

XTREM[®] H07RN-F

Flexible rubber cable, for industrial use.

ACCORDING TO: EN 50525-2-21 / IEC 60092-353 / IEC 60245



APPLICATION

Xtrem[®] H07RN-F rubber cables are designed to supply power to low voltage appliances including electric motors and submersible pumps in deep water installations, as well as many other electrical equipment.

Thanks to its extraordinary flexibility and mechanical strength, the Xtrem[®] H07RN-F cable is ideal for power transmission in both fixed installation or mobile service. The nominal voltage up to 1000 V thanks to the high dielectric properties of the insulation material (according to HD 516). Top Cable Xtrem[®] H07RN-F cables are designed to power all types of electrical equipment including motors and submersible pumps in deep water installations (AD8).

- Industrial use.
- Mobile use.
- Robotics.
- Windmills
- Temporary site installations.

CONSTRUCTION

Conductor

Electrolytic annealed copper, class 5 (flexible) according to EN 60228 and IEC 60228.

Insulation

Thermosetting rubber insulation type EI7 according to EN 50363-1. The standard identification, according to HD 308 and HD 186, is the following:


1 x	Natural
2 x	Blue + Brown
3 G	Blue + Brown + Green/Yellow
3 x	Brown + Black + Grey
4 G	Brown + Black + Grey + Green/Yellow
4 x	Brown + Black + Grey + Blue
5 G	Brown + Black + Grey + Blue + Green/Yellow
6 or more	Black numbered + Green/Yellow

Outer sheath

Thermosetting flexible rubber outer sheath type EM2 according to EN 50363-2-1. Black colour.


STANDARDS / COMPLIANCE


 **According to**
EN 50525-2-21 / IEC 60092-353 / IEC 60245


 **Standards and approvals**
HAR / AENOR / DNV / RoHS / CE.


 **CPR (Construction Products Regulation)**
E_{ca}.


CHARACTERISTICS


 **Electrical performance**
Low voltage 450/750V.

 **Thermal performance**
Maximum service temperature: 90°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C (fixed and protected installations) and -35°C (mobile use).

 **Fire performance**
Flame non-propagation according to EN 60332-1 and IEC 60332-1.
Reaction to fire CPR: E_{ca}, according to EN 50575.

 **Mechanical performance**
Minimum bending radius:
3 x cable diameter < 12 mm.
4 x cable diameter ≥ 12 mm.
Impact resistance: AG2 Medium severity.

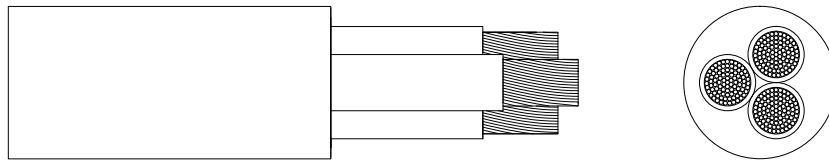
 **Environmental performance**
Chemical performance:
Chemical & Oil resistance: excellent.
Grease & mineral oils resistance: excellent.
Water resistance:
AD8 Submersion.
Cable for submersible pumps in drinkable water according to AS/ NZS 4020.
Deep wells | Drinkable water | AWQC.

 **Installation conditions**
Open Air.
Submersible pump cable.

 **Other**
Meter by meter marking.



DIMENSIONS & ADMISSIBLE INTENSITIES



Cross-Section (mm ²)	Diameter (mm)	Weight (kg/km)	Fixed Inst. (A) ¹	Mobile Inst. (A) ²	Voltage drop (V/A · km) ³
1 x 1,5	5,9	45	28	16	26,7
1 x 2,5	6,5	60	39	25	16,6
1x4	7,4	85	53	34	9,95
1x6	8,1	110	68	43	6,63
1 x 10	9,9	175	93	60	3,84
1 x 16	11,2	240	124	79	2,43
1 x 25	13	345	161	104	1,57
1 x 35	14,6	460	200	129	1,11
1 x 50	17	635	242	162	0,776
1 x 70	19,1	845	310	202	0,546
1 x 95	21,4	1.100	377	240	0,414
1 x 120	23,3	1.375	437	280	0,323
1 x 150	25,8	1.695	504	321	0,259
1 x 185	28,1	2.045	575	363	0,213
1 x 240	31,3	2.635	679	433	0,161
1 x 300	34,4	3.275	783	497	0,129
1 x 400	39	4.270	940	586	0,0976
1 x 500	41,9	5.370	1.083	670	0,0772
1 x 630	47,8	6.960	1.254	784	0,0575
2x1	7,7	80	21	10	45,2
2 x 1,5	8,5	100	26	16	30,9
2 x 2,5	10,1	145	36	25	18,5
2x4	11,8	210	49	34	11,5
2x6	12,7	265	63	43	7,66
2 x 10	17,7	485	86	60	4,43
2 x 16	20,2	670	115	79	2,81
2 x 25	24,5	995	149	105	1,81
2 x 35	26,3	1.240	185	130	1,29
2 x 50	31,9	1.765	225	165	0,896
2 x 70	36	2.335	289	205	0,631
3G1	8,3	100	21	10	45,2
3 G 1,5	9,3	130	26	16	30,9
3 G 2,5	11,1	190	36	25	18,5
3G4	12,7	265	49	35	11,5
3G6	14,3	350	63	44	7,66
3 G 10	19,6	630	86	62	4,43
3 G 16	21,8	855	115	82	2,81
3 G 25	26,1	1.250	149	109	1,81
3 G 35	29,4	1.650	185	135	1,29
3 G 50	33,7	2.235	225	169	0,896
3 G 70	38,3	2.970	289	211	0,631
3 G 95	44	3.930	352	250	0,478
3 G 120	47,5	4.815	410	292	0,373
3 G 150	52,8	5.985	473	335	0,299
3 G 185	57,7	7.210	542	378	0,245
4G1	9,2	120	21	10	39,2
4 G 1,5	10,4	160	26	16	26,7
4 G 2,5	12,1	230	36	20	16
4G4	14	325	49	30	9,95
4G6	15,7	435	63	37	6,63
4 G 10	21,4	775	86	52	3,84
4 G 16	24,6	1.080	115	69	2,43
4 G 25	29,5	1.610	149	92	1,57
4 G 35	32,7	2.115	185	114	1,11
4 G 50	37,9	2.895	225	143	0,776
4 G 70	41,8	3.825	289	178	0,546
4 G 95	48,4	4.995	352	210	0,414
4 G 120	53	6.110	410	246	0,323
4 G 150	58	7.565	473	282	0,259
4 G 185	64	9.145	542	319	0,213

DIMENSIONS & ADMISSIBLE INTENSITIES

Cross-Section (mm ²)	Diameter (mm)	Weight (kg/km)	Fixed Inst. (A) ¹	Mobile Inst. (A) ²	Voltage drop (V/A · km) ³
4 G 240	72	11.925	641	377	0,161
5G1	9,8	145	21	10	39,2
5 G 1,5	11,1	190	26	16	26,7
5 G 2,5	13,1	280	36	20	16
5G4	15,3	400	49	30	9,95
5G6	17,7	545	63	38	6,63
5 G 10	23,7	945	86	54	3,84
5 G 16	26,9	1.320	115	71	2,43
5 G 25	32,9	1.995	149	94	1,57
5 G 35	35,8	2.560	185	114	1,11
5 G 50	42,2	3.575	225	143	0,776
5 G 70	46,7	4.715	289	178	0,546
5 G 95	52,5	6.105	352	210	0,414
5 G 120	58	7.455	410	246	0,323
5 G 150	65,1	9.300	473	282	0,259
5 G 185	71,4	11.240	542	319	0,213
7 G 1,5	15	315	26	16	30,9
7 G 2,5	17,1	435	36	25	18,5
7G4	20,2	640	49	34	11,5
8 G 1,5	15,5	350	26	16	30,9
8 G 2,5	18,4	510	36	25	18,5
8G4	21,8	740	49	34	11,5
10 G 2,5	19,2	560	36	25	18,5
10 G 4	22,8	830	49	34	11,5
12 G 1,5	17,5	445	26	16	30,9
12 G 2,5	20,5	650	36	25	18,5
12 G 4	24,4	950	49	34	11,5
14 G 2,5	21,7	745	36	25	18,5
16 G 1,5	19,6	580	26	16	30,9
16 G 2,5	22,5	845	36	25	18,5
18 G 1,5	20,5	645	26	16	30,9
18 G 2,5	23,6	920	36	25	18,5
19 G 1,5	21,2	680	26	16	30,9
19 G 2,5	25,1	1.005	36	25	18,5
24 G 1,5	23,1	815	26	16	30,9
24 G 2,5	27,3	1.190	36	25	18,5
27 G 1,5	24,5	895	26	16	30,9
27 G 2,5	28,7	1.315	36	25	18,5

*1.- One conductor in open air at 30°C ambient temperature instalation method F and E according to IEC 60364-5-52.

*2.- One conductor in open air at 20°C ambient temperature according to EN 50565

*3.- At 60°C conductor temp. and cos Phi=1

SHORT CIRCUIT CURRENT CARRYING CAPACITIES

Time (s)	0,1	0,2	0,3	0,5	1	1,5	2	2,5	3
Amp/mm ²	452	320	261	202	143	117	101	90	83

CORRECTION FACTORS

Air Temp (°C)	30	35	40	45	50	55
Mobile service	1	0,91	0,82	0,71	0,58	0,41
Fixed installation	1	0,96	0,91	0,87	0,82	0,76