

# TC-TFN/TFFN Copper, PVC/Nylon Insulated

PVC Jacketed, 600 V

**CME**<sup>®</sup>  
wire and cable

A Viakable Company

## Features

UL Listed as TC.

Jacket is rated Sunlight Resistance and Oil Resistance I.

Meets following 70,000 Btu flame tests:

- ICEA T-30-520

Single conductors are rated TFN or TFFN.

*On request, can have overall shield. A metal laminated shield tape with drain will be used for conductor sizes smaller than 6 AWG.*

## Application

These cables are specifically approved for power, control, lighting and signal circuits, in manufacturing, industrial and commercial installations.

For use in accordance with NEC, Article 336, in cable trays, in raceways, or where supported in outdoor locations supported by a messenger wire.

In cable tray in hazardous (classified) locations Class I, Division 2 and also as Class I circuits per Article 725 per National Electric Code (NEC).

## Standards

UL 1277

Electrical power and control tray cables with optional Optical-fiber members.

UL 66

Fixture wires.

ICE A S-73-5 32

NEMA WC57

Standard for Control Cables.

## Specifications

Maximum operating voltage:

- 600 volts

Maximum conductor operation temperatures:

- 90 °C dry

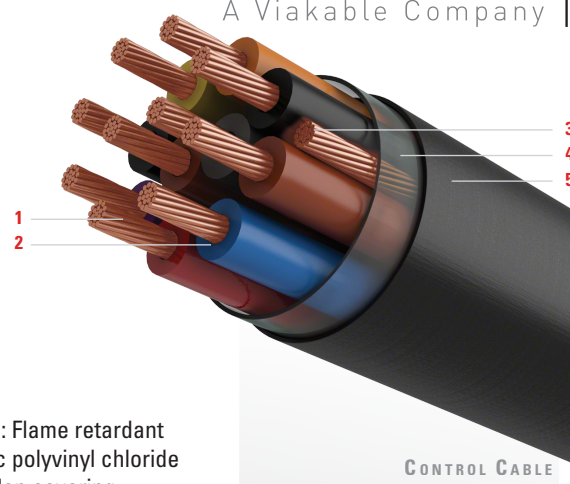
## Engineering Information

### 1. Conductor:

**TFN:** Soft annealed uncoated copper compressed stranding Class B per ASTM B8.

**TFFN:** Soft annealed uncoated copper flexible strand per ASTM B174.

**Sizes:** 18 AWG and 16 AWG.



**2. Insulation :** Flame retardant thermoplastic polyvinyl chloride (PVC) and nylon covering.

### Conductor Identification ICEA:

Color coded per Method 1 Table E-2, **without White and Green colors.**

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

### 3. Grounding (Optional):

One bare or one or more insulated conductors.

**4. Assembly:** Phase and optional grounding conductor(s) cabled with non hygroscopic fillers, as required and binder tape.

**5. Jacket:** Black sunlight resistant and flame retardant polyvinyl chloride (PVC) compound.

Technical Data

TFN/TFFN 600 V

Size	Number of Strands	Insulation: PVC/Nylon	Nominal Insulated OD
18 AWG	16	15/5 mil	77 mil
Number of Conductors	Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight
	mil	in	lb/kft
2 Flat	45	0.18 x 0.27	34
3	45	0.29	46
4	45	0.31	56
5	45	0.33	67
6	45	0.36	80
7	45	0.36	83
8	45	0.41	106
9	45	0.45	111
10	45	0.45	115
12	45	0.46	131
15	45	0.51	165
16	45	0.51	168
18	60	0.56	205
19	60	0.56	209
20	60	0.59	226
24	60	0.64	271
42	60	0.79	423

Size	Number of Strands	Insulation: PVC/Nylon	Nominal Insulated OD
16 AWG	19	15/5 mil	88 mil
Number of Conductors	Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight
	mil	in	lb/kft
2 Flat	45	0.19 x 0.29	44
3	45	0.31	59
4	45	0.34	72
5	45	0.36	89
6	45	0.39	105
7	45	0.39	111
8	45	0.45	141
9	45	0.49	148
10	45	0.49	154
12	45	0.51	178
14	60	0.56	220
15	60	0.59	242
16	60	0.59	248
18	60	0.62	277
19	60	0.62	283
20	60	0.65	306
24	60	0.71	369
26	60	0.74	381
30	60	0.76	424
33	60	0.79	463
37	60	0.82	509
47	80	0.97	679
50	80	1.00	722

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.