

1. CONDUCTOR

Material: See Table 1
 Construction: See Table 1
 Diameter: See Table 1

2. INSULATION

Material: Radiation Crosslinked Polyethylene
 Wall thickness
 Nominal: 0.019"
 Minimum: 0.015"
 Min Average: 0.017"
 Diameter: See Table 1
 Color: See Table 2
 Marking: RU AWM 3239 105C 4 KVDC VW-1 JUDD
 WIRE 22 AWG ROHS

3. PHYSICAL CHARACTERISTICS

Temperature rating: 105 °C
 Voltage rating: 4.0 kV_{dc}
 Weight: See Table 1

4. PERFORMANCE PROPERTIES

Mechanical
 Tensile Strength – UL 1581
 Unaged 1500 psi, min
 Aged (168 hrs @ 136°C) 70% retention, min
 Elongation – UL 1581
 Unaged 150%, min
 Aged (168 hrs @ 136°C) 50% retention, min
 Deformation
 UL (1hr @ 121°C, 250g)
 50% thickness decrease, max

PERFORMANCE PROPERTIES (cont'd)

Thermal
 Heat Shock – UL 758
 (1 hr @ 136°C) No Cracks
 Shrinkage
 UL 758 (18 hrs @ 136°C) Less than 3.0mm
 Flame – UL 758
 VW-1 60 sec, max

Electrical
 High Voltage Dielectric Test (UL 758 Method I)
 Unaged 30 min @ 8.0 kV_{DC}
 Aged (168 hrs @ 136°C) 30 min @ 8.0 kV_{DC}
 High Voltage Dielectric Test (UL 758 Method II)
 Unaged 7 hrs @ 5.0 kV_{DC}
 Aged (168 hrs @ 136°C) 7 hrs @ 5.0 kV_{DC}
 High Voltage Cut-Through
 UL 758 7 hrs @ 6.0 kV_{DC}
 Spark Test – UL 758 4000 V_{ac}

Chemical
 Ozone Resistance No Cracks
 (3 hrs @ 25°C, 0.010% to 0.015% Concentration)

Environmental
 Directive 2002/95/EC(RoHS) Complies

5. REFERENCE SPECIFICATIONS

UL AWM Style 3239
 UL Standard 758
 UL Standard 1581
 The European Parliament and the Council of the
 European Union Directive 2002/95/EC

Table 1

Conductor				Insulation		
AWG	Material	Construction	Diameter (in), nom	Diameter (nom)	Diameter (Max)	Weight Lbs/kft (nom)
24	TOC	7/32	0.025"	0.063"	0.066"	3.65
22	TPC	19/34	0.030"	0.068"	0.073"	4.34
22	TOP	19/34	0.031"	0.069"	0.073"	4.57
22	TOC	19/34	0.031"	0.070"	0.073"	4.71
22	TPC	7/30	0.030"	0.068"	0.073"	4.25
22	TOC	7/30	0.030"	0.068"	0.073"	4.53

Table 2

Black	Brown	Red	Orange	Yellow	Green
Blue	Violet	Gray	White	Tan	Pink

Special colors and stripes available upon request



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Date	Rev	By	Appr'	ECN
06/16/06	---	EJK	FJC	---
09/17/10	C	ARJP	EJK	10-837
11/16/16	D	CJS	GT	16-1766
Customer Approval:				

Description: HIGH VOLTAGE HOOKUP, XLPE, 4kV	
Specification Number: JW1122-06	Page: 1 of 1