

INCH-POUND

MIL-DTL-3954/18B

18 February 2015

SUPERSEDING

MIL-D-3954/18A

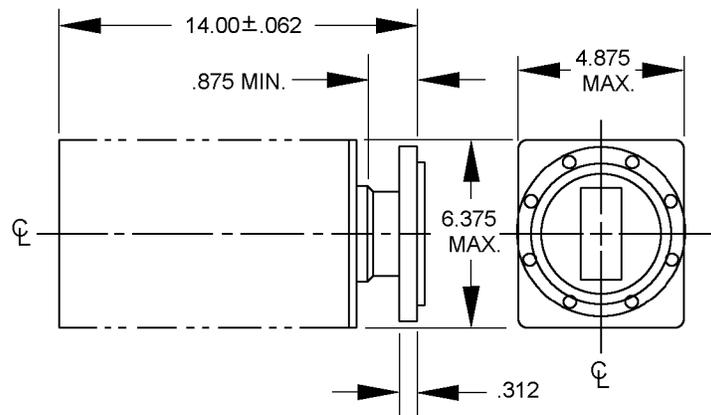
29 May 1974

MILITARY SPECIFICATION SHEET

DUMMY LOADS, ELECTRICAL, WAVEGUIDE (FREQUENCY RANGE 2.6 TO 3.95 GIGAHERTZ)

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for procuring the product described herein shall consist of this Specification Sheet and MIL-DTL-3954.



Inches	mm	Inches	mm
.062	1.57	4.875	123.83
.312	7.92	6.375	161.93
.875	22.23	14.00	355.6

NOTES

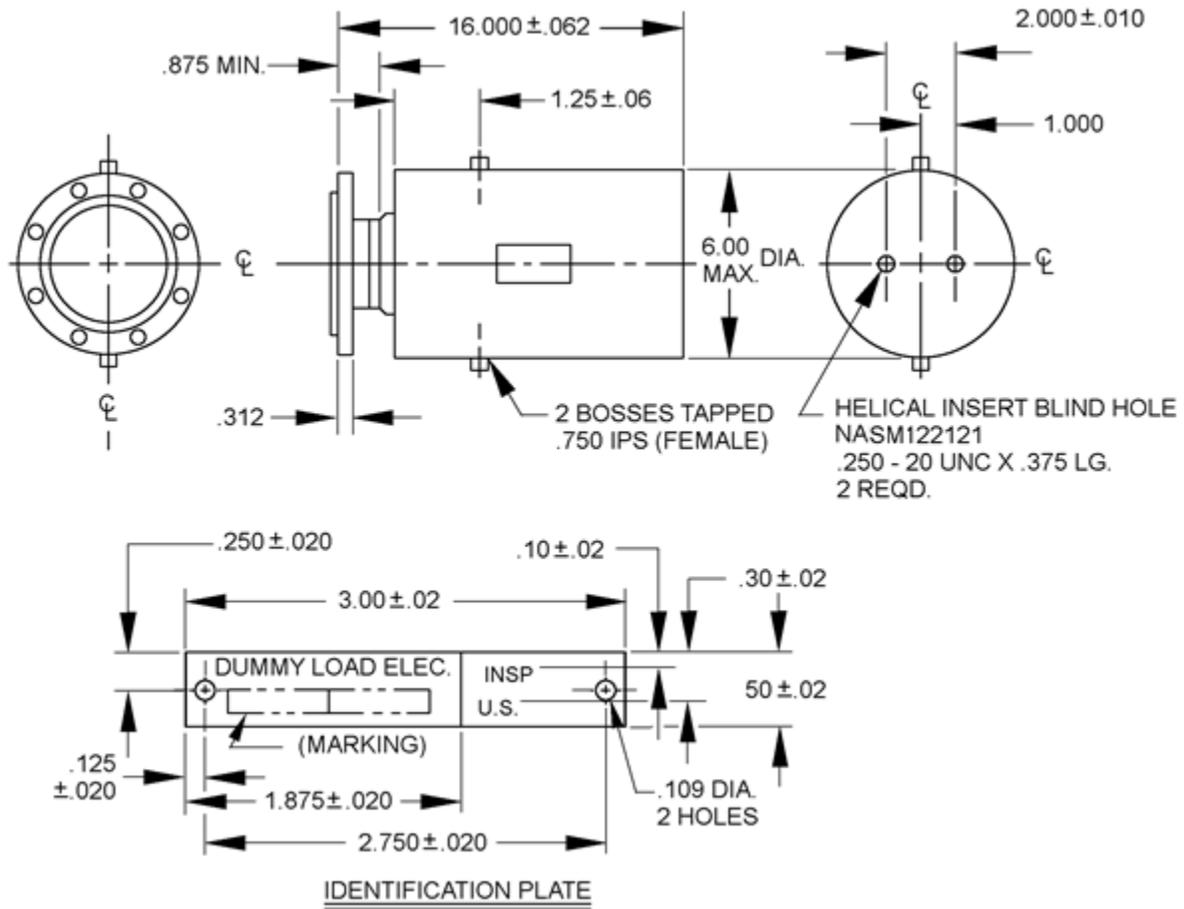
1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is $\pm .005$ (.13 mm).
3. Metric equivalents (to the nearest .01 mm) are given for general information only.
4. Screws, lockwashers and gasket are supplied with mating flange.
5. Quantity of fins required will be dependent on heat level requirement of the load.

FIGURE 1. Class 1 dummy load.

AMSC N/A

FSC 5985



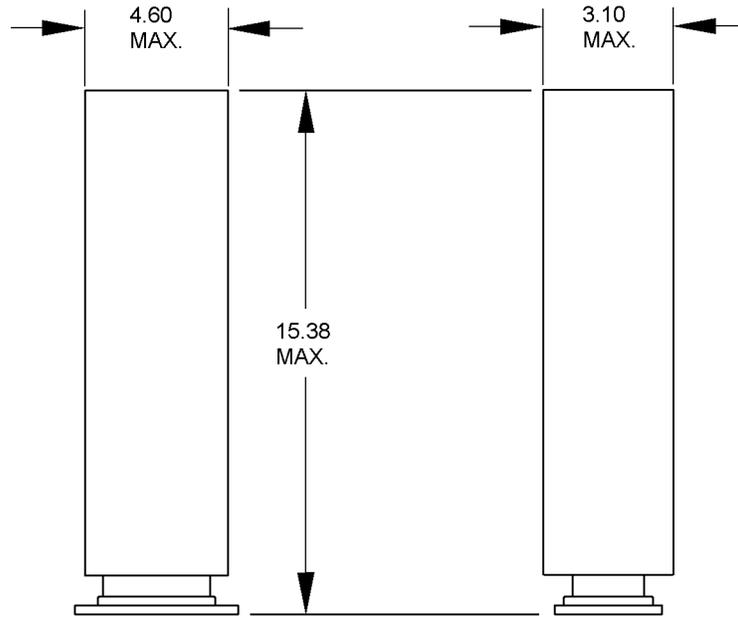


Inches	mm	Inches	mm	Inches	mm
.010	.25	.250	6.35	1.000	25.40
.02	.51	.30	7.62	1.25	31.75
.06	1.52	.312	7.92	1.875	47.63
.062	1.57	.375	9.53	2.000	50.8
.10	2.54	.50	12.70	2.750	69.85
.109	2.77	.750	19.05	3.00	76.2
.125	3.18	.875	22.23	6.00	152.4
				16.000	406.4

NOTES

1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is $\pm .005$ (.13 mm).
3. Metric equivalents (to the nearest .01 mm) are given for general information only.
4. Screws, lockwashers and gasket are supplied with mating flange.

FIGURE 2. Class II dummy load.



Inches	mm
3.10	78.74
4.60	116.84
15.38	390.65

NOTES

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only.
3. Screws, lockwashers and gasket are supplied with mating flange.

FIGURE 3. Class III dummy load.

TABLE I. Characteristics.

PIN	Class	Material	Flange equal to	VSWR max	Power		Pressure		Figure	Flow rate (GPM ^{1/})	Input temp. (°C)	Output temp. (°C)
					Average	Peak	Internal	Coolant chamber				
					(watts)	(kilowatts)	(psig)	(psig)				
M3954/18-01	I	AL	2/M3922/56-002 (UG-584/U)	1.10	3/ 2000	3200	30		1			
M3954/18-02	II	AL	2/M3922/56-002 (UG-584/U)	1.10	7500	3200	30	100	2	2.25	35	60
M3954/18-03	II	Copper	2/M3922/56-001 (UG-53/U)	1.10	7500	3200	30	100	2	2.25	35	60
M3954/18-04	II	Corrosion resisting steel	2/M3922/56-001 (UG-53/U)	1.10	7500	3200	30	100	2	2.25	35	60
M3954/18-05	III	AL	M3922/52-010 (UG-1725/U)	1.10	750	4000	10		3			

1/ The flow rate was determined from the following formula:

$$Q = \frac{6.8P}{C_p \Delta T}$$

Where: Q = Minimum flow rate in GPM
 P = Avg power in kilowatts
 C_p = Specific heat of coolant.
 ΔT = Coolant temperature rise in °F.

The calculations were made for C_p = 1 for water, a ΔT of 45°F and a safety factor of approximately 2. For different coolants of different temperature rises, a different flow rate would be necessary.

2/ Except thickness.

3/ This is a test power value. The average rated power is 4,500 watts.

TABLE II. Cross reference of PIN/ AN nomenclature.

PIN	AN nomenclature
M3954/18-01	DA-145/U

REQUIREMENTS:

Design and construction

Dimensions and configuration: See figures 1, 2 and 3.

Weight:

Dry load – 14.5 lbs max.

Liquid cooled load – 24 lbs max.

Performance characteristics: See table I.

Part or Identifying Number (PIN): M3954/18 – (dash number from table I).

Referenced documents. This document references MIL-DTL-3954.

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

CONCLUDING MATERIAL

Custodians:

Army – CR
Navy – EC
Air Force – 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5985-2015-008)

Review activities:

Army – AR, MI
Navy – CG, MC, OS
Air Force – 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.