

INCH-POUND

MIL-DTL-27072/94C  
8 December 2000  
SUPERSEDING  
MIL-C-27072/94B  
23 March 1993

DETAIL SPECIFICATION SHEET

CABLE, SPECIAL PURPOSE, ELECTRICAL,  
SINGLE CONDUCTOR, SINGLE SHIELDED

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-27072C.

Inactive for new design. For new design use MIL-C-55021/2.

REQUIREMENTS:

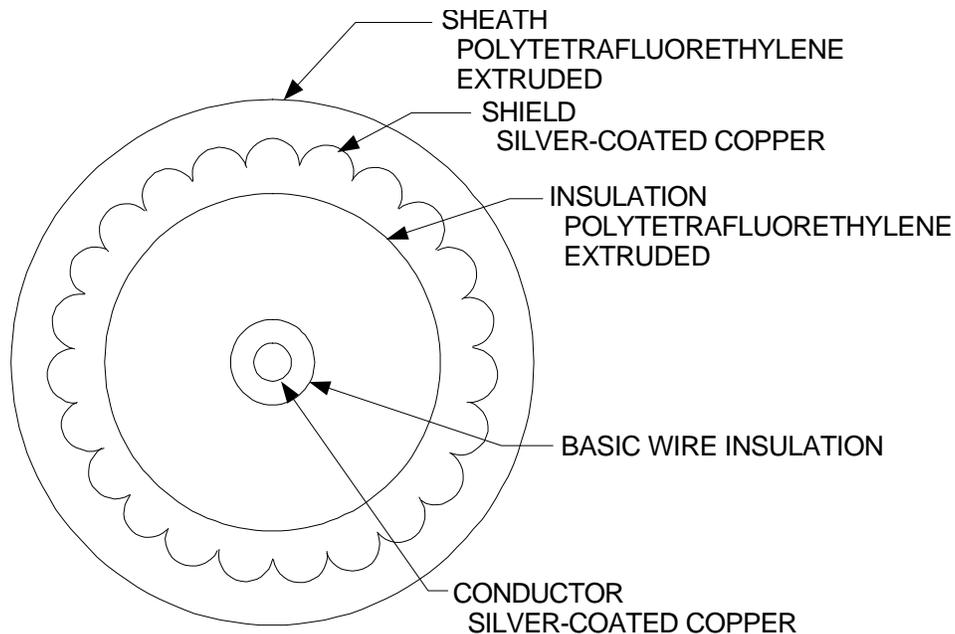


FIGURE 1. Cable configuration.

MIL-DTL-27072/94C

Design and construction:	See figure 1
Number of conductors:	1
Temperature rating:	200 °C
Components:	
Basic wire:	Either NEMA HP3 or M22759 (See table I.)
Conductor:	Silver-coated copper
Primary insulation:	Polytetrafluoroethylene
Colors:	White
Jacket over insulation:	Not applicable
Filler:	Not applicable
Cabling:	Not applicable
Binder tape material:	Not applicable
Insulation:	Polytetrafluoroethylene extruded
Marking tape:	Marking tape shall be placed under the sheath or shield
Shield:	
Material:	Silver-coated copper
Gauge:	38 AWG
Braid angle:	20 to 40 degrees
Jacket under shield:	Not applicable
Sheath:	
Material:	Polytetrafluoroethylene
Wall thickness:	Not applicable
Tensile strength:	In accordance with table V of MIL-DTL-27072
Ultimate elongation:	In accordance with table V of MIL-DTL-27072
Accelerated aging:	In accordance with table V of MIL-DTL-27072
Color:	See table IV of MIL-DTL-27072
Finished cable:	See table I
Cold bend:	Mandrel size in accordance with table XIII of MIL-DTL-27072
Dielectric withstanding voltage:	2,000 V rms
Conductor resistance:	In accordance with basic wire specification

Table I. Construction data.

PIN M27072/94	Wire size	Number of strands	Strand size (AWG)	Nominal diameter (inches)	Finished cable diameter (inches)	
					Minimum	Maximum
EDDE*	14	19	27	.072	.125	.152
FDDE*	16	19	29	.057	.111	.138
GDDE*	18	19	30	.050	.102	.121
JDDE*	20	19**	32	.041	.095	.112
KDDE*	20	7	28	.038	.092	.109
LDDE*	22	19**	34	.032	.086	.103
MDDE*	22	7	30	.030	.084	.101
NDDE*	24	19**	36	.035	.076	.098
PDDE*	24	7	32	.024	.073	.095
SDDE*	26	7	34	.019	.068	.090
TDDE*	28	7	36	.015	.064	.086
WDDE*	30	7	38	.012	.061	.083

PIN M27072/94	Basic wire (reference) (either / or may be used)		(reference) Formerly basic wire M16878/4 or M16878/21
	M22759	NEMA HP3	
EDDE*		EWBKE*	BKE9
FDDE*	/11-16*	EWBJE*	BJE9
GDDE*	/11-18*	EWBHE*	BHE9
JDDE*	/11-20*	EWBGE*	BGE9
KDDE*	-	EXBGB* EWBGB*	BGB9
LDDE*	/11-22*	EWBFE*	BFE9
MDDE*	-	EXBFB* EWBFB*	BFB9
NDDE*	/11-24*	EWBEE*	BEE9
PDDE*	-	EXBEB* EWBEB*	BEB9
SDDE*	-	EXBDB* EWBDB*	BDB9
TDDE*	/11-28*	EWBCB*	BCB9
WDDE*	-	EXBBB* EWBBB*	BBB9

Asterisks (\*) shall be replaced by the appropriate color designator in accordance with MIL-STD-681, table I. If a stripe or a band is to be added, it shall be in accordance with 3.3.2 of MIL-DTL-27072.

Asterisks (\*\*) Preferred stranding number for wire size

NOTE: These constructions supersede the shielded single conductor cables of the same construction formerly covered by MIL-DTL-16878.

CHANGES FROM PREVIOUS ISSUE: Marginal notations are not used in this revision to identify changes with respect to the previous issues due to the extensiveness of the changes.

CONCLUDING MATERIAL

Custodians:  
Army - CR  
Navy - SH  
Air Force - 11  
DLA - CC

Preparing activity:  
DLA - CC  
(Project 6145-2262-023)