# TC-Control Cable, 20/10 Copper,

PE/PVC Insulated, PVC Jacketed, 600 V

# CIVIE wire and cable

A Viakable Company

#### **Features**

Jacket meets or passes Sunlight and Oil Resistance I Test, per UL 1277.

Jacket is flame retardant.

### **Application**

Control cable circuits for utilities systems, industrial plants and for general purpose or applications.

Suitable for the operation and interconnection of protective devices.

May be used in open air, in ducts and conduit, wet and dry locations.

#### **Standards**

ICE A S-73-5 32

NEMA WC57

Standard for Control Cables.

### **Specifications**

Maximum operating voltage:

600 volts

Maximum conductor operation temperatures:

• 75 °C wet or dry locations

# **Engineering Information**

1. Conductor: Uncoated soft annealed copper Class B or C compressed stranding per ASTM B8.

Sizes: 14 AWG - 10 AWG

- 2. Insulation: 20 mil of high molecular weight and low density polyethylene, meeting the requirements per ICEA, and ASTM Specification D-1248 for Type 1, Class A, Category 4, Grades E4 or E5.
- 3. Insulation Covering: Each individual polyethylene insulated conductor shall be covered with 10 mils of color coded polyvinyl chloride (PVC) compound, meeting the requirements per ICEA.



14 AWG – 10 AWG: Color coded per Method 1 Table E-2, without White and Green colors.

On request, Table E-1, which includes White and Green colors.

- 4. Assembly: Two conductors assembly is flat, three and more conductors cabled with moisture resistant fillers, and a suitable binder tape as required.
- 5. Jacket: A black sunlight resistant and flame retardant polyvinyl chloride (PVC) jacket.



CONTROL CABLE WITH GROUND



**Technical Data** 

### **Control Cable** 600 V

Size	Number of Strands	Insulation: PE/PVC	Nominal Insulated OD
14 AWG	19	20/10 mils	133 mils
Number of	Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight
Conductors	mil	in	lb/kft
2	45	0.36	78
3	45	0.38	97
4	45	0.42	116
5	45	0.46	135
6	45	0.50	159
7	45	0.50	177
8	60	0.61	234
9	60	0.66	248
10	60	0.65	254
12	60	0.68	294
14	60	0.71	343
15	60	0.75	374
16	60	0.75	388
19	60	0.79	434
20	60	0.87	471
24	80	0.96	606
25	80	0.99	627
26	80	0.99	636
30	80	1.02	696
37	80	1.10	835

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.

Ampacities: Refer to beginning of section.



**Technical Data** continued

### **Control Cable** 600 V

Size	Number of Strands	Insulation: PE/PVC	Nominal Insulated OD
12 AWG	7	20/10 mil	151 mil
Number of	Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight
Conductors	mil	in	lb/kft
2	45	0.40	102
3	45	0.42	130
4	45	0.46	157
5	45	0.50	184
6	60	0.58	235
7	60	0.58	261
8	60	0.63	318
9	60	0.67	339
10	60	0.73	348
11	60	0.75	402
12	60	0.75	406
14	60	0.79	475
15	80	0.88	552
16	80	0.88	574
18	80	0.92	640
19	80	0.92	644
20	80	0.97	696
25	80	1.10	885
27	80	1.10	867
37	80	1.22	1172

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Ampacities: Refer to beginning of section.

CME Wire and Cable | 495 Horizon Drive NE, Suite 100, Suwanee, Georgia 30024 | www.cmewire.com | 770.623.0001



### **Technical Data continued**

## **Control Cable** 600 V

Size	Number of Strands	Insulation: PE/PVC	Nominal Insulated OD
10 AWG	7	20/10 mil	175 mil
Number of	Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight
Conductors	mil	in	lb/kft
2	45	0.45	139
3	45	0.47	180
4	45	0.55	221
5	60	0.60	277
6	60	0.65	328
7	60	0.65	368
8	60	0.71	447
9	60	0.76	478
10	60	0.82	494
11	80	0.90	605
12	80	0.90	614
15	80	0.99	780
18	80	1.04	910
19	80	1.04	919
20	80	1.09	992
25	80	1.24	1239
30	80	1.29	1400
37	80	1.39	1696

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.

Ampacities: Refer to beginning of section.