

# 1 H07 RN-F rubber-sheathed cable



## Technical data

- Rubber sheathed cable H07 RN-F to DIN VDE 0282 part 4, HD 22.4 S4, BS7919 IEC 60245-4
- **Temperature range**  
-30°C to +90°C
- **Permissible operating temperature**  
at conductor 90°C
- **Nominal voltage**  $U_0/U$  0.6/1kV  
\* The cable is designated 450/750V in accordance with VDE/IEC & meets or exceeds the AS5000-1 for the voltage rating of 0.6/1kV, R-EP-90.
- **Test voltage** 2500 V
- **Permanent tensile load**  
max. 15 N/mm<sup>2</sup>
- **Minimum bending radius**  
for fixed installation 4x cable Ø  
for guiding over roller 7,5x cable Ø  
during winding on drums 5-7x cable Ø

## Cable structure

- Copper conductor fine wire stranded, bare to DIN VDE 0295 cl. 5, BS 6360 cl. 5, IEC 60228 cl. 5 and HD 383
- Rubber core insulation E17 to DIN VDE 0282 part 1
- Insulation thickness to DIN VDE 0282 part 4
- Core identification to DIN VDE 0293-308 and HD 186
- Core colours  
2 core: Blue, Brown  
3 core: Blue, Brown, Green/Yellow  
4 core: Brown, Black, Grey, Green/Yellow  
5 core: Blue, Brown, Black, Grey, Green/Yellow  
6 and more Black numbered Green/Yellow
- Cores stranded in layers with optimal lay-length
- Outer jacket of rubber black, rubber compound to DIN VDE 0282 part 1
- Sheath thickness to DIN VDE 0282 part 4

## Properties

### Resistant to

- Ozone
- Weather
- Submersible to 500 metres
- **Test**  
Test according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B) Ozone resistant of the insulation to DIN VDE 0472 part 805, test method A or part 805 A1, test method C  
Oil resistant  
Test according to EN 60811-2-1

### Note

- G = with green-yellow earth core;  
x = without green-yellow earth core.

## Application

Heavy duty rubber-sheathed flexible cables are suited for use for medium mechanical stress in dry, damp and wet areas as well as in open air and in agricultural plants. They are used for equipment in industry works such as boilers, heating plates, hand lamps, electric tools such as drills, circular saws and homework tools as well as for transportable motors or machines at site. They are suitable for direct laying on components and mechanical parts of machines, for example lifts and cranes. They can be used in case of protected and fixed installation in tubes or in equipment as well as rotor connecting cable of motors with a working voltage up to 1000 V alternating voltage or a direct voltage up to 750 V against ground. The operating direct voltage is permitted up to 900 V against ground when they are used in rail-coaches. Installation in hazardous areas according to DIN VDE 0165 is allowed.

CE = The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

Part Number	No. of cores x cross-sec. mm <sup>2</sup>	Outer Ø ca. mm	Cop.weight kg/km	Weight kg/km	AWG-No.
37001	1 x 1.5	6.7	14.4	58	16
37002	1 x 2.5	7.3	24	71	14
37003	1 x 4	8.2	38	100	12
37004	1 x 6	8.9	58	130	10
37005	1 x 10	10.5	96	230	8
37006	1 x 16	11.1	154	290	6
37007	1 x 25	12.9	240	420	4
37008	1 x 35	14.3	336	530	2
37009	1 x 50	16.8	480	750	1
37010	1 x 70	19.1	672	960	2/0
37011	1 x 95	21.9	912	1250	3/0
37012	1 x 120	23.4	1152	1560	4/0
37013	1 x 150	26.2	1440	1900	300 kcmil
37014	1 x 185	29.1	1776	2300	350 kcmil
37015	1 x 240	31.2	2304	2950	500 kcmil
37016	1 x 300	34.6	2880	3600	600 kcmil
37017	1 x 400	38.4	3840	4600	750 kcmil
37018	1 x 500	42.3	4800	6000	1000 kcmil

Part Number	No. of cores x cross-sec. mm <sup>2</sup>	Outer Ø ca. mm	Cop.weight kg/km	Weight kg/km	AWG-No.
37019	2 x 1	8.4	19	98	17
37020	2 x 1.5	9.1	29	135	16
37021	2 x 2.5	11.1	48	193	14
37022	2 x 4	12.5	77	280	12
37023	2 x 6	14.1	115	330	10
37024	2 x 10	18.7	192	586	8
37025	2 x 16	21.5	307	810	6
37026	2 x 25	26.3	480	1160	4
37027	3 G 1	8.6	29	130	17
37028	3 G 1.5	9.8	43	165	16
37029	3 G 2.5	11.6	72	235	14
37030	3 G 4	13.7	115	320	12
37031	3 G 6	14.9	173	420	10
37032	3 G 10	20.8	288	810	8
37033	3 G 16	23.4	461	1050	6
37034	3 G 25	28.1	720	1250	4
37035	3 G 35	30.3	1008	1900	2
37036	3 G 50	35.6	1440	2600	1
37037	3 G 70	39.4	2016	3400	2/0
37038	3 G 95	45.3	2736	4450	3/0
37039	3 G 120	49.4	3456	5180	4/0
37040	3 G 150	55.6	4320	6500	300 kcmil
37041	3 G 185	60.1	5328	7860	350 kcmil

Part Number	No. of cores x cross-sec. mm <sup>2</sup>	Outer Ø ca. mm	Cop.weight kg/km	Weight kg/km	AWG-No.	Part Number	No. of cores x cross-sec. mm <sup>2</sup>	Outer Ø ca. mm	Cop.weight kg/km	Weight kg/km	AWG-No.
37044	4 G 1	10.2	38	150	17	37065	5 G 10	25.5	480	1200	8
37045	4 G 1.5	11.5	58	200	16	37066	5 G 16	28.8	768	1550	6
37046	4 G 2.5	13.5	96	290	14	37067	5 G 25	35	1200	2250	4
37047	4 G 4	15.5	154	395	12	37068	5 G 35	38	1680	2750	2
37048	4 G 6	17.5	230	540	10	37069	5 G 50	44	2400	3950	1
37049	4 G 10	23	384	950	8	37070	5 G 70	45	3360	4740	2/0
37050	4 G 16	26	614	1260	6	37071	5 G 95	50	4560	6780	3/0
37051	4 G 25	32	960	1860	4	37092	7 G 1.5	16.1	101	375	16
37052	4 G 35	35	1344	2380	2	37079	7 G 2.5	18.5	168	520	14
37053	4 G 50	40	1920	3190	1	37093	12 G 1.5	18.2	175	460	16
37054	4 G 70	45	2688	4260	2/0	37096	12 G 2.5	22.5	288	760	14
37055	4 G 95	51	3648	5600	3/0	37097	18 G 2.5	27.9	432	850	14
37056	4 G 120	57	4608	6830	4/0	37094	19 G 1.5	23.3	274	810	16
37057	4 G 150	62	5760	8320	300 kcmil	37098	19 G 2.5	28.7	456	1075	14
37058	4 G 185	67	7104	9800	350 kcmil	37095	24 G 1.5	23.9	346	1015	16
37059	4 G 240	76	9216	12100	500 kcmil	37099	24 G 2.5	29.8	576	1390	14
37060	4 G 300	87	11520	15200	600 kcmil	37075	27 G 1.5	27.3	385	1100	16
37061	5 G 1.5	11.5	72	240	16	37076	27 G 2.5	32.2	640	1521	14
37062	5 G 2.5	14.4	120	345	14						
37063	5 G 4	16.7	192	485	12						
37064	5 G 6	18.8	288	650	10						

**Current ratings for HO7 RN for current supply in industrial application**  
**Operating temperature at conductor 90°C Ambient temperature 40°C (Air)**

Number of cores	1-core		2-cores	3-cores	4-cores
Number of loaded	2-cores loaded	3 cores loaded	2-cores loaded	3 cores loaded	3 cores loaded
Cross section mm <sup>2</sup>	Current ratings in Ampere (A)				
4	48	46	45	38	38
6	61	59	57	48	48
10	84	81	78	66	66
16	110	110	105	88	88
25	150	145	140	120	120
35	185	180	175	145	145
50	230	220	210	180	180
70	290	280	—	230	230
95	360	350	—	285	285
120	420	410	—	330	330
150	485	470	—	375	375
185	570	550	—	435	435
240	680	660	—	520	520
300	790	770	—	590	590
400	920	900	—	—	—
500	1080	1050	—	—	—
630	1260	1230	—	—	—

Note: For the method of installation: AS/NZS 3008.1.1:1998 - Refer to tables 4, 7, 10, 13 of AS/NZS 30081.1

Conversion factors for deviating ambient temperature				
Ambient temperature at °C	30	40	45	55
	1.10	1.00	0.94	0.88