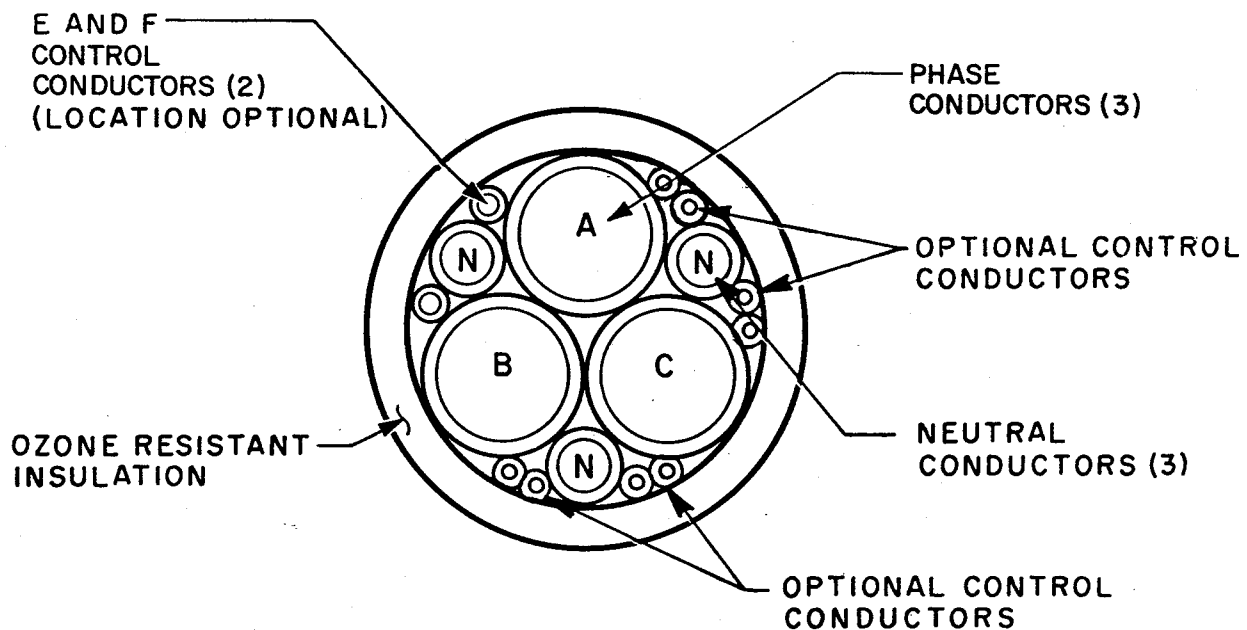


INCH-POUND

MIL-C-5756/5
30 September 1994

MILITARY SPECIFICATION SHEET

CABLE, 3-PHASE POWER, ELECTRIC, PORTABLE, MULTICONDUCTOR,
90°C, 600V, OZONE RESISTANT, SPLIT NEUTRALThis 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 the issue of the following specification listed
in that issue of the Department of Defense Index of Specifications and
Standards (DODISS) specified in the solicitation: MIL-C-5756.FIGURE 1. Construction of part number M5756/5-001 and -002.

AMSC - N/A

DISTRIBUTION STATEMENT A.

Approved for public release; distribution is unlimited.

FSC 6145

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Construction of M5756/5-001Phase Conductors Size 1/0 (3 Required)

Copper conductor, Size 1/0, per MIL-C-5756 uncoated.

Separator required.

Ozone resistant insulation.

<u>Color of Phase Conductors</u>	<u>Printed Letter *</u>
1 Black	"A"
2 Black	"B"
3 Black	"C"

* Identification repeats at intervals not to exceed 2 inches. Letters shall be printed using white ink.

Neutral Conductors Size 6 (3 Required)

Copper conductor, Size 6, per MIL-C-5756 uncoated.

Separator required.

Ozone resistant insulation.

<u>Color of Neutral Conductors</u>	<u>Printed Letter *</u>
1 White	"N"
2 White	"N"
3 White	"N"

* Identification repeats at intervals not to exceed 2 inches. Letters shall be printed using black ink.

Control Conductors Size 12 (2 Required)

Copper conductor, Size 12, per MIL-C-5756 uncoated or tin-coated copper.

Separator required.

Ozone resistant insulation with optional jacket.

<u>Color of Control Conductors</u>	<u>Printed Letter *</u>
1 White	"E"
2 Black	"F"

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* Identification repeats at intervals not to exceed 2 inches. Letters shall be printed using white ink on black and black ink on white.

The cable manufacturer may include, at their option, 4 pairs of additional control conductors. If used, the insulation colors shall not be white or black. The optional control conductors are not used by the military, but may be included to allow military use of a similar commercial cable that uses the additional control conductors.

Assembly

Eight conductors (see Figure 1 for arrangement) shall be cabled together with a lay not greater than 16 times the cable diameter.

Binder tape, consisting of synthetic rubber, reinforced with polyester. Thickness ".010" nominal.

Ozone resistant jacket, reinforced. Reinforcement shall be applied near the middle of the jacket so as not to show or distort the overall cable marking.

Construction of M5756/5-002Phase Conductors Size 2/0 (3 Required)

Copper conductor, Size 2/0, per MIL-C-5756 uncoated.

Separator required.

Ozone resistant insulation.

<u>Color of Phase Conductors</u>	<u>Printed Letter *</u>
1 Black	"A"
2 Black	"B"
3 Black	"C"

* Identification repeats at intervals not to exceed 2 inches. Letters shall be printed using white ink.

Neutral Conductors Size 4 (3 Required)

Copper conductor, Size 4, per MIL-C-5756 uncoated.

Separator required.

Ozone resistant insulation.

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<u>Color of Neutral Conductors</u>	<u>Printed Letter *</u>
1 White	"N"
2 White	"N"
3 White	"N"

* Identification repeats at intervals not to exceed 2 inches. Letters shall be printed using black ink.

Control Conductors Size 12 (2 Required)

Copper conductor, Size 12, per MIL-C-5756 uncoated or tin-coated copper.

Separator required.

Ozone resistant insulation with optional jacket.

<u>Color of Control Conductors</u>	<u>Printed Letter *</u>
1 White	"E"
2 Black	"F"

* Identification repeats at intervals not to exceed 2 inches. Letters shall be printed using white ink on black and black ink on white.

The cable manufacturer may include, at their option, 4 pairs of additional control conductors. If used, the insulation colors shall not be white or black. The optional control conductors are not used by the military, but may be included to allow military use of a similar commercial cable that uses the additional control conductors.

Assembly

Eight conductors (see Figure 1 for arrangement) shall be cabled together with a lay not greater than 16 times the cable diameter.

Binder tape, consisting of synthetic rubber, reinforced with polyester. Thickness ".010" nominal.

Ozone resistant jacket, reinforced. Reinforcement shall be applied near the middle of the jacket so as not to show or distort the overall cable marking.

Requirements:

1. Insulation resistance calculations shall use a constant of $K = 10,000$.
2. Ozone resistance test required.

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3. The minimum insulation thickness shall be not less than 90% of the nominal and the minimum jacket thickness shall not be less than 80% of the nominal.
4. The jacket and wire insulation materials shall be suitably protected from degradation due to sunlight, ozone and other forms of weathering exposure. This cable is designed to be suitable for use where it may be exposed to these conditions.
5. Control wires shall not be subjected to the impact (shock) test of MIL-C-5756. Fracturing of the polyamide covering during the cold bend or cold impact test shall not constitute failure.

Note:

1. The cable covered under this specification sheet is designed for use in type I cable assemblies conforming to MIL-C-7974/4.

TABLE I. Details of construction.

Military Part #	Cond. Size	# of Cond.	Cond. Diam. +5% (Inches)	Nominal Insul. Thick. (Inches)	Maximum Conductor Resistance @ 20°C (Ohms 1000 Ft)	Nominal Jacket Thick. (Inches)	Overall Diam. of Jacketed Cable (Inches)	Weight Per 1000 Ft. Nom (lbs) $\frac{1}{2}$
M5756/5-001	1/0	3	.423	.073	.111	.130	1.595 ±.065	2290.00
	6	3	.215	.035	.444			
	12	2	.101	.030	1.86			
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M5756/5-002	2/0	3	.508	.080	.0893	.158	1.865 ±.070	2750.00
	4	3	.269	.035	.279			
	12	2	.101	.030	1.86			
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1/ The nominal weight is for information only.

Custodians:
Navy - AS
Air Force - 85

Preparing activity:
Navy - AS

(Project 6145-1121-05)

Review activities:
Navy - SH
Army - CR
DLA - IS