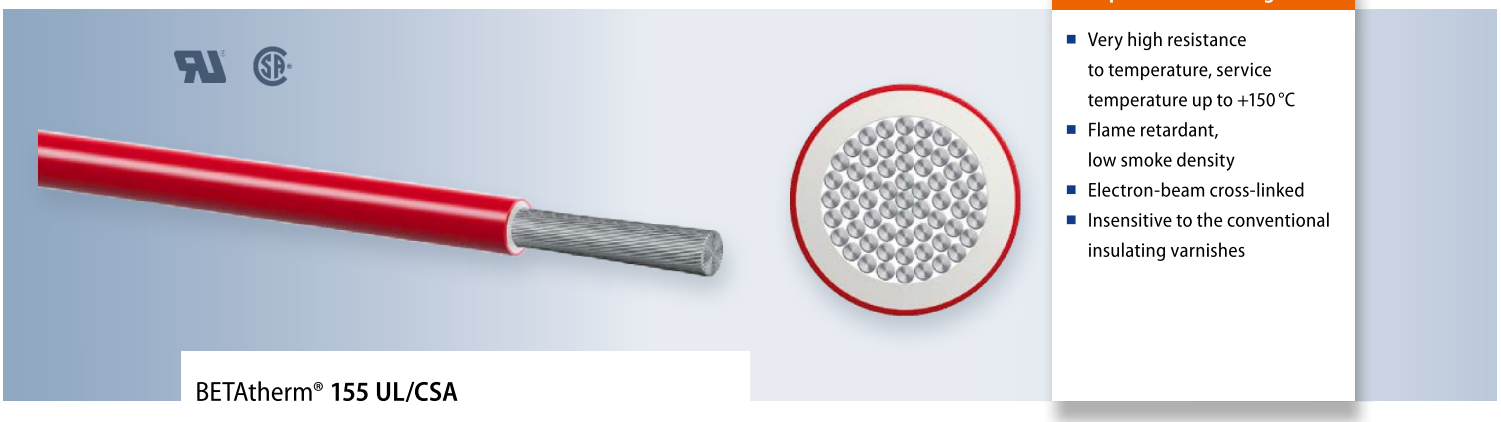
BETAtherm® 155 UL/CSA UL 3289 / CSA CL 1503 150 °C / 600 V

Single-core cable with increased resistance to temperature



BETAtherm® 155 UL/CSA

Competitive advantage

- Very high resistance to temperature, service temperature up to +150 °C
- Flame retardant, low smoke density
- Electron-beam cross-linked
- Insensitive to the conventional insulating varnishes

Application

BETAtherm® 155 UL / CSA is an electron-beam cross-linked and temperature resistant single-core cable for the internal wiring of lamps, heating appliances and electric machines (thermal class F), in apparatus, mechanical and plant engineering.

The single-core cable is insensitive to conventional insulating varnishes and enables high stove enamelling temperatures to be used during the processing.

Construction

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

Electrical properties

Nominal voltage	U_0/U	600 V
Testing voltage		5000 V

Thermal properties

Conductor temperature	fixed installation	+150 °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

- Flame retardant: EN/IEC 60332-1-2
- Resistance to temperature: IEC 60216-2, 155 °C / 5000 h

Approvals

- UL AWM 3289, file no. E146164
- CSA CL 1503

Dimensions, weights according to AWG

Cross-section		Outer ∅	Weight	Fire load	Order no. (by Core colour)											
AWG	(mm²)	mm	kg/km	kWh/m												
22	(0.38)	2.4	9	0.036	∅	210883	210885	217233	210884	211833	∅	∅	∅	∅	∅	210882
20	(0.61)	2.6	11	0.041	∅	210889	210891	217553	210890	211835	∅	211834	∅	217554	∅	210888
18	(0.96)	2.9	16	0.048	212188	210893	210895	212773	210894	211839	∅	211840	∅	219660	∅	210892
16	(1.32)	3.1	19	0.053	212389	210897	210899	212772	210898	211841	∅	∅	∅	∅	∅	210896
14	(2.09)	3.5	28	0.065	212434	210901	210903	214478	210902	211843	∅	∅	∅	∅	∅	210900

Dimensions, weights according to mm²

Cross-section		Outer ∅	Weight	Fire load	Order no. (by Core colour)											
mm²	(AWG)	mm	kg/km	kWh/m												
0.50	(22)	2.5	10	0.041	∅	218995	∅	∅	210889	∅	∅	∅	∅	∅	∅	∅
0.75	(20)	2.8	13	0.047	∅	218997	∅	∅	∅	219786	∅	∅	∅	∅	∅	∅
1	(18)	2.9	15	0.049	∅	218999	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
1.5	(16)	3.2	20	0.057	221283	219001	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
2.5	(14)	3.7	30	0.070	∅	219003	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
4	(12)	4.2	45	0.082	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
6	(10)	4.7	64	0.096	∅	217134	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
10	(8)	6.5	109	0.194	∅	219535	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
16	(6)	8.2	177	0.341	∅	217633	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
25	(4)	9.4	259	0.412	∅	218453	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
35	(2)	10.9	357	0.498	219033	219032	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
50	(1)	14.1	530	0.838	219035	219034	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
70	(2/0)	15.6	716	0.968	∅	218476	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
95	(3/0)	17.2	931	1.100	311182	219038	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
120	(4/0)	19.4	1185	1.250	∅	304059	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅