XTREM® DZ-F

100% Green Energy Cable Production

The extra-flexible LSHF rubber cable for mobile service.

BASED ON: UNE 21150
ACCORDING TO: UL 758 / CSA 22.2

APPLICATION

Xtrem® DZ-F is a flexible cable for mobile installations.
Suitable to be used in windmills and halogen free, no fire propagation and low smoke and no corrosive gases emission in case of fire

CONSTRUCTION

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

Insulation
Halogen free thermosetting rubber, type EPR according to UNE 21150 and type EPDM 90°C/1000 V ac according to UL 758 and CSA 22.2 (AWM Style 3775).
The standard identification according to HD 308, is the following:

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

Outer sheath
Halogen free thermosetting flexible rubber, with low smoke emission in case of fire, type EM8 according to EN 50363-6 and type EVA 90°C/1000 V ac according to UL 758 and CSA 22.2 (AWM Style 21465).
Black colour.

CHARACTERISTICS

Electrical performance
Low voltage: 0,6/1 kV.

Thermal performance
Maximum conductor temperature: 90°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum temperature in mobile service: -40°C.

Fire performance
Flame non-propagation according to EN 60332-1 / IEC 60332-1.
Horizontal flame test according to UL 2556 and CSA C22.2.
Fire non-propagation according to EN 60332-3-24 / IEC 60332-3-24 and EN 50399.
Reaction to fire CPR: Cca-s1b, d2, a1 according to EN 50575 (see cross-section).
Halogen free according to EN 60754-1 / IEC 60754-1.
Low corrosive gases emission according to UNE-EN 60754-2 / IEC 60754-2.
Low smoke emission according to EN 61034 / IEC 61034:
Light transmittance > 60%.
Toxicity index according to NES 713 / NF C 20454:
It ≤ 1,5.

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

Environmental performance
Chemical & Oil resistance: Excellent.
Oil resistance: IRM 902 (24 h/100 °C).
Grease & mineral oils resistance: Excellent.
Water resistance: AD7 immersion.
Ozone resistance according to EN 60811 (24 h / 25 °C / 250 ppm ozone).
Sunlight resistant: according to UL 2556 and CSA C22.2.

Installation conditions
Open Air.
In conduit.

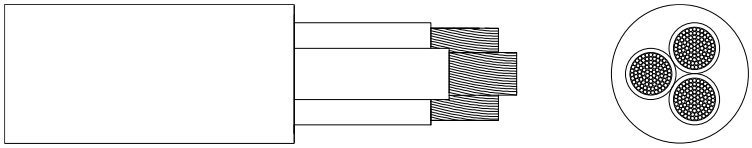
Other
Meter by meter marking.

STANDARDS / COMPLIANCE

Based on
UNE 21150
According to
UL 758 / CSA 22.2
Standards and approvals
CE / UL

XTREM ® DZ-F

DIMENSIONS & ADMISSIBLE INTENSITIES



Cross-Section (mm^2)	Diameter (mm)	Weight (kg/km)	Open Air (A) [1]	Voltage drop (V/A · km) [2]
1 x 6	8,2	115	53	7,32
1 x 10	10,0	185	74	4,23
1 x 16	11,2	255	101	2,68
1 x 25	13,3	365	135	1,73
1 x 35	14,8	480	169	1,23
1 x 50	17,2	640	207	0,860
1 x 70	19,2	895	268	0,603
1 x 95	21,5	1.105	328	0,457
1 x 120	23,8	1.425	383	0,357
1 x 150	26,1	1.695	444	0,286
1 x 185	28,2	2.030	510	0,235
1 x 240	31,4	2.615	607	0,178
1 x 300	34,6	3.265	703	0,142
1 x 400	38,8	4.240	823	0,108
1 x 500	41,9	5.330	946	0,085
2 x 1,5	8,6	110	26	34,0
2 x 2,5	10,2	160	36	20,4
2 x 4	12,0	220	49	12,7
2 x 6	13,5	290	63	8,45
2 x 10	17,5	520	86	4,89
2 x 16	20,0	710	115	3,10
2 x 25	24,5	1.055	149	2,00
3 G 1,5	9,5	140	26	34,0
3 G 2,5	11,4	200	36	20,4
3 G 4	12,8	275	49	12,7
3 G 6	14,5	370	63	8,45
3 G 10	19,8	650	86	4,89
3 G 16	21,8	900	115	3,10
3 G 25	26,0	1.310	149	2,00
3 G 35	29,4	1.730	185	1,42
3 G 50	33,4	2.335	225	0,990
3 G 70	37,8	3.100	289	0,696
3 G 95	44,7	4.140	352	0,527
4 G 1,5	10,7	170	23	29,5
4 G 2,5	12,3	245	32	17,7
4 G 4	14,4	345	42	11,0
4 G 6	16,0	460	54	7,32
4 G 10	21,4	815	75	4,23
4 G 16	24,3	1.130	100	2,68

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Cross-Section (mm^2)	Diameter (mm)	Weight (kg/km)	Open Air (A) [1]	Voltage drop (V/A · km) [2]
4 G 25	29,5	1.685	127	1,72
4 G 35	32,7	2.190	158	1,22
4 G 50	38,0	2.995	192	0,852
4 G 70	43,2	4.010	246	0,601
5 G 1,5	11,5	205	23	29,5
5 G 2,5	13,6	295	32	17,7
5 G 4	15,7	425	42	11,0
5 G 6	17,9	565	54	7,32
5 G 10	23,8	995	75	4,23
5 G 16	27,0	1.380	100	2,68
5 G 25	32,5	2.045	127	1,72
5 G 35	35,8	2.645	158	1,22
5 G 50	42,0	3.675	192	0,852
5 G 70	46,7	4.855	246	0,601
12 G 1,5	17,1	465	23	29,5
12 G 2,5	19,6	19,6	32	17,7

[1] Reference method F for single-core and method E for multicore cables according to IEC60364-5-52 in open air at 30°C ambient temperature.
[2] At maximum conductor temperature and cos φ= 1.
For cables having 2 or 3 cores, are supposed a single-phase circuit. For the rest of the cables are supposed a three-phase circuit.

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SHORT CIRCUIT CURRENT CARRYING CAPACITIES

Time (s)	0,1	0,2	0,3	0,5	1	1,5	2	2,5	3
A/mm²	452	320	261	202	143	117	101	90	83

CORRECTION FACTORS FOR AIR TEMPERATURE

Air T. (°C)	20	25	30	35	40	45	50	55	60
Factor	1,08	1,04	1	0,96	0,91	0,87	0,82	0,76	0,71