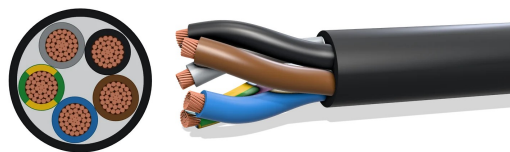


Application

H07RN-F is a harmonised heavy-duty flexible cable to EN 50525-2-21 with EPR rubber insulation and a polychloroprene (or equivalent synthetic elastomer) sheath, rated 450/750 V. It is intended for industrial, agricultural and construction-site use under high mechanical stress, for the connection of portable tools, machines, motors, pumps, heating equipment and temporary installations, in dry, damp and wet locations, outdoors and, for the permitted sizes, in water. The cable is oil-, weather-, ozone- and UV-resistant; it is not intended for continuous reeling or forced-guided use. For fixed, protected installation (in pipes or conduits, inside equipment and for motor connections) an operating voltage up to 1000 V AC is permitted. The cable is not suitable for unprotected direct laying in the ground.



CONSTRUCTION

Conductor	Fine-wire stranded plain (bare) annealed copper, class 5 to IEC/EN 60228.
Insulation	EPR rubber (compound EI 4 to EN 50363-1).
Sheath	Polychloroprene (CR) or equivalent synthetic elastomer (compound EM 2 to EN 50363-2-1), round; black.
Core colours	To HD 308 S2: 1 core black; 2 cores brown, blue; 3 cores (G) green/yellow, brown, blue; 3 cores (X) brown, black, grey; 4 cores (G) green/yellow, brown, black, grey; 4 cores (X) blue, brown, black, grey; 5 cores (G) green/yellow, blue, brown, black, grey; 5 cores (X) blue, brown, black, grey, black; 7 cores and more black with white numbers plus one green/yellow core.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage Uo/U	450/750 V.
Test voltage	2.5 kV.
Standard	EN 50525-2-21.
Flame-retardant	IEC/EN 60332-1-2.
Conductor standard	IEC/EN 60228 class 5.
Max. conductor temperature	+60 °C (+90 °C in fixed installation).
Permitted outer cable temperature, fixed	-25 °C to +60 °C.
Permitted outer cable temperature, moved	-15 °C to +60 °C.
Min. bending radius, fixed	6 × outer diameter.
Min. bending radius, moved	8 × outer diameter.
Max. tensile load, moved	15 N/mm ² of conductor cross-section.
Max. tensile load, fixed	50 N/mm ² of conductor cross-section.
Lowest permitted temperature without mechanical stress	-40 °C.
Oil resistance	Tested to EN/IEC 60811-2-1 (DIN VDE 0473-811-2-1).
Reaction to fire (CPR)	Outside the scope of EN 50575 (flexible connection cable, not for permanent installation in construction works).

DIMENSIONS & TECHNICAL DATA

Cores × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
2 × 1	19.5	7.7	75
3 × 1	19.5	8.3	95
4 × 1	19.5	9.2	120
5 × 1	19.5	9.9	145
1 × 1.5	13.3	5.9	45
2 × 1.5	13.3	8.5	100
3 × 1.5	13.3	9.3	125
4 × 1.5	13.3	10.4	160
5 × 1.5	13.3	11.3	185
7 × 1.5	13.3	15	315
8 × 1.5	13.3	15.5	350
12 × 1.5	13.3	17.5	445
16 × 1.5	13.3	19.6	580
18 × 1.5	13.3	20.5	645
19 × 1.5	13.3	21.2	680
24 × 1.5	13.3	23.4	815
27 × 1.5	13.3	24.5	895
1 × 2.5	7.98	6.5	60
2 × 2.5	7.98	10.1	145
3 × 2.5	7.98	11.1	185
4 × 2.5	7.98	12.1	225
5 × 2.5	7.98	13.5	280
7 × 2.5	7.98	17.1	435
8 × 2.5	7.98	18.4	510
10 × 2.5	7.98	19.2	560
12 × 2.5	7.98	20.6	650
14 × 2.5	7.98	21.7	745
16 × 2.5	7.98	22.5	845
18 × 2.5	7.98	23.6	920
19 × 2.5	7.98	25.1	1005
24 × 2.5	7.98	27.3	1190
27 × 2.5	7.98	28.7	1315
1 × 4	4.95	7.4	85
2 × 4	4.95	11.8	200
3 × 4	4.95	12.7	260
4 × 4	4.95	14	320
5 × 4	4.95	15.6	395
7 × 4	4.95	20.2	640
8 × 4	4.95	21.8	740
10 × 4	4.95	22.8	830
12 × 4	4.95	24.4	950
1 × 6	3.3	8.1	110
2 × 6	3.3	12.7	250
3 × 6	3.3	14.3	335
4 × 6	3.3	15.7	425

Cores × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
5 × 6	3.3	17.7	530
1 × 10	1.91	9.9	175
2 × 10	1.91	17.7	485
3 × 10	1.91	19.6	630
4 × 10	1.91	21.4	775
5 × 10	1.91	23.9	945
1 × 16	1.21	11.2	240
2 × 16	1.21	20.2	670
3 × 16	1.21	21.8	855
4 × 16	1.21	24.6	1080
5 × 16	1.21	27	1320
1 × 25	0.78	13	345
2 × 25	0.78	24.5	995
3 × 25	0.78	26.1	1250
4 × 25	0.78	29.5	1610
5 × 25	0.78	32.5	1960
1 × 35	0.554	14.6	460
2 × 35	0.554	26.3	1240
3 × 35	0.554	29.4	1650
4 × 35	0.554	32.7	2100
5 × 35	0.554	35.8	2545
1 × 50	0.386	17	635
2 × 50	0.386	31.9	1765
3 × 50	0.386	33.7	2235
4 × 50	0.386	37.7	2865
5 × 50	0.386	41.9	3535
1 × 70	0.272	19.1	845
2 × 70	0.272	36	2335
3 × 70	0.272	38.3	2970
4 × 70	0.272	42.3	3795
5 × 70	0.272	47.2	4680
1 × 95	0.206	21.4	1100
3 × 95	0.206	44	3930
4 × 95	0.206	48.4	4995
5 × 95	0.206	53.5	6090
1 × 120	0.161	23.3	1375
3 × 120	0.161	47.5	4815
4 × 120	0.161	53	6110
1 × 150	0.129	25.8	1695
3 × 150	0.129	52	5900
4 × 150	0.129	58	7565
1 × 185	0.106	28.1	2045
3 × 185	0.106	57.7	7165
4 × 185	0.106	64	9180
1 × 240	0.0801	31.3	2635
4 × 240	0.0801	72	11940
1 × 300	0.0641	34.4	3275

Cores × mm2	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
1 × 400	0.0486	39	4270
1 × 500	0.0384	41.9	5370
1 × 630	0.0287	47.8	6960

Dimensions and weights are nominal manufacturer values of the leading reference source; conductor resistance is the maximum per IEC/EN 60228 class 5; all values are indicative and non-binding.