CASPIC® – F (RUS PE-39)

Product Description

• CASPIC®-F cables are designed for use in duct or direct burial applications where protection from moisture is required. CASPIC®-F may be used aerially, but must be attached to a support strand (messenger). CASPIC®-F cables are recommended for use in high-risk areas where additional mechanical or rodent protection is required.

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 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 pairs and under the core wrap.
• CORE WRAP: A non-hygroscopic, dielectric tape is applied over the core assembly to provide protection for the core.
• SHIELDING: The dual shielding system consists of two metal tapes. Inner: A corrugated, copolymer coated, 8-mil aluminum tape is applied directly over the core wrap. The aluminum tape does not butt or overlap at any point along the length of the cable.
Outer: A corrugated, copolymer coated, 6-mil steel tape is applied directly over the aluminum and overlaps. 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 and a telephone handset is printed at 2 ft. intervals on the cable jacket. Sequential footage markings are printed at alternate 2 ft. intervals.
• OPTIONAL DESIGNS: CASPIC®-F is available with an internal screen for use with T-Carrier systems.
• CASPIC®-F is available with mechanical protection.

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 @ 68° F (20° C) 772 kHz		Max Conductor Resistance @ 68°F (20° C) Ohms		Resistance Unbalance Maximum		Dielectric Strength DC Potential – Volts Minimum	
AWG	mm	gigohm/ mile	gigohm/ km	dB/kft	dB/km	mile	km	Ave %	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

Pairs	Maximum Individual pF/kft	Maximum Individual pF/km	Maximum RMS pF/kft	Maximum RMS pF/km
12 or less	80	145	—	—
more than 12	80	145	25	45

Capacitance Unbalance Pair to Ground

Pairs	Maximum Individual pF/kft	Maximum Individual pF/km	Maximum Average pF/kft	Maximum Average pF/km
12 or less	800	2625	—	—
more than 12	800	2625	175	574

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Part Numbers and Physical Characteristics

Part #	Pair Count	Nominal O.D.	Approx. Weight	Standard Length	Approx. Shipping Weight	Standard Reel Size
		in (mm)	lbs/kft (kg/km)	ft (m)	lbs (kg)	F x T x D
19 AWG (0.90 mm)						
04-026-94	6	0.58 (15)	180 (268)	5000 (1525)	1065 (483)	46 x 25 x 20
04-028-94	12	0.73 (19)	290 (431)	5000 (1525)	1655 (751)	52 x 25 x 20
04-031-94	25	0.96 (24)	520 (774)	5000 (1525)	2890 (1311)	62 x 30 x 24
04-034-94	50	1.27 (32)	925 (1376)	5000 (1525)	5325 (2415)	78 x 40 x 39
04-038-94	100	1.74 (44)	1725 (2567)	2500 (760)	5010 (2272)	78 x 40 x 39
22 AWG (0.64 mm)						
04-057-94	6	0.47 (12)	115 (171)	5000 (1525)	685 (311)	44 x 18 x 20
04-059-94	12	0.57 (14)	175 (260)	5000 (1525)	1040 (472)	46 x 25 x 20
04-062-94	25	0.72 (18)	295 (439)	5000 (1525)	1680 (762)	52 x 25 x 20
04-065-94	50	0.94 (24)	505 (751)	5000 (1525)	2815 (1277)	62 x 30 x 24
04-069-94	100	1.23 (31)	885 (1317)	5000 (1525)	5125 (2324)	78 x 40 x 39
04-073-94	200	1.68 (43)	1655 (2462)	2500 (760)	4835 (2193)	78 x 40 x 39
04-075-94	300	2.02 (51)	2400 (3571)	2500 (760)	6795 (3082)	84 x 40 x 42
04-077-94	400	2.29 (58)	3110 (4627)	1250 (380)	4510 (2045)	72 x 36 x 36
04-081-94	600	2.88 (73)	4803 (7154)	1250 (380)	6801 (3088)	84 x 40 x 42
04-083-94	900	3.36 (85)	6725 (10006)	1250 (380)	9580 (4345)	96 x 40 x 48
24 AWG (0.50 mm)						
04-092-94	6	0.42 (11)	90 (134)	5000 (1525)	515 (234)	36 x 18 x 14
04-094-94	12	0.5 (13)	130 (193)	5000 (1525)	760 (345)	44 x 18 x 20
04-097-94	25	0.62 (16)	210 (312)	5000 (1525)	1215 (551)	46 x 25 x 20
04-100-94	50	0.78 (20)	345 (513)	5000 (1525)	1970 (893)	58 x 25 x 20
04-104-94	100	1.02 (26)	605 (900)	5000 (1525)	3315 (1503)	62 x 30 x 24
04-108-94	200	1.37 (35)	1100 (1637)	5000 (1350)	6200 (2812)	78 x 40 x 39
04-110-94	300	1.64 (42)	1575 (2343)	2500 (760)	4560 (2068)	72 x 36 x 36
04-112-94	400	1.85 (47)	2030 (3020)	2500 (760)	5775 (2619)	78 x 40 x 39
04-116-94	600	2.23 (57)	2960 (4404)	1250 (380)	4325 (1961)	72 x 36 x 36
04-118-94	900	2.69 (68)	4325 (6435)	1250 (380)	6205 (2814)	84 x 40 x 42
04-120-94	1200	3.06 (78)	5640 (8392)	1000 (305)	6340 (2875)	78 x 40 x 39
04-121-94	1500	3.41 (87)	6985 (10394)	1000 (305)	7965 (3610)	96 X 40 X 48

Standards Compliance:
ANSI/ICEA S-84-608-2002; RUS 7 CFR 1755.390 (PE-39).