

SPECIFICATION CONTROL DRAWING

FLHTC6005

TITLE

HIGH TEMPERATURE HOOKUP WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED, 600 VOLT

Date

9-7-12

Revision

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The complete requirements for procuring the wire described herein shall consist of this document and the issue in effect of Raychem Specification WCD 3106, UL Subject 758, Style 3557, File E303150 and CSA C22.2 No. 210 and carries UL and CSA labels to this effect.



TABLE I. CONSTRUCTION DETAILS

PART NUMBER <i>1/</i>	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG) or (number x SEOD) (in.) (mm)	NOMINAL CONDUCTOR DIAMETER (in.) (mm)	FINISHED WIRE				
				MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft.) (ohms/km)	DIAMETER (in.) (mm)			NOMINAL WEIGHT (lbs/1000 ft.) (kg/km)
					MINIMUM	NOMINAL	MAXIMUM	
FLHTC6005-26*	26	19 x 38	.019 (.483)	45.7 (150.)	.0301 (.765)	.0315 (.800)	.0329 (.836)	1.27 (1.89)
FLHTC6005-24*	24	19 x 36	.024 (.610)	28.6 (93.8)	.0351 (.892)	.0365 (.927)	.0379 (.963)	1.85 (2.75)
FLHTC6005-22*	22	19 x 34	.030 (.762)	18.1 (59.4)	.0411 (1.04)	.0425 (1.08)	.0439 (1.12)	2.74 (4.08)
FLHTC6005-20*	20	19 x 32	.038 (.965)	11.4 (37.4)	.0491 (1.25)	.0505 (1.28)	.0519 (1.32)	4.17 (6.21)
FLHTC6005-18*	18	19 x 30	.047 (1.19)	7.14 (23.4)	.0583 (1.48)	.0600 (1.52)	.0617 (1.57)	6.34 (9.43)
FLHTC6005-16*	16	19 x .0119 (.302)	.057 (1.45)	4.45 (14.6)	.0701 (1.78)	.0720 (1.83)	.0739 (1.88)	9.47 (14.1)
FLHTC6005-14*	14	19 x .0152 (.386)	.073 (1.85)	2.79 (9.15)	.0869 (2.21)	.0890 (2.26)	.0911 (2.31)	14.5 (21.6)

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice. Tyco Electronics Corporation 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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TABLE II. PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING	
	MANDREL DIAMETER (inch) (mm) (± 3%)	WEIGHT (lb) (kg) (± 3%)
	CROSSLINK VERIFICATION	CROSSLINK VERIFICATION
FLHTC6005-26-*	.375 (9.53)	.125 (.057)
FLHTC6005-24-*	.375 (9.53)	.500 (.227)
FLHTC6005-22-*	.500 (12.7)	.750 (.340)
FLHTC6005-20-*	.500 (12.7)	1.00 (.454)
FLHTC6005-18-*	.500 (12.7)	1.00 (.454)
FLHTC6005-16-*	.750 (19.1)	1.50 (.680)
FLHTC6005-14-*	1.00 (25.4)	2.00 (.907)

WIRE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: UL, 200°C

CSA, 150°C (conductor strand diameters less than .015 inch)
(AWG 16 and smaller)

200°C (conductor strand diameters .015 inch and larger)
(AWG 14 and larger)

VOLTAGE RATING: 600 volts (rms) at sea level

CROSSLINK VERIFICATION: 300 ± 3°C for 1 hour

FLAME RATING: VW-1

INSULATION ELONGATION AND TENSILE STRENGTH:

Elongation, 100% (minimum)

Tensile Strength, 5470 lbf/in² (minimum)

INSULATION FLAWS:

Spark Test, 6.0 kV (rms)

INSULATION THICKNESS (UL):

AWG 26 - 16: .0055 inch (minimum), .006 inch (minimum average)

AWG 14: .006 inch (minimum), .0065 inch (minimum average)

INSULATION THICKNESS (CSA):

Minimum shall be 80% of average thickness.

AWG 26 - 16: .0055 inch (minimum average)

AWG 14: .006 inch (minimum average)

SHRINKAGE: 200°C for 1 hour, 0.125 in. (maximum) per end

THERMAL STABILITY: 232°C for 168 hours,

Elongation, 60% (minimum)

Tensile Strength, 5000 lbf/in² (minimum)

VOLTAGE WITHSTAND (Post Environmental): 2500 volts (rms), 60 Hz, 5 minutes

SPOOL LABEL: All spool/reel labels containing conductor strand diameters less than

.015" (.381 mm) (AWG 16 and smaller) shall include " For Dry Locations Only "

PART NUMBER:

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

1/ Example: AWG 18, white: FLHTC6005-18-9

AWG 18, white with black stripe: FLHTC6005-18-90

MARKING: Mark outer surface of wire, .051 inches and larger only, in contrasting ink at 2 ft. max intervals as follows:

"  AWM STYLE 3557 600V 200C VW-1 E303150 CSA LL33902

AWM I A/B xxxC 600 V FT1 RAYCHEM xx AWG "

(xxx = applicable CSA temperature rating)

(xx = applicable AWG size)

1/ See footer section on page 1