

TRI-RATED CONTROL AND SWITCHGEAR CABLE

UL recognized, CSA Certified, to BS6231 600/1000V rated

Application

These cables are suitable for internal wiring of appliances and switch, control, metering and instrument panels of switchgear, etc.

Construction

Flexible plain copper conductor, heat-resisting PVC insulated (105 Deg C) complete with identification printing as follows:

“ AWG size, UL style number, 105 Deg C, 600 volt. VW-1, AWM, CSA Type TEW 105 Deg C, BS 6231 85 Deg C and size in mm2.”

Range & Dimensions

SIZE MM2	STRANDING MM	SIZE AWG	UL STYLE NUMBER	NOMINAL OVERALL DIAMETER MM	WEIGHT KG/KM
0.5	16/0.20	22	1015	2.6	12
0.75	24/0.20	20	1015	2.8	15
1	32/0.20	18	1015	3	18
1.5	30/0.25	16	1015	3.3	23
2.5	50/0.25	14	1015	3.7	34
4	56/0.30	12	1015	4.4	50
6	84/0.30	10	1015	5.1	71
10	80/0.40	8	1028	6.9	123
16	126/0.40	6	1283	8.6	209
25	196/0.40	4	1283	10.5	296
35	276/0.40	2	1283	11.9	400
50	396/0.40	1	1284	14.4	582
70	360/0.50	2/0	1284	16.7	796
95	475/0.50	3/0	1284	19	1025
120	608/0.50	4/0	1284	20.5	1282
150	756/0.50	MCM300	104	23.14	1627
185	925/0.50	MCM350	104	25.4	1959
240	1221/0.50	MCM500	104	28.66	2254
300	1525/0.50	MCM600	1015	31.5	3157
400	2013/0.50	MCM800	1284	36	4051

Current Ratings

The table below lists the full Thermal current ratings which will raise the Conductor temperature to 85 Deg C when one cable is installed in free air at an Ambient temperature of 45 Deg. C. These ratings are applicable for installations which ensure that the operation of the protective device is not greater than 1.45 times the continuous current carrying capacity of the cable. Where protection is by means of semi-enclosed fuses to BS 3036 the rating must be multiplied by a factor of 0.76.

Note: Sizes 150.0mm², 185.0mm² and 240.0mm², 300.0mm² & 400mm² are classed as dual Rated and are manufactured to UL & BS6231 only.

SIZE MM ²	RESISTANCE PER 1000M OF 20 DEG C OHM	CURRENT RATING AMP	APPROXIMATE VOLT DROP CONSTANT MV/A/M
0.5	39	11	46
0.75	26	14	31
1	19.5	17	22
1.5	13.3	21	15
2.5	7.98	30	9.1
4	4.95	41	5.7
6	3.3	53	3.8
10	1.91	75	2.2
16	1.21	100	1.4
25	0.78	136	0.89
35	0.554	167	0.64
50	0.386	204	0.45
70	0.272	259	0.32
95	0.206	321	0.24
120	0.161	374	0.19
150	0.129	429	0.15
185	0.106	496	0.13
240	0.0801	595	0.092
300	0.0641	680	0.073
400	0.06	868	@70 C 0.145

The voltage drop figures are for one cable only. For other circuit arrangements they should be adjusted as follows:

Single-phase 50Hz ac or 2-wire dc circuit's	x2
Three-phase 50Hz ac circuit's	x1.732