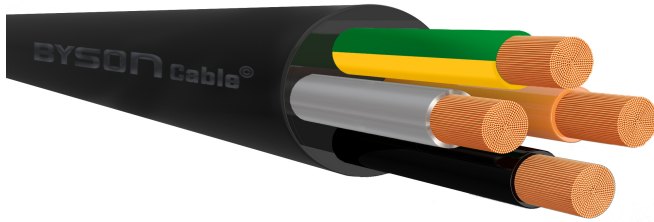


# H07RN-F SUPREME



Zero Halogen, Oil-resistant & submersible to a water depth of 100 meters



- ✓ Submersible down to 100 meters AD8
- ✓ Low Smoke Zero Halogen - LSZH
- ✓ Temperature Range: -40°C to + 90°C

## REGULATORY COMPLIANCE



### TECHNICAL DATA

Rubber connection cable acc. to DIN VDE 0285-525-2-21 / DIN EN 50525-2-21

Temperature range flexible -40°C to +90°C  
fixed -50°C to +90°C

Permissible operating temperature of the conductor +90°C

Short-circuit temperature at conductor +250°C

Nominal voltage AC  $U_n/U$  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

Minimum bending radius flexible 6x Outer-Ø  
fixed 4x Outer-Ø

### CABLE STRUCTURE

- Copper wire bare, finely stranded acc. to DIN VDE 0295 Class 5 / IEC 60228 Class 5
- Core insulation: Special rubber
- Core identification acc. to DIN VDE 0293-308,  
1 core(s): black  
2 - 5 core(s): colour coded  
7 - 12 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: Special rubber
- Sheath colour: black

### PROPERTIES

- Resistant to: oil, UV radiation, ozone, weathering effects, lubricating oils, greases
- For outdoor use
- Halogen-free

### TESTS

- Halogen-free acc. to DIN VDE 0482-754-1 / DIN EN 60754-1 / IEC 60754-1
- 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
- Smoke density acc. to DIN VDE 0482-1034-1+2 / DIN EN 61034-1+2 / IEC 61034-1+2
- oil-resistant acc. to DIN VDE 0473-811-404 / DIN EN 60811-404 / IEC 60811-404
- ozone-resistant acc. to DIN VDE 0473-811-403 / DIN EN 60811-403

### APPLICATION

Halogen-free rubber sheathed cables for use with medium mechanical stress in dry, damp, wet rooms and outdoors. Can only be used in stagnant waters (also in salt water) up to a water depth of 100 m (AD8) and a water temperature of min. +5°C. When installed in pipes or similar closed 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 (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.
30737	1 x 1.5	16	5.7 - 6.5	14.4	51.0
30738	1 x 2.5	14	6.3 - 7.2	24.0	67.0
30739	1 x 4	12	7.2 - 8.1	38.0	92.0
30740	1 x 6	10	7.9 - 8.8	58.0	121.0
30741	1 x 10	8	9.5 - 11.5	96.0	186.0
30742	1 x 16	6	10.8 - 13.0	154.0	256.0
30743	1 x 25	4	12.7 - 15.0	240.0	368.0
30744	1 x 35	2	14.3 - 16.5	336.0	485.0
30745	1 x 50	1	16.5 - 19.5	480.0	668.0
30746	1 x 70	2/0	18.6 - 22.5	672.0	905.0
30747	1 x 95	3/0	20.8 - 25.4	912.0	1180.0
30748	1 x 120	4/0	22.8 - 27.6	1152.0	1460.0
30749	1 x 150	300 kcmil	25.2 - 30.3	1440.0	1810.0
30750	1 x 185	350 kcmil	27.6 - 33.0	1776.0	2165.0
30751	1 x 240	500 kcmil	30.6 - 36.3	2304.0	2750.0

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.
30752	1 x 300	600 kcmil	33.5 - 39.0	2880.0	3271.0
30753	1 x 400	750 kcmil	37.4 - 41.5	3840.0	4286.0
30754	1 x 500	1000 kcmil	41.3 - 46.0	4800.0	5301.0
30755	1 x 630	1250 kcmil	45.5 - 50.0	6048.0	6959.0
30756	2 x 1	18	7.7 - 9.0	19.0	93.0
30757	2 x 1.5	16	8.5 - 9.9	29.0	115.0
30758	2 x 2.5	14	10.2 - 11.7	48.0	165.0
30759	2 x 4	12	11.8 - 13.4	77.0	225.0
30760	2 x 6	10	13.1 - 14.9	115.0	300.0
30761	2 x 10	8	17.7 - 20.0	192.0	550.0
30762	2 x 16	6	20.2 - 22.6	307.0	745.0
30763	2 x 25	4	24.3 - 27.0	480.0	1060.0
30764	3 G 1	18	8.3 - 9.7	29.0	120.0
30765	3 G 1.5	16	9.2 - 10.7	43.0	150.0
30766	3 G 2.5	14	10.9 - 12.5	72.0	200.0



# H07RN-F SUPREME

Zero Halogen, Oil-resistant & submersible to a water depth of 100 meters

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.	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.
30767	3 G 4	12	12.7 - 14.4	115.0	295.0	30790	4 G 50	1	37.7 - 41.5	1920.0	3085.0
30768	3 G 6	10	14.1 - 16.0	173.0	380.0	30791	4 G 70	2/0	42.7 - 47.1	2688.0	4145.0
30769	3 G 10	8	19.1 - 21.5	288.0	675.0	30792	4 G 95	3/0	48.4 - 54.9	3648.0	5465.0
30770	3 G 16	6	21.8 - 24.3	461.0	950.0	30793	4 G 120	4/0	53.0 - 57.5	4608.0	6670.0
30771	3 G 25	4	26.1 - 28.8	720.0	1355.0	30794	4 G 150	300 kcmil	58.0 - 63.6	5760.0	8290.0
30772	3 G 35	2	29.3 - 32.5	1008.0	1765.0	30795	4 G 185	350 kcmil	64.0 - 69.7	7104.0	9385.0
30773	3 G 50	1	34.1 - 37.0	1440.0	2415.0	30796	5 G 1	18	10.2 - 11.7	48.0	180.0
30774	3 G 70	2/0	38.4 - 40.9	2016.0	3230.0	30797	5 G 1.5	16	11.2 - 12.8	72.0	220.0
30775	3 G 95	3/0	43.3 - 47.4	2736.0	4225.0	30798	5 G 2.5	14	13.3 - 15.1	120.0	310.0
30776	3 G 120	4/0	47.4 - 53.2	3456.0	5190.0	30799	5 G 4	12	15.6 - 17.9	192.0	445.0
30777	3 G 150	300 kcmil	52.0 - 57.5	4320.0	6415.0	30800	5 G 6	10	17.5 - 20.0	288.0	605.0
30778	3 G 185	350 kcmil	57.0 - 62.7	5328.0	7700.0	30801	5 G 10	8	22.9 - 25.7	480.0	1035.0
30779	3 G 240	500 kcmil	65.0 - 71.4	6912.0	9458.0	30802	5 G 16	6	26.4 - 30.0	768.0	1465.0
30780	3 G 300	600 kcmil	72.0 - 78.3	8640.0	11635.0	30803	5 G 25	4	32.0 - 35.4	1200.0	2145.0
30781	4 G 1	18	9.2 - 10.7	38.0	145.0	30804	5 G 35	2	35.7 - 39.5	1680.0	2579.0
30782	4 G 1.5	16	10.2 - 11.7	58.0	175.0	30805	5 G 50	1	41.8 - 47.0	2400.0	3594.0
30783	4 G 2.5	14	12.1 - 13.8	96.0	255.0	30806	5 G 70	2/0	47.5 - 52.5	3360.0	4837.0
30784	4 G 4	12	14.0 - 15.9	154.0	355.0	30807	5 G 95	3/0	54.0 - 58.0	4560.0	6269.0
30785	4 G 6	10	15.7 - 17.7	230.0	485.0	30808	7 G 1.5	16	14.7 - 17.5	101.0	355.0
30786	4 G 10	8	20.9 - 23.6	384.0	845.0	30809	7 G 2.5	14	17.1 - 20.0	168.0	498.0
30787	4 G 16	6	23.8 - 26.4	614.0	1185.0	30810	12 G 1.5	16	17.6 - 21.0	173.0	505.0
30788	4 G 25	4	28.9 - 32.1	960.0	1730.0	30811	12 G 2.5	14	20.6 - 24.5	288.0	710.0
30789	4 G 35	2	32.5 - 36.0	1344.0	2250.0						

## ELECTRICAL CHARACTERISTICS (1mm<sup>2</sup> to 2.5mm<sup>2</sup>)

Current Carrying Capacity and Mass Supportable

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CURRENT CARRYING CAPACITY Amps		MAXIMUM MASS SUPPORTABLE BY TWIN FLEXIBLE CABLE (See Regulations 522.7.2 and 559.6.1.5 of the 17th Edition of IEE Wiring Regulations) kg
	Single-Phase AC	Three-Phase AC	
1	10	10	5
1.5	16	16	5
2.5	25	20	5

## Voltage Drop

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	DC OR SINGLE-PHASE AC mV/A/m	THREE-PHASE AC mV/A/m
1	46	40
1.5	32	27
2.5	19	16

The above table is in accordance with Table 4F3B of the 18th Edition of IEE Wiring Regulations BS7671 and IEC 60364-5-52

Conductor operating temperature: 60°C\*

### Note

\*The tabulated values above are for 60°C thermoplastic or thermosetting insulated flexible cables and for other types of flexible cable they are to be multiplied by the following factors:

For	90°C thermoplastic or thermosetting insulated	1.09
	150°C	1.31
	185°C glass fibre	1.43

# H07RN-F SUPREME

Zero Halogen, Oil-resistant & submersible to a water depth of 100 meters

Conductor operating temperature: 90°C



## ELECTRICAL CHARACTERISTICS (4mm<sup>2</sup> and above)

Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	DC OR SINGLE-PHASE AC (1 TWO CORE CABLE WITH OR WITHOUT PROTECTIVE CONDUCTOR) Amps	THREE-PHASE AC (1 THREE CORE, FOUR CORE OR FIVE CORE CABLE) Amps	SINGLE-PHASE AC OR DC (2 SINGLE CORE CABLES TOUCHING) Amps
4	42	37	-
6	55	49	-
10	76	66	-
16	103	89	-
25	136	119	-
35	-	146	200
50	-	177	250
70	-	225	310
95	-	273	369
120	-	316	432
150	-	363	497
185	-	414	564
240	-	487	673
300	-	560	773
400	-	-	924
500	-	-	1062

The above table is in accordance with Table 4F2A of the 18th Edition of IEE Wiring Regulations BS7671 and IEC 60364-5-52

Ambient temperature: 30°C

Conductor operating temperature: 90°C

AMBIENT TEMPERATURE	35°C	40°C	45°C	50°C	55°C
DE-RATING FACTOR	0.95	0.91	0.86	0.82	0.41

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.