

AS5756/6

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CUSTODIAN: SAE AE-8/AE-8D

SAE Aerospace
An SAE International Group**AEROSPACE STANDARD**

CABLE, 3-PHASE POWER, ELECTRIC,
PORTABLE, MULTICONDUCTOR, 90°C, 600V,
OZONE RESISTANT, SPLIT PHASE

AS5756/6
SHEET 1 OF 4

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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.

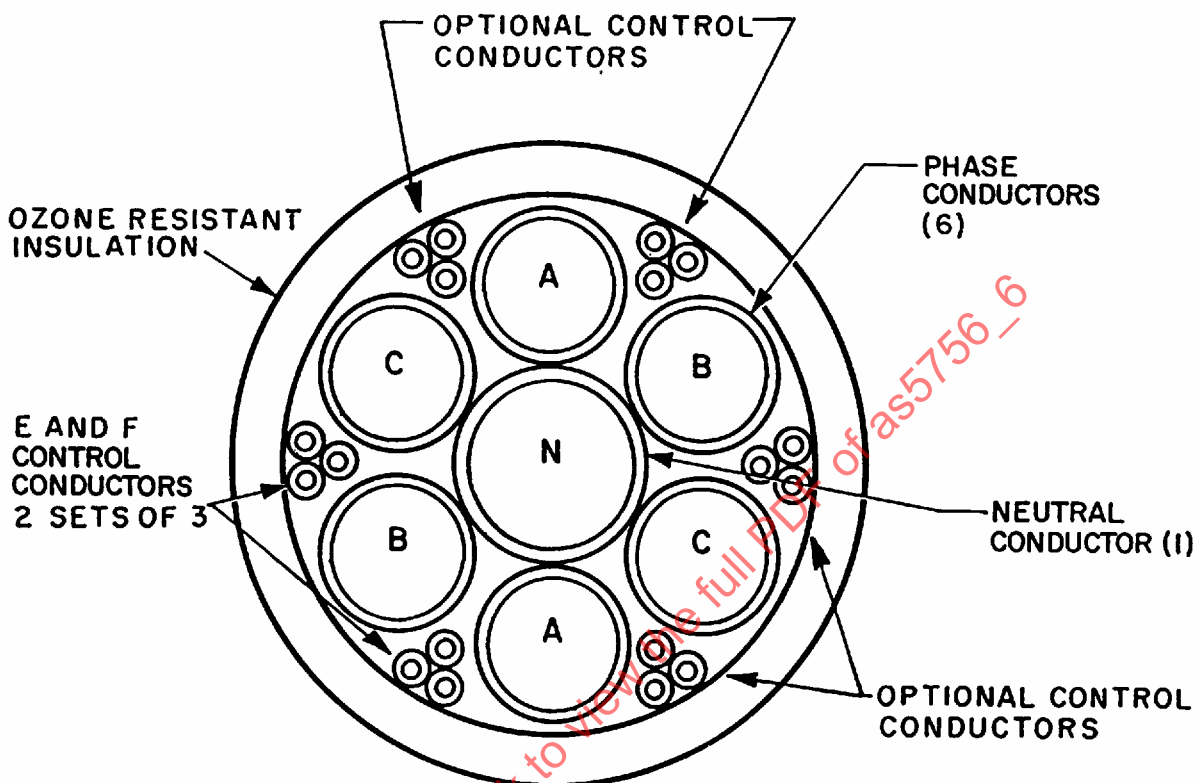


FIGURE 1. CONSTRUCTION OF PART NUMBER M5756/6-001.

CONSTRUCTION OF M5756/6-001

PHASE CONDUCTORS SIZE 2 (6 REQUIRED)

COPPER CONDUCTOR, SIZE 2, PER MIL-C-5756 UNCOATED.

SEPARATOR REQUIRED.

OZONE RESISTANT INSULATION. COLOR BLACK WITH IDENTIFICATION CODE APPLIED BY SURFACE PRINTING USING WHITE INK AT INTERVALS NOT TO EXCEED 2 INCHES.

IDENTIFICATION OF PHASE CONDUCTORS

PHASE A	A
PHASE B	B
PHASE C	C

NEUTRAL CONDUCTORS SIZE 2/0 (1 REQUIRED)

COPPER CONDUCTOR, SIZE 2/0, PER MIL-C-5756 UNCOATED.

SEPARATOR REQUIRED.

OZONE RESISTANT INSULATION. COLOR WHITE WITH IDENTIFICATION CODE APPLIED BY SURFACE PRINTING USING BLACK INK AT INTERVALS NOT TO EXCEED 2 INCHES.

IDENTIFICATION OF NEUTRAL CONDUCTORS

N

CONTROL CONDUCTORS SIZE 18 (2 SETS OF 3 WIRES REQUIRED)

COPPER CONDUCTOR, SIZE 18, PER MIL-C-5756 TIN-COATED.

SEPARATOR OPTIONAL.

OZONE RESISTANT INSULATION. IDENTIFICATION CODE TO CONSIST OF SOLID COLORED INSULATION, WITH SURFACE PRINTING AT INTERVALS NOT TO EXCEED 2 INCHES, AS REQUIRED.

SIX CONDUCTORS FORMED INTO TWO TRIADS REQUIRED. CONDUCTORS CABLED WITH A LEFT HAND LAY.

THE CABLE MANUFACTURER MAY INCLUDE THEIR OPTION 4 TRIADS OF ADDITIONAL CONTROL CONNECTORS. IF USED, THE INSULATION COLOR SHALL BE AS FOLLOWS:

IDENTIFICATION OF CONTROL CONDUCTORSCOLORPRINTING

BLACK-BLACK-BLACK (PRINTED WITH LETTER F IN WHITE AT 2 INCH INTERVALS)
WHITE-WHITE-WHITE (PRINTED WITH LETTER E IN BLACK AT 2 INCH INTERVALS)

(OPTIONAL) BLACK-WHITE-RED
(OPTIONAL) BLACK-WHITE-GREEN
(OPTIONAL) BLACK-WHITE-ORANGE
(OPTIONAL) BLACK-WHITE-BLUE

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

SIX SIZE 2 CONDUCTORS CABLED OVER ONE SIZE 2/0 CONDUCTOR WITH A LEFT HAND LAY. TRIADS ARE FITTED INTO OUTER INTERSTICES. SEE FIGURE 1 FOR ARRANGEMENT.

BINDER THREAD.

OZONE RESISTANT JACKET. THE JACKET IS APPLIED IN TWO LAYERS WITH REINFORCING TWINE EMPLOYED BETWEEN THE LAYERS. THE TWINE IS IN THE FORM OF A BRAID OR SERVE HAVING AN EQUAL NUMBER OF ENDS IN EACH DIRECTION.

REQUIREMENTS:

1. INSULATION RESISTANCE CALCULATIONS SHALL BE BASED ON A CONSTANT OF $K = 20,000$.
2. OZONE RESISTANCE REQUIRED.
3. MINIMUM INSULATION AND JACKET THICKNESS SHALL BE 90% OF THE NOMINAL VALUE.
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 ABRASION RESISTANCE TEST OF MIL-C-5756.