

INCH-POUND
MIL-DTL-27072/66D
w/AMENDMENT 2
7 February 2023
SUPERSEDING
MIL-DTL-27072/66D
w/AMENDMENT 1
23 January 2018

DETAIL SPECIFICATION SHEET

CABLE, SPECIAL PURPOSE, ELECTRICAL, MULTICONDUCTOR (7 CONDUCTORS) AND SINGLE SHIELDED, M27072/66LEDD*

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.

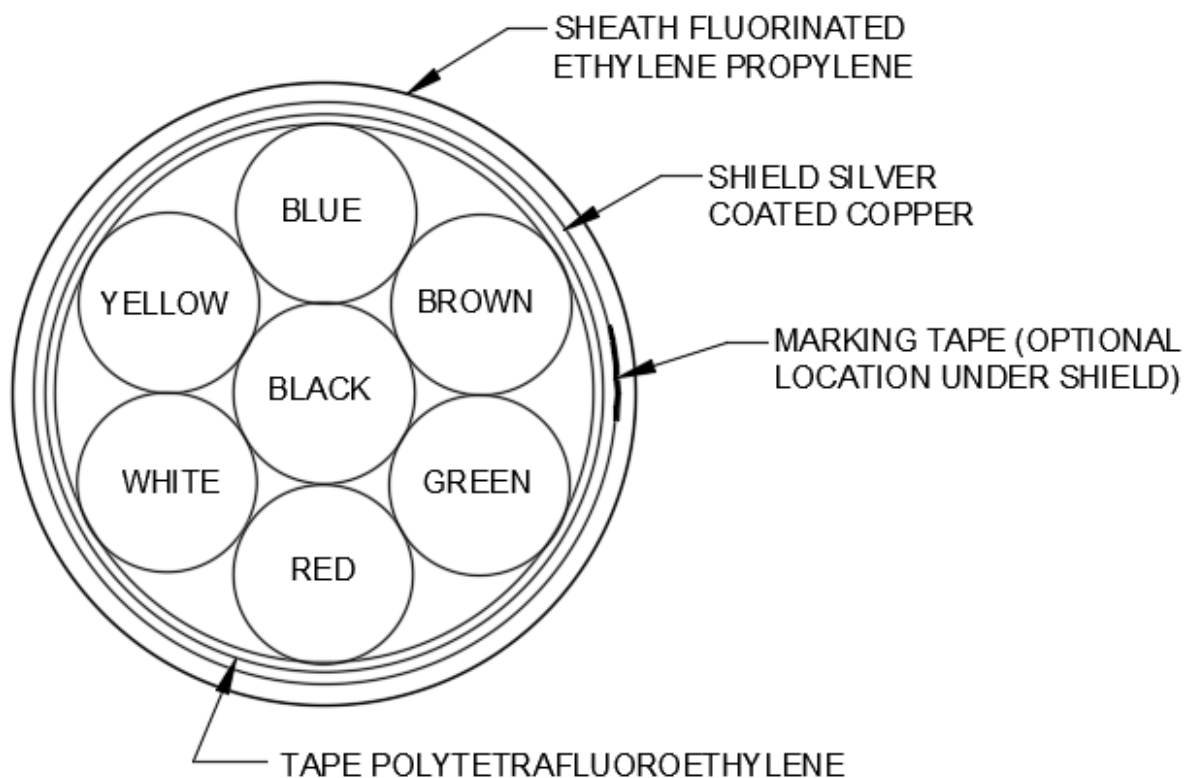


FIGURE 1. Cable configuration.

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



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REQUIREMENTS:

Design and construction:	See figure 1.
Number of conductors:	7
Temperature rating:	200 °C
Component:	
Basic wire:	SAE-AS22759/9-22* (formerly M16878/5BFE***) or NEMA HP3-EEWBFE* (formerly M16878/22BFE***) (See table I.)
Conductor:	Silver-coated copper
Primary insulation:	Polytetrafluoroethylene
Colors:	Black Blue Brown Green Red White Yellow
Jacket over Insulation:	Not applicable
Filler:	Not applicable
Cabling:	
Core:	
Number of conductors:	1
Pitch or lay:	Pull in straight
First layer:	
Number of conductors:	6
Pitch or lay:	2.75 inches maximum
Binder tape material:	Polytetrafluoroethylene
Shield:	
Material:	Silver-coated copper
Gauge:	36 AWG
Braid angle:	20 to 40 degrees
Jacket undershield:	Not applicable
Sheath:	
Material:	Fluorinated ethylene propylene
Wall thickness:	.015 inch nominal
Tensile strength:	In accordance with MIL-DTL-27072
Ultimate elongation:	In accordance with MIL-DTL-27072
Accelerated aging:	Not applicable
Color:	See MIL-DTL-27072
Finished cable:	See table I
Cold bend:	Mandrel size in accordance with MIL-DTL-27072
Dielectric withstanding voltage:	3,000 V _{rms}
Conductor resistance:	In accordance with basic specification

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TABLE I. Construction data.

PIN M27072/66	Basic wire except color SAE-AS22579/9-22* ^{1/} or NEMA HP3-EEWBFE* (reference)				Finished cable diameter inch (mm) ±10% ^{2/}
	Wire size (AWG)	Number of strands	Strand size	Nominal diameter Inch (mm) ^{2/}	
LEDD*	22	19	34	.060 (1.52)	.250 (6.35)

^{1/} SAE AS22759/9-22* color code is in accordance with MIL-STD-681.

Asterisks (*) shall be replaced by the appropriate color designator.

^{2/} Dimensions are in inches. Metric equivalents are given for information only.

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.

In addition to MIL-DTL-27072, this document referenced the following:

MIL-STD-681

NEMA HP 3

SAE AS22759/9

CONCLUDING MATERIAL

Custodians:

Army – CR

Navy - SH

Air Force - 85

DLA - CC

Preparing activity:

DLA - CC

(Project 6145-2023-005)

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