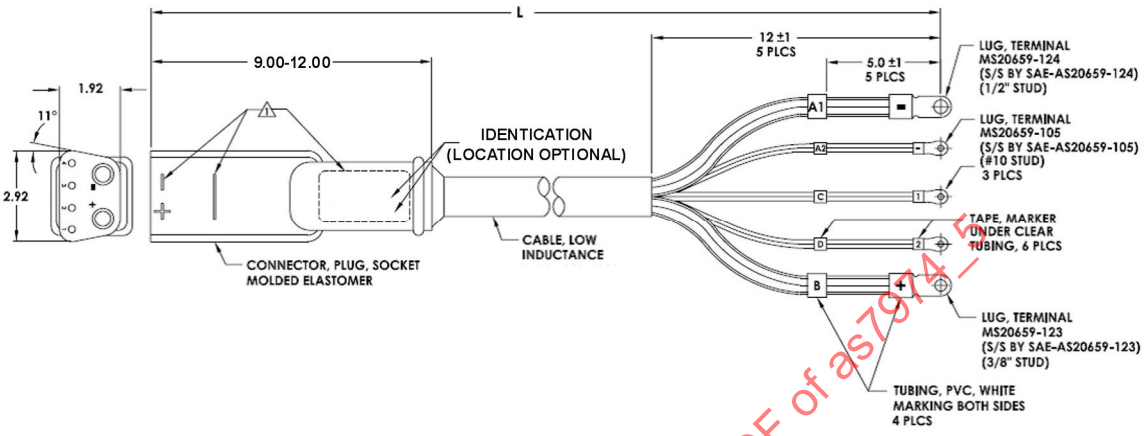
FEDERAL SUPPLY CLASS
6150

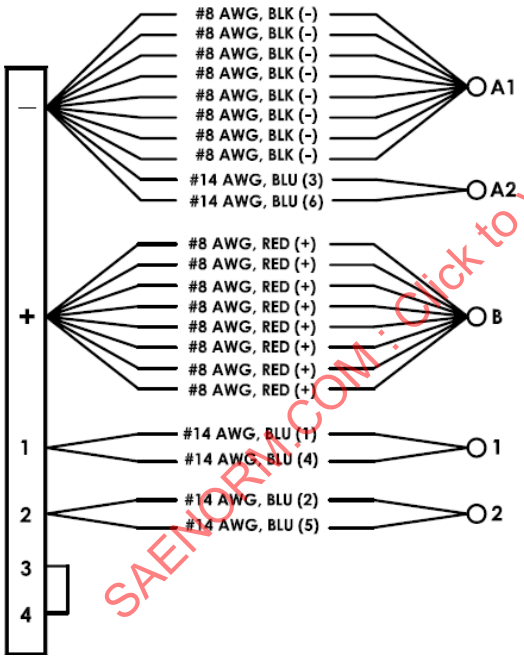
RATIONALE

AS7974/5 HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

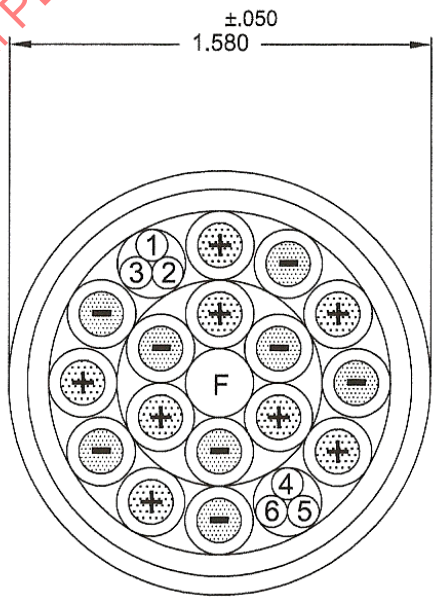
NOTICE

THE REQUIREMENTS FOR PROCURING THE CABLE ASSEMBLIES DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION AND THE LATEST ISSUE OF: SAE AS7974.





WIRE DIAGRAM



CABLE DIAGRAM

FIGURE 1- CABLE ASSEMBLY

THIRD ANGLE PROJECTION

SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/AS7974/5

CUSTODIAN: AE-8/AE-8A

PROCUREMENT SPECIFICATION: 7974

AEROSPACE STANDARD

CABLE ASSEMBLY, EXTERNAL ELECTRIC POWER, AIRCRAFT, SINGLE-JACKETED 270 VDC, 90 KW

AS7974/5
SHEET 1 OF 3

ISSUED 2010-01 REAFFIRMED 2015-04

REQUIREMENTS:

1. QUALIFICATION AND QUALITY CONFORMANCE

   QUALIFICATION REQUIRED IN ACCORDANCE WITH AS7974.

   VOLTAGE DROP WITHOUT SALT SPRAY IS REQUIRED FOR QUALITY CONFORMANCE. A SPECIFIC DETAILED TEST METHOD MUST BE SUPPLIED TO THE QUALIFYING ACTIVITY FOR APPROVAL, DESCRIBING HOW THE VOLTAGE DROP TEST WILL BE PERFORMED NONDESTRUCTIVELY AS A QUALITY CONFORMANCE TEST ON 100% OF CABLE ASSEMBLIES PRODUCED. VOLTAGE DROPS SHALL NOT EXCEED VALUES SPECIFIED IN TABLE III OF AS7974.

2. DESIGN & CONSTRUCTION

   DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED TOLERANCE IS 0.X= ±O.25, 0.XX= ±00.76, 0.XXX= ± 0.254, INCHES AND ANGLES ARE ± 2 DEGREES. CABLE LENGTH (L) IS SPECIFIED IN TABLE 2.

   PLUG BODY CONFIGURATION IS OPTIONAL, BUT SHALL BE FULLY MOLDED TO THE CABLE.

   CABLE SHALL BE ACCORDANCE WITH AS5756/7.

   MATERIALS ARE IN ACCORDANCE WITH AS7974.

3. IDENTIFICATION MARKING

   PLUG MARKING SHALL INCLUDE MANUFACTURE NAME, DATE CODE, CAGE CODE, AND PART NUMBER MOLDED OR HEAT IMPRESSED (SEE FIGURE 1 NOTE ⚠1). IF A MANUFACTURER SYMBOL IS USED IT SHALL BE REGISTER IN SAE AIR1351.

   POWER INPUT WIRES SHALL BE TERMINATED WITH QUALIFIED AS7928 TERMINALS AS SHOWN IN FIGURE 1.

   POWER CONTACTS SHALL BE CRIMPED WITH QUALIFIED AS5259/1 TOOL OR EQUIVALENT.

   BAND TENSILE STRENGTH IS NOT REQUIRED.

   WIRE TERMINATIONS SHALL BE IN ACCORDANCE WITH TABLE 1.

TABLE 1- WIRE TERMINATION REQUIREMENTS

PLUG CONTACT WIRE TERMINATION DESIGNATION					
NEGATIVE PHASE (-)		POSITIVE PHASE (+)	SIGNAL WIRES (1)	SIGNAL WIRE (2)	SIGNAL WIRE (3 & 4)
8 WIRES (BLACK)	2 WIRES (BLUE- #3 & #6)	8 WIRES (RED)	2 WIRES (BLUE- #1 & #4)	2 WIRES (BLUE- #2 & #5)	LOOPED (14 AWG)
TERMINAL WIRE TERMINATION DESIGNATION					
A1	A2	B	C	D	
8 WIRES (BLACK)	2 WIRES (BLUE- #3 & #6)	8 WIRES (RED)	2 WIRES (BLUE- #1 & #4)	2 WIRES (BLUE- #2 & #5)	