

INCH-POUND

MIL-PRF-83383/1G
6 April 2016

SUPERSEDING
MIL-PRF-83383/1F
29 April 2010

PERFORMANCE SPECIFICATION SHEET

CIRCUIT BREAKERS, REMOTE CONTROL, AC-DC, THERMAL, TRIP-FREE,
SERIES TRIP, SINGLE POLE, (5 TO 100 AMPERES)

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-PRF-83383](#).

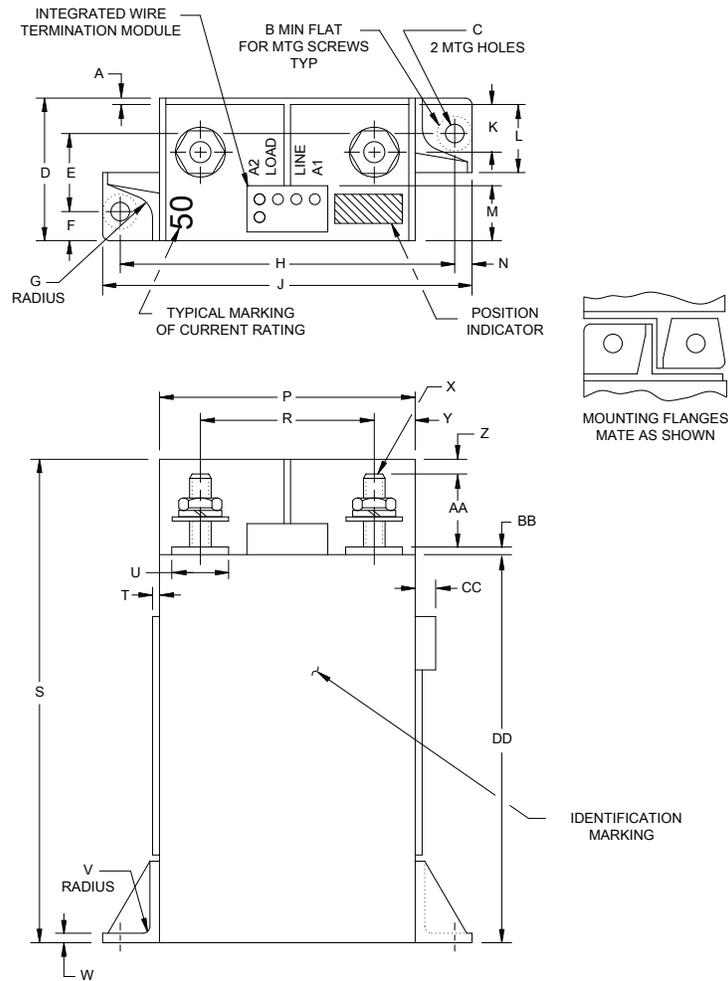


FIGURE 1. Interface and physical dimensions.



MIL-PRF-83383/1G

Dimensions.

Ltr	Inches		mm	
	Min	Max	Min	Max
A	---	.056	---	1.42
B	.400	---	10.16	---
C	.167	.177	4.24	4.50
D	---	1.256	---	31.90
E	.673	.703	17.09	17.86
F	.241	.271	6.12	6.88
G	.200	---	5.08	---
H	2.925	2.955	74.30	75.06
J	---	3.250	---	82.55
K	.420	---	10.67	---
L	---	.600	---	15.24
M	.469	.499	11.91	12.67
N	.120	.180	3.05	4.57
P	---	2.250	---	57.15
R	1.515	1.545	38.48	39.24
S	---	4.260	---	108.20
T	---	.061	---	1.55
V	.030	.090	.76	2.29
W	.074	.094	1.88	2.39
Y	.320	.380	8.13	9.65
Z	.070	---	1.78	---
BB	.035	.065	.89	1.65
CC	---	.180	---	4.57
DD	3.390	3.450	86.11	87.63

Terminal-Dimensions and Hardware.

Current rating amperes	X	AA +.015 -.000	U	Nut <u>1/</u>	Lock washer <u>2/</u>	Flat washer <u>3/</u>
5 to 25	.190-32UNC-2A	.500	.500	AN315-3R	MS35338-43	NAS1149F0332P
35 to 100	.250-28UNF-2A	.610	.610	AN315-4R	MS35338-44	NAS1149F0463P

1/ PIN is from National Aerospace Standard [NASM315](#).

2/ PIN is from National Aerospace Standard [NASM35338](#)

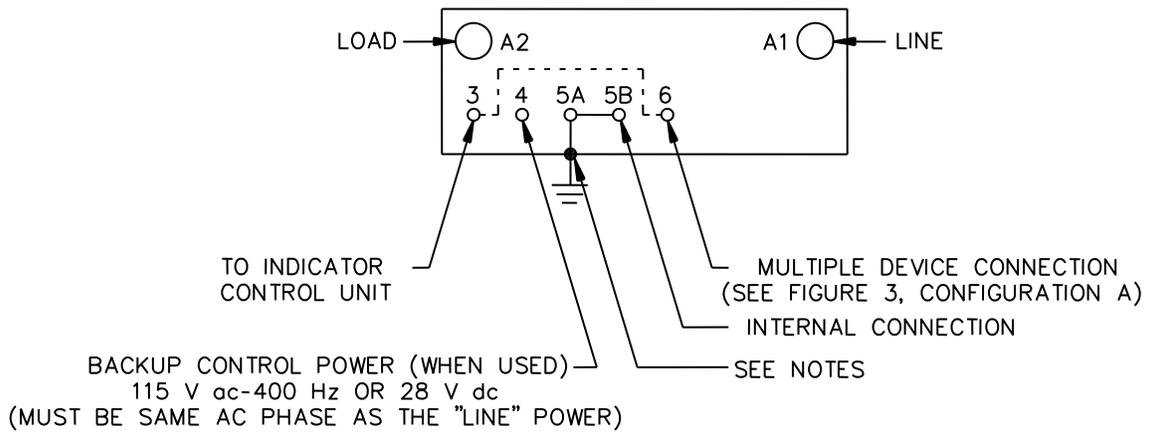
3/ PIN is from National Aerospace Standard [NAS1149](#).

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ± 0.015 (0.38 mm) for three decimal places and ± 0.03 (0.76 mm) for two decimal places.
4. Stiffening webs at mounting flanges shown for reference profile as required.
5. Current rating markings may be rotated 90 degrees from the type marking shown in order to accommodate large ampere ratings.

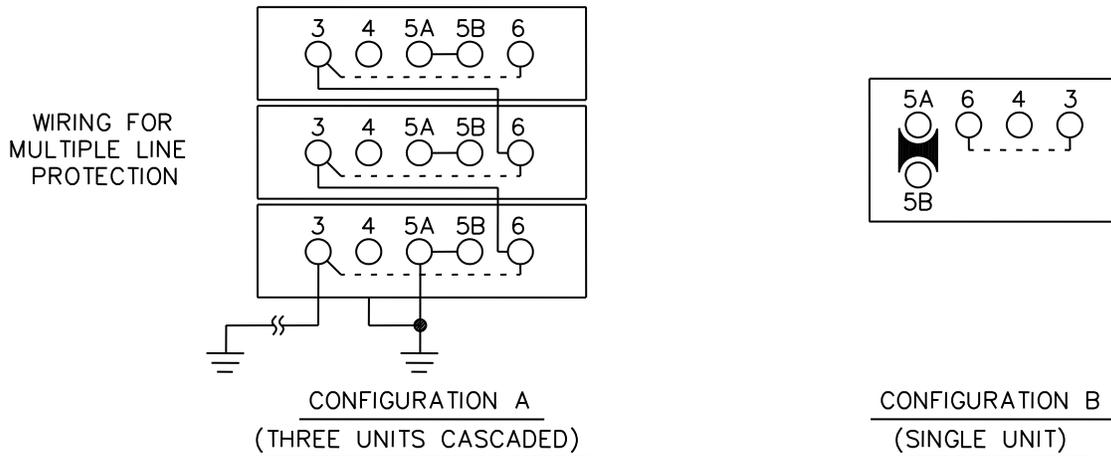
FIGURE 1. Interface and physical dimensions - Continued.

MIL-PRF-83383/1G



NOTE: Terminals 5A and 5B shall be internally grounded to the mounting flange(s).
Terminals 3 and 6 shall be internally connected.

FIGURE 2. Schematic.



NOTE: Terminal junction system (TJS) module shall accept pin contacts P/N M39029/1-100 or -101 as specified in [SAE-AS39029/1](#).

FIGURE 3. Terminal junction system module.

TABLE I. Dash numbers and characteristics.

Dash number	Current rating (amperes)	Tripping times from -54°C ±5°C to +71°C ±5°C (time in seconds)					
		Percent rated current					
		200		400		1000	
		Min	Max	Min	Max	Min	Max
01	5.0	7	40	1.2	6.4	.3	1.2
02	7.5	11	40	2.4	6.8	.33	1.1
03	10.0	12	42	2.8	8.5	.42	1.05
04	15.0	13	45	1.7	8.3	.35	1.2
05	20.0	14	46	2.9	7.6	.4	1.15
06	25.0	15	50	2.6	8.7	.4	1.3
07	35.0	16	55	2.8	8.3	.35	1.3
08	40.0	16	55	2.9	9.2	.36	1.3
09	50.0	13	55	2.9	10	.4	1.25
10	60.0	13	60	2.6	13	.26	1.8
11	75.0	13	60	2.5	13	.26	1.8
12	80.0	14	60	2.7	12.5	.3	2
13	100.0	17	63	3.5	13	.35	1.9

REQUIREMENTS:

Interface and physical dimensions: See [figure 1](#).

Weight:

5 to 25 amperes: 0.735 pound (334 grams), maximum.

35 to 50 amperes: 0.750 pound (341 grams), maximum.

60 to 100 amperes: 0.766 pound (348 grams), maximum.

Trip indication: See [figure 1](#).

Terminals: See [figures 1](#) and [2](#).

Voltage rating: 28 V dc or 115 V ac, 400 Hz.

Current ratings: See [table I](#).

Tripping times: See [table I](#).

Response time: 25 milliseconds, maximum.

MIL-PRF-83383/1G

Power requirements and response time at minimum voltage:

Standby current drain and actuation current:

Test voltage: 28 \pm 0.5 V dc to TJS module, then 115 \pm 2 V ac, 400 Hz to line terminal. Actuating current, 3.5 amperes dc and 11 amperes ac rms maximum.

Maximum operating time at minimum voltage:

Test voltage: 18 V dc then 104 V ac rms, 400 Hz, maximum.

Endurance:

Electrical:

5 to 25 amperes: 50,000 cycles resistive or inductive or motor load or lamp load.

35 to 50 amperes: 50, 000 cycles resistive or inductive or motor load or 25,000 cycles lamp load.

60 to 100 amperes: 50,000 cycles resistive or inductive load or 25,000 cycles motor load.

Interrupting capacities:

A - 3,600 amperes.

B - 3,600 amperes.

C - 3,600 amperes.

D - 3,600 amperes.

Other marking:

Current rating: See [figure 1](#).

Line and load terminals: See [figure 1](#).

Terminal junction system (TJS) module: See [figure 3](#).

Position indication: See [figure 1](#). Indication is provided by a lens over "open" and "closed" on red and green background.

Part or Identifying Number (PIN): M83383/01- (dash number from table I) (e.g., M83383/01-01).

MIL-PRF-83383/1G

Indicator/control unit (I/CU): In order to maintain compatibility between the RCCB and the I/CU, the following must be observed when making an I/CU selection:

- a. The I/CU must be a ½ ampere rated circuit breaker (MS22073-1/2 or MS26574-1/2, as specified in [SAE-AS58091](#), or equivalent).
- b. The line impedance (terminal 3 to I/CU) plus the I/CU impedance plus I/CU to ground connection.
- c. The I/CU must respond to a decreasing current pulse of $I^2t \leq 2$ throughout the temperature range.

CAUTION TO USERS:

Coordination between devices supplied by different manufacturers should be verified by the user.

Referenced documents. In addition to [MIL-PRF-83383](#), this document references the following:

[NASM315](#)

[NASM35338](#)

[NAS1149](#)

[SAE-AS58091](#)

[SAE-AS39029/1](#)

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.

Custodians:

Army - CR

Navy - AS

Air Force - 85

DLA - CC

Preparing activity:

DLA - CC

(Project 5925-2016-001)

Review activities:

Army - AT, CR4

Air Force - 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>.