

SPECIFICATION CONTROL DRAWING

SCD

PWR0113

Title POWER CABLE, RADIATION-CROSSLINKED, MODIFIED FLUOROELASTOMER-INSULATED, 600 VOLT

Date 11-30-20

Revision C

This specification sheet forms a part of the latest issue of Raychem Specification WCD 3113.

CONDUCTOR - NICKEL-COATED COPPER

INSULATION - RADIATION-CROSSLINKED,
MODIFIED FLUOROELASTOMER

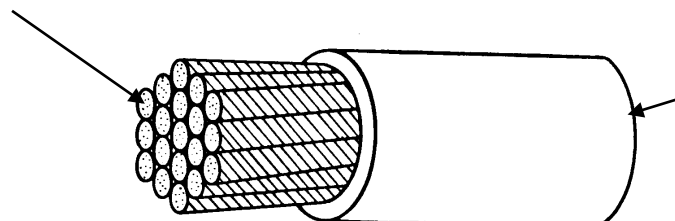


TABLE I. CONSTRUCTION DETAILS

TABLE I. CONSTRUCTION DETAILS									
PART NUMBER 1/	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	DIAMETER OF STRANDED CONDUCTOR (inch) <i>(mm)</i>		FINISHED CABLE				
					MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft.) <i>(ohms/km)</i>	DIAMETER (inch) <i>mm</i>			NOMINAL WEIGHT (lbs/1000 ft.) <i>(kg/km)</i>
			MINIMUM	MAXIMUM		MINIMUM	NOMINAL	MAXIMUM	
PWR0113-12-*	12	665 x 40	.096 (2.43)	.106 (2.70)	1.99 (6.53)	.111 (2.81)	.117 (2.97)	.123 (3.12)	23.2 (34.5)
PWR0113-10-*	10	665 x 38	.126 (3.20)	.140 (3.56)	1.14 (3.74)	.147 (3.73)	.155 (3.93)	.163 (4.14)	40.2 (59.8)
PWR0113-8-*	8	665 x 36	.157 (3.99)	.173 (4.39)	.714 (2.34)	.181 (4.60)	.191 (4.85)	.201 (5.11)	62.6 (93.2)
PWR0113-6-*	6	1045 x 36	.192 (4.88)	.208 (5.28)	.490 (1.61)	.221 (5.61)	.232 (5.89)	.243 (6.17)	96.8 (144.)
PWR0113-4-*	4	1665 x 36	.265 (6.73)	.285 (7.24)	.326 (1.07)	.306 (7.77)	.319 (8.10)	.332 (8.43)	163. (243.)
PWR0113-2-*	2	1665 x 34	.325 (8.26)	.345 (8.76)	.193 (.633)	.375 (9.53)	.389 (9.88)	.403 (10.2)	247. (368.)
PWR0113-0-*	0	2660 x 34	.435 (11.0)	.465 (11.8)	.133 (.436)	.506 (12.9)	.522 (13.3)	.538 (13.7)	396. (589.)
PWR0113-00-*	00	3325 x 34	.485 (12.3)	.515 (13.1)	.102 (.335)	.562 (14.3)	.580 (14.7)	.598 (15.2)	495. (737.)
PWR0113-000-*	000	4123 x 34	.540 (13.7)	.575 (14.6)	.073 (.239)	.628 (16.0)	.648 (16.5)	.668 (17.0)	613. (912.)
PWR0113-0000-*	0000	5320 x 34	.615 (15.6)	.655 (16.6)	.057 (.187)	.715 (18.2)	.737 (18.7)	.759 (19.3)	791. (1177.)

NOTE: Nominal values are for information only. Nominal values are not requirements.

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice.
TE Connectivity also reserves the right to make changes in materials or processing, which do not affect compliance with any specification, without notification to Buyer.

1/ COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681. OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER, AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.

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DIMENSIONS ARE IN INCHES AND, UNLESS OTHERWISE DESIGNATED, ARE NOMINAL.

THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.
REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID.



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Revision

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TABLE II. PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING				
	MANDREL DIAMETER (inch) (mm) (± 3%)			WEIGHT (lb) (kg) (± 3%)	
	LIFE CYCLE AND CROSSLINKING PROOF	IMMERSION, MINIMUM BEND RADIUS, AND WRAP TEST	COLD BEND	IMMERSION, LIFE CYCLE, AND CROSSLINKING PROOF	COLD BEND
PWR0113-12-*	1.50 (38.1)	1.50 (38.1)	2.00 (50.8)	3.00 (1.36)	5.00 (2.27)
PWR0113-10-*	2.00 (50.8)	2.00 (50.8)	3.00 (76.2)	3.00 (1.36)	5.00 (2.27)
PWR0113-8-*	3.00 (76.2)	2.25 (57.2)	4.00 (102.)	4.00 (1.81)	6.00 (2.72)
PWR0113-6-*	4.00 (102.)	2.75 (69.9)	5.00 (127.)	4.00 (1.81)	10.0 (4.54)
PWR0113-4-*	5.00 (127.)	3.75 (95.3)	6.00 (152.)	4.00 (1.81)	10.0 (4.54)
PWR0113-2-*	6.00 (152.)	4.50 (114.)	8.00 (203.)	6.00 (2.72)	15.0 (6.80)
PWR0113-0-*	8.00 (203.)	6.00 (152.)	10.0 (254.)	6.00 (2.72)	15.0 (6.80)
PWR0113-00-*	10.0 (254.)	6.00 (152.)	12.0 (305.)	8.00 (3.63)	20.0 (9.07)
PWR0113-000-*	10.0 (254.)	7.50 (191.)	12.0 (305.)	8.00 (3.63)	20.0 (9.07)
PWR0113-0000-*	10.0 (254.)	8.00 (203.)	12.0 (305.)	8.00 (3.63)	20.0 (9.07)

CABLE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 200°C for 3000 hours
VOLTAGE RATING: 600 volts (rms) at sea level
ABRASION: 2000 cycles (minimum)
COLOR: Black or red preferred
CONCENTRICITY: 70% (minimum)
CROSSLINKING PROOF TEST: 300 ± 3°C for 6 hours
FLAMMABILITY:
3 seconds (maximum); 3 inches (76.2 mm) (maximum);
no flaming of facial tissue
HUMIDITY RESISTANCE: Insulation Resistance,
1000 kohms for 1000 ft. (305 kohms for 1 km) (minimum)
IDENTIFICATION AND COLOR STRIPING DURABILITY:
125 cycles (250 strokes) (minimum), 250 g weight
IMMERSION: Diameter increase 5% (maximum);
no cracking, no dielectric breakdown
INSULATION ELONGATION AND TENSILE STRENGTH:
Elongation, 150% (minimum)
Tensile Strength, 1800 lbf/in² (12.4 N/mm²) (minimum)
INSULATION FLAWS:
Spark Test, 5.0 kV (rms)
Impulse Dielectric Test, 8.0 kV (peak)

INSULATION RESISTANCE:
1000 kohms for 1000 ft. (305 kohms for 1 km) (minimum)
LIFE CYCLE: 230 ± 2°C for 500 hours
LOW TEMPERATURE-COLD BEND: -65 ± 2°C for 4 hours
MINIMUM BEND RADIUS: 230 ± 2°C for 500 hours
SHRINKAGE: 230 ± 2°C for 6 hours,
0.250 in. (6.35 mm) (maximum) in 12 inches (305 mm)
SMOKE TEST: 230 ± 2°C, no visible smoke
SURFACE RESISTANCE:
5 megohms-in. (127 megohms-mm) (minimum), both readings
THERMAL SHOCK RESISTANCE: 200 ± 2°C,
0.250 in. (6.35 mm) (maximum)
VOLTAGE WITHSTAND (Post Environmental):
1000 volts (rms), 5 minutes
WRAP TEST: 230 ± 2°C for 2 hours

1/ PART NUMBER:

The *** in the part numbers in Tables I and II shall be replaced by a color code designator.

Example: AWG 2, black: PWR0113-2-0

AWG 2, black with a white stripe: PWR0113-2-09

1/ See footer section on page 1

Mouser Electronics

Authorized Distributor

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TE Connectivity:

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[EG8066-000](#)