

German Standard Industrial Cables H07RN8-F

Application and Description

These cables particularly for use in fresh water up to 10 m depth with a maximum water temperature up to 40°C, such as the connection of submersible pumps or similar applications.

Not suitable for underwater power transmission or installation in a watercourse, or where it is possible that mechanical damage might occur and cause a hazard.

Indirect underground installation is allowed provided that there is mechanical protection of the cables.

These cables are manufactured according to the Standard and Approval CEI 20-19/16 (CENELEC HD 22.16). It is the only cable that the installation Standard and Approval CEI 64-8 at section 702 allows for installation in swimming pools and fountains.

For connections liable to moderate mechanical stresses, i.e. industrial or agricultural workshop apparatus, large boilers, heater plates, electric tools such as drills and disk saws, electric appliances, portable motors and generators on building sites; also for fixed installations along floors or shelving on temporary job sites, for connecting structural elements in lifting apparatus, machinery, etc.

Suitable for applications up to 1000 V for adequately protected fixed installations (i.e. inside pipes or equipment) as well as for rotor connections to lifting apparatus motors. They are Ozone, UV & weather resistant

Standard and Approval

HD22.16 S1, VDE-0282 Part-16, CEI 20-19 p.16, CE low voltage directive 73/23/EEC & 93/68/EEC., ROHS compliant

Cable Construction

- Fine bare copper strands
- Strands to VDE-0295 Class-5, IEC 60228 Class-5
- Rubber core insulation EI4 to VDE-0282 Part-1
- Color code VDE-0293-308 and HD 186
- Polychloroprene rubber (neoprene) jacket EM2

Technical Characteristics

- Working voltage: 450/750 volts
- Test voltage: 2500 volts
- Flexing bending radius: 6.0 x Ø
- Fixed bending radius: 4.0 x Ø
- Flexing Temperature: -25° C to +60° C
- Fixed Temperature: -40° C to +60° C
- Max Water Temperature: +40° C
- Short circuit temperature: +250 ° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩ x km

Cable Parameter

AWG	NO. OF CORES X NOMINAL CROSS SECTIONAL AREA # X MM ²	NOMINAL THICKNESS OF INSULATION M	NOMINAL THICKNESS OF SHEATH M	NOMINAL OVERALL DIAMETER M MIN-MAX	NOMINAL COPPER WEIGHT KG/K M	NOMINAL WEIGHT KG/K M
17(32/32)	2 x 1	0.8	1.3	7.7-10	19	89
17(32/32)	3 x 1	0.8	1.4	8.3-10.7	29	111
17(32/32)	4 x 1	0.8	1.5	9.2-11.9	38	146
16(30/30)	1 x 1.5	0.8	1.4	5.7-7.1	14.4	59
16(30/30)	2 x 1.5	0.8	1.5	8.5-11.0	29	135
16(30/30)	3 x 1.5	0.8	1.6	9.2-11.9	43	165
16(30/30)	4 x 1.5	0.8	1.7	10.2-13.1	58	200
16(30/30)	5 x 1.5	0.8	1.8	11.2-14.4	72	240
16(30/30)	7 x 1.5	0.8	2.6	14.5-17.5	101	385
16(30/30)	12 x 1.5	0.8	2.9	17.6-22.4	173	516
16(30/30)	19 x 1.5	0.8	3.2	20.7-26.3	274	800
16(30/30)	24 x 1.5	0.8	3.5	24.3-30.7	346	882
14(50/30)	1 x 2.5	0.9	1.4	6.3-7.9	24	72
14(50/30)	2 x 2.5	0.9	1.7	10.2-13.1	48	195
14(50/30)	3 x 2.5	0.9	1.8	10.9-14.0	72	235
14(50/30)	4 x 2.5	0.9	1.9	12.1-15.5	96	290

14(50/30)	5 x 2.5	0.9	2	13.3-17.0	120	345
14(50/30)	7 x 2.5	0.9	2.8	16.5-20.0	168	520
14(50/30)	12 x 2.5	0.9	3.1	20.6-26.2	288	810
14(50/30)	19 x 2.5	0.9	3.5	25.5-31.0	456	1200
14(50/30)	24 x 2.5	0.9	3.9	28.8-36.4	576	1650
12(56/28)	1 x 4	1	1.5	7.2-9.0	38	99
12(56/28)	2 x 4	1	1.8	11.8-15.1	77	270
12(56/28)	3 x 4	1	1.9	12.7-16.2	115	320
12(56/28)	4 x 4	1	2	14.0-17.9	154	395
12(56/28)	5 x 4	1	2.2	15.6-19.9	192	485
12(56/28)	7 x 4	1	3.1	18.2-21.8	269	681
10(84/28)	1 x 6	1	1.6	7.9-9.8	58	130
10(84/28)	3 x 6	1	2.1	14.1-18.0	173	495
10(84/28)	4 x 6	1	2.3	15.7-20.0	230	610
10(84/28)	5 x 6	1.2	3.6	17.5-22.2	288	760
8(80/26)	1 x 10	1.2	1.8	9.5-11.9	96	230
8(80/26)	3 x 10	1.2	3.3	19.1-24.2	288	880
8(80/26)	4 x 10	1.2	3.4	20.9-26.5	384	1060
8(80/26)	5 x 10	1.2	3.6	22.9-29.1	480	1300
6(128/26)	1 x 16	1.2	1.9	10.8-13.4	154	320
6(128/26)	3 x 16	1.2	3.5	21.8-27.6	461	1090
6(128/26)	4 x 16	1.2	3.6	23.8-30.1	614	1345

6(128/26))	5 x 16	1.2	3.9	26.4-33.3	768	1680
4 (200/26)	1 x 25	1.4	2	12.7-15.8	240	450
4 (200/26)	4 x 25	1.4	4.1	28.9-36.6	960	1995
4 (200/26)	5 x 25	1.4	4.4	32.0-40.4	1200	2470
2 (280/26)	1 x 35	1.4	2.2	14.3-17.9	336	605
2 (280/26)	3 x 35	1.4	4.1	29.3-37.1	1008	1900
2 (280/26)	4 x 35	1.4	4.4	32.5-41.1	1344	2645
2 (280/26)	5 x 35	1.4	4.7	37.0-45.0	1680	2810
1 (400/26)	1 x 50	1.6	2.4	16.5-20.6	480	825
1 (400/26)	4 x 50	1.6	4.8	37.7-47.5	1920	3635
1 (400/26)	5 x 50	1.6	5.1	40.0-50.8	2400	4050
2/0 (356/24)	1 x 70	1.6	2.6	18.6-23.3	672	1090
2/0 (356/24)	4 x 70	1.6	5.2	42.7-54.0	2688	4830
3/0 (485/24)	1 x 95	1.8	2.8	20.8-26.0	912	1405
3/0 (485/24)	4 x 95	1.8	5.9	48.4-61.0	3648	6320
4/0 (614/24)	1x 120	1.8	3	22.8-28.6	1152	1746
4/0 (614/24)	4 x 120	1.8	6	53.0-66.0	4608	6830
300 MCM (765/24)	1 x 150	2	3.2	25.2-31.4	1440	1887
300 MCM (765/24)	4 x 150	2	6.4	58.0-73.0	5760	8320

350 MCM (944/24)	1 x 185	2.2	3.4	27.6-34.4	1776	2274
350 MCM (944/24)	4 x 185	2.2	6.8	64.0-80.0	7104	9800
500 MCM (1221/24)	1x 240	2.4	3.5	30.6-38.3	23.4	2956
500 MCM (1221/24)	4x 240	2.4	7.2	72.0-90.0	9216	12100
-	1 x 300	2.6	3.6	33.5-41.9	2880	3479