H07RN-F, enhanced version

Halogen-free; Long-run submersion; Bending/Loop Torsion (WTG): -40°C to +90°C; UV/Ozone resistant

H07RN-F, <HAR>, power and control cable, 450/750 V, submersion to a depth of 100m (AD8), ozone/oil-resistant, class 5, -40°C to +90°C, halogen-free, flame-retardant

Info
Halogen-free & Low Smoke density
Loop Torsion/Flexible: -40°C to +90°C
100m long-run submersion

- Wind Energy
- Suitable for outdoor use
- Halogen-free
- Cold-resistant
- Oil-resistant
- Torsion-resistant
- UV-resistant

Last Update (10.02.2025)

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Benefits
Arrangements made of single-core, rubber-sheathed cables H07RN-F can be used for short circuit-proof and short-to-ground-proof installations in accordance with IEC 60364-5-52/ HD 60364-5-52/ VDE 0100 Part 520
More water-resistant than H07RN-F and H07RN8-F
Conductor temperature range more suitable for outdoor installation and wider than H07RN-F, H07ZZ-F, H07BN4-F und NSSHÖU

Application range
Medium, mechanical stress and industrial and agricultural use as well as for handheld and power supply devices (H07RN-F according to EN 50565-2)
Drip loop torsion between the nacelle and the tower of wind turbine generators/ windmills
Outdoors acc. EN 50565-2
For buildings or industrial plants with a high density of people or valuable assets

Product features
Oil resistant according to EN 60811-404; Good resistance to abrasion, atmospheric agents, grease and mineral oils
Ozone- (acc. EN 60811), UV-, Cold- (-40 °C flexible at the conductor) and Heat-resistant (+90 °C at the conductor)
Drip loop torsion resistant (wind turbine) ==>TW-0, TW-1 and TW-2: -40 °C to +90 °C/ 2,000 cycles (5,000 cycles from +5 °C)/ torsion angle of +/-150 ° per metre at one revolution per minute
Long-time water submersion (AD8) down to 100 m without interruption (no drinking water, minimum water temperature of +5 °C, standing water only, no areas with boat/ ship/ submarine traffic)
Halogen-free according to EN 60754 (sub-parts -1 and -2),
flame-retardant according to IEC 60332-1-2 and low smoke density (LS) according to EN 61034-2

Norm references / Approvals
<HAR> H07RN-F cable type approval according to EN 50525-2-21

Product Make-up
Conductor made of bare copper wires
Core insulation: special rubber
Outer sheath: special rubber compound

Technical Data

Classification ETIM 5:	ETIM 5.0 Class-ID: EC001578 ETIM 5.0 Class-Description: Flexible cable
Classification ETIM 6:	ETIM 6.0 Class-ID: EC001578 ETIM 6.0 Class-Description: Flexible cable
Core identification code:	Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9 From 6 cores: black with white numbers
Conductor stranding:	Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
Torsion movement in WTG:	TW-0 & TW-2, refer to Appendix T0
Minimum bending radius:	Moved: 6 x Outer diameter Fixed installation: 4 x Outer diameter
Nominal voltage:	U0/U: 450/750 V
Test voltage:	2500 V AC
Protective conductor:	G = with GN-YE protective conductor X = without protective conductor
Current rating:	according to data sheet
Temperature range:	Occasionally moved: -40 °C to +90 °C

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Fixed installation: -50 °C to +90 °C

Note

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
* Trade product, no Lapp product
Photographs and graphics are not to scale and do not represent detailed images of the respective products.
Prices are net prices without VAT and surcharges. Sale to business customers only.

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PRODUCT INFORMATION

H07RN-F, enhanced version

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
4533027	3 G 1.0	8.3 - 10.7	28.8	140
4533061	4 G 1.0	9.2 - 11.9	38.4	160
4533062	4 X 1.0	9.2 - 11.9	38.4	160
4533091	5 G 1.0	10.2 - 13.1	48	200
4533000	1 X 1.5	5.7 - 7.1	14.4	55
4533020	2 X 1.5	8.5 - 11	28.8	125
4533029	3 G 1.5	9.2 - 11.9	43.2	172
4533063	4 G 1.5	10.2 - 13.1	57.6	200
4533064	4 X 1.5	10.2 - 13.1	57.6	200
4533093	5 G 1.5	11.2 - 14.4	72	250
4533111	7 G 1.5	14.7 - 18.7	100.8	430
4533113	12 G 1.5	17.6 - 22.4	172.8	620
4533001	1 X 2.5	6.3 - 7.9	24	72
4533021	2 X 2.5	10.2 - 13.1	48	173
4533031	3 G 2.5	10.9 - 14	72	225
4533065	4 G 2.5	12.1 - 15.5	96	285
4533066	4 X 2.5	12.1 - 15.5	96	285
4533095	5 G 2.5	13.3 - 17	120	345
4533115	12 G 2.5	20.6 - 26.2	288	850
4533002	1 X 4.0	7.2 - 9	38.4	98
4533022	2 X 4.0	11.8 - 15.1	76.8	239
4533033	3 G 4.0	12.7 - 16.2	115.2	325
4533067	4 G 4.0	14 - 17.9	153.6	395
4533097	5 G 4.0	15.6 - 19.9	192	485
4533003	1 X 6.0	7.9 - 9.8	57.6	127
4533023	2 X 6.0	13.1 - 16.8	115.2	330
4533035	3 G 6.0	14.1 - 18	172.8	415
4533069	4 G 6.0	15.7 - 20	230.4	535
4533099	5 G 6.0	17.5 - 22.2	288	648
4533004	1 X 10.0	9.5 - 11.9	96	192
4533024	2 X 10.0	17.7 - 22.6	192	590
4533037	3 G 10.0	19.1 - 24.2	288	712
4533071	4 G 10.0	20.9 - 26.5	384	920
4533005	1 X 16.0	10.8 - 13.4	153.6	262

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Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
4533039	3 G 16.0	21.8 - 27.6	460.8	990
4533073	4 G 16.0	23.8 - 30.1	614.4	1290
4533006	1 X 25.0	12.7 - 15.8	240	375
4533041	3 G 25.0	26.1 - 33	720	1395
4533075	4 G 25.0	28.9 - 36.6	960	1930
4533101	5 G 25.0	32 - 40.4	1200	2500
4533007	1 X 35.0	14.3 - 17.9	336	493
4533043	3 G 35.0	29.3 - 37.1	1008	1815
4533077	4 G 35.0	32.5 - 41.4	1344	2470
4533103	5 G 35.0	35.7 - 45.1	1680	3250
4533008	1 X 50.0	16.5 - 20.6	480	675
4533045	3 G 50.0	34.1 - 42.9	1440	2470
4533079	4 G 50.0	37.7 - 47.5	1920	3320
4533105	5 G 50.0	41.8 - 53	2400	4408
4533009	1 X 70.0	18.6 - 23.3	672	914
4533081	4 G 70.0	42.7 - 54	2688	4420
4533107	5 G 70.0	47.5 - 60	3360	5863
4533010	1 X 95.0	20.8 - 26	912	1200
4533083	4 G 95.0	48.4 - 61	3648	5750
4533109	5 G 95.0	54 - 67	4560	7537
4533011	1 X 120.0	22.8 - 28.6	1152	1481
4533085	4 G 120.0	53 - 66	4608	6990
4533012	1 X 150.0	25.2 - 31.4	1440	1833
4533087	4 G 150.0	58 - 73	5760	8650
4533013	1 X 185.0	27.6 - 34.4	1776	2190
4533089	4 G 185.0	64 - 80	7104	9785
4533014	1 X 240.0	30.6 - 38.3	2304	2780
4533015	1 X 300.0	33.5 - 41.9	2880	3310
4533016	1 X 400.0	37.4 - 46.8	3840	4320
4533017	1 X 500.0	41.3 - 52	4800	5342

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