

# CUPIC®-F (RDUP PE-39)



## Product Description

CUPIC-F cables are designed for use in duct or direct burial applications where protection from moisture is required and copper shielding is desired. CUPIC-F may be used aerially, but must be attached to a support strand.

## Physical Description

- **CONDUCTORS:** Solid annealed copper in 19, 22 and 24 AWG.
- **INSULATION:** Conductors are insulated with solid polyolefin, color coded in accordance with industry standards.
- **TWISTED PAIRS:** Individual insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk and specific color combinations to provide pair identification.
- **CORE ASSEMBLY:** Cables of 25 pairs or less are assembled into a cylindrical core. Cables larger than 25 pairs are assembled into units, which are then used to assemble the core. Units are individually identifiable by color coded unit binders.
- **FILLING COMPOUND:** The core assembly is filled with an 80°C ETPR compound, completely filling the interstices between the pair and under the core wrap.
- **CORE WRAP:** A non-hygroscopic, dielectric tape is applied over the core assembly to provide thermal protection for the core.
- **SHIELDING:** A corrugated, 5-mil copper tape is applied longitudinally with an overlap. The shield interfaces are flooded.
- **JACKET:** A black, linear low-density polyethylene jacket is applied overall. The jacket provides a tough protective covering designed to withstand exposure to direct sunlight, atmospheric temperature changes and stresses expected in standard installations.
- **JACKET MARKINGS:** Information, such as manufacturer's identification, pair count, AWG, product identification, sequential footage and a telephone handset is printed at 2 ft. intervals on the cable jacket.

## Electrical Specifications

### Average Mutual Capacitance at 1000 Hz

Total Number of Pairs	nF/mile	nF/km
12 or less	83 ± 7	52 ± 4
Over 12	83 ± 4	52 ± 2

Conductor Size		Minimum Insulation Resistance 68° F (20° C)		Max Average Attenuation 772kHz @ 68°F (20° C)		Max Conductor Resistance @ 68°F (20° C) Ohms/sheath		Resistance Unbalance Maximum %		Dielectric Strength DC Potential – Volts	
AWG	mm	gigohm-mile	gigohm-km	dB/kft	dB/km	mile	km	Avg.	Individual Pair	Cdr. to Cdr.	Cdr. to Grnd.
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	56.6	1.5	5.0	5,000	15,000
24	0.50	1.0	1.6	5.0	16.4	144.0	89.5	1.5	5.0	4,000	15,000

Minimum Near End Crosstalk (NEXT) at	150 kHz		772 kHz
P.S.WUNEXT mean (dB)	58		47
P.S.WUNEXT worst pair (dB)	53		42
Minimum Far End Crosstalk at 150 kHz			
Conductor size (AWG)	19	22	24
P.S. ELFEXT mean (dB/kft)	65	63	63
P.S. ELFEXT worst pair (dB/kft)	59	57	57
Minimum Far End Crosstalk at 772 kHz			
Conductor size (AWG)	19	22	24
P.S. ELFEXT mean (dB/kft)	51	49	49
P.S. ELFEXT worst pair (dB/kft)	45	43	43

Capacitance Unbalance Pair to Pair @ 1 kHz	Maximum Individual		Maximum RMS	
Pairs	pF/kft	pF/km	pF/kft	pF/km
12 or less	80	145	-	-
more than 12	80	145	25	45

Capacitance Unbalance Pair to Ground @ 1 kHz	Maximum Individual		Maximum Avg	
Pairs	pF/kft	pF/km	pF/kft	pF/km
12 or less	800	2625	-	-
more than 12	800	2625	175	574

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

Available through **Multicom, Inc.**  
1076 Florida Central Parkway, Longwood, FL 32750

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## Part Numbers and Physical Characteristics

	Part #	Pair Count	Nom. O.D. inches (mm)	Approx. Weight lbs/kft (kg/km)	Standard Length ft (m)	Approx. Shipping Weight lbs (kg)	Reel Size FxTxD (in)
<b>19 AWG</b> <b>(0.90 mm)</b>	04-026-04	6	0.54 (14)	150 (225)	5000 (1524)	860 (390)	44 x 18 x 20
	04-028-04	12	0.69 (18)	255 (380)	5000 (1524)	1440 (655)	46 x 25 x 20
	04-031-04	25	0.92 (23)	470 (700)	5000 (1524)	2720 (1235)	65 x 30 x 32
	04-034-04	50	1.22 (31)	845 (1260)	5000 (1524)	4925 (2235)	78 x 40 x 39
	04-038-04	100	1.69 (43)	1620 (2410)	2500 (762)	4750 (2155)	78 x 40 x 39
<b>22 AWG</b> <b>(0.64 mm)</b>	04-057-04	6	0.43 (11)	95 (140)	5000 (1524)	540 (245)	36 x 18 x 14
	04-059-04	12	0.53 (14)	145 (215)	5000 (1524)	835 (380)	44 x 18 x 20
	04-062-04	25	0.68 (17)	255 (380)	5000 (1524)	1440 (655)	46 x 25 x 20
	04-065-04	50	0.89 (23)	450 (670)	5000 (1524)	2495 (1130)	58 x 25 x 20
	04-069-04	100	1.19 (30)	815 (1215)	5000 (1524)	4690 (2125)	72 x 35 x 36
	04-073-04	200	1.63 (41)	1550 (2305)	2500 (762)	4490 (2035)	72 x 35 x 36
	04-075-04	300	1.97 (50)	2270 (3380)	2500 (762)	6375 (2890)	78 x 40 x 39
	04-077-04	400	2.23 (57)	2960 (4405)	1250 (381)	4315 (1955)	72 x 35 x 36
	04-081-04	600	2.72 (69)	4385 (6525)	1250 (381)	6280 (2850)	84 x 40 x 42
	04-083-04	900	3.30 (84)	6490 (9660)	1250 (381)	9290 (4215)	96 x 40 x 48
<b>24 AWG</b> <b>(0.50 mm)</b>	04-092-04	6	0.38 (9.7)	70 (105)	5000 (1524)	415 (190)	36 x 18 x 14
	04-094-04	12	0.46 (12)	110 (165)	5000 (1524)	660 (300)	44 x 18 x 20
	04-097-04	25	0.58 (15)	180 (270)	5000 (1524)	1065 (485)	46 x 25 x 20
	04-100-04	50	0.74 (19)	305 (455)	5000 (1524)	1730 (785)	52 x 25 x 20
	04-104-04	100	0.98 (25)	550 (820)	5000 (1524)	3120 (1415)	65 x 30 x 32
	04-108-04	200	1.32 (34)	1015 (1510)	5000 (1524)	5775 (2620)	78 x 40 x 39
	04-110-04	300	1.59 (40)	1470 (2190)	2500 (762)	4290 (1945)	72 x 35 x 36
	04-112-04	400	1.79 (46)	1905 (2835)	2500 (762)	5460 (2475)	78 x 40 x 39
	04-116-04	600	2.18 (55)	2815 (4190)	1250 (381)	4135 (1875)	72 x 35 x 36
	04-118-04	900	2.63 (67)	4135 (6155)	1250 (381)	5870 (2660)	78 x 40 x 39
	04-120-04	1200	3.00 (76)	5420 (8065)	1000 (305)	6120 (2775)	78 x 40 x 39
	04-121-04	1500	3.35 (85)	6730 (10015)	1000 (305)	7905 (3585)	96 x 40 x 48
	04-124-04	1800	3.63 (92)	7990 (11890)	1000 (305)	9165 (4155)	96 x 40 x 48

### Standards Compliance:

ANSI/ICEA S-84-608-2002; RDUP 7 CFR 1755.390 (PE-39), RoHS compliant

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