SPEC 83250 Stock #: TBA

Quadruplex LLDPE Service Drop. ACSR Neutral - Messenger

Aluminum Conductors With Linear Low Density Polyethylene Insulation.



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Conductors are stranded, compressed 1350-H19 aluminum

2. Messenger: ACSR Neutral

3. **Insulation:** Linear Low Density Polyethylene (LLDPE)

APPLICATIONS AND FEATURES:

Used to supply power, usually from a pole-mounted transformer, to the user's service head where connection to the service entrance cable is made. To be used at voltages of 600 volts phase-to-phase or less and at conductor temperatures 75°C for Linear Low Density Polyethylene (LLDPE) insulated conductors.

SPECIFICATIONS:

- ASTM B230 Aluminum, 1350-H19 Wire for Electrical Purposes
- ASTM B231 Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors
- ASTM B400 Standard Specification for Compact Round Concentric-Lay-Stranded, Aluminum 1350 Conductors
- ASTM B901 Standard Specification for Compressed Round Stranded Aluminum Conductors Using Single Input Wire Construction. (The number of strands for both phase and neutral may differ)
- ICEA S-76-474 Standard for Neutral-Supported Power Cable Assemblies with Weather-Resistant Extruded Insulation Rated 600V







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Table 1 – Weights and Measurements

Code Word	Phase Cond. Size	Phase Strand	Dia. Over Phase Conductor	Phase Insul. Thickness	Dia. Over Phase Insulation	Neutral Cond. Size	Approx. OD	Approx. Weight
	AWG/Kcmil	No.	inch	mil	inch	AWG/Kcmil	inch	lb/1000ft
Morgan	4	1	0.204	45	0.294	4	0.71	217

All dimensions are nominal and subject to normal manufacturing tolerances

Table 2 – Electrical and Engineering Data

Code Word	Phase Cond. Size	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	GMR	Allowable Ampacity In Air 90°C
	AWG/Kcmil	Ω/1000ft	Ω/1000ft	Ω/1000ft	ft	Amp
Morgan	4	0.41	0.5258	0.034	0.0066	80

Notes:

- 1. DC resistances include a 1% length factor for plexing.
- 2. Inductive reactance assumes the neutral is carrying current.
- 3. Phase conductors assumed to be reverse lay stranded, compressed construction.
- 4. Phase spacing assumes cables are touching.
- 5. Resistances shown are for the phase conductor only.
- 6. Ampacity based on conductor temperature of 75°; ambient temperature of 40°C; emissivity 0.9; 2 ft./sec. wind in sun.

Size	Code Word	OD (inches)
#6	Turkey	0.198
#4	Swan	0.250
#2	Sparrow	0.316
1/0	Raven	0.398
2/0	Quail	0.447
3/0	Pigeon	0.502
4/0	Penguin	0.684
336.4	Merlin	0.563





^{1.} The actual number of strands may differ for single input wire per ASTM B901