HARMONISED FLEXIBLE CABLE 450/750 V · DIN VDE 0282 / EN 50525 | 450/750 V | 12 sizes | CR rubber | BARE COPPER

H07RN8-F 5G 450/750 V

Submersible Rubber Cable 450/750 V 450/750 V – 5 cores of equal cross-section in concentric layers with a short lay length. Polychloroprene rubber sheath. Complete technical data sheet: construction, dimensions, weights, current ratings, voltage drop and installation guidance for 12 sizes.

Document no. FC-TDS-VDE-2026-0798-EN · Revision 0 · Issued 2 November 2026 · Language: English

01 Application and Product Overview

H07RN8-F is the harmonised submersible rubber cable for 450/750 V. It is built like H07RN-F but with a water-resistant design that allows permanent immersion to a water depth of 10 m, which is why it is used for submersible pumps, fountains, dredging and drainage equipment.

Design

The conductors are class 5 fine-wire copper; the cores are insulated with EPR and stranded; multi-core cables from 7 cores and cables from 10 mm² carry a rubber inner sheath that keeps the core compact and water-resistant. The outer sheath is a polychloroprene compound qualified for permanent immersion. The cable corresponds to DIN VDE 0282 part 16 (HD 22.16).

Typical applications

- Submersible pumps in wells, shafts, sumps and dewatering applications
- Fountains, ponds and water features
- Dredging and underwater equipment with a feed cable
- Offshore and harbour installations at limited depth
- Construction-site dewatering and tunnel drainage
- Mine sump pumps and flooded workings
- Agricultural irrigation pumps
- Cable for equipment that stands permanently in water or in mud

12 sizes	450/750 V	+60 °C	CR rubber
Cross-section 1.5 – 120 mm²	Rated voltage U_0/U	Maximum conductor temperature	Sheath: CR rubber

Key features

- Permanent immersion to 10 m water depth
- Polychloroprene sheath with proven oil, weather and abrasion resistance
- EPR insulation, 60 °C at the conductor
- Rated voltage 450/750 V, test voltage 2.5 kV
- Class 5 conductors
- Flame-retardant to IEC 60332-1-2
- 12 sizes from 1.5 to 120 mm²; weight from 250 to 8,570 kg/km; copper from 72 to 5,760 kg/km

Core layout and conductor

5 cores of equal cross-section in concentric layers with a short lay length. Core colours: green-yellow, blue, brown, black, grey (DIN VDE 0293-308); the green-yellow core is the protective conductor. Five cores carry three phases, neutral and PE (5G) or three phases, neutral and a spare core. The conductors are bare annealed copper. Bare copper has the lowest conductor resistance of the class 5 range and is the usual choice for dry and damp indoor use. Where the cable is exposed to salt, sulphur or permanent moisture, the tinned version of the same cable is preferable.

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Standard background

DIN VDE 0282-16 (HD 22.16) specifies the harmonised H07RN8-F submersible rubber cable. The 8 in the designation stands for water-resistant construction. The cable must not be used where the water depth exceeds the rated depth, and the free cable end must always be kept above the water level or properly sealed.

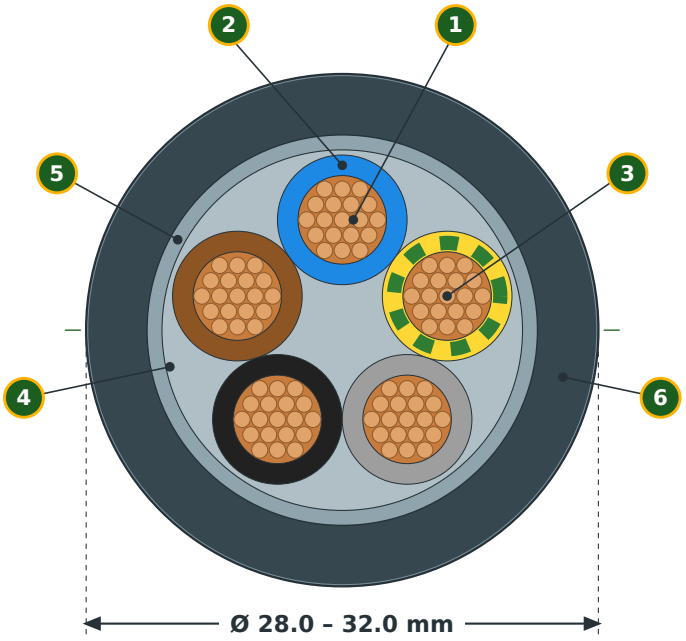
450/750 V is the common rating for industrial and building-site distribution on 400 V systems and allows a margin for DC and rectified supplies. The test voltage is 2.5 kV.

02 Construction

FEICHUN · CROSS-SECTION A-A · 450/750 V

H07RN8-F

Sample size 5G16 · Rev 0 · Illustrative, not to scale



No.	Component	Material
1	Conductor	Bare annealed fine-wire copper, class 5 to IEC 60228 / DIN VDE 0295
2	Insulation	EPR rubber, type EI4 (60 °C)
3	Protective (PE) core	Green-yellow insulation, same cross-section as the power cores
4	Filler and binder tape	Rubber or compound filler with polyester binder tape
5	Inner sheath	Rubber compound, extruded over the stranded core
6	Outer sheath	Polychloroprene (CR) rubber, type 5GM5

The drawing shows size 5G16. Other sizes have the same construction with scaled dimensions; the layout of every size is checked for non-overlap of all elements.

Construction details

Conductor	Bare annealed fine-wire copper, class 5 to DIN VDE 0295 / IEC 60228
Insulation	EPR rubber, type EI4 (60 °C), maximum conductor temperature 60 °C
Core identification	Green-yellow, blue, brown, black, grey to DIN VDE 0293-308
Stranding	Cores in concentric layers with a short lay length
Inner sheath	Rubber compound; thickness about 0.9 mm at this size
Outer sheath	Polychloroprene (CR) rubber, type 5GM5; thickness about 3.6 mm at this size

03 Electrical, Thermal and Mechanical Characteristics

Electrical data

Rated voltage U_0/U	450/750 V AC
Test voltage	2.5 kV AC, 5 min
Maximum operating voltage, three-phase	825 V
Maximum operating voltage, DC (core-earth / core-core)	0.45/0.75 kV (DC 0.675/1.1 kV)
Current-carrying capacity	Design values by the method of DIN VDE 0298-4, free air, 30 °C ambient
Conductor resistance	Maximum at 20 °C, class 5, bare

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Thermal and mechanical data

Maximum conductor temperature	+60 °C
Maximum temperature at short circuit	+200 °C (5 s maximum)
Ambient temperature, fixed installation	−40 °C to +60 °C
Ambient temperature, in motion	−25 °C to +60 °C
Minimum bending radius	Fixed: 3 × D (D ≤ 12 mm), 4 × D (D > 12 mm); moving: 3 × D (D ≤ 8 mm), 4 × D (D ≤ 12 mm), 5 × D (D > 12 mm) (DIN VDE 0298-3)
Maximum tensile load	15 N/mm² continuous on the total copper cross-section
Flame propagation	IEC 60332-1-2 / DIN EN 60332-1-2
Halogen-free	No (CR rubber)
Mineral oil resistance	Resistant, DIN EN 60811-404
UV and ozone resistance	Resistant
Water	Permanent immersion to 10 m water depth

04 Dimensions, Weights and Rated Data – 450/750 V (12 sizes)

Type designation cores × mm²	FeiChun article no.	Cond. Ø max mm	Outer Ø min mm	Outer Ø max mm	Bend radius fixed mm	Bend radius moving mm	Weight approx. kg/km	Copper kg/km	Max. pull N	R_{20} max Ω/km	Rated current A	I_k (1 s) kA
5G1.5	FC-H07R-0798-01	1.7	11.2	13.4	54	67	250	72	112	13.3	14	0.211
5G2.5	FC-H07R-0798-02	2.2	13.2	15.8	63	79	346	120	188	7.98	19	0.352
5G4	FC-H07R-0798-03	2.7	16.1	19.0	76	95	410	192	300	4.95	25	0.564
5G6	FC-H07R-0798-04	3.3	18.2	21.4	86	107	580	288	450	3.30	32	0.846
5G10	FC-H07R-0798-05	4.1	24.0	27.5	110	138	1,030	480	750	1.91	44	1.41
5G16	FC-H07R-0798-06	5.2	28.0	32.0	128	160	1,540	770	1,200	1.21	60	2.26
5G25	FC-H07R-0798-07	6.5	34.0	38.0	152	190	2,400	1,200	1,880	0.780	79	3.52
5G35	FC-H07R-0798-08	7.7	35.5	40.0	160	200	2,850	1,680	2,620	0.554	97	4.93
5G50	FC-H07R-0798-09	9.2	41.5	46.0	184	230	3,940	2,400	3,750	0.386	122	7.05
5G70	FC-H07R-0798-10	10.8	46.5	52.0	208	260	5,240	3,360	5,250	0.272	150	9.87
5G95	FC-H07R-0798-11	12.6	53.5	59.5	238	298	6,990	4,560	7,120	0.206	182	13.39
5G120	FC-H07R-0798-12	14.2	58.0	64.5	258	322	8,570	5,760	9,000	0.161	210	16.92

Current-carrying capacity: design values by the method of DIN VDE 0298-4, free air, 30 °C ambient; for other ambient temperatures use the factors below and the multi-core reduction factor already included in the table. Copper weight = 9.6 kg/(km·mm²) of copper cross-section (VDE copper index). Pull force = 15 N/mm² × total copper cross-section of the power cores. Diameters, dimensions and weights are nominal design values calibrated to published type tables; they vary within manufacturing tolerances. Confirm critical dimensions before dimensioning reels, glands or festoon systems. Other sizes and configurations are produced to order.

Ambient temperature factors (conductor 60 °C)

°C	20	25	30	35	40	45	50	55	60
Factor	1.15	1.08	1.00	0.91	0.82	0.71	0.58	0.41	–

Short-circuit current rating

I_k = 0.141 kA/mm² × cross-section of the power core (conductor 60 °C → 200 °C). For another duration t: $I_{k,t} = I_{k,1s} / \sqrt{t}$ (0.1 s ≤ t ≤ 5 s).

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05 Voltage Drop, Losses and Short-Circuit Data

Voltage drop per 100 m of cable at rated current with the conductor at 60 °C, cos φ = 0.8 and reactance 0.08 Ω/km (three-phase). The percentage refers to a system voltage of 400 V. Loss is the total I²R loss of the loaded cores per 100 m. The short-circuit columns give the permitted current for four durations.

Type designation cores × mm²	Rated current A	R at 60 °C Ω/km	Voltage drop V / 100 m	Voltage drop % of 400 V	Loss kW / 100 m	I_k 0.1 s kA	I_k 0.5 s kA	I_k 1 s kA	I_k 3 s kA
5G1.5	14	15.4	29.97	7.49	0.90	0.669	0.299	0.211	0.122
5G2.5	19	9.23	24.47	6.12	1.00	1.11	0.499	0.352	0.204
5G4	25	5.73	20.05	5.01	1.07	1.78	0.798	0.564	0.326
5G6	32	3.82	17.20	4.30	1.17	2.68	1.20	0.846	0.488
5G10	44	2.21	13.84	3.46	1.28	4.46	1.99	1.41	0.814
5G16	60	1.40	12.14	3.03	1.51	7.13	3.19	2.26	1.30
5G25	79	0.903	10.54	2.63	1.69	11.15	4.99	3.52	2.04
5G35	97	0.641	9.42	2.36	1.81	15.61	6.98	4.93	2.85
5G50	122	0.447	8.57	2.14	1.99	22.29	9.97	7.05	4.07
5G70	150	0.315	7.79	1.95	2.12	31.21	13.96	9.87	5.70
5G95	182	0.238	7.52	1.88	2.37	42.36	18.94	13.39	7.73
5G120	210	0.186	7.17	1.79	2.46	53.51	23.93	16.92	9.77

06 Selection Guide and Sizing Aid

H07RN8-F 5G covers 12 sizes. The smallest, 5G1.5, has an outer diameter of up to 13.4 mm and weighs about 250 kg/km; the largest, 5G120, has an outer diameter of up to 64.5 mm and weighs about 8,570 kg/km, 34.3 times as much. Across the range the rated current rises from 14 A to 210 A at 30 °C and the fixed bending radius from 54 mm to 258 mm.

Example 1. A circuit draws 26 A continuously at 40 °C ambient temperature, in a group of two cables. Temperature factor 0.82, grouping factor 0.80: required table current = 26 / (0.82 × 0.80) = 40 A. The smallest suitable size is 5G10 with 44 A.

Example 2. A circuit draws 102 A continuously at 35 °C ambient temperature, on its own. Temperature factor 0.91: required table current = 102 / (0.91) = 112 A. The smallest suitable size is 5G50 with 122 A.

07 Engineering Profile by Size

Every size of H07RN8-F 5G with the dimensions that decide how it behaves in a circuit: layers, weight, copper share, heat, voltage drop, bending, termination and pull.

5G1.5. This size has with a conductor of Ø 1.7 mm under 0.80 mm of insulation (core Ø 3.3 mm) and an outer sheath of 1.5 mm; outer diameter 11.2–13.4 mm, weight about 250 kg/km of which copper 72 kg/km (29 %). Rated current 14 A at 30 °C; at that load the voltage drop is 29.97 V per 100 m (7.49 % of 400 V) and the loss 0.90 kW per 100 m. Bending radius 54 mm fixed, 67 mm moving; gland M25, lug bolt M5. Short-circuit rating 0.211 kA for 1 s; permitted pull 112 N, free-hanging length 45 m.

5G2.5. This size has with a conductor of Ø 2.1 mm under 0.90 mm of insulation (core Ø 3.9 mm) and an outer sheath of 1.7 mm; outer diameter 13.2–15.8 mm, weight about 346 kg/km of which copper 120 kg/km (35 %). Rated current 19 A at 30 °C; at that load the voltage drop is 24.47 V per 100 m (6.12 % of 400 V) and the loss 1.00 kW per 100 m. Bending radius 63 mm fixed, 79 mm moving; gland M25, lug bolt M5. Short-circuit rating 0.352 kA for 1 s; permitted pull 188 N, free-hanging length 55 m.

5G4. This size has with a conductor of Ø 2.7 mm under 1.00 mm of insulation (core Ø 4.7 mm) and an outer sheath of 2.1 mm; outer diameter 16.1–19.0 mm, weight about 410 kg/km of which copper 192 kg/km (47 %). Rated current 25 A at 30 °C; at that load the voltage drop is 20.05 V per 100 m (5.01 % of 400 V) and the loss 1.07 kW per 100 m. Bending radius 76 mm fixed, 95 mm moving; gland M32, lug bolt M5. Short-circuit rating 0.564 kA for 1 s; permitted pull 300 N, free-hanging length 74 m.

5G6. This size has with a conductor of Ø 3.3 mm under 1.00 mm of insulation (core Ø 5.3 mm) and an outer sheath of 2.4 mm; outer diameter 18.2–21.4 mm, weight about 580 kg/km of which copper 288 kg/km (50 %). Rated current 32 A at 30 °C; at that load the voltage drop is 17.20 V per 100 m (4.30 % of 400 V) and the loss 1.17 kW per 100 m. Bending radius 86 mm fixed, 107 mm moving; gland M32, lug bolt M5. Short-circuit rating 0.846 kA for 1 s; permitted pull 450 N, free-hanging length 79 m.

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5G10. This size has with a conductor of Ø 4.1 mm under 1.20 mm of insulation (core Ø 6.5 mm) and 0.8 mm inner and 3.0 mm outer sheath; outer diameter 24.0–27.5 mm, weight about 1,030 kg/km of which copper 480 kg/km (47 %). Rated current 44 A at 30 °C; at that load the voltage drop is 13.84 V per 100 m (3.46 % of 400 V) and the loss 1.28 kW per 100 m. Bending radius 110 mm fixed, 138 mm moving; gland M40, lug bolt M6. Short-circuit rating 1.41 kA for 1 s; permitted pull 750 N, free-hanging length 74 m.

5G16. This size has with a conductor of Ø 5.2 mm under 1.20 mm of insulation (core Ø 7.6 mm) and 0.9 mm inner and 3.6 mm outer sheath; outer diameter 28.0–32.0 mm, weight about 1,540 kg/km of which copper 770 kg/km (50 %). Rated current 60 A at 30 °C; at that load the voltage drop is 12.14 V per 100 m (3.03 % of 400 V) and the loss 1.51 kW per 100 m. Bending radius 128 mm fixed, 160 mm moving; gland M40, lug bolt M6. Short-circuit rating 2.26 kA for 1 s; permitted pull 1,200 N, free-hanging length 79 m.

5G25. This size has with a conductor of Ø 6.5 mm under 1.40 mm of insulation (core Ø 9.3 mm) and 0.9 mm inner and 4.4 mm outer sheath; outer diameter 34.0–38.0 mm, weight about 2,400 kg/km of which copper 1,200 kg/km (50 %). Rated current 79 A at 30 °C; at that load the voltage drop is 10.54 V per 100 m (2.63 % of 400 V) and the loss 1.69 kW per 100 m. Bending radius 152 mm fixed, 190 mm moving; gland M50, lug bolt M8. Short-circuit rating 3.52 kA for 1 s; permitted pull 1,880 N, free-hanging length 79 m.

5G35. This size has with a conductor of Ø 7.6 mm under 1.40 mm of insulation (core Ø 10.4 mm) and 1.0 mm inner and 3.5 mm outer sheath; outer diameter 35.5–40.0 mm, weight about 2,850 kg/km of which copper 1,680 kg/km (59 %). Rated current 97 A at 30 °C; at that load the voltage drop is 9.42 V per 100 m (2.36 % of 400 V) and the loss 1.81 kW per 100 m. Bending radius 160 mm fixed, 200 mm moving; gland M63, lug bolt M8. Short-circuit rating 4.93 kA for 1 s; permitted pull 2,620 N, free-hanging length 93 m.

5G50. This size has with a conductor of Ø 9.1 mm under 1.60 mm of insulation (core Ø 12.3 mm) and 1.0 mm inner and 3.9 mm outer sheath; outer diameter 41.5–46.0 mm, weight about 3,940 kg/km of which copper 2,400 kg/km (61 %). Rated current 122 A at 30 °C; at that load the voltage drop is 8.57 V per 100 m (2.14 % of 400 V) and the loss 1.99 kW per 100 m. Bending radius 184 mm fixed, 230 mm moving; gland M75, lug bolt M10. Short-circuit rating 7.05 kA for 1 s; permitted pull 3,750 N, free-hanging length 97 m.

5G70. This size has with a conductor of Ø 10.8 mm under 1.60 mm of insulation (core Ø 14.0 mm) and 1.1 mm inner and 4.3 mm outer sheath; outer diameter 46.5–52.0 mm, weight about 5,240 kg/km of which copper 3,360 kg/km (64 %). Rated current 150 A at 30 °C; at that load the voltage drop is 7.79 V per 100 m (1.95 % of 400 V) and the loss 2.12 kW per 100 m. Bending radius 208 mm fixed, 260 mm moving; gland M75, lug bolt M10. Short-circuit rating 9.87 kA for 1 s; permitted pull 5,250 N, free-hanging length 102 m.

5G95. This size has with a conductor of Ø 12.6 mm under 1.80 mm of insulation (core Ø 16.2 mm) and 1.2 mm inner and 4.8 mm outer sheath; outer diameter 53.5–59.5 mm, weight about 6,990 kg/km of which copper 4,560 kg/km (65 %). Rated current 182 A at 30 °C; at that load the voltage drop is 7.52 V per 100 m (1.88 % of 400 V) and the loss 2.37 kW per 100 m. Bending radius 238 mm fixed, 298 mm moving; gland M85, lug bolt M12. Short-circuit rating 13.39 kA for 1 s; permitted pull 7,120 N, free-hanging length 103 m.

5G120. This size has with a conductor of Ø 14.1 mm under 1.80 mm of insulation (core Ø 17.7 mm) and 1.2 mm inner and 5.2 mm outer sheath; outer diameter 58.0–64.5 mm, weight about 8,570 kg/km of which copper 5,760 kg/km (67 %). Rated current 210 A at 30 °C; at that load the voltage drop is 7.17 V per 100 m (1.79 % of 400 V) and the loss 2.46 kW per 100 m. Bending radius 258 mm fixed, 322 mm moving; gland M90, lug bolt M12. Short-circuit rating 16.92 kA for 1 s; permitted pull 9,000 N, free-hanging length 107 m.

Averaged over all sizes copper makes up 61 % of the cable weight; the share rises from 29 % at 5G1.5 to 67 % at 5G120, which is why the larger sizes are costed mostly on the copper market price.

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08 Construction Dimensions by Size

Wall thicknesses and diameters of the layers at each size, taken from the validated cross-section layout; the overall diameter in section 04 is the sum of these layers within tolerance. The insulation wall follows the voltage class 450/750 V.

Type designation cores × mm²	Conductor Ø mm	Core Ø over insulation, mm	Insulation wall mm	Laid-up core Ø mm	Inner sheath mm	Outer sheath mm	Screen + braid mm	Sheath share of Ø, %
5G1.5	1.65	3.25	0.80	9.4	–	1.46	–	24
5G2.5	2.13	3.93	0.90	11.2	–	1.65	–	23
5G4	2.70	4.70	1.00	13.3	–	2.15	–	24
5G6	3.30	5.30	1.00	14.9	–	2.44	–	25
5G10	4.08	6.48	1.20	18.1	0.83	2.99	–	30
5G16	5.16	7.56	1.20	21.0	0.87	3.55	–	30
5G25	6.45	9.25	1.40	25.6	0.93	4.36	–	29
5G35	7.63	10.43	1.40	28.8	0.97	3.50	–	24
5G50	9.12	12.32	1.60	33.9	1.04	3.93	–	23
5G70	10.79	13.99	1.60	38.4	1.09	4.32	–	22
5G95	12.57	16.17	1.80	44.3	1.17	4.83	–	21
5G120	14.13	17.73	1.80	48.5	1.22	5.19	–	21

09 Termination Planning (indicative)

Type designation cores × mm²	Outer Ø or W × H mm	Cable gland thread	Lug / ferrule bolt	Strip length mm	Straight length behind gland, mm
5G1.5	13.4	M25	M5	10	25
5G2.5	15.8	M25	M5	10	30
5G4	19.0	M32	M5	10	40
5G6	21.4	M32	M5	11	45
5G10	27.5	M40	M6	11	55
5G16	32.0	M40	M6	12	65
5G25	38.0	M50	M8	14	75
5G35	40.0	M63	M8	16	80
5G50	46.0	M75	M10	19	90
5G70	52.0	M75	M10	26	105
5G95	59.5	M85	M12	31	120
5G120	64.5	M90	M12	35	130

Gland threads, lug bolts and strip lengths are planning guides computed from the dimensions above; confirm them with the accessory manufacturer.

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10 Comparison with Related Variants at Size 5G16

Variant	Differs in	Outer Ø / H mm	Weight kg/km	Pull N	Current A
This datasheet H07RN8-F 5G 450/750 V	–	32.0	1,540	1,200	60
H07RN8-F 5× 450/750 V 5×16	core configuration	32.0 (+0%)	1,540 (+0%)	1,200 (+0%)	53 (-12%)
H07RN8-F 7G 450/750 V 7G4	core configuration	23.7 (-26%)	590 (-62%)	420 (-65%)	21 (-65%)
H07RN8-F 5G 450/750 V 5G16	tinned vs bare copper	32.0 (+0%)	1,540 (+0%)	1,200 (+0%)	59 (-2%)
H07RN8-F 5G 450/750 V 5G16	low-temperature sheath	32.0 (+0%)	1,540 (+0%)	1,200 (+0%)	60 (+0%)
H07RN8-F 4G 450/750 V 4G16	core configuration	29.0 (-9%)	1,300 (-16%)	960 (-20%)	70 (+17%)
H07RN8-F 12G 450/750 V 12G2.5	core configuration	23.9 (-25%)	730 (-53%)	450 (-62%)	12 (-80%)
H07RN8-F 4× 450/750 V 4×16	core configuration	29.0 (-9%)	1,300 (-16%)	960 (-20%)	60 (+0%)
H07RN8-F 3G 450/750 V 3G16	core configuration	26.0 (-19%)	990 (-36%)	720 (-40%)	70 (+17%)

Percentages show the change against this datasheet; where a variant does not offer the exact size, the nearest listed size is used.

11 Standards and Testing

Standard	Scope
DIN VDE 0282-16 (HD 22.16)	Submersible flexible rubber cables H07RN8-F
DIN VDE 0293-308	Core identification
DIN VDE 0295 / IEC 60228	Conductors, class 5
DIN VDE 0298-3 / -4	Application and current-carrying capacity
DIN EN 60332-1-2 / IEC 60332-1-2	Flame propagation

Routine and type tests

- AC voltage test on every drum length (routine test): 2.5 kV, 5 min
- Conductor resistance and checks of dimensions, insulation thickness and sheath thickness
- Continuity of conductors and protective earth
- Flame propagation test (IEC 60332-1-2) and mineral-oil resistance on type-test samples

Test documentation: every delivery is accompanied by a test certificate from FeiChun’s own laboratory. Third-party witnessed tests can be arranged at the buyer’s cost.

The design follows DIN VDE 0282-16. This datasheet does not claim the VDE approval mark; mark or approval certificates, where required for a project, are arranged on request and apply only to the type tested.

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12 Installation, Marking and Delivery

Installation guidance

- Never terminate the cable under water; keep the cable end above the water level or seal it in a watertight enclosure.
- Hang heavy pumps on a separate rope, never by the cable.
- Respect the water depth rating of 10 m.
- Seal the cable entry of the pump with a gland that matches the maximum outer diameter.
- Inspect the sheath regularly for cuts and abrasion at the water line.
- Do not exceed the tensile load of 15 N/mm² of the copper cross-section.

Sheath marking

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FEICHUN H07RN8-F [cross-section] 450/750 V [year] [serial no.] [metre mark]
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Packing and delivery

Drum	Steel or fumigated wooden drums; cable ends sealed with heat-shrink caps
Delivery length	As ordered, in one continuous length without joints
Lead time	2–3 weeks after technical approval
Warranty	At least 3 years against manufacturing defects
Drum label	Type, cross-section, length, gross/net weight, batch no., drum no.

Ordering information

Order example: H07RN8-F 5G16 450/750 V – 500 m on one drum. When requesting a quotation, state the cable type, configuration, cross-section, voltage, conductor (bare copper), length per piece, required standards and installation conditions.

13 Certification and Quality

All cable is subject to FeiChun’s quality control, with routine testing over 100 % of the delivered length. Declarations of conformity, type-test reports and third-party tests (for example for a mine, a tunnel or a rail project) are provided per project requirement; copies of the records are available on request. FeiChun holds CE, EAC and UKCA documentation for certain product groups. Whether a certificate covers this specific construction must be confirmed with FeiChun before it is quoted in a tender.

VDE, mine-specific (for example coal-mine safety marks, MSHA) and ATEX / IECEx approvals are not implied by this datasheet. They depend on the project, the machine and the country and are arranged with the end user.

14 Related Datasheets and Frequently Asked Questions

Variants of this cable with a different configuration, conductor, temperature grade, screen or voltage. All datasheets are PDF files.

- H07RN8-F 5× 450/750 V – core configuration, CR rubber
- H07RN8-F 7G 450/750 V – core configuration, CR rubber
- H07RN8-F 5G 450/750 V – tinned vs bare copper, CR rubber, tinned
- H07RN8-F 5G 450/750 V – low-temperature sheath, CR rubber, low-temp
- H07RN8-F 4G 450/750 V – core configuration, CR rubber
- H07RN8-F 12G 450/750 V – core configuration, CR rubber
- H07RN8-F 4× 450/750 V – core configuration, CR rubber
- H07RN8-F 3G 450/750 V – core configuration, CR rubber

Overview of all H07RN8-F datasheets: H07 Series Flexible Cables 450/750 V

Frequently asked questions

How deep can H07RN8-F be submerged?
To a water depth of 10 m, continuously.

What is the difference to H07RN-F?
H07RN8-F has a design that is qualified for permanent immersion; H07RN-F is designed for water spray and temporary immersion only.

What sizes are available for H07RN8-F 5G?
12 sizes from 1.5 to 120 mm². The outer dimension of the largest size, 5G120, is 64.5 mm and the weight is about 8,570 kg/km.

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What current can 5G25 carry?
79 A in free air at 30 °C ambient, with the conductor at 60 °C. Other temperatures and grouping change the value; use the factors in section 04.

15 Trademark Notice and Intellectual Property

Cable type designations such as H07RN8-F are standardised, descriptive designations defined in DIN VDE and EN standards; they are used to state which standard this product is designed to. References to other manufacturers' trade names, where made, serve only for technical comparison; FeiChun Cables is not affiliated with them.

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Document control

Document no. FC-TDS-VDE-2026-0798-EN
Revision 0 — first issue
Date 2 November 2026
Product H07RN8-F 450/750 V

Prepared — Engineering | Checked — QC | Approved — International Business

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