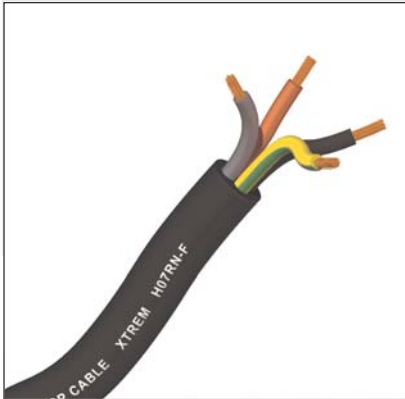



XTREM

H07RN-F

Power and flexibility to the limit
<HAR>


a Applications

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. This cable has been manufactured using compounds which have much better behaviour than the ones specified in the standards. This fact makes the Xtrem H07RN-F cable a multipurpose one with higher service temperature than standard H07RN-F and also a 1kV voltage rating.

b Characteristics

- 1.- Improved flexibility:** The use of extra flexible class 6 flexible copper conductors in greater cables (from 185 mm² onwards) allows the Xtreme H07RN-F cable to have optimum flexibility.
- 2.- Special wind torsion test:** the Xtreme H07RN-F cable passes the special 2.000 cycle Torsion Test required for wind generators (for single core cables).
- 3.- Improved working temperature:** The Xtrem H07RN-F can operate at work temperatures up to 90 °C, improving the HD 22 standard rated temperature, due to insulation with high thermal grade.
- 4.- Rated voltage up to 1000 V:** possible thanks to the high dielectric properties of the insulation material (according to HD 516).
- 5.- Weather resistance:** The properties of the thermosetting vulcanised rubber outer sheath on the Xtrem H07RN-F cables allows a permanent use outdoors.
- 6.- Immersion resistance:** Exceeds the established tests for type H07RN8-F, suitable for functioning permanently submerged (AD8).
- 7.- Resistance to chemical products:** Vulcanised rubber outer sheath is the most effective protection against chemical products such as hydrocarbons and mineral oils.
- 8.- Windstand short contacts at high temperature:** Due to the vulcanised materials used, this cable can withstand short-term contact with hot surfaces (5 seconds at 250 °C) without damage.

Applications



Heavy Duty



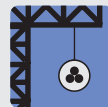
Industrial mobile use



Windmills



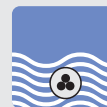
Robotics



Heavy mobile use



Open Air



Underwater



No flame propagation

C Technical data

The table shows diameter, weight, current-carrying capacity and voltage drop detailed for each cable.

Current-carrying capacities shown in the table are calculated according to HD 516 for mobile service, according to IEC 60364 for fixed installations and with the following conditions:

- **Mobile service:** open air installation, one cable with effective air renewal and with ambient temperature of 30 °C.
- **Fixed installation:** open air installation, one cable with effective air renewal and with ambient temperature of 30 °C, fixed by cleats and hangers or on perforated tray (reference method F for single core and E for multi core cables).
- For cables with 2 or 3 conductors it is supposed a single-phase circuit.
- For cables with 1, 4 or 5 conductors it is supposed a three-phase circuit.
- For cables with 6 or more conductors it is supposed a single-phase circuit where not all conductors are fully loaded simultaneously.

Voltage drop, is the maximum that may occur. It is calculated at 60 °C conductor temperature and for $\cos \phi = 1$.

Environmental conditions



No flame propagation
IEC 60332-1
EN50265



Impact resistance:
AG 2
Medium impact



Outdoor installation:
permanent



Low temperature
resistance: excellent



Water
resistance : AD 8
Submerged



Chemical & oil attack
resistance: excellent

Dimensions					
Cross-section	Diameter	Weight	Mobile service	Fixed installation	Voltage drop
mm ²	φ mm	kg/km	30°C A	30°C A	V/A km
1 x 6	8,2	112	38	53	6,63
1 x 10	9,9	175	53	74	3,84
1 x 16	11,1	241	71	101	2,43
1 x 25	13,2	354	94	135	1,57
1 x 35	14,7	467	117	169	1,11
1 x 50	17,1	645	148	207	0,776
1 x 70	19,2	861	185	268	0,546
1 x 95	21,7	1.122	222	328	0,414
1 x 120	23,5	1.385	260	383	0,323
1 x 150	25,8	1.712	300	444	0,259
1 x 185	28,8	2.079	341	510	0,213
1 x 240	32,0	2.669	407	607	0,161
1 x 300	34,9	3.270	468	703	0,129
2 x 1	8,2	89	10	21	45,2
2 x 1,5	8,7	107	16	26	30,9
2 x 2,5	10,3	154	25	36	18,5
2 x 4	12,0	216	34	49	11,5
2 x 6	13,5	284	43	63	7,66
2 x 10	17,5	498	60	86	4,43
2 x 16	21,3	710	79	115	2,81
2 x 25	25,7	1.052	105	149	1,81
3 x 1	8,7	106	10	21	45,2
3 x 1,5	9,7	134	16	26	30,9
3 x 2,5	11,3	192	25	36	18,5
3 x 4	13,0	269	35	49	11,5
3 x 6	14,3	350	44	63	7,66
3 x 10	19,8	639	62	86	4,43
3 x 16	22,3	872	82	115	2,81
3 x 25	27,0	1.299	109	149	1,81
3 x 35	29,7	1.684	135	185	1,29
3 x 50	35,4	2.355	169	225	0,896
3 x 70	39,6	3.108	211	289	0,631
3 x 95	45,1	4.070	250	352	0,478
4 x 1	9,6	130	10	17	39,2
4 x 1,5	10,6	164	16	23	26,7
4 x 2,5	12,4	237	20	32	16,0
4 x 4	14,5	337	30	42	9,95
4 x 6	16,3	452	37	54	6,63
4 x 10	21,3	781	52	75	3,84
4 x 16	24,2	1.077	69	100	2,43
4 x 25	30,5	1.667	92	127	1,57
4 x 35	33,3	2.156	114	158	1,11
4 x 50	38,6	2.971	143	192	0,776
4 x 70	43,1	3.934	178	246	0,546
4 x 95	54,1	6.360	246	346	0,323
4 G 120	49,5	5.199	210	298	0,414
5 x 1	10,4	156	10	17	39,2
5 x 1,5	11,6	202	16	23	26,7
5 x 2,5	13,8	289	20	32	16,0
5 x 4	16,3	430	30	42	9,95
5 x 6	17,9	548	38	54	6,63
5 x 10	23,6	964	54	75	3,84
5 x 16	26,8	1.335	71	100	2,43
5 x 25	33,3	2.035	94	127	1,57
5 G 35	36,8	2.660	116	158	1,11
7 x 1,5	14,8	302	16	26	30,9
12 x 1,5	17,8	453	16	26	30,9
18 x 1,5	21,9	657	16	26	30,9
24 x 1,5	24,0	818	16	26	30,9
36 x 1,5	29,3	1.155	16	26	30,9
7 x 2,5	17,0	427	25	36	18,5
12 x 2,5	21,8	664	25	36	18,5
18 x 2,5	25,8	948	25	36	18,5
24 x 2,5	28,3	1.194	25	36	18,5
36 x 2,5	34,9	1.704	25	36	18,5

*Top Cable reserves the right to carry out any modification whatsoever without giving previous notice.

d Design

- **Conductor:** Flexible electrolytic annealed copper conductor, class 5 according to IEC 60228.
- **Insulation:** Thermosetting rubber insulation, type EI4 according to HD 22. The standard identification according to HD 308 or EN 50334, is the following:
 - up to 5 conductors: by colours.
 - 6 or more conductors: black numbered + green/yellow.
- **Outer sheath:** Thermosetting rubber outer sheath, black color, type EM2 according to HD 22.

Characteristics

According to
HD 22
IEC 60245-4



Flexible conductor
class 5 / 6



Rated Voltage
Fixed: 600/1.000 V
Mobile: 450/750 V



Maximum service
temperature: 90°C



Minimum bending
radius
4 x ϕ cable



Meter by meter
marking