

INCH-POUND  
MIL-DTL-27072/83C  
w/AMENDMENT 1  
20 May 2016  
SUPERSEDING  
MIL-DTL-27072/83C  
12 March 2012

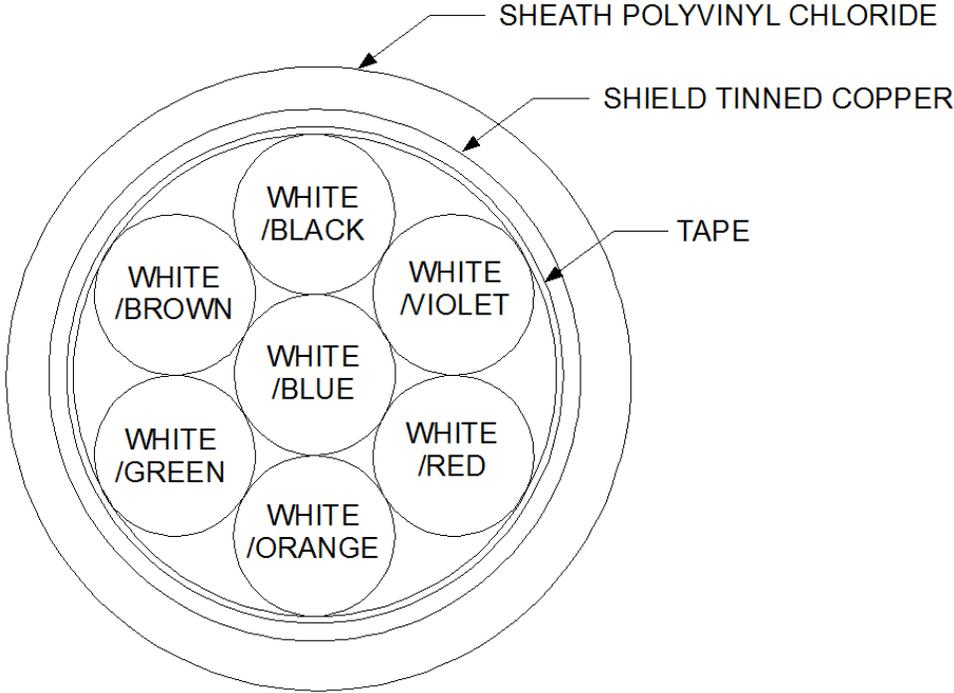
DETAIL SPECIFICATION SHEET

CABLE, SPECIAL PURPOSE, ELECTRICAL, MULTICONDUCTOR  
(7 CONDUCTORS) AND SINGLE SHIELDED,  
M27072/83MACA\*

This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-27072.

REQUIREMENTS:



NOTE: The complete Part or Identifying Number (PIN) requires a color code designator (see table I).

FIGURE 1. Cable configuration.

Design and construction: See figure 1.  
Number of conductors: 7  
Temperature rating: 105 °C

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Components:	
Basic wire:	NEMA HP 7-BN-BFB* (see table I)
Conductor:	Tinned copper
Primary insulation:	Polyvinyl chloride
Colors:	White with blue tracer White with brown tracer White with green tracer White with orange tracer White with red tracer White with violet tracer White with black
Jacket over insulation:	Polyamide
Color:	Natural
Filler:	Not applicable
Cabling:	Not applicable
Binder tape material:	In accordance with MIL-DTL-27072
Shield:	
Material:	Tinned copper
Gauge:	36 AWG
Braid angle:	Braid 20 to 40 degrees
Jacket undershield:	Not applicable
Sheath:	
Material:	Polyvinyl chloride
Wall thickness:	.025 inch nominal
Tensile strength:	In accordance with MIL-DTL-27072
Ultimate elongation:	In accordance with MIL-DTL-27072
Accelerated aging:	In accordance with MIL-DTL-27072
Color:	See MIL-DTL-27072
Finished cable:	See table I
Cold bend:	Mandrel size in accordance with MIL-DTL-27072
Dielectric withstanding voltage:	2,000 V rms
Conductor resistance:	In accordance with basic wire specification

TABLE I. Construction data.

PIN 27072/83	Basic wire except color NEMA HP 7-BN-BFB* <sup>1/2/</sup> (reference)				Finished cable diameter inch(mm) ±10%
	Wire size (AWG)	Number of strands	Strand size	Nominal diameter inch(mm)	
MACA*	22	7	30	.056(1.42)	.247(6.27)

<sup>1/</sup> Asterisks (\*) shall be replaced by the appropriate color designator.

<sup>2/</sup> Dimensions are in inches. Metric equivalents are given for information only.

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Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Referenced document. This document references MIL-DTL-27072.

CONCLUDING MATERIAL

Custodians:  
Army - CR  
Navy - SH  
Air Force - 85  
DLA – CC

Preparing activity:  
DLA - CC  
  
(Project 6145-2016-028)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of this information above using the ASSIST Online database at <https://assist.dla.mil>.