

1. CONDUCTOR

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

2. INSULATION

Material: Radiation Crosslinked Polyethylene
 Wall thickness
 Nominal: 0.023"
 Minimum: 0.018"
 Min Average: 0.020"
 Diameter: See Table 1
 Color: See Table 2
 Marking: RU AWM 3239 105C 4 KVDC VW-1 JUDD
 WIRE XX AWG ROHS

XX denotes AWG size

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 5.0 kV_{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"	0.071"	0.073"	4.25
22	TPC	19/34	0.030"	0.076"	0.078"	5.04
22	TOP	19/34	0.031"	0.077"	0.079"	5.45
22	TOC	19/34	0.031"	0.077"	0.079"	5.45
22	TPC	7/30	0.030"	0.076"	0.078"	4.96
22	TOC	7/30	0.030"	0.076"	0.078"	5.12

Table 2

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

Special colors and stripes available upon request



JUDD WIRE INC.
 124 Turnpike Road
 Turners Falls, MA 01376
 (413) 863-4357

Date	Rev	By	Appr'	ECN
09/17/10	C	ARJP	EJK	10-837
11/16/10	D	CJS	GT	16-1766
04/11/22	E	GT	CNL	22-2097
Customer Approval:				

Description:
**HIGH VOLTAGE HOOKUP,
 XLPE, 4kV**

Specification Number:

JW1122-06

Page:

1 of 1