

**REV.
B**

AS5756™/7

RATIONALE

REVISION NEEDED TO ADD TENSILE STRENGTH, ELONGATION AND TEMPERATURE RATING REQUIREMENTS. MINOR EDITORIAL CHANGES WERE ADDED AS NEEDED.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS5756.

SAE Executive Standards Committee Rules provide that: " This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user." SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

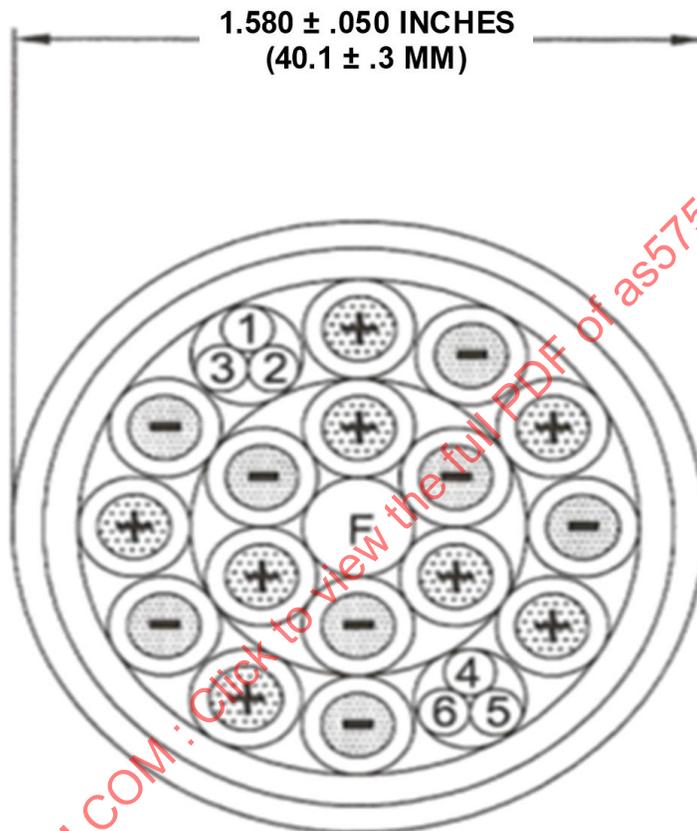
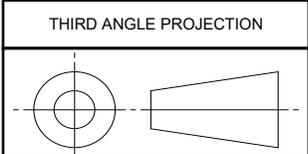


FIGURE 1 - AS5756/7 CABLE

For more information on this standard, visit
<https://www.sae.org/standards/content/AS5756/7B/>



CUSTODIAN: AE-8D

PROCUREMENT SPECIFICATION: AS5756



AEROSPACE STANDARD

CABLE, LOW INDUCTANCE,
270 VOLT DC

AS5756™/7
SHEET 1 OF 3

**REV.
B**

ISSUED 2010-06 REAFFIRMED 2015-04 REVISED 2021-07

REQUIREMENTS: UNLESS OTHERWISE SPECIFIED IN ACCORDANCE WITH AS5756.

DIMENSIONS:

1. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE .X = ± 0.01 , .XX = ± 0.03 , XXX = ± 0.10 , INCH AND ANGLES ARE $\pm 2^\circ$. METRIC UNITS SHOWN IN PARENTHESES ARE BASED 25.4 MM PER INCH. IN THE EVENT OF A CONFLICT, ENGLISH UNITS TAKE PRECEDENCE.

CONSTRUCTION:

1. CENTER FILLER (F):

MATERIAL: IN ACCORDANCE WITH AS5756.

2. POSITIVE PHASE COMPONENTS (+):

GAGE SIZE: 8 AWG.

CONDUCTOR: EIGHT UNCOATED COPPER CONDUCTORS, 420 SIZE 34 STRANDS IN ACCORDANCE WITH ASTM B-3, ROPE LAY IN ACCORDANCE WITH ASTM B-173.

INSULATION: ETHYLENE-PROPYLENE-RUBBER, EPR WALL THICKNESS .045 INCH (1.14 MM) IN ACCORDANCE WITH ICEA S-66-516, COLOR RED.

MARKING: PRINTED WITH A "POSITIVE +" NOT TO EXCEED 2 INCH (50.8 MM) INTERVALS.

3. NEGATIVE NEUTRAL-PHASE COMPONENTS (-):

GAGE SIZE: 8 AWG.

CONDUCTOR: EIGHT UNCOATED COPPER CONDUCTORS, 420 SIZE 34 STRANDS IN ACCORDANCE WITH ASTM B-3, ROPE LAY IN ACCORDANCE WITH ASTM B-173.

INSULATION: ETHYLENE-PROPYLENE-RUBBER, EPR WALL THICKNESS .045 INCH (1.14 MM) IN ACCORDANCE WITH ICEA S-66-516, COLOR BLACK.

MARKING: PRINTED WITH A "NEGATIVE -" NOT TO EXCEED 2 INCH (50.8 MM) INTERVALS.

4. CONTROL COMPONENTS (1 TO 3, AND 4 TO 6):

GAGE SIZE: 14 AWG.

CONDUCTOR: THREE UNCOATED COPPER CONDUCTORS, 41 SIZE .010 INCH (.254 MM) DIAMETER STRANDS IN ACCORDANCE WITH ASTM B-3, LAY IN ACCORDANCE WITH ASTM B-173.

INSULATION: CROSS-LINKED THERMOSETTING POLYETHYLENE, WALL THICKNESS .020 INCH (.508 MM) IN ACCORDANCE WITH ICEA S-66-524, COLOR BLUE.

JACKET: POLYAMIDE IN ACCORDANCE WITH ASTM D4066. WALL THICKNESS SHALL BE .005 (.127) INCH.

MARKING: A PRINTED IDENTIFICATION NUMBER (1 TO 6) NOT TO EXCEED 2 INCH (50.8 MM) INTERVALS.

5. CABLE:

DIAMETER: AS SHOWN IN FIGURE 1.

WIRE LAY DIRECTION: ALTERNATING (INNER = RIGHT HAND/OUTER = LEFT HAND), MINIMUM WIRE LAY LENGTHS IN ACCORDANCE WITH AS5756.

INNER JACKET: INNER JACKET MATERIAL IS ARTIC NEOPRENE (POLYCHLOROPRENE), IN ACCORDANCE WITH MIL-PRF-13777 PRESSURE EXTRUDED WITH HIGH TENSION LOW STRETCH CROSS WRAPPED REINFORCEMENT OUTER LAYER. INNER JACKET DIAMETER IS 1.440 INCHES (36.576 MM). INNER JACKET THICKNESS AS SPECIFIED IN AS5756.

OUTER JACKET: OUTER JACKET MATERIAL IS HD NEOPRENE IN ACCORDANCE WITH MIL-PRF-13777 BONDED TO REINFORCEMENT LAYER OF INNER JACKET. OUTER JACKET DIAMETER AS SPECIFIED IN FIGURE 1. OUTER JACKET THICKNESS AS SPECIFIED IN AS5756.

| | | | |
|---|---------------------------------------|----------------------------------|-------------------------|
|  | AEROSPACE STANDARD | AS5756™/7 SHEET 2 OF 3 | REV. B |
| | CABLE, LOW INDUCTANCE, 270 VOLT DC | | |