

INCH-POUND
MIL-DTL-24646/1C
23 January 2014
SUPERSEDING
MIL-DTL-24646/1B
18 April 2008

DETAIL SPECIFICATION SHEET

FUSE BOXES, FEEDER DISTRIBUTION, TOTALLY ENCLOSED,
125 VOLTS, ALTERNATING CURRENT, SINGLE AND THREE PHASE BUSES,
SINGLE PHASE BRANCHES, 0-30 AMPERE MIDGET FUSES,
SYMBOLS 600, 601, 612, 612.1, 613, 613.1 AND 614

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

The requirements for acquiring the product described herein
shall consist of this specification sheet and [MIL-DTL-24646](#).

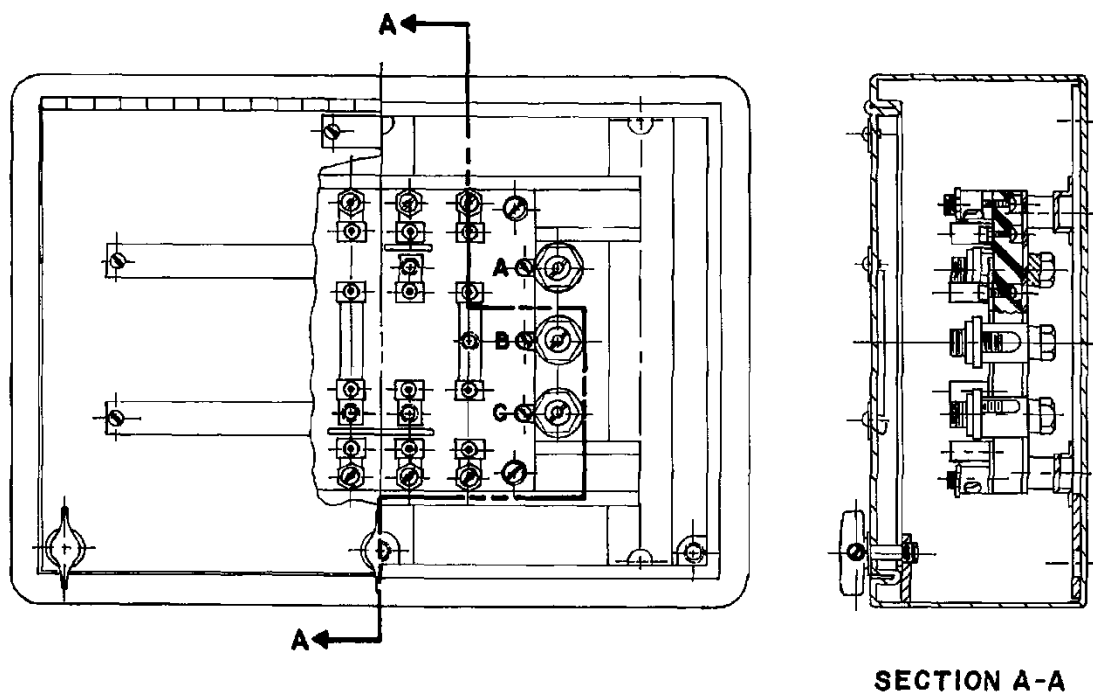
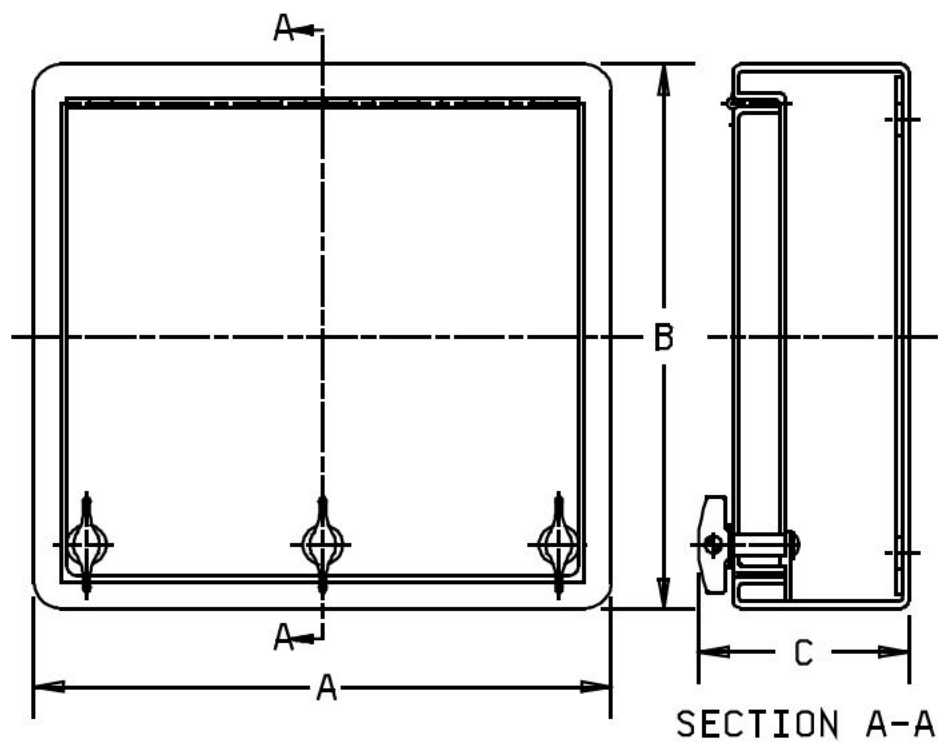


FIGURE 1. Fuse box assembly, typical. Item No. 01, 02, 03, 04, 05, 06, 07
(Symbol 612, 612.1 shown)

NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified herein, tolerances shall be as follows:
Two place decimals - plus or minus 0.02.
Three place decimals - plus or minus 0.005.

MIL-DTL-24646/1C

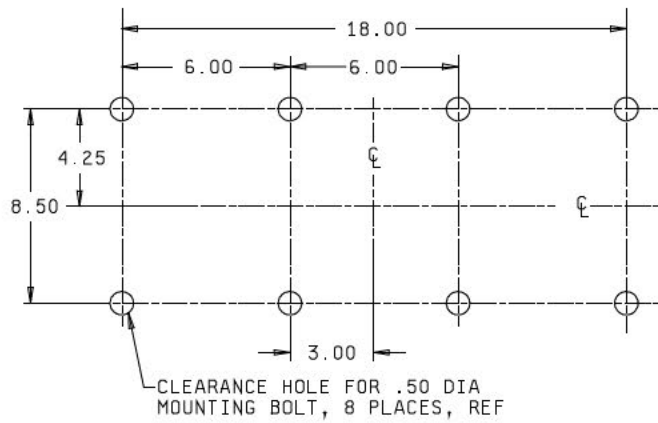
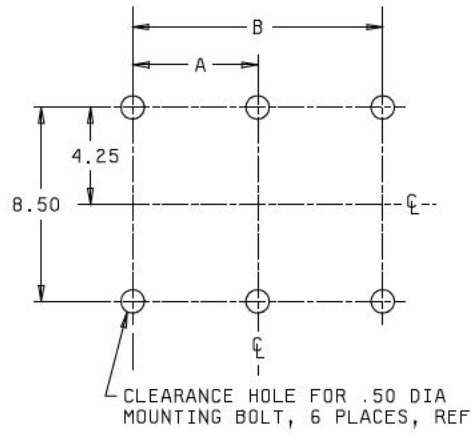


SYMBOL NO	DIMENSIONS (REF)		
	A	B	C
600	14.16	10.16	4.25
601	16.16	10.16	4.25
612	14.16	10.16	4.75
612.1	14.16	10.16	4.75
613	18.16	10.16	4.25
613.1	18.16	10.16	4.25
614	22.16	10.16	4.25

FIGURE 2. Enclosure, overall dimensions. Item No. 08, 09, 10, 11, 12, 13, 14
(Symbols 600, 601, 612, 612.1, 613 and 614)

MIL-DTL-24646/1C

A. Symbols 600, 601, 612, 612.1 and 613

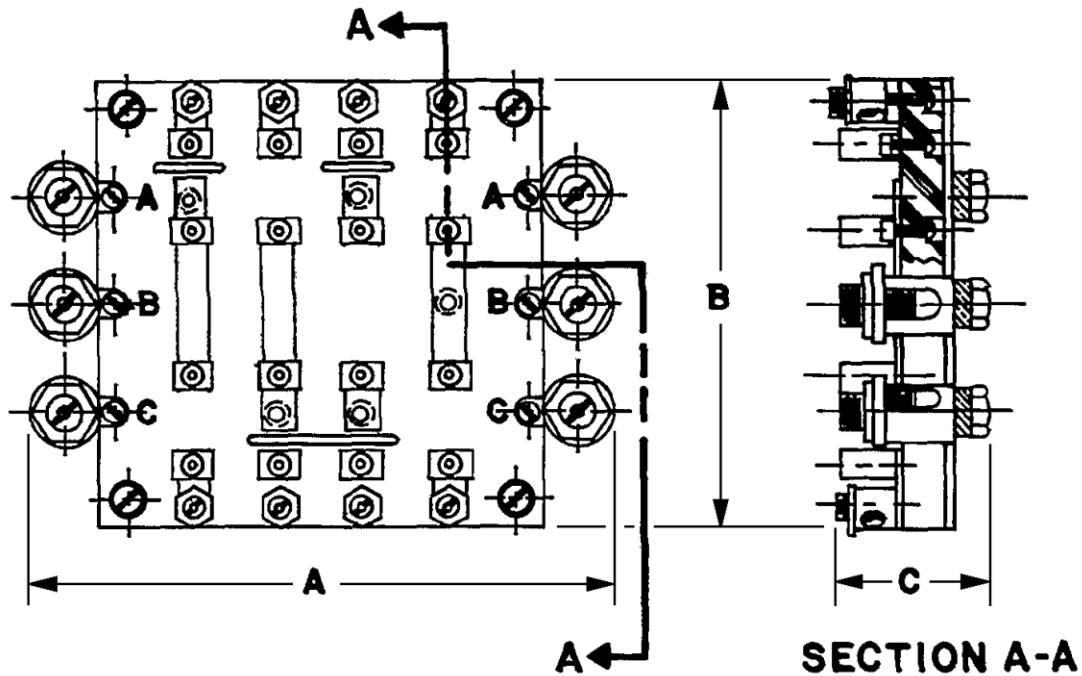


B. Symbol 614

SYMBOL NO	DIMENSIONS	
	A	B
600	5.00	10.00
601	6.50	13.00
612	5.00	10.00
612.1	5.00	10.00
613	6.50	13.00
613.1	6.50	13.00

FIGURE 3. Mounting dimensions, ref.

MIL-DTL-24646/1C

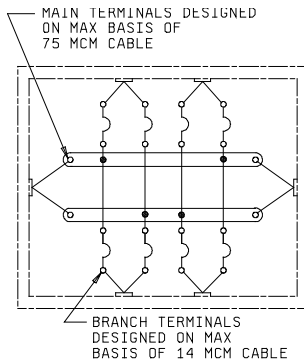


SYMBOL NO	DIMENSIONS (MAX)		
	A	B	C
600	7.50	5.00	2.30
601	12.63	5.00	2.30
612	7.75	5.75	2.30
612.1	7.75	5.75	2.30
613	12.63	5.75	2.30
613.1	12.63	5.75	2.30
614	17.5	5.75	2.30

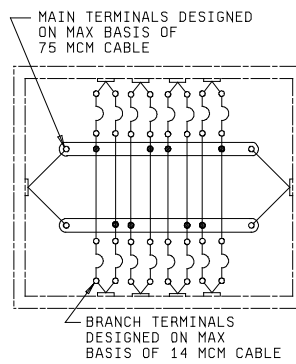
FIGURE 4. Fuse block assembly, typical. Item No. 15, 16, 17, 18, 19
(Symbols 600, 601, 612, 612.1, 613, 613.1 and 614)

MIL-DTL-24646/1C

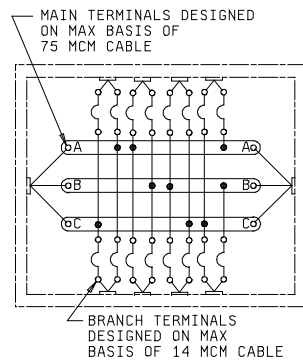
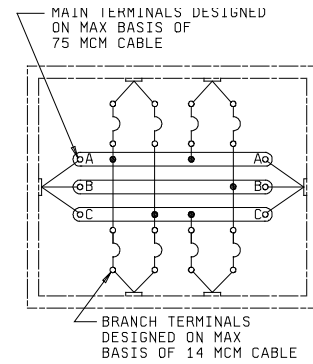
A. Four single-phase branches (Symbol 600)



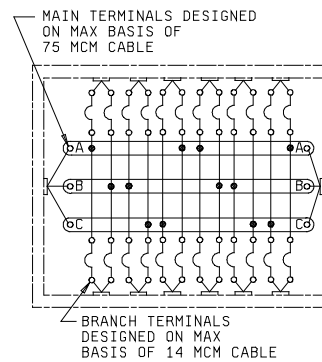
B. Eight single-phase branches (Symbol 601)



C. Four single-phase branches (Symbol 612, and 612.1)



D. Eight single-phase branches (Symbol 613, and 613.1)



E. Twelve single-phase branches (Symbol 614)

FIGURE 5. Wiring diagrams. 20, 21, 22, 23, 24

MIL-DTL-24646/1C

REQUIREMENTS

Symbol numbers: See [table I](#).

Design:

Electrical rating: 125 volts ac, 0-30 ampere, 60 Hz.

Dimensions and configuration: See figures [1](#), [2](#), [3](#) and [4](#).

Wiring diagrams: See [figure 5](#).

Mounting dimensions: See [figure 3](#).

Degree of enclosure: Totally enclosed.

Nonmagnetic enclosure: Nonmagnetic enclosures shall be aluminum as specified in [MIL-E-24142](#).

Attaching hardware shall be nonmagnetic and shall have a magnetic permeability not greater than 2.0.

Designation and marking: See [MIL-DTL-24646](#).

Parts: The parts listed in table II and specified in [MIL-DTL-24646](#) shall be used in the construction of the fuse boxes specified herein.

General information:

Military part numbers and general information is as specified in table I.

TABLE I. [Military part number and general information.](#)

Military part no.	Symbol no.	Approx. weight in pounds ^{2/}	No. of circuits	Feeder MCM	Branch MCM	Fuse size	Bus bar size	Supersedes	
								Drawing no.	Type
M24646/1-001	600	20.1	4	75	14	midget 0-30A	0.62 x 0.25	9-S-5348-L	-
M24646/1-002	601	22.9	8	75	14	midget 0-30A	0.62 x 0.25	9-S-5349-L	D-29A
^{1/} M24646/1-003	612.1	10.0	4	75	14	midget 0-30A	0.62 x 0.25	9000-S-6202-74440	-
M24646/1-004	613	24.5	8	75	14	midget 0-30A	0.62 x 0.25	9-S-5214-L	-
^{1/} M24646/1-005	613.1	14.5	8	75	14	midget 0-30A	0.62 x 0.25	9-S-5214-L	-
M24646/1-006	614	29.0	12	75	14	midget 0-30A	0.62 x 0.25	9-S-4755-L	18-S
M24646/1-007	612	21.5	4	75	14	midget 0-30A	0.62 x 0.25	9000-S-6202-74440	-

^{1/} Non-magnetic, see requirements.

^{2/} The weight of these fuse boxes may vary + or - 15 percent.

MIL-DTL-24646/1C

TABLE II. Parts list.

Item no. 1/	Description	QTY M -/							Material/ specification	Remarks
		001	002	003	004	005	006	007		
01	Fuse box assembly (sym 600)	1							MIL-DTL-24646/1	See figure 1
02	Fuse box assembly (sym 601)		1						MIL-DTL-24646/1	See figure 1
03	Fuse box assembly (sym 612)							1	MIL-DTL-24646/1	See figure 1
04	Fuse box assembly (sym 612.1)			1					MIL-DTL-24646/1	See figure 1
05	Fuse box assembly (sym 613)				1				MIL-DTL-24646/1	See figure 1
06	Fuse box assembly (sym 613.1)					1			MIL-DTL-24646/1	See figure 1
07	Fuse box assembly (sym 614)						1		MIL-DTL-24646/1	See figure 1
08	Enclosure (10 x 14 x 3.5)	1							M24142/16-001 per MIL-E-24142/16	See figure 2
09	Enclosure (10 x 16 x 3.5)		1						M24142/16-002 per MIL-E-24142/16	See figure 2
10 2/	Enclosure (10 x 14 x 4.0)			1					M24142/16-001 Mod per MIL-E-24142/16	See figure 2 Non-magnetic
11	Enclosure (10 x 18 x 3.5)				1				M24142/16-003 per MIL-E-24142/16	See figure 2
12 2/	Enclosure (10 x 18 x 3.5)					1			M24142/16-003 per MIL-E-24142/16	See figure 2 Non-magnetic
13	Enclosure (10 x 22 x 3.5)						1		M24142/18-002 per MIL-E-24142/18	See figure 2
14	Enclosure (10 x 14 x 4.0)							1	M24142/16-001 Mod per MIL-E-24142/16	See figure 2
15	Fuse block assembly	1							MIL-DTL-24646/1	See figure 4
16	Fuse block assembly		1						MIL-DTL-24646/1	See figure 4
17	Fuse block assembly			1				1	MIL-DTL-24646/1	See figure 4
18	Fuse block assembly				1	1			MIL-DTL-24646/1	See figure 4
19	Fuse block assembly						1		MIL-DTL-24646/1	See figure 4
20	Wiring diagram	1							MIL-E-2036	See figure 5
21	Wiring diagram		1						MIL-E-2036	See figure 5
22	Wiring diagram			1				1	MIL-E-2036	See figure 5
23	Wiring diagram				1	1			MIL-E-2036	See figure 5
24	Wiring diagram						1		MIL-E-2036	See figure 5
25	Fuse clip (midget 0-30A)	16	32	16	32	32	48	16	AA55507/1-04 per A-A-55507/1	N/A
26	Identification plate	1	1	1	1	1	1	1	3/	N/A
27	Information plate	4	8	4	8	8	12	4	3/	N/A

1/ Item numbers after the figure title are the same as the item numbers shown in this table.

2/ Nonmagnetic, see requirements.

3/ For steel panels the plates shall be brass in accordance with [ASTM B36/B36M](#) and [ASTM B121/B121M](#), for aluminum panels (symbols 612.1, 613.1) the plates shall be CRES types A, B, or C as specified in [MIL-DTL-15024](#) and severe service of [MIL-P-15024/5](#).

MIL-DTL-24646/1C

Referenced documents. In addition to [MIL-DTL-24646](#), this document references the following:

[MIL-E-2036](#) [MIL-DTL-15024](#) [MIL-P-15024/5](#) [MIL-E-24142](#) [MIL-E-24142/16](#)

[MIL-E-24142/18](#) [ASTM B36/B36M](#) [ASTM B121/B121M](#) [A-A-55507/1](#)

The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodian:
Navy - SH
DLA - CC

Preparing activity:
DLA - CC

(Project 5920-2014-003)

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>.