

INCH-POUND
MIL-DTL-27072/68C
w/AMENDMENT 1
20 May 2016
SUPERSEDING
MIL-DTL-27072/68C
12 March 2012

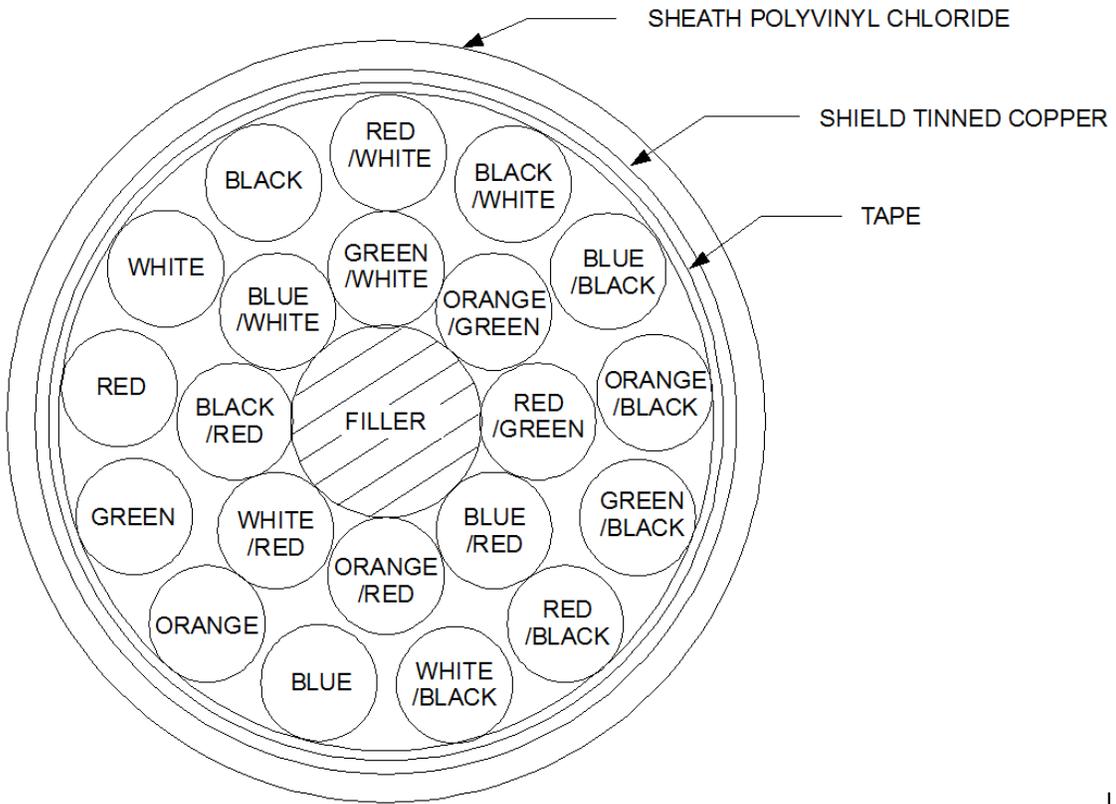
DETAIL SPECIFICATION SHEET

CABLE, SPECIAL PURPOSE, ELECTRICAL, MULTICONDUCTOR
(21 CONDUCTORS) AND SINGLE SHIELDED,
M27072/68KACA*

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.



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Design and construction:	See figure 1
Number of conductors:	21
Temperature rating:	200 °C
Components:	
Basic wire:	NEMA HP 7-BN-BGB* (see table I)
Conductor:	Tinned copper
Primary insulation:	Polyvinyl Chloride
Colors:	Black White Red Green Orange Blue White with black tracer Red with black tracer Green with black tracer Orange with black tracer Blue with black tracer Black with white tracer Red with white tracer Green with white tracer Blue with white tracer Black with red tracer White with red tracer Orange with red tracer Blue with red tracer Red with green tracer Orange with green tracer
Jacket over insulation:	Polyamide
Color:	Natural
Filler:	See filler information herein
Cabling:	
Core:	
Number of conductors:	Filler
Material:	In accordance with MIL-DTL-27072
Pitch or lay:	Pull in straight
First layer:	
Number of conductors:	8
Pitch or lay:	1.5 inches maximum
Second layer:	
Number of conductors:	13
Pitch or lay:	1.5 inches maximum
Binder tape material:	In accordance with MIL-DTL-27072
Shield:	
Material:	Tinned copper
Gauge:	34 AWG
Braid angle:	20 to 40 degrees

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Jacket undershield: Not applicable

Sheath:
 Material: Polyvinyl chloride
 Wall thickness: .040 inch maximum
 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 27072/68	Basic wire except color NEMA HP 7-BN-BGB* ^{1/2/} (reference)				Finished cable diameter inch(mm) ±10%
	Wire size (AWG)	Number of strands	Strand size	Nominal diameter inch(mm)	
KACA	20	7	28	.064(1.63)	.520(13.2)

^{1/} 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.

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

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CONCLUDING MATERIAL

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

Preparing activity:
DLA - CC

(Project 6145-2016-024)

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>.