H07RN-F / 07RN-F

oil resistant, weather-resistant

TECHNICAL DATA

Rubber connection cable, H07RN-F acc. to DIN VDE 0285-525-2-21 / DIN EN 50525-2-21; 07RN-F in alignment with DIN VDE 0285-525-2-21 / DIN EN 50525-2-21

Temperature range	flexible -25°C to +60°C fixed -30°C to +60°C
Permissible operating temperature of the conductor	+60°C
Nominal voltage	AC U_0/U 450/750 V
Max. permissible operating voltage	alternating current (AC) conductor/earth 476 V three-phase alternating current (AC) conductor/conductor 825 V direct current (DC) conductor/earth 619 V direct current (DC) conductor/conductor 1238 V
Test voltage core/core	2500 V
Tensile stress	during installation and operation, 15 N/mm²
Minimum bending radius	fixed 4x Outer-Ø flexible, guidance via roles 7.5x Outer-Ø flexible, winding on drums 5x 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 0207-363-1 / DIN EN 50363-1 (compound type EI4)
- Core identification acc. to DIN VDE 0293-308,
  1 core(s): black
  2 - 5 core(s): colour coded
  7 - 37 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 0207-363-2-1 / DIN EN 50363-2-1 (compound type EM2)
- Sheath colour: black

PROPERTIES

- resistant to: oil, weathering effects
- for outdoor use

TESTS

- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2
- oil-resistant acc. to DIN VDE 0473-811-404 / DIN EN 60811-404 / IEC 60811-404
- certifications and approvals:
  H07RN-F: HAR
  EAC

APPLICATION

Heavy duty, rubber sheathed cable for use with medium mechanical stress in dry, damp, wet rooms, in agricultural premises and outdoors. Suitable for equipment in commercial operations, e.g. heating plates, hand lamps, electric tools such as drills or circular saws. For fixed installation on plaster as well as in temporary constructions. When installed in pipes or similar enclosed systems, the use of the cable is permitted up to and including 1000 V AC voltage or up to 750 V DC voltage against earth.

NOTES

- the conductor is metrically (mm²) constructed, AWG numbers are approximated, and are for reference only

H07RN-F

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-Ø min - max mm	Cu factor per km	Weight kg/km, approx.
37019	2 x 1	18	7.7 - 10.0	19.0	98.0
37027	3 G 1	18	8.3 - 10.7	29.0	130.0
37044	4 G 1	18	9.2 - 11.9	38.0	150.0
11008924	5 G 1	18	10.4 - 13.1	48.0	170.0
37001	1 x 1.5	16	5.7 - 7.1	14.4	58.0
37020	2 x 1.5	16	8.5 - 11.0	29.0	135.0
37028	3 G 1.5	16	9.2 - 11.9	43.0	165.0
37080	3 x 1.5	16	9.2 - 11.9	43.0	165.0
37045	4 G 1.5	16	10.2 - 13.1	58.0	200.0
37061	5 G 1.5	16	11.2 - 14.4	72.0	240.0
11024867	5 x 1.5	16	11.2 - 14.4	72.0	240.0
37092	7 G 1.5	16	14.7 - 18.7	101.0	375.0
37093	12 G 1.5	16	17.6 - 22.4	175.0	460.0
37094	19 G 1.5	16	20.7 - 26.3	274.0	810.0
37095	24 G 1.5	16	24.3 - 30.7	346.0	1015.0
37075	27 G 1.5	16	25.5 - 31.5	385.0	1100.0
37002	1 x 2.5	14	6.3 - 7.9	24.0	71.0
37021	2 x 2.5	14	10.2 - 13.1	48.0	193.0
37029	3 G 2.5	14	10.9 - 14.0	72.0	235.0
37081	3 x 2.5	14	10.9 - 14.0	72.0	235.0

Continued on next page

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37046	4 G 2.5	14	12.1 - 15.5	96.0	290.0
37062	5 G 2.5	14	13.3 - 17.0	120.0	345.0
37079	7 G 2.5	14	17.1 - 21.8	168.0	520.0
37096	12 G 2.5	14	20.6 - 26.2	288.0	760.0
37097	18 G 2.5	14	24.4 - 30.9	432.0	850.0
37098	19 G 2.5	14	25.5 - 31.0	456.0	1075.0
37099	24 G 2.5	14	28.8 - 36.4	576.0	1390.0
37076	27 G 2.5	14	30.0 - 37.0	640.0	1521.0
37003	1 x 4	12	7.2 - 9.0	38.0	100.0
37022	2 x 4	12	11.8 - 15.1	77.0	280.0
37030	3 G 4	12	12.7 - 16.2	115.0	320.0
37082	3 x 4	12	12.7 - 16.2	115.0	320.0
37047	4 G 4	12	14.0 - 17.9	154.0	395.0
37063	5 G 4	12	15.6 - 19.9	192.0	485.0
37004	1 x 6	10	7.9 - 9.8	58.0	130.0
37023	2 x 6	10	13.1 - 16.8	115.0	330.0
37031	3 G 6	10	14.1 - 18.0	173.0	420.0
37083	3 x 6	10	14.1 - 18.0	173.0	495.0
37048	4 G 6	10	15.7 - 20.0	230.0	540.0
37064	5 G 6	10	17.5 - 22.2	288.0	650.0
37005	1 x 10	8	9.5 - 11.9	96.0	230.0
37024	2 x 10	8	17.7 - 22.6	192.0	586.0
37032	3 G 10	8	19.1 - 24.2	288.0	810.0
37084	3 x 10	8	19.1 - 24.2	288.0	880.0
37049	4 G 10	8	20.9 - 26.5	384.0	950.0
37089	4 x 10	8	20.9 - 26.5	384.0	1065.0
37065	5 G 10	8	22.9 - 29.1	480.0	1200.0
37006	1 x 16	6	10.8 - 13.4	154.0	290.0
37025	2 x 16	6	20.2 - 25.7	307.0	810.0
37033	3 G 16	6	21.8 - 27.6	461.0	1050.0
37085	3 x 16	6	21.8 - 27.6	461.0	1095.0
37050	4 G 16	6	23.8 - 30.1	614.0	1260.0
37066	5 G 16	6	26.4 - 33.3	768.0	1550.0
37007	1 x 25	4	12.7 - 15.8	240.0	420.0
37026	2 x 25	4	24.3 - 30.7	480.0	1160.0
37034	3 G 25	4	26.1 - 33.0	720.0	1250.0
37086	3 x 25	4	26.1 - 33.0	720.0	1450.0

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-Ø min - max mm	Cu factor per km	Weight kg/km, approx.
37051	4 G 25	4	28.9 - 36.6	960.0	1860.0
37090	4 x 25	4	28.9 - 36.6	960.0	1995.0
37067	5 G 25	4	32.0 - 40.4	1200.0	2250.0
37008	1 x 35	2	14.3 - 17.9	336.0	530.0
37035	3 G 35	2	29.3 - 37.1	1008.0	1900.0
37087	3 x 35	2	29.3 - 37.1	1008.0	1900.0
37052	4 G 35	2	32.5 - 41.1	1344.0	2380.0
37068	5 G 35	2	35.7 - 45.1	1680.0	2750.0
37009	1 x 50	1	16.5 - 20.6	480.0	750.0
37036	3 G 50	1	34.1 - 42.9	1440.0	2600.0
37088	3 x 50	1	34.1 - 42.9	1440.0	2600.0
37053	4 G 50	1	37.7 - 47.5	1920.0	3190.0
37091	5 G 50	1	41.8 - 53.0	2400.0	3950.0
37010	1 x 70	2/0	18.6 - 23.3	672.0	960.0
37037	3 G 70	2/0	38.4 - 48.3	2016.0	3400.0
37054	4 G 70	2/0	42.7 - 54.0	2688.0	4260.0
37154	5 G 70	2/0	47.5 - 60.0	3360.0	4740.0
37011	1 x 95	3/0	20.8 - 26.0	912.0	1250.0
37038	3 G 95	3/0	43.3 - 54.0	2736.0	4450.0
37055	4 G 95	3/0	48.4 - 61.0	3648.0	5600.0
34090	5 G 95	3/0	54.0 - 67.0	4560.0	6600.0
37012	1 x 120	4/0	22.8 - 28.6	1152.0	1560.0
37039	3 G 120	4/0	47.4 - 60.0	3456.0	5180.0
37056	4 G 120	4/0	53.0 - 66.0	4608.0	6830.0
37013	1 x 150	300 kcmil	25.2 - 31.4	1440.0	1900.0
37040	3 G 150	300 kcmil	52.0 - 66.0	4320.0	6500.0
37057	4 G 150	300 kcmil	58.0 - 73.0	5760.0	8320.0
37014	1 x 185	350 kcmil	27.6 - 34.4	1776.0	2300.0
37041	3 G 185	350 kcmil	57.0 - 72.0	5328.0	7860.0
37058	4 G 185	350 kcmil	64.0 - 80.0	7104.0	9800.0
37015	1 x 240	500 kcmil	30.6 - 38.3	2304.0	2950.0
37042	3 G 240	500 kcmil	65.0 - 82.0	6912.0	10224.0
37059	4 G 240	500 kcmil	72.0 - 91.0	9216.0	12100.0
37016	1 x 300	600 kcmil	33.5 - 41.9	2880.0	3600.0
37043	3 G 300	600 kcmil	72.0 - 90.0	8640.0	12620.0
37017	1 x 400	750 kcmil	37.4 - 46.8	3840.0	4600.0
37018	1 x 500	1000 kcmil	41.3 - 52.0	4800.0	6000.0

07RN-F

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-Ø min - max mm	Cu factor per km	Weight kg/km, approx.
40152	7 G 1	18	13.3 - 15.3	68.0	280.0
40153	12 G 1	18	17.4 - 19.4	116.0	415.0
40154	18 G 1	18	20.3 - 22.3	173.0	575.0
40155	24 G 1	18	23.5 - 25.5	231.0	730.0
40156	36 G 1	18	27.4 - 29.4	346.0	1030.0

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-Ø min - max mm	Cu factor per km	Weight kg/km, approx.
37077	37 G 2.5	14	34.0 - 37.5	720.0	1940.0
34349	5 G 120	4/0	58.0 - 73.0	5760.0	8180.0
34127	5 G 150	300 kcmil	64.0 - 80.0	7200.0	10600.0
11017183	5 G 185	350 kcmil	71.0 - 89.0	8880.0	12060.0
11022923	5 G 240	500 kcmil	80.0 - 100.0	11520.0	15840.0

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