REINFORCED SELF-SUPPORT
BHAP, BKMP and BKTP

Belden Wire and Cable Corporation

Product Description

Reinforced Self-Support Cable is a solid insulated, double jacket, armored, self-supporting air core design intended for aerial installations where hazards from squirrel attack, tree limb abrasion or lightning exist. The undulated, shielded, jacketed core is covered with a flooded steel armor, laid parallel to a flooded steel support member and jacketed in an integral extrusion to form a "figure 8" configuration. The steel strand member is readily available for gripping, pulling and tensioning using standard methods and hardware.

Applications

- Aerial installations in harsh environments

Features	Benefits
• Tightly controlled individual conductor dimensions	• Limits resistance unbalance of paired conductors
• Specially designed pair twist lays	• Minimizes crosstalk and meets the capacitance unbalance requirements
• Undulated core assembly	• Eliminates strain on the conductors and provides sufficient slack during installation
• Core wrap	• Protects the core and helps provide core-to-shield dielectric strength
• Inner polyethylene jacket	• Provides additional protection against mechanic damage and prevents the ingress of moisture
• Flooded steel support member	• Provides corrosion protection
• Polyethylene jacket	• Provides tough, flexible, protective covering that withstands exposure to sunlight, atmospheric temperatures and stresses

Specifications

Conductor	Solid annealed copper
Insulation	Solid polyolefin in distinctive colors to facilitate pair identification
≤ 25-Pair Core	Pairs are combined into a cylindrical core
> 50-Pair Core	Multiples of 25-pair groups are assembled to form the final cable core; each group is identified by color coded non-hygroscopic binders
Core Wrap	Non-hygroscopic dielectric material
Shield	Corrugated, 8 mil aluminum tape is applied longitudinally over the core wrap
Inner Jacket	Polyethylene helps protect the core and shield against mechanical damage and ingress of moisture
Armor	Corrugated bare 6 mil steel tape is applied longitudinally over the inner jacket and the inner and outer surfaces of the steel are flooded
Support Member	0.25 inch, 7-strand Extra High-Strength (EHS) galvanized steel member, fully flooded, serves as the support member and is an integral part of the sheath
Outer Jacket	Black polyethylene
Jacket Marking	Manufacturer's identification, pair count, AWG, product identification, sequential footage and a telephone handset printed at 2 foot intervals
Standards Compliance	Telcordia GR-421-CORE Issue 2 RoHS-compliant

Electrical Specifications

Number of Pairs	Average Mutual Capacitance @1000 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)
Over 12	83 + 4, - 5 (52 ± 2, - 3)	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
22 (0.64)	1.0 (1.6)	4.7 (15.4)	91 (56.5)	1.5	5.0	4,000	10,000
24 (0.51)	1.0 (1.6)	5.9 (19.4)	144 (89.5)	1.5	5.0	3,000	10,000
26 (0.40)	1.0 (1.6)	7.4 (24.3)	232 (144.2)	1.5	5.0	2,400	10,000

	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)	22	24	26
PSELFEXT Mean (dB/kft)	49	49	47
PSELFEXT Worst Pair (dB/kft)	43	43	43

Part Numbers and Physical Characteristics

Part Number	Product Code	Pair Count	AWG (mm)	Nominal Diameter		Approx. Weight lbs/kft (kg/km)	Standard Length ft (m)	Approx. Shipping Weight lbs (kg)	Steel Reel Size F x T x D in
				Cable only in (mm)	W/Messenger in (mm)				
120-062-20	BHAP	25	22 (0.64)	0.87 (22)	1.33 (34)	455 (675)	10,000 (3,048)	4,200 (1,905)	83 x 40 x 42
120-065-20	BHAP	50	22 (0.64)	1.05 (27)	1.51 (38)	625 (930)	7,500 (2,286)	4,465 (2,025)	83 x 40 x 42
120-069-20	BHAP	100	22 (0.64)	1.30 (33)	1.76 (45)	940 (1,400)	5,000 (1,524)	4,475 (2,029)	83 x 40 x 42
120-097-20	BKMP	25	24 (0.51)	0.83 (21)	1.29 (33)	400 (595)	10,000 (3,048)	4,345 (1,971)	83 x 40 x 42
120-100-20	BKMP	50	24 (0.51)	0.94 (24)	1.40 (36)	510 (760)	10,000 (3,048)	5,445 (2,469)	83 x 40 x 42
120-104-20	BKMP	100	24 (0.51)	1.13 (29)	1.59 (40)	715 (1,065)	5,000 (1,524)	4,145 (1,880)	83 x 40 x 42
120-108-20	BKMP	200	24 (0.51)	1.42 (36)	1.88 (48)	1,120 (1,665)	4,000 (1,220)	4,995 (2,265)	83 x 40 x 42
120-[illegible]-20	BKTP	300	26 (0.40)	1.35 (34)	1.81 (46)	1,045 (1,555)	3,300 (1,010)	4,110 (1,864)	83 x 40 x 42