

BETAtherm® 145 UL/CSA 3271 125 °C / 600 V

BETAtherm® 145 UL/cUL 3820 125 °C / 1000 V

Single core with increased environmental compatibility

New:
2 UL-Styles
1 wire-line

Application


Typical applications are internal wiring in lamps, heating appliances, electric machines (thermal class B) switchboards and distribution boxes in apparatus, mechanical and plant engineering and inverters.

Used for laying in tubes, surface wiring, direct in plaster or underneath it, as well in conduits. May not be laid directly in cable trays, cable racks or cable troughs.

Advantages

- Multi-Standard cable
- Very high resistance to temperature
- Resistance to cold down to -55 °C
- Best fire performance, halogen free
- Electron-beam cross-linked
- Nominal voltage 600 + 1000 V

Construction

Conductor	Tinned fine copper strands acc. to VDE 0295/IEC 60228, class 5 (AWG upon request)
Insulation	Polyolefine copolymer, electron-beam cross-linked
Core colour	 (further colours upon request)

Electrical properties

Nominal voltage U_0/U	1000 V
Testing voltage	3500 V

Thermal properties

Conductor temperature: fixed installation +125 °C max. | occasionally moved +120 °C max.
Short-circuit temperature: +280 °C max.
Ambient temperature: fixed installation -55 °C min. | occasionally moved -35 °C min.

Bending radius

Fixed installation > 4 × outer Ø min. | occasionally moved > 6 × outer Ø min.

Standards / material properties

Halogen free: IEC 60754-1, EN 50267-2-1
No corrosive gases: IEC 60754-2, EN 50267-2-2
No toxic gases: NF X 70-100
Low smoke density: IEC 61034, DIN EN 61034-2, EN 50268-2
Flame retardant: EN/IEC 60332-1-2, FT1, FT2
Non-flame propagating: IEC 60332-3, DIN EN 60332-3, DIN EN 50266-2
Low fire load: DIN 51900

Low fire load





- UL AWM Style 3271, 125 °C / 600 V, File no. E146164
- CSA AWM I A/B 125 °C / 600 V, File LL 101982
- UL AWM Style 3820, 125 °C / 1000 V, File no. E146164
- cUL AWM I A/B 125 °C / 1000 V (cUL approbation is equivalent to CSA)



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Dimensions, weights according to mm²

Cross-section		Outer Ø	Weight	Fire load	New order no. (by core colour)		Old order no.	
mm ²	(AWG)	mm	kg / km	kWh / m				
0.25	(24)	2.3	8	0.022	Ø	Ø	Ø	Ø
0.50	(22)	2.5	11	0.025	Ø	310661	Ø	221177
0.75	(20)	2.8	14	0.029	Ø	310663	Ø	217848
1	(18)	2.9	17	0.031	Ø	310664	Ø	225254
1.5	(16)	3.2	22	0.036	Ø	310665	224097	224489
2.5	(14)	3.7	32	0.043	310647	310646	300461	216999
4	(12)	4.2	46	0.051	Ø	310648	304777	217676
6	(10)	4.7	65	0.060	310650	310649	217000	216995
10	(8)	6.5	114	0.120	Ø	310651	302474	215237
16	(6)	8.2	182	0.198	310653	310652	221578	217350
25	(4)	9.4	264	0.234	310655	310654	304757	218771
35	(2)	10.9	369	0.302	310657	310656	217795	215168
50	(1)	14.1	558	0.543	310659	310658	224713	217892
70	(2/0)	15.6	747	0.621	Ø	310675	Ø	223144
95	(3/0)	17.2	959	0.682	310681	Ø	302018	Ø
120	(4/0)	19.0	1190	0.758	Ø	Ø	Ø	Ø