

MIL-C-27072/36A  
24 September 1987  
SUPERSEDING  
MIL-C-27072/36(USAF)  
18 January 1966

MILITARY SPECIFICATION SHEET

CABLE, SPECIAL PURPOSE, ELECTRICAL, MULTICONDUCTOR,  
(3 CONDUCTORS) AND SINGLE SHIELDED  
M27072/36GBCA\*

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

The requirements for acquiring the cable described herein shall consist of this specification and the latest issue of MIL-C-27072.

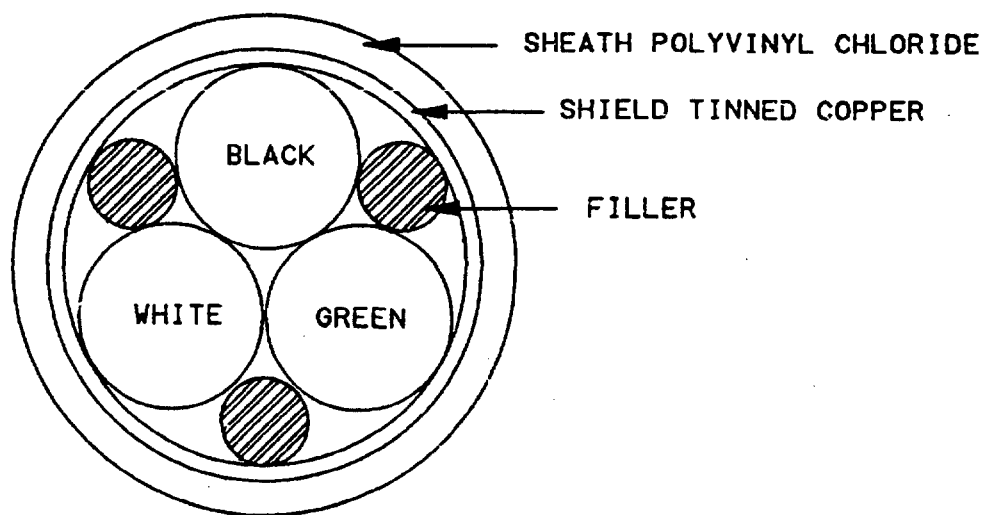


FIGURE 1. Cable configuration.

\* The complete part number requires a color code designator (see table I).

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DESIGN DATA:

Design and construction: See figure 1.  
Number of conductors: Three.  
Conductor size and stranding: See table I.  
Wire: M16878/18BHE\* (see table I).  
Jacket undershield: Not applicable.  
Shielding: Tinned copper.  
Sheath: Polyvinyl chloride.  
Temperature rating: 105°C.

REQUIREMENTS:

Visual and dimensional:

Components:

Basic wire: Tinned copper.  
Dimensions: See table I.  
Primary insulation:  
Material: Polyvinyl chloride.  
Wall thickness: .016 ±.002 inch.

Colors:

Black.  
Green.  
White.

Spark test voltage: 5,000 V rms.  
Inspection test voltage: 3,000 V rms.  
Impulse dielectric test: 10,000 V peak.

Jacket over insulation: Polyamide.

Color: Natural.

Filler:

Material: In accordance with MIL-C-27072.  
Lay: 1.75 inches maximum.

Tape material: Not applicable.

Shield:

Material: Tinned copper.  
Gauge: 36 AWG.  
Braid angle: 20 to 40 degrees.

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Workmanship: In accordance with MIL-C-27072.

## Sheath:

Material: Polyvinyl chloride.

Wall thickness: .030 inch nominal.

Tensile strength: In accordance with table V of MIL-C-27072.

Elongation: In accordance with table V of MIL-C-27072.

Tension set: Not applicable.

Tear strength: Not applicable.

Accelerated aging: In accordance with table V of MIL-C-27072.

Oil resistance: Not applicable.

Color: See table IV of MIL-C-27072.

## Finished cable:

Weight: For future consideration.

Diameter: See table I.

Conductor resistance: In accordance with MIL-W-16878/18.

Dielectric strength: In accordance with MIL-W-16878/18.

Cold bend: Mandrel size in accordance with table XIII of MIL-C-27072.

Ozone: Mandrel size in accordance with table XIV of MIL-C-27072.

Marking durability: In accordance with MIL-C-27072.

Heat stability: Not applicable.

TABLE I. Construction data.

Part number M27072/36	Conductor			Nominal diameter (in.)	Finished cable diameter (in.) ±10%	Basic wire M16878/18
	Wire size (AWG)	Number of strands	Strand size (AWG)			
GBCA*	18	19	30	.090	.273	BHE***

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

Revision letters are not used to denote changes due to the extensiveness of the changes.

## Custodians:

Army - CR  
Navy - SH  
Air Force - 85

## Review activities:

Air Force - 99  
DLA - ES, IS

Preparing activity:  
Air Force - 85

Agent:  
DLA - ES

(Project 6145-0909-15)