

# CUPIC-F®

## RDUP PE-39



### SPECIFICATIONS

<b>Conductor</b>	Solid annealed copper
<b>Insulation</b>	Solid polyolefin; color coded in accordance with industry standards
<b>Twisted Pairs</b>	Individual insulated conductors; twisted into pairs with varying lay lengths; specific color combinations provide pair identification
<b>≤ 25-Pair Core</b>	Pairs are assembled into a cylindrical core
<b>&gt; 25-Pair Core</b>	Cables larger than 25-pair are assembled into units, which are then used to assemble the core; units are identifiable using color-coded binders
<b>Filling Compound</b>	80°C ETPR compound, completely filling the interstices between the pairs and under the core wrap
<b>Core Wrap</b>	Non-hygroscopic, dielectric tape applied over the core
<b>Shield</b>	Corrugated, 5 mil copper tape is applied longitudinally with an overlap; shield interfaces are flooded
<b>Jacket</b>	Black, polyethylene
<b>Jacket Marking</b>	Identifying information includes a telephone handset, cable code, pair count, AWG, date of manufacture and sequential length markings at 2 foot intervals
<b>Standards Compliance</b>	ANSI/ICEA S-84-608-2011 RDUP 7 CFR 1755.390 (PE-39) RoHS-compliant

### PRODUCT DESCRIPTION

CUPIC-F® Cables are designed for use in low risk duct or direct burial applications. CUPIC-F may be used aerially, but must be attached to a support strand.

### APPLICATIONS

- Low risk direct burial
- Underground conduit
- Lashed aerial

### FEATURES

- Twisted into pairs with varying lay lengths
- Core wrap
- Filled core
- Fully flooded shield interfaces
- Black, polyethylene jacket

### BENEFITS

- Minimizes crosstalk
- Provides thermal protection
- Moisture resistant
- Inhibits corrosion and water migration
- Provides a tough, protective covering designed to withstand exposure to direct sunlight, atmospheric temperature changes and stresses expected in standard installations

### ELECTRICAL SPECIFICATIONS

Number of Pairs	Average Mutual Capacitance @ 1,000 Hz nF/mile (nF/km)	Capacitance Unbalance Pair to Pair @ 1 kHz		Capacitance Unbalance Pair to Ground @ 1 kHz	
		Maximum Individual pF @ 1 kft (pF @ 1 km)	Maximum RMS pF @ 1 kft (pF @ 1 km)	Maximum Individual pF @ 1 kft (pF @ 1 km)	Maximum Average pF @ 1 kft (pF @ 1 km)
12 or less	83 ± 7 (52 ± 4)	80 (145)	-	800 (2,625)	-
Over 12	83 ± 4 (52 ± 2)	80 (145)	25 (45)	800 (2,625)	175 (574)

Conductor Size AWG (mm)	Minimum Insulation Resistance @ 68°F (20°C) gigohm-mile (gigohm-km)	Maximum Average Attenuation* 772 kHz @ 68°F (20°C) dB/kft (dB/km)	Maximum Conductor Resistance @ 68°F (20°C) Ohms/sheath mile (km)	DC Resistance Unbalance Maximum %		Dielectric Strength DC Potential - Volts	
				Average	Individual Pair	Conductor to Conductor	Conductor to Shield
19 (0.90)	1.0 (1.6)	2.8 (9.2)	45.0 (28.0)	1.5	5.0	7,000	15,000
22 (0.64)	1.0 (1.6)	4.0 (13.1)	91.0 (56.5)	1.5	5.0	5,000	15,000
24 (0.51)	1.0 (1.6)	5.0 (16.4)	144.0 (89.5)	1.5	5.0	4,000	15,000

\*For cables of 12-pair or less, the maximum average attenuation may be increased by 10% over the values shown.

#### Minimum Near End Crosstalk (NEXT) @ 772 kHz

PSWUNEXT Mean (dB)	47
PSWUNEXT Worst Pair (dB)	42

#### Minimum Far End Crosstalk (FEXT) @ 772 kHz

Conductor Size (AWG)	19	22	24
PSELFEXT Mean (dB/kft)	51	49	49
PSELFEXT Worst Pair (dB/kft)	45	43	43



## PART NUMBERS AND PHYSICAL CHARACTERISTICS

Part Number	Pair Count	AWG (mm)	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Standard Length ft (m)	Approx. Shipping Weight lbs (kg)	Reel Size F x T x D in
04-028-04	12	19 (0.90)	0.69 (18)	255 (380)	5,000 (1,524)	1,440 (655)	46 x 25 x 20
04-031-04	25	19 (0.90)	0.92 (23)	470 (700)	5,000 (1,524)	2,720 (1,235)	65 x 30 x 32
04-034-04	50	19 (0.90)	1.22 (31)	845 (1,260)	5,000 (1,524)	4,925 (2,235)	78 x 40 x 39
04-038-04	100	19 (0.90)	1.69 (43)	1,620 (2,410)	2,500 (762)	4,750 (2,155)	78 x 40 x 39
04-057-04	6	22 (0.64)	0.43 (11)	95 (140)	5,000 (1,524)	540 (245)	36 x 18 x 14
04-059-04	12	22 (0.64)	0.53 (14)	145 (215)	5,000 (1,524)	835 (380)	44 x 18 x 20
04-062-04	25	22 (0.64)	0.68 (17)	255 (380)	5,000 (1,524)	1,440 (655)	46 x 25 x 20
04-065-04	50	22 (0.64)	0.89 (23)	450 (670)	5,000 (1,524)	2,495 (1,130)	58 x 25 x 20
04-069-04	100	22 (0.64)	1.19 (30)	815 (1,215)	5,000 (1,524)	4,690 (2,125)	72 x 35 x 36
04-073-04	200	22 (0.64)	1.63 (41)	1,550 (2,305)	2,500 (762)	4,490 (2,035)	72 x 35 x 36
04-075-04	300	22 (0.64)	1.97 (50)	2,270 (3,380)	2,500 (762)	6,375 (2,890)	78 x 40 x 39
04-077-04	400	22 (0.64)	2.23 (57)	2,960 (4,405)	1,250 (381)	4,315 (1,955)	72 x 35 x 36
04-081-04	600	22 (0.64)	2.72 (69)	4,385 (6,525)	1,250 (381)	6,280 (2,850)	84 x 40 x 42
04-092-04	6	24 (0.51)	0.38 (9.7)	70 (105)	5,000 (1,524)	415 (190)	36 x 18 x 14
04-094-04	12	24 (0.51)	0.46 (12)	110 (165)	5,000 (1,524)	660 (300)	44 x 18 x 20
04-097-04	25	24 (0.51)	0.58 (15)	180 (270)	5,000 (1,524)	1,065 (485)	46 x 25 x 20
04-100-04	50	24 (0.51)	0.74 (19)	305 (455)	5,000 (1,524)	1,730 (785)	52 x 25 x 20
04-104-04	100	24 (0.51)	0.98 (25)	550 (820)	5,000 (1,524)	3,120 (1,415)	65 x 30 x 32
04-108-04	200	24 (0.51)	1.32 (34)	1,015 (1,510)	5,000 (1,524)	5,775 (2,620)	78 x 40 x 39
04-110-04	300	24 (0.51)	1.59 (40)	1,470 (2,190)	2,500 (762)	4,290 (1,945)	72 x 35 x 36
04-112-04	400	24 (0.51)	1.79 (46)	1,905 (2,835)	2,500 (762)	5,460 (2,475)	78 x 40 x 39
04-116-04	600	24 (0.51)	2.18 (55)	2,815 (4,190)	1,250 (381)	4,135 (1,875)	72 x 35 x 36
04-118-04	900	24 (0.51)	2.63 (67)	4,135 (6,155)	1,250 (381)	5,870 (2,660)	78 x 40 x 39
04-120-04	1,200	24 (0.51)	3.00 (76)	5,420 (8,065)	1,000 (305)	6,120 (2,775)	78 x 40 x 39
04-121-04	1,500	24 (0.51)	3.35 (85)	6,730 (10,015)	1,000 (305)	7,905 (3,585)	96 x 40 x 48
04-124-04	1,800	24 (0.51)	3.63 (92)	7,990 (11,890)	1,000 (305)	9,165 (4,155)	96 x 40 x 48

**FOR EXTREME RISK ENVIRONMENTS**

For extreme direct burial or lashed aerial installations, this cable is available with the +M feature. See the "Mechanical Protection (+M) for Extreme Risk Environments" in the "Technical Information" section for more information.