

# H07ZZ-F

for heavy mechanical stress



HELUKABEL® <HAR> H07 ZZ-F 7G1,5 QMM / 37247 450/750 V CE

## TECHNICAL DATA

Control and connection cable acc. to DIN VDE 0285-525-3-21 / DIN EN 50525-3-21

Temperature range flexible -5°C to +80°C  
fixed -20°C to +80°C

Permissible operating temperature of the conductor +90°C

Nominal voltage flexible AC  $U_0/U$  450/750 V

Test voltage core/core 2500 V

Minimum bending radius flexible 8x Outer-Ø  
fixed installation 4x Outer-Ø

## CABLE STRUCTURE

- Copper wire bare, finely stranded acc. to DIN VDE 0295 Class 5 / IEC 60228 Class 5
- Core insulation: rubber acc. to DIN VDE 0207-363-5 / DIN EN 50363-5 (compound type E18)
- Core identification acc. to DIN VDE 0293-308, 1 core(s): black  
2 - 5 core(s): colour coded  
6 - 36 core(s): black cores with consecutive labeling in white digits
- Protective conductor: starting with 3 cores, G = with protective conductor GN-YE, in the outer layer, x = without protective conductor
- Cores stranded in layers with optimal lay lengths
- Outer sheath: rubber acc. to DIN VDE 0207-363-6 / DIN EN 50363-6 (compound type EM8)
- Sheath colour: black

## PROPERTIES

- resistant to: ozone
- halogen-free

## TESTS

- halogen-free acc. to DIN VDE 0285-525-1 / DIN EN 50525-1 appendix B
- corrosiveness of combustion gases acc. to DIN VDE 0482-754-2 / DIN EN 60754-2 / IEC 60754-2
- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2
- bundle fire test acc. to DIN VDE 0482-332-3-24 / DIN EN 60332-3-24 / IEC 60332-3-24
- smoke density acc. to DIN VDE 0482-1034-1+2 / DIN EN 61034-1+2 / IEC 61034-1+2
- ozone-resistant acc. to DIN VDE 0473-811-403 / DIN EN 60811-403

## APPLICATION

For use in dry, damp and wet rooms in commercial and agricultural workshops for connecting equipment where cables are subject to heavy mechanical loads. When laid in pipes or similar closed systems, the use of the cable is permitted up to and including 1000 V AC or 750 V DC against earth.

## NOTES

- the conductor is metrically (mm<sup>2</sup>) constructed, AWG numbers are approximated, and are for reference only

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer-Ø min. - max. mm	Cu-weight kg/km	Weight kg/km, approx.
37176	1 x 1.5	16	5.7 - 7.1	14.4	58.0
37177	1 x 2.5	14	6.3 - 7.9	24.0	71.0
37178	1 x 4	12	7.2 - 9.0	38.0	100.0
37179	1 x 6	10	7.9 - 9.8	58.0	130.0
37180	1 x 10	8	9.5 - 11.9	96.0	230.0
37181	1 x 16	6	10.8 - 13.4	154.0	290.0
37182	1 x 25	4	12.7 - 15.8	240.0	420.0
37183	1 x 35	2	14.3 - 17.9	336.0	530.0
37184	1 x 50	1	16.5 - 20.6	480.0	750.0
37185	1 x 70	2/0	18.6 - 23.3	672.0	960.0
37186	1 x 95	3/0	20.8 - 26.0	912.0	1250.0
37187	1 x 120	4/0	22.8 - 28.6	1152.0	1560.0
37188	1 x 150	300 kcmil	25.2 - 31.4	1440.0	1900.0
37189	1 x 185	350 kcmil	27.6 - 34.4	1776.0	2300.0
37190	1 x 240	500 kcmil	30.6 - 38.3	2304.0	2950.0
37191	1 x 300	600 kcmil	33.5 - 41.9	2880.0	3600.0
37192	1 x 400	750 kcmil	37.4 - 46.8	3840.0	4600.0
37193	1 x 500	1000 kcmil	41.3 - 52.0	4800.0	6000.0
37194	2 x 1	18	7.7 - 10.0	19.0	95.0
37195	2 x 1.5	16	8.5 - 11.0	29.0	119.0
37196	2 x 2.5	14	10.2 - 13.1	48.0	172.0
37197	2 x 4	12	11.8 - 15.1	77.0	239.0
37198	2 x 6	10	13.1 - 16.8	115.0	319.0

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer-Ø min. - max. mm	Cu-weight kg/km	Weight kg/km, approx.
37199	2 x 10	8	17.7 - 22.6	192.0	572.0
37200	2 x 16	6	20.2 - 25.7	307.0	767.0
37201	2 x 25	4	24.3 - 30.7	480.0	1154.0
37202	3 G 1	18	8.3 - 10.7	29.0	115.0
37203	3 G 1.5	16	9.2 - 11.9	43.0	144.0
37204	3 G 2.5	14	10.9 - 14.0	72.0	211.0
37205	3 G 4	12	12.7 - 16.2	115.0	290.0
37206	3 G 6	10	14.1 - 18.0	173.0	391.0
37207	3 G 10	8	19.1 - 24.2	288.0	706.0
37208	3 G 16	6	21.8 - 27.6	461.0	961.0
37209	3 G 25	4	26.1 - 33.0	720.0	1438.0
37210	3 G 35	2	29.3 - 37.1	1008.0	1814.0
37211	3 G 50	1	34.1 - 42.9	1440.0	2550.0
37212	3 G 70	2/0	38.4 - 48.3	2016.0	3210.0
37213	3 G 95	3/0	43.3 - 54.0	2736.0	4423.0
37214	3 G 120	4/0	47.4 - 60.0	3456.0	5405.0
37215	3 G 150	300 kcmil	52.0 - 66.0	4320.0	6725.0
37216	3 G 185	350 kcmil	57.0 - 72.0	5328.0	8222.0
37217	3 G 240	500 kcmil	65.0 - 82.0	6192.0	10224.0
37218	3 G 300	600 kcmil	72.0 - 90.0	8640.0	12620.0
37219	4 G 1	18	9.2 - 11.9	38.0	141.0
37220	4 G 1.5	16	10.2 - 13.1	58.0	176.0
37221	4 G 2.5	14	12.1 - 15.5	96.0	235.0

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Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer-Ø min. - max. mm	Cu-weight kg/km	Weight kg/km, approx.
37222	4 G 4	12	14.0 - 17.9	154.0	365.0
37223	4 G 6	10	15.7 - 20.0	230.0	501.0
37224	4 G 10	8	20.9 - 26.5	384.0	872.0
37225	4 G 16	6	23.8 - 30.1	614.0	1194.0
37226	4 G 25	4	28.9 - 36.6	960.0	1822.0
37227	4 G 35	2	32.5 - 41.1	1344.0	2307.0
37228	4 G 50	1	37.7 - 47.5	1920.0	3253.0
37229	4 G 70	2/0	42.7 - 54.0	2688.0	4130.0
37230	4 G 95	3/0	48.4 - 61.0	3648.0	5720.0
37231	4 G 120	4/0	53.0 - 66.0	4608.0	6965.0
37232	4 G 150	300 kcmil	58.0 - 73.0	5760.0	8644.0
37233	4 G 185	350 kcmil	64.0 - 80.0	7104.0	10598.0
37234	4 G 240	500 kcmil	72.0 - 91.0	9216.0	12100.0
37235	4 G 300	600 kcmil	80.0 - 101.0	11520.0	15200.0
37236	5 G 1	18	10.2 - 13.1	48.0	170.0
37237	5 G 1.5	16	11.2 - 14.4	72.0	214.0
37238	5 G 2.5	14	13.3 - 17.0	120.0	316.0
37239	5 G 4	12	15.6 - 19.9	192.0	448.0
37240	5 G 6	10	17.5 - 22.2	288.0	607.0

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer-Ø min. - max. mm	Cu-weight kg/km	Weight kg/km, approx.
37241	5 G 10	8	22.9 - 29.1	480.0	1075.0
37242	5 G 16	6	26.4 - 33.3	768.0	1480.0
37243	5 G 25	4	32.0 - 40.4	1200.0	2255.0
37244	6 G 1.5	16	13.4 - 17.2	84.0	287.0
37245	6 G 2.5	14	15.7 - 20.0	144.0	420.0
37246	6 G 4	12	18.2 - 23.2	230.0	583.0
37247	7 G 1.5	16	14.7 - 18.7	101.0	303.0
37248	7 G 2.5	14	17.1 - 21.8	168.0	448.0
37249	12 G 1.5	16	17.6 - 22.4	173.0	496.0
37250	12 G 2.5	14	20.6 - 26.2	288.0	724.0
37251	12 G 4	12	24.4 - 30.9	461.0	1042.0
37252	18 G 1.5	16	20.7 - 26.3	259.0	702.0
37253	18 G 2.5	14	24.4 - 30.9	432.0	1045.0
37254	18 G 4	12	28.8 - 36.4	691.0	1430.0
37255	24 G 1.5	16	24.3 - 30.7	346.0	935.0
37256	24 G 2.5	14	28.8 - 36.4	576.0	1325.0
37257	36 G 1.5	16	27.8 - 35.2	518.0	1297.0
37258	36 G 2.5	14	33.2 - 41.8	864.0	1949.0