	3.3
10	0.41	1.91
16	0.41	1.21
25	0.41	0.78
35	0.41	0.554
50	0.41	0.386
70	0.51	0.272
95	0.51	0.206
120	0.51	0.161
150	0.51	0.129
185	0.51	0.106
240	0.51	0.0801
300	0.51	0.0641
400	0.51	0.0486
500	0.61	0.0384
630	0.61	0.0287

Current Carrying Capacity and Mass Supportable (1 mm ² to 2.5 mm ²)			
Area mm ²	Single-phase AC A	Three-phase AC A	Max mass supportable kg
1	10	10	5
1.5	16	16	5
2.5	25	20	5

Voltage Drop (1 mm ² to 2.5 mm ²)		
Area mm ²	DC or single-phase AC mV/A/m	Three-phase AC mV/A/m
1	46	40
1.5	32	27
2.5	19	16

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Current Carrying Capacity (4 mm ² and above)						
Area mm ²	60 deg C 2 core A	60 deg C single core A	60 deg C 3-5 core A	85 deg C 2 core A	85 deg C single core A	85 deg C 3-5 core A
4	30	-	26	41	-	36
6	39	-	34	53	-	47
10	51	-	47	73	-	64
16	73	-	63	99	-	86
25	97	-	83	131	-	114
35	-	140	102	-	192	140
50	-	175	124	-	240	170
70	-	216	158	-	297	216
95	-	258	192	-	354	262
120	-	302	222	-	414	303
150	-	347	255	-	476	348
185	-	394	291	-	540	397
240	-	471	343	-	645	467
300	-	541	394	-	741	537
400	-	644	-	-	885	-
500	-	738	-	-	1017	-
630	-	861	-	-	1190	-

- Ambient temperature: 30 deg C.
- Ratings are for cables in free air and should be reduced where cables are wound on drums or covered while on load.
- For ventilated drums use suitable reduction factors; for restricted air movement, reduce current rating according to installation conditions.

TECHNICAL DATA

Voltage Drop (4 mm ² and above)					
Area mm ²	2 core DC mV/A/m	2 core AC mV/A/m	3-5 core AC mV/A/m	2 single DC mV/A/m	2 single AC mV/A/m
4	12	12	10	-	-
6	7.8	7.8	6.7	-	-
10	4.6	4.6	4	-	-
16	2.9	2.9	2.5	-	-
25	1.80	1.85	1.55	-	-
35	-	1.15	1.10	1.31	1.32
50	-	0.84	0.83	0.91	0.93
70	-	0.58	0.57	0.64	0.67
95	-	0.44	0.42	0.49	0.53
120	-	0.36	0.33	0.38	0.43
150	-	0.30	0.27	0.31	0.36
185	-	0.26	0.22	0.25	0.32
240	-	0.21	0.170	0.195	0.27
300	-	0.185	0.135	0.155	0.24
400	-	-	-	0.120	0.21
500	-	-	-	0.099	0.20
630	-	-	-	0.079	0.185

De-rating Factors	
Ambient temperature deg C	Factor
35	0.91
40	0.82
45	0.71
50	0.58
55	0.41

Values are nominal. Cable dimensions may vary due to manufacturing tolerances.

CERTIFICATIONS



TEBAOFLEX CABLE