

1. CONDUCTOR

Material: Tin Plated Copper
 Construction: See Table 1
 Diameter: See Table 1

2. INSULATION

Material: Cross-linked polyethylene
 Wall thickness: 0.013" min point, 0.015" min avg
 Diameter: See Table 1
 Color: Customer Specified
 Marking:

RU AWM 3266 125C 300V VW-1 JUDD WIRE CSA
 AWM I A/B 125C 300V FT1 M16878/15 - MM 1000
 VOLTS --- PP

MM denotes the applicable PIN per MIL-DTL-16878/15; PP denotes the applicable GE part number per General Electric specification 68A9377

3. PHYSICAL CHARACTERISTICS

Temperature rating: 125°C
 Voltage rating
 UL and CSA: 300 V
 MIL-DTL-16878: 1000 V
 Weight: See Table 1

4. PERFORMANCE PROPERTIES

Mechanical
 Tensile Strength (MIL-DTL-16878) 1800 psi, min
 Elongation (CSA C22.2 No. 210.2-M90) 150%, min

Thermal
 FT1 (CSA C22.2 No. 210.2-M90) 60 sec burn, max
 VW-1 (UL 758) 60 sec burn, max

Electrical - MIL-DTL-16878
 Spark test 5 kV
 Impulse dielectric 10 kV

5. REFERENCE STANDARDS

UL Subject 758, Style 3266
 CSA-C22.2 No. 210.2-M90
 MIL-DTL-16878
 General Electric 68A9377

Table 1

AWG Size	Conductor			Insulation		Weight (nom)
	#/ strands	Diameter (nom)		Diameter		
		Strand	Overall	Min	Max	
14	41	0.010"	0.071"	0.106"	0.110"	15.9 lb/kft
16	19	0.017"	0.056"	0.087"	0.093"	10.4 lb/kft
18	19	0.010"	0.048"	0.076"	0.082"	7.90 lb/kft
20	19	0.008"	0.038"	0.070"	0.076"	5.55 lb/kft
22	19	0.0063"	0.030"	0.060"	0.064"	3.75 lb/kft
24	19	0.005"	0.025"	0.055"	0.059"	2.72 lb/kft
24	7	0.008"	0.024"	0.054"	0.058"	2.63 lb/kft
26	7	0.0063"	0.019"	0.049"	0.053"	1.94 lb/kft



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

Date	Rev	By	Appr'd	ECN
01/28/04	---	MTG	GBM	---
03/31/05	A	EJK	GBM	05-066
Customer Approval:				

Description: HOOK-UP WIRE, XLPE, UL/CSA AWM, M16878 TRI-RATED	
Specification Number: JW1003-04	Page: 1 of 1

1. CONDUCTOR

Material: Tin Plated Copper
 Construction: See Table 1
 Diameter: See Table 1

2. INSULATION

Material: Cross-linked polyethylene
 Wall thickness: See Table 1
 Diameter: See Table 1
 Color: Customer Specified
 Marking:

- 22 AWG – 10 AWG
 RU AWM 3271 125C 600V VW-1 JUDD WIRE CSA
 AWM I A/B 125C 600V FT1 M16878/16 - MM 3000
 VOLTS --- PP
- 8 AWG – 2/0 AWG
 RU AWM 3271 125C 600V VW-1 JUDD WIRE CSA
 AWM I A/B 125C 600V FT1 --- PP

MM denotes the applicable PIN per MIL-DTL-16878/16; PP denotes the applicable GE part number per General Electric specification 68A9378

3. PHYSICAL CHARACTERISTICS

Temperature rating: 125°C
 Voltage rating
 UL and CSA: 600 V
 MIL-DTL-16878: 3000 V
 Weight: See Table 1

4. PERFORMANCE PROPERTIES

Mechanical
 Tensile Strength (MIL-DTL-16878) 1800 psi, min
 Elongation (CSA C22.2 No. 210.2-M90) 150%, min

Thermal
 FT1 (CSA C22.2 No. 210.2-M90) 60 sec burn, max
 VW-1 (UL 758) 60 sec burn, max

Electrical - MIL-DTL-16878
 Spark test 8 kV
 Impulse dielectric 12 kV

5. REFERENCE STANDARDS

UL Subject 758, Style 3271
 CSA-C22.2 No. 210.2-M90
 MIL-DTL-16878 (22 AWG – 10 AWG)
 General Electric 68A9378

Table 1

Conductor				Insulation				
AWG Size	#/ strands	Diameter (nom)		Wall thickness		Diameter		Weight (nom)
		Strand	Overall	Min any pt	Min avg	Min	Max	
2/0	329	0.0201"	0.460"	0.072"	0.080"	0.620"	0.690"	503 lb/kft
1/0	259	0.0202"	0.414"	0.072"	0.080"	0.574"	0.620"	415 lb/kft
1	224	0.0201"	0.381"	0.072"	0.080"	0.541"	0.565"	355 lb/kft
2	133	0.0227"	0.337"	0.054"	0.060"	0.457"	0.472"	260 lb/kft
4	133	0.0179"	0.260"	0.054"	0.060"	0.380"	0.396"	169 lb/kft
6	133	0.0147"	0.210"	0.054"	0.060"	0.330"	0.349"	115 lb/kft
8	37	0.0211"	0.150"	0.040"	0.045"	0.240"	0.264"	68.2 lb/kft
10	37	0.0167"	0.117"	0.027"	0.030"	0.177"	0.189"	41.3 lb/kft
12	19	0.0185"	0.088"	0.027"	0.030"	0.153"	0.171"	29.6 lb/kft
14	19	0.0147"	0.070"	0.027"	0.030"	0.130"	0.138"	19.0 lb/kft
16	19	0.0117"	0.056"	0.027"	0.030"	0.116"	0.123"	13.4 lb/kft
18	19	0.0100"	0.048"	0.027"	0.030"	0.108"	0.114"	10.8 lb/kft
20	19	0.0080"	0.038"	0.027"	0.030"	0.098"	0.105"	8.03 lb/kft
22	19	0.0063"	0.030"	0.027"	0.030"	0.090"	0.098"	6.08 lb/kft



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02/05/04	---	MTG	GBM	---
02/09/04	A	MTG	GBM	04-004
03/31/05	B	EJK	GBM	05-069
Customer Approval:				

Description: HOOK-UP WIRE, XLPE, UL/CSA AWM, M16878 TRI-RATED	
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