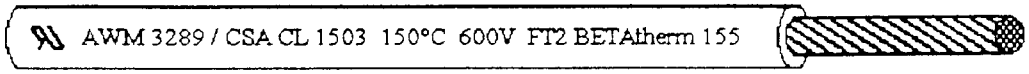
# ERBA ISOLANTI srl

Via Liguria n. 34/31 - 20068 Peschiera Borromeo (MI)
telef. 02/5530.3089 - fax 02/5530.3127


| DATA: 19 Gen 95 | **BETAtherm ® 155** | Codice TRX |
|---|---|---|
| Agg.: 24 Set 96 | Heat resistant, electron beam cross-linked | Scheda tecnica 15 4 1 GB |
| Pag: 1 / 2 | Insulated wire class "F" | Gruppo F |




electron beam cross-linked — Tinned Copper

## 1. Field of application

Insulated wire thermal class F (up to 155 °C) for motors, transformers, relays, coils, magnets, etc. Aggregate connections in the automobile industry. Wiring of control and operator's cabinets. Supply lines of high intensity lights for industry, sports facilities and roads. Connecting line for heating equipments.

## 2. Construction

Tinned stranded copper wire conductors (IEC 228, cl. 5); insulation BETAtherm 155 - electron beam cross-linked polyolefine-copolymer.

## 3. Technical details

Rated voltage

| | | |
|---|---|---|
| $U_0/U$ = | up to 0,75 mm² | 450/750 V |
| $U_0/U$ = | from 1 mm² | 600/1000 V |

Test voltage

3500 V, 50 Hz, 15 min.

Thermal properties

During soldering the electron beam cross-linked infusible insulation does not melt and makes high burn in temperatures possible pending processing. BETAtherm is insensitive varnish to all conventional insulating varnish and has a very good resistance to pressure at high temperatures.

| | |
|---|---|
| lowest ambient temp. | - 55°C |
| long-time operation temp. | + 155°C |
| short-circuit temperature | + 280°C |

Bending radius

4 x Overall diameter

Behaviour in case of fire

| | |
|---|---|
| Smoke production | average |
| Fire propagation | self extinguishing |
| Corrosive gases | minor |

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## 4. Executions and weights

### Standard execution

| Dimension mm² | Conductor design mm | Conductor diameter mm | Copper weight kg/km | Overall diameter mm | Weight kg/100 m |
|---|---|---|---|---|---|
| 0,25 | 14/0,15 | 0,66 | 2,4 | 1,55 | 4 |
| 0,33 | 19/0,15 | 0,75 | 3,2 | 1,65 | 5 |
| 0,50 | 16/0,20 | 0,95 | 4,8 | 1,9 | 7 |
| 0,75 | 24/0,20 | 1,15 | 7,2 | 2,20 | 11 |
| 1,00 | 32/0,20 | 1,35 | 9,6 | 2,50 | 14 |
| 1,50 | 30/0,25 | 1,60 | 14,4 | 3,10 | 19 |
| 2,50 | 50/0,25 | 2,10 | 24,0 | 3,80 | 30 |
| 4,00 | 56/0,30 | 2,65 | 38,4 | 4,35 | 46 |
| 6,00 | 84/0,30 | 3,60 | 57,6 | 5,40 | 71 |
| 10,00 | 80/0,40 | 4,30 | 96,0 | 6,50 | 120 |
| 16,00 | 126/0,40 | 6,00 | 153,6 | 8,40 | 180 |
| 25,00 | 196/0,40 | 7,55 | 240,0 | 10,20 | 270 |
| 35,00 | 280/0,40 | 8,80 | 336,0 | 11,60 | 370 |
| 50,00 | 399/0,40 | 10,70 | 480,0 | 13,70 | 530 |
| 70,00 | 570/0,40 | 12,60 | 672,0 | 15,80 | 730 |
| 95,00 | 475/0,50 | 14,80 | 912,0 | 18,20 | 960 |
| 120,00 | 608/0,50 | 16,60 | 1152,0 | 20,20 | 1230 |
| 150,00 | 760/0,50 | 18,30 | 1440,0 | 22,10 | 1520 |
| 185,00 | 950/0,50 | 20,80 | 1776,0 | 25,00 | 1850 |
| 240,00 | 1216/0,50 | 23,30 | 2304,0 | 27,90 | 2430 |

### Execution according to UL 3289 und CSA CL 1503

| Dimension AWG mm² | Conductor design N/mm | Conductor diameter mm | Copper weight kg/km | Overall diameter mm | Weight kg/100 m |
|---|---|---|---|---|---|
| 24 (0,24) | 19/0,127 | 0,68 | 2,3 | 2,28 | 0,6 |
| 22 (0,38) | 19/0,160 | 0,84 | 3,7 | 2,44 | 0,8 |
| 20 (0,61) | 19/0,203 | 1,06 | 5,9 | 2,66 | 1,1 |
| 18 (0,96) | 19/0,254 | 1,32 | 9,2 | 2,92 | 1,2 |
| 16 (1,34) | 19/0,300 | 1,55 | 12,9 | 3,15 | 2,0 |
| 14 (2,38) | 19/0,400 | 2,05 | 22,9 | 3,65 | 2,8 |
| 12 (3,31) | 65/0,254 | 2,51 | 31,8 | 4,10 | 4,5 |
| 10 (5,26) | 105/0,254 | 3,30 | 50,5 | 4,90 | 6,5 |
| 8 (8,50) | 168/0,254 | 4,60 | 81,6 | 7,00 | 12,3 |
| 6 (13,40) | 266/0,254 | 5,60 | 128,6 | 8,80 | 19 |
| 4 (21,20) | 420/0,254 | 7,00 | 203,5 | 10,20 | 28 |
| 2 (33,60) | 665/0,254 | 8,70 | 322,6 | 11,90 | 37 |
| 1 (42,30) | 836/0,254 | 9,80 | 406,1 | 14,20 | 49 |
| 0 (53,90) | 1064/0,254 | 11,00 | 517,4 | 15,40 | 57 |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |