HARMONISED FLEXIBLE CABLE 450/750 V · DIN VDE 0282 / EN 50525 | 450/750 V | 12 sizes | PUR, low-temp | BARE COPPER | LOW-TEMPERATURE GRADE

H07BQ-F 5G 450/750 V

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

Document no. FC-TDS-VDE-2026-0852-EN · Revision 0 · Issued 2 November 2026 · Language: English

01 Application and Product Overview

H07BQ-F is the harmonised PUR-sheathed flexible cable for 450/750 V. EPR-insulated fine-wire cores are enclosed in an orange polyurethane sheath that is far more resistant to cuts, abrasion and oil than a rubber sheath. The cable is halogen-free and is used for tools, drives and machines in workshops, on building sites and in industry.

Design

The conductors are class 5 fine-wire copper, bare or tinned. The insulation is EPR (type 3GI3) rated for 90 °C at the conductor. The outer sheath is polyurethane of type TMPU (EN 50363-10-2), extruded tightly over the stranded cores. The bright orange sheath makes the cable easy to see on a site.

Typical applications

- Hand-held tools, drills and saws on building sites
- Machine connections in workshops, with oil and coolant exposure
- Cleaning, spray and wash-down equipment
- Garden, agricultural and forestry machinery
- Mobile compressors and generators
- Extension cables and cable reels for site distribution
- Production lines with abrasive floors
- Cold-climate duty: sites, cold stores and open-cast operations where the cable is moved at temperatures down to 40 °C

12 sizes	450/750 V	+90 °C	Halogen-free
Cross-section 1.5 – 120 mm²	Rated voltage U_0/U	Maximum conductor temperature	Sheath: PUR, low-temp

Key features

- Orange PUR sheath: high resistance to cuts, abrasion, tear and oil
- Halogen-free; hydrolysis- and microbe-resistant
- EPR insulation rated 90 °C at the conductor
- Rated voltage 450/750 V, test voltage 2.5 kV
- Flexible use from −30 °C to +80 °C, fixed use from −40 °C to +90 °C
- Bending radius 5 × D flexing, 3 × D fixed
- 12 sizes from 1.5 to 120 mm²; weight from 233 to 8,320 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

H05BQ-F and H07BQ-F are harmonised types covered by DIN VDE 0282-10 (HD 22.10) and now by DIN EN 50525-2-21. The cable replaced the former VDE type NGMH11YÖ. H07 identifies the 450/750 V rating, B the EPR insulation, Q the polyurethane sheath and F the flexible conductor.

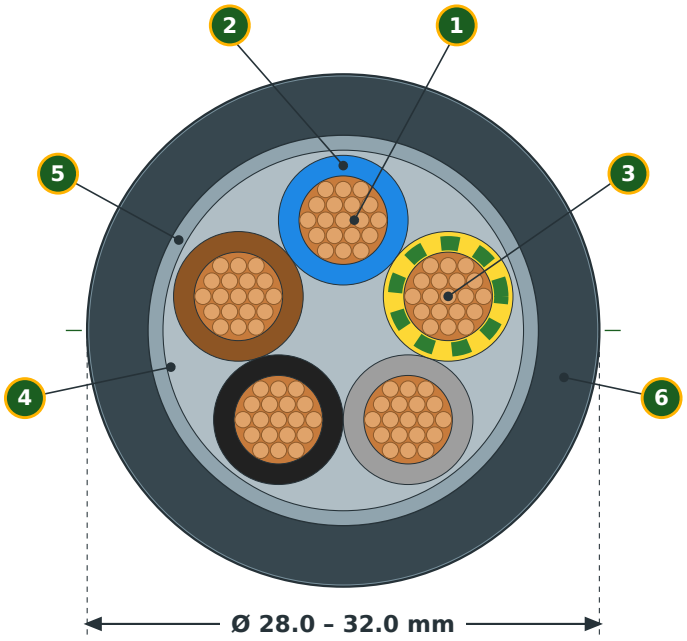
The low-temperature grade of the sheath compound remains flexible down to 40 °C in motion and 50 °C in fixed installation, so the cable can be reeled and trailed on cold sites, in cold stores and in northern open-cast operations. The mechanical and electrical ratings are those of the standard grade; only the cold-flexing limit is extended.

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

H07BQ-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 3GI3 (90 °C)
3	Protective (PE) core	Green-yellow insulation, same cross-section as the power cores
4	Filler and binder tape	Halogen-free filler with polyester binder tape
5	Inner sheath	Halogen-free compound, extruded over the stranded core
6	Outer sheath	Polyurethane (PUR), low-temperature grade

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 3GI3 (90 °C), maximum conductor temperature 90 °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	Halogen-free compound; thickness about 0.9 mm at this size
Outer sheath	Polyurethane (PUR), low-temperature grade; thickness about 3.6 mm at this size

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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

Thermal and mechanical data

Maximum conductor temperature	+90 °C
Maximum temperature at short circuit	+250 °C (5 s maximum)
Ambient temperature, fixed installation	−50 °C to +90 °C
Ambient temperature, in motion	−40 °C to +90 °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	Yes (insulation and sheath), IEC 60754-1/-2
Mineral oil resistance	Resistant, DIN EN 60811-404
UV and ozone resistance	Resistant
Water	Damp and wet areas, spray water

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-H07B-0852-01	1.7	11.2	13.4	54	67	233	72	112	13.3	19	0.214
5G2.5	FC-H07B-0852-02	2.2	13.2	15.8	63	79	325	120	188	7.98	26	0.357
5G4	FC-H07B-0852-03	2.7	16.1	19.0	76	95	390	192	300	4.95	35	0.572
5G6	FC-H07B-0852-04	3.3	18.2	21.4	86	107	550	288	450	3.30	46	0.858
5G10	FC-H07B-0852-05	4.1	24.0	27.5	110	138	980	480	750	1.91	63	1.43
5G16	FC-H07B-0852-06	5.2	28.0	32.0	128	160	1,460	770	1,200	1.21	84	2.29
5G25	FC-H07B-0852-07	6.5	34.0	38.0	152	190	2,280	1,200	1,880	0.780	111	3.58
5G35	FC-H07B-0852-08	7.7	35.5	40.0	160	200	2,740	1,680	2,620	0.554	137	5.00
5G50	FC-H07B-0852-09	9.2	41.5	46.0	184	230	3,810	2,400	3,750	0.386	172	7.15
5G70	FC-H07B-0852-10	10.8	46.5	52.0	208	260	5,080	3,360	5,250	0.272	212	10.01
5G95	FC-H07B-0852-11	12.6	53.5	59.5	238	298	6,770	4,560	7,120	0.206	257	13.59
5G120	FC-H07B-0852-12	14.2	58.0	64.5	258	322	8,320	5,760	9,000	0.161	297	17.16

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.

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Ambient temperature factors (conductor 90 °C)

°C	20	25	30	35	40	45	50	55	60
Factor	1.08	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.71

Short-circuit current rating

I_k = 0.143 kA/mm² × cross-section of the power core (conductor 90 °C → 250 °C). For another duration t: $I_{k,t} = I_{k,1s} / \sqrt{t}$ (0.1 s ≤ t ≤ 5 s).

05 Voltage Drop, Losses and Short-Circuit Data

Voltage drop per 100 m of cable at rated current with the conductor at 90 °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 90 °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	19	17.0	44.81	11.20	1.84	0.678	0.303	0.214	0.124
5G2.5	26	10.2	36.87	9.22	2.06	1.13	0.506	0.357	0.206
5G4	35	6.31	30.90	7.73	2.32	1.81	0.809	0.572	0.330
5G6	46	4.21	27.20	6.80	2.67	2.71	1.21	0.858	0.495
5G10	63	2.44	21.78	5.45	2.90	4.52	2.02	1.43	0.826
5G16	84	1.54	18.66	4.66	3.27	7.24	3.24	2.29	1.32
5G25	111	0.995	16.22	4.06	3.68	11.31	5.06	3.58	2.06
5G35	137	0.706	14.55	3.64	3.98	15.83	7.08	5.00	2.89
5G50	172	0.492	13.16	3.29	4.37	22.61	10.11	7.15	4.13
5G70	212	0.347	11.95	2.99	4.68	31.65	14.16	10.01	5.78
5G95	257	0.263	11.49	2.87	5.20	42.96	19.21	13.59	7.84
5G120	297	0.205	10.92	2.73	5.43	54.26	24.27	17.16	9.91

06 Selection Guide and Sizing Aid

H07BQ-F 5G covers 12 sizes. The smallest, 5G1.5, has an outer diameter of up to 13.4 mm and weighs about 233 kg/km; the largest, 5G120, has an outer diameter of up to 64.5 mm and weighs about 8,320 kg/km, 35.7 times as much. Across the range the rated current rises from 19 A to 297 A at 30 °C and the fixed bending radius from 54 mm to 258 mm.

Example 1. A circuit draws 42 A continuously at 40 °C ambient temperature, in a group of two cables. Temperature factor 0.91, grouping factor 0.80: required table current = 42 / (0.91 × 0.80) = 58 A. The smallest suitable size is 5G10 with 63 A.

Example 2. A circuit draws 152 A continuously at 35 °C ambient temperature, on its own. Temperature factor 0.96: required table current = 152 / (0.96) = 159 A. The smallest suitable size is 5G50 with 172 A.

07 Engineering Profile by Size

Every size of H07BQ-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 233 kg/km of which copper 72 kg/km (31 %). Rated current 19 A at 30 °C; at that load the voltage drop is 44.81 V per 100 m (11.20 % of 400 V) and the loss 1.84 kW per 100 m. Bending radius 54 mm fixed, 67 mm moving; gland M25, lug bolt M5. Short-circuit rating 0.214 kA for 1 s; permitted pull 112 N, free-hanging length 48 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 325 kg/km of which copper 120 kg/km (37 %). Rated current 26 A at 30 °C; at that load the voltage drop is 36.87 V per 100 m (9.22 % of 400 V) and the loss 2.06 kW per 100 m. Bending radius 63 mm fixed, 79 mm moving; gland M25, lug bolt M5. Short-circuit rating 0.357 kA for 1 s; permitted pull 188 N, free-hanging length 58 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 390 kg/km of which copper 192 kg/km (49 %). Rated current 35 A at 30 °C; at that load the voltage drop is 30.90 V per 100 m (7.73 % of 400 V) and the loss 2.32 kW per 100 m. Bending radius 76 mm fixed, 95 mm moving; gland M32, lug bolt M5. Short-circuit rating 0.572 kA for 1 s; permitted pull 300 N, free-hanging length 78 m.

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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 550 kg/km of which copper 288 kg/km (52 %). Rated current 46 A at 30 °C; at that load the voltage drop is 27.20 V per 100 m (6.80 % of 400 V) and the loss 2.67 kW per 100 m. Bending radius 86 mm fixed, 107 mm moving; gland M32, lug bolt M5. Short-circuit rating 0.858 kA for 1 s; permitted pull 450 N, free-hanging length 83 m.

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 980 kg/km of which copper 480 kg/km (49 %). Rated current 63 A at 30 °C; at that load the voltage drop is 21.78 V per 100 m (5.45 % of 400 V) and the loss 2.90 kW per 100 m. Bending radius 110 mm fixed, 138 mm moving; gland M40, lug bolt M6. Short-circuit rating 1.43 kA for 1 s; permitted pull 750 N, free-hanging length 78 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 1,460 kg/km of which copper 770 kg/km (53 %). Rated current 84 A at 30 °C; at that load the voltage drop is 18.66 V per 100 m (4.66 % of 400 V) and the loss 3.27 kW per 100 m. Bending radius 128 mm fixed, 160 mm moving; gland M40, lug bolt M6. Short-circuit rating 2.29 kA for 1 s; permitted pull 1,200 N, free-hanging length 83 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 2,280 kg/km of which copper 1,200 kg/km (53 %). Rated current 111 A at 30 °C; at that load the voltage drop is 16.22 V per 100 m (4.06 % of 400 V) and the loss 3.68 kW per 100 m. Bending radius 152 mm fixed, 190 mm moving; gland M50, lug bolt M8. Short-circuit rating 3.58 kA for 1 s; permitted pull 1,880 N, free-hanging length 84 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 2,740 kg/km of which copper 1,680 kg/km (61 %). Rated current 137 A at 30 °C; at that load the voltage drop is 14.55 V per 100 m (3.64 % of 400 V) and the loss 3.98 kW per 100 m. Bending radius 160 mm fixed, 200 mm moving; gland M63, lug bolt M8. Short-circuit rating 5.00 kA for 1 s; permitted pull 2,620 N, free-hanging length 97 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 3,810 kg/km of which copper 2,400 kg/km (63 %). Rated current 172 A at 30 °C; at that load the voltage drop is 13.16 V per 100 m (3.29 % of 400 V) and the loss 4.37 kW per 100 m. Bending radius 184 mm fixed, 230 mm moving; gland M75, lug bolt M10. Short-circuit rating 7.15 kA for 1 s; permitted pull 3,750 N, free-hanging length 100 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 5,080 kg/km of which copper 3,360 kg/km (66 %). Rated current 212 A at 30 °C; at that load the voltage drop is 11.95 V per 100 m (2.99 % of 400 V) and the loss 4.68 kW per 100 m. Bending radius 208 mm fixed, 260 mm moving; gland M75, lug bolt M10. Short-circuit rating 10.01 kA for 1 s; permitted pull 5,250 N, free-hanging length 105 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 6,770 kg/km of which copper 4,560 kg/km (67 %). Rated current 257 A at 30 °C; at that load the voltage drop is 11.49 V per 100 m (2.87 % of 400 V) and the loss 5.20 kW per 100 m. Bending radius 238 mm fixed, 298 mm moving; gland M85, lug bolt M12. Short-circuit rating 13.59 kA for 1 s; permitted pull 7,120 N, free-hanging length 107 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 8,320 kg/km of which copper 5,760 kg/km (69 %). Rated current 297 A at 30 °C; at that load the voltage drop is 10.92 V per 100 m (2.73 % of 400 V) and the loss 5.43 kW per 100 m. Bending radius 258 mm fixed, 322 mm moving; gland M90, lug bolt M12. Short-circuit rating 17.16 kA for 1 s; permitted pull 9,000 N, free-hanging length 110 m.

Averaged over all sizes copper makes up 63 % of the cable weight; the share rises from 31 % at 5G1.5 to 69 % 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 H07BQ-F 5G 450/750 V	–	32.0	1,460	1,200	84
H07BQ-F 5× 450/750 V 5×16	core configuration	32.0 (+0%)	1,460 (+0%)	1,200 (+0%)	74 (-12%)
H07BQ-F 6G 450/750 V 6G4	core configuration	21.4 (-33%)	470 (-68%)	360 (-70%)	31 (-63%)
H07BQ-F 5G 450/750 V 5G16	tinned vs bare copper	32.0 (+0%)	1,460 (+0%)	1,200 (+0%)	83 (-1%)
H07BQ-F 5G 450/750 V 5G16	low-temperature sheath	32.0 (+0%)	1,460 (+0%)	1,200 (+0%)	84 (+0%)
H07BQ-F 4G 450/750 V 4G16	core configuration	29.0 (-9%)	1,230 (-16%)	960 (-20%)	99 (+18%)
H07BQ-F 7G 450/750 V 7G4	core configuration	23.7 (-26%)	560 (-62%)	420 (-65%)	29 (-65%)
H07BQ-F 4× 450/750 V 4×16	core configuration	29.0 (-9%)	1,230 (-16%)	960 (-20%)	84 (+0%)
H07BQ-F 12G 450/750 V 12G2.5	core configuration	23.9 (-25%)	700 (-52%)	450 (-62%)	17 (-80%)

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 0282-10 (HD 22.10) / DIN EN 50525-2-21	Flexible EPR/PUR cables
DIN EN 50363-10-2	Sheathing compound TMPU
DIN VDE 0293-308	Core identification
DIN VDE 0295 / IEC 60228	Conductors, class 5
DIN EN 60754-1 / -2	Halogen content of the compounds
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) on type-test samples
- Verification of the halogen-free compounds (IEC 60754-1/-2)

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 0282-10. 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

- Keep to the bending radii of section 04: flexing 5 × D, fixed 3 × D.
- Do not exceed the tensile load of 15 N/mm² of the copper cross-section.
- Avoid prolonged contact with hot surfaces above the rated conductor temperature.
- Cut and strip the PUR sheath with a sharp, round-blade tool.
- Use cable glands with a clamping range that matches the outer diameter.
- Store the cable dry and away from direct sunlight for long periods.

Sheath marking

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FEICHUN H07BQ-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: H07BQ-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.

- H07BQ-F 5× 450/750 V – core configuration, PUR, low-temp
- H07BQ-F 6G 450/750 V – core configuration, PUR, low-temp
- H07BQ-F 5G 450/750 V – tinned vs bare copper, PUR, low-temp, tinned
- H07BQ-F 5G 450/750 V – low-temperature sheath, PUR
- H07BQ-F 4G 450/750 V – core configuration, PUR, low-temp
- H07BQ-F 7G 450/750 V – core configuration, PUR, low-temp
- H07BQ-F 4× 450/750 V – core configuration, PUR, low-temp
- H07BQ-F 12G 450/750 V – core configuration, PUR, low-temp

Overview of all H07BQ-F datasheets: H07 Series Flexible Cables 450/750 V

Frequently asked questions

What is the difference between H07BQ-F and H07RN-F?
H07BQ-F has a PUR sheath (cut- and abrasion-resistant, halogen-free); H07RN-F has a polychloroprene sheath.

Is H07BQ-F halogen-free?
Yes. Insulation and sheath are halogen-free compounds.

What sizes are available for H07BQ-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 8,320 kg/km.

What current can 5G25 carry?
111 A in free air at 30 °C ambient, with the conductor at 90 °C. Other temperatures and grouping change the value; use the factors in section 04.

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15 Trademark Notice and Intellectual Property

Cable type designations such as H07BQ-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-2026-0852-EN
Revision 0 — first issue
Date 2 November 2026
Product H07BQ-F 450/750 V

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

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