

1. CONDUCTOR

Material: Tinned Overcoat Copper
Construction: 22 AWG 7/30
Diameter: 0.030" nom

2. INSULATION

Material: Radiation Crosslinked Polyethylene
Wall thickness
Nominal: 0.067"
Minimum: 0.059"
Min Average: 0.065"
Diameter: 0.164" nom
Color: See Table 1
Marking: RU AWM 3239 105C 30 KVDC VW-1
JUDD WIRE CSA TV-30 105C XLPE FT1 22
AWG ROHS

3. PHYSICAL CHARACTERISTICS

Temperature rating: 105 °C
Voltage rating: 30.0 kV_{DC}
Weight: 16.6 lbs/kft

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
Elongation – CSA C22.2 No. 127-99
Unaged 200%, min
Aged (168 hrs @ 131°C) 100%, min
Deformation
CSA (2 1 hr Procedures @ 136°C, 500g)
35% thickness decrease, max

Thermal

Heat Shock – UL 758 & CSA C22.2 No. 127-99
(1 hr @ 136°C) No Cracks
Shrinkage
UL 758 (18 hrs @ 136°C) Less than 3.0mm
CSA C22.2 No. 127-99 (6 hrs @ 136°C)
Less than 3.2mm
Flame – UL 758 & CSA C22.2 No. 127-99
VW-1 60 sec, max
FT1 60 sec, max

PERFORMANCE PROPERTIES (cont'd)

Electrical

High Voltage Dielectric Test (UL 758 Method I)
Unaged 30 min @ 60.0 kV_{DC}
Aged (168 hrs @ 136°C) 30 min @ 60.0 kV_{DC}
High Voltage Dielectric Test (UL 758 Method II)
Unaged 7 hrs @ 37.5 kV_{DC}
Aged (168 hrs @ 136°C) 7 hrs @ 37.5 kV_{DC}
Dielectric Strength – CSA C22.2 No. 127-99
1 hr @ 75.0 kV_{DC}
High Voltage Cut-Through
UL 758 7 hrs @ 45.0 kV_{DC}
CSA C22.2 No. 127-99 7 hrs @ 45.0 kV_{DC}
Spark Test – UL 758 20.0 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
CSA C22.2 No. 127-99
The European Parliament and the Council of the
European Union Directive 2002/95/EC

Table 1

Judd Part Number	Color
V05124	Red



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

Date	Rev	By	Appr'd	ECN
03/19/07	---	EJK	GBM	---
Customer Approval:				

Description: HIGH VOLTAGE HOOKUP, XLPE, 30kV	
Specification Number: JW1150-07	Page: 1 of 2