REVISIONS

LTR	DESCRIPTION	DATE	APPROVED
A	The "C" dimension for dash numbers 02 and 03 was changed from 2.625 to 2.062 inches.	17 Oct 83	Randy Larson
B	Added listing on QPL for MIL-F-15733/75 as an alternative for manufacturer eligibility. Added another source to suggested sources of supply. Editorial changes throughout.	3 Mar 86	Patrick Kyne
C	Editorial changes throughout. Removed a source of supply.	19 Sep 00	K.A. Cottongim
D	Page 2 - Added pure tin prohibition and reference to MIL-PRF-15733. Page 6 - Added note (paragraph 6.4) regarding pure tin prohibition. Editorial changes throughout.	13 Feb. 06	M. Radecki
E	Editorial changes throughout.	2 Dec 2010	M. Radecki
F	Editorial changes throughout and add QR code.	9 Aug 2016	RADECKI.MICHAEL.A.1230152051 Digitally signed by RADECKI.MICHAEL.A.1230152051 Date: 2016.08.09 12:22:46 -04'00'

CURRENT DESIGN ACTIVITY CAGE CODE 037Z3
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DLA LAND AND MARITIME
COLUMBUS, OHIO 43218-3990

Prepared in accordance with ASME Y14.100

REV STATUS OF PAGES																		
REV	F	F	F	F	F	F	F											
PAGES	1	2	3	4	5	6	7											

PMIC N/A	**PREPARED BY** Randy Larson	**DESIGN ACTIVITY** **DEFENSE ELECTRONICS SUPPLY CENTER, DAYTON, OH**
Original date of drawing 27 June 1983	**CHECKED BY** Randy Larson	**TITLE FILTERS, RADIO FREQUENCY INTERFERENCE**
	APPROVED BY Ivan R. Jones	
	SIZE A / **CODE IDENT. NO.** 14933	**DWG NO.** 83006
	REV F	**PAGE** 1 **OF** 7

1. SCOPE

1.1 Scope. This drawing and MIL-PRF-15733 describe the requirements for 400 Hertz power line filters designed to attenuate frequencies from 14 kHz to 10 GHz.

1.2 Part or Identifying Number (PIN). The complete PIN is as follows:

83006	-	XX
Drawing number		Dash number (see table I)

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this drawing. This section does not include documents cited in other sections of this drawing or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents in sections 3 and 4 of this drawing, whether or not they are listed here.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract (see 6.2).

DEPARTMENT OF DEFENSE SPECIFICATION

MIL-PRF-15733 - Filters and Capacitors, Radio Frequency Interference, General Specification for.

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-202 - Test Methods for Electronic and Electrical Component Parts.
MIL-STD-220 - Method of Insertion Loss Measurement.

(Copies of these documents are available online at http://quicksearch.dla.mil/)

2.3 Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this drawing and the references cited herein, the text of this drawing shall take precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Interface and physical dimensions. The interface and physical dimensions shall be as specified in MIL-PRF-15733 and herein.

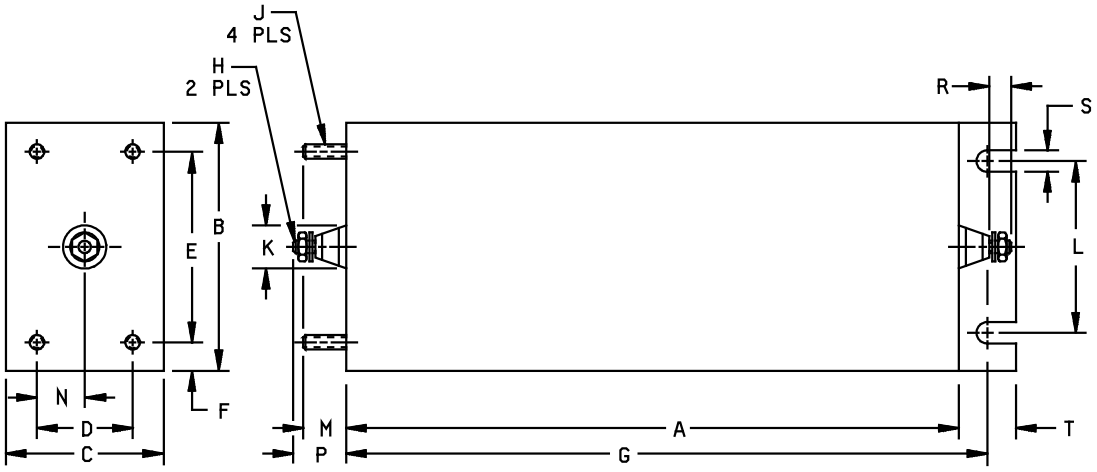
3.1.1 Terminals. See figure 1.

3.1.2 Case dimensions. Case dimensions shall be in accordance with figure 1.

3.2 Pure tin prohibition. Pure tin shall be prohibited as specified in MIL-PRF-15733 (see 6.4).

3.3 Operating temperature range. The operating temperature range shall be -55°C to +85°C.

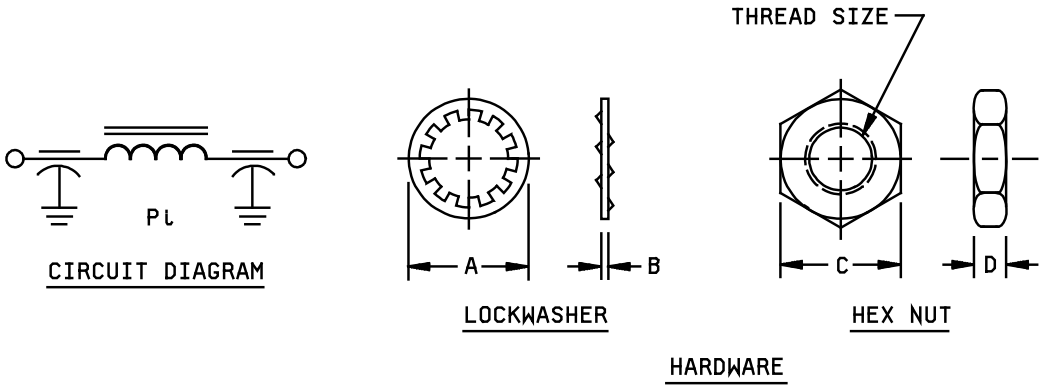
3.4 Temperature rise. Temperature rise shall be in accordance with MIL-PRF-15733; 25°C for parts rated up to and including 10 amperes, 35°C for parts rated above 10 amperes.



Dash No.	A ±.06 (1.52)	B ±.06 (1.52)	C ±.031 (.79)	D ±.015 (.38)	E ±.015 (.38)	F ±.031 (.79)	G ±.031 (.79)	H Thread	J Thread
01	8.00 (203.2)	2.00 (50.8)	2.000 (50.80)	1.250 (31.75)	1.250 (31.75)	.375 (9.53)	8.375 (212.73)	.164-32 UNC-2B	.164-32 UNC-2B
02	8.00 (203.2)	3.25 (82.6)	2.062 (52.37)	1.250 (31.75)	2.500 (63.50)	.375 (9.53)	8.375 (212.73)	.164-32 UNC-2B	.190-32 UNC-2B
03	12.00 (304.8)	3.25 (82.6)	2.062 (52.37)	1.250 (31.75)	2.500 (63.50)	.375 (9.53)	12.375 (314.33)	.164-32 UNC-2B	.190-32 UNC-2B
04	12.00 (304.8)	3.25 (82.6)	2.500 (63.50)	1.750 (44.45)	2.500 (63.50)	.375 (9.53)	12.375 (314.33)	.190-32 UNC-2B	.190-32 UNC-2B
05	12.00 (304.8)	3.00 (76.2)	3.000 (76.20)	2.250 (57.15)	2.250 (57.15)	.375 (9.53)	12.375 (314.33)	.250-20 UNC-2B	.190-32 UNC-2B

Dash No.	K Dia. Max	L ±.015 (.38)	M ±.062 (1.57)	N ±.0075 (0.19)	P Max	R Min	S	T	Weight (lbs) Max
01	.562 (14.27)	1.250 (31.75)	.562 (14.27)	0.625 (15.88)	.690 (17.53)	.290 (7.37)	.281 (7.14)	.750 (19.05)	2.6
02	.562 (14.27)	2.250 (57.15)	.562 (14.27)	0.625 (15.88)	.690 (17.53)	.290 (7.37)	.281 (7.14)	.750 (19.05)	3.8
03	.562 (14.27)	2.250 (57.15)	.562 (14.27)	0.625 (15.88)	.690 (17.53)	.290 (7.37)	.281 (7.14)	.750 (19.05)	6.0
04	.687 (14.45)	2.250 (57.15)	.562 (14.27)	0.875 (22.23)	.690 (17.53)	.290 (7.37)	.281 (7.14)	.750 (19.05)	6.7
05	.875 (22.23)	2.250 (57.15)	.687 (17.45)	1.125 (28.58)	1.25 (31.6)	.600 (15.24)	.281 (7.14)	.750 (19.05)	7.7

FIGURE 1. Case dimensions and circuit diagram.



Hardware				
A ±.005 (.13)	B ±.005 (.13)	C ±.010 (.25)	D ±.005 (.13)	Thread size
.330 (8.38)	.020 (.51)	.344 (8.74)	.125 (3.18)	.164-32 UNC-2B
.375 (9.53)	.022 (.56)	.375 (9.53)	.125 (3.18)	.190-32 UNC-2B
.472 (11.99)	.025 (.64)	.437 (11.10)	.156 (3.96)	.250-32 UNC-2B

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Circuit diagram is for information only.
4. Mounting hardware shall be supplied with filter.
5. Terminal hardware shall be supplied with filter.
6. Recommended mounting torque 192 oz-in maximum.
7. Recommended terminal torque as follows:

Thread	Torque
.164-32 UNC-2A	64 oz-in max.
.190-32 UNF-2A	96 oz-in max.
.250-20 UNC-2A	192 oz-in max.

FIGURE 1. Case dimensions and circuit diagram - Continued.

3.5 Electrical characteristics.

3.5.1 Rated voltage. The rated voltage shall be 115 volts ac from dc to 400 Hertz.

3.5.2 Rated current. See table I.

3.5.3 Insertion loss. Insertion loss shall be in accordance with MIL-STD-220, at 25°C (see table I).

3.5.4 Dielectric withstanding voltage. Dielectric withstanding voltage shall be in accordance with MIL-PRF-15733.

3.5.5 Insulation resistance. The insulation resistance of the filter shall be 1,000 megohms minimum.

3.5.6 Voltage drop. The voltage drop shall be 1.15 volts ac (rms) maximum.

3.5.7 Capacitance to ground. Not applicable.

3.6 Environmental and mechanical requirements. The environmental and mechanical requirements shall be in accordance with MIL-PRF-15733. The following details and exceptions shall apply.

3.6.1 Terminal strength. Terminal strength shall be in accordance with MIL-PRF-15733 and MIL-STD-202-211, test condition E.

TABLE I. Electrical characteristics.

Dash no. 83006-	Rated current (amps) ac (rms) or dc	Minimum insertion loss (dB) in accordance with MIL-STD-220 1/ At +25°C										
		14 kHz	20 kHz	50 kHz	150 kHz	300 kHz	600 kHz	1 MHz	10 MHz	100 MHz	1 GHz	10 GHz
01	5	40	48	64	80	80	80	80	80	80	80	80
02	10	40	48	64	80	80	80	80	80	80	80	80
03	20	40	48	64	80	80	80	80	80	80	80	80
04	30	40	48	64	80	80	80	80	80	80	80	80
05	50	40	48	64	80	80	80	80	80	80	80	80

1/ Full-load insertion loss measurements shall be performed at frequencies between 100 kHz and 20 MHz inclusive; all other measurements shall be performed at no-load.

3.6.2 Salt spray (corrosion). Salt spray (corrosion) shall be in accordance with MIL-PRF-15733 and MIL-STD-202-101, test condition B.

3.6.3 Shock (specified pulse). Shock shall be in accordance with MIL-PRF-15733 and MIL-STD-202-213, test condition I.

3.6.4 Vibration, low frequency. Vibration shall be in accordance with MIL-PRF-15733 and MIL-STD-202-201; low frequency vibration test only.

3.7 Marking. The marking shall include the PIN as specified in 1.2, the manufacturer's name or code, date code, voltage rating, current rating, and circuit diagram.

3.8 Manufacturer eligibility. To be eligible for listing as an approved source of supply, a manufacturer shall be listed on the Qualified Products List for MIL-PRF-15733/2, /41, /55, /65, or /75 for at least one part or, perform first article inspection in accordance with the MIL-PRF-15733 qualification inspection requirements.

3.9 Certificate of compliance. A certificate of compliance shall be required from manufacturers requesting to be an approved source of supply.

3.10 Recycled, recovered, environmentally preferable, or biobased materials. Recycled, recovered, environmentally preferable, or biobased materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.11 Workmanship. Filters shall be processed in such a manner as to be uniform in quality and shall be free from cold soldering, corrosion, pits, dents, cracks, rough or sharp edges, misalignments, and other defects that will affect life, serviceability, or appearance. Cracks in glass seals are not allowed; however, minor meniscus crazing is acceptable.

4. VERIFICATION

4.1 Qualification inspection. Qualification inspection is not required.

4.2 Conformance inspection.

4.2.1 Inspection of product for delivery. Inspection of product for delivery shall consist of groups A and C inspections of MIL-PRF-15733.

4.2.2 Certification. The acquiring activity, at its discretion, may accept a certificate of compliance with group C requirements in lieu of performing the group C tests (see 6.2c).

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the military services' system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. Filters conforming to this drawing are intended for use when military specifications do not exist and qualified military devices that will perform the required function are not available for OEM application. This drawing is intended exclusively to prevent the proliferation of unnecessary duplicate specifications, drawings, and stock catalog listings. When a military specification exists and the product covered by this drawing has been qualified for listing on QPL-15733, this drawing becomes obsolete and will not be used for new design. The QPL-15733 product shall be the preferred item for all applications.

6.2 Ordering data. The contract or purchase order should specify the following:

a. Complete PIN (see 1.2).

b. Requirements for delivery, and one copy of the conformance inspection data or certificate of compliance with each shipment of parts by the manufacturer.

c. Whether the manufacturer performs the group C tests or provides certification of compliance with group C requirements.

d. Requirements for notification of change of product to acquiring activity if applicable.

e. Requirements for packaging and packing.

6.3 Replaceability. Filters covered by this drawing will replace the same commercial device covered by contractor-prepared specification or drawing.

6.4 Pure tin prohibition. Pure tin is prohibited since it may result in tin whisker growth. The use of alloys with tin content greater than 97 percent may exhibit tin whisker growth problems after manufacture. Tin whiskers may occur anytime from a day to years after manufacture and can develop under typical operating conditions on products that use such materials. Conformal coatings applied over top of a whisker-prone surface will not prevent the formation of tin whiskers. Alloys of 3 percent lead, by mass, have shown to inhibit the growth of tin whiskers. For additional information on this matter, refer to ASTM-B545 (Standard Specification for Electrodeposited Coating of Tin).

6.5 Users of record. Coordination of this document for future revisions is coordinated only with the approved source(s) of supply and the users of record of this document. Requests to be added as a recorded user of this drawing may be achieved online at capacitorfilter@dla.mil or if in writing to: DLA Land and Maritime, ATTN: VAT, Post Office Box 3990, Columbus, OH 43218-3990 or by telephone (614) 692-0551 or DSN 850-0551.

6.6 Approved sources of supply. Approved source(s) of supply are listed herein. Additional sources will be added as they become available. Assistance in the use of this drawing may be obtained online at capacitorfilter@dla.mil, or by contacting DLA Land and Maritime, ATTN: VAT, Post Office Box 3990, Columbus, OH 43218-3990 or by telephone (614) 692-0551 or DSN 850-0551.

DLA LAND AND MARITIME DRAWING 83006-	VENDOR CAGE	SIMILAR VENDOR 1/ TYPE
01	13619	RF2925-5B
02	13619	RF2925-10B
03	13619	RF2925-20B
04	13619	RF2925-30B
05	13619	RF2925-50B

1/ Parts must be purchased to the DLA Land and Maritime PIN to assure that all performance requirements and tests are met.

VENDOR CAGE	VENDOR NAME AND ADDRESS
13619	EMS Development Corporation 95 Horseblock Rd Unit 2A Yaphank, NY 11980-2301 United States