

MILITARY SPECIFICATION SHEET

CIRCUIT BREAKERS, MAGNETIC, UNSEALED,
TRIP-FREE, TWO POLE, BACK MOUNTED
(1 TO 100 AMPERES)

INACTIVE FOR NEW DESIGN AFTER
30 SEPTEMBER 1997 AND IS NO LONGER USED,
EXCEPT FOR REPLACEMENT PURPOSES.

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-55629](#).

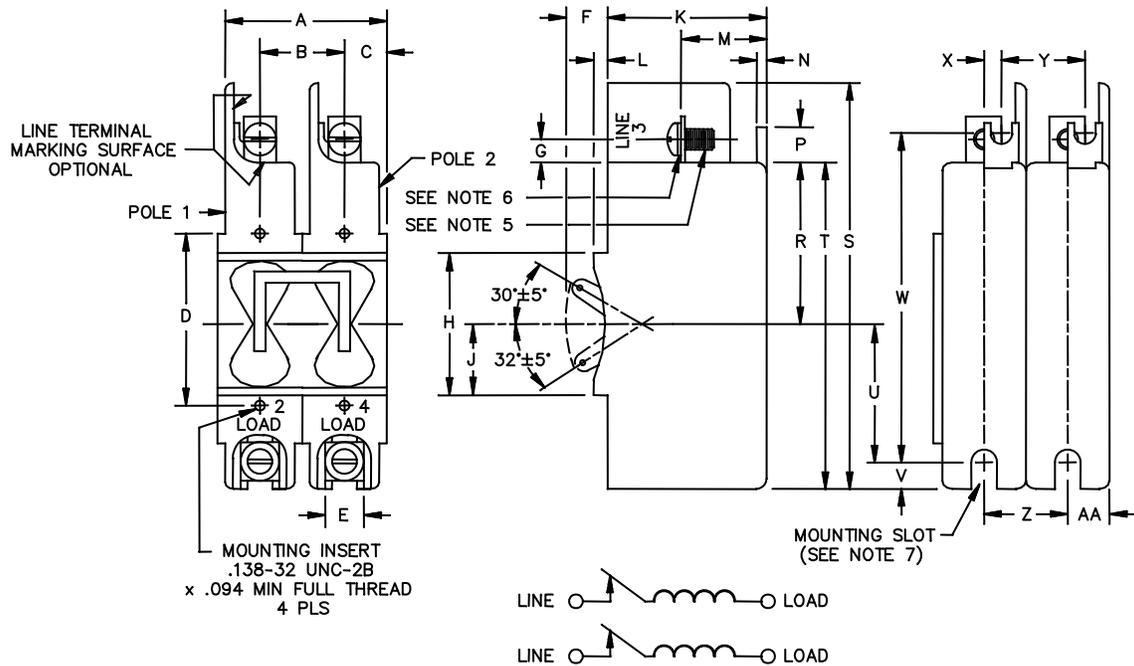


FIGURE 1. Dimensions and configurations.

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Ltr	Inches		mm	
	Min	Max	Min	Max
A	2.062	2.082	52.37	52.88
B	1.016	1.036	25.81	26.31
C	.285	---	7.24	---
D	2.740	2.760	69.60	70.10
E	.530	.550	13.46	13.97
F	---	.730	---	18.54
G	.380	.400	9.65	10.16
H	2.245	2.265	57.02	57.53
J	1.115	1.135	28.32	28.83
K	2.600	2.620	66.04	66.55
L	.210	.230	5.33	5.84
M	1.210	1.230	30.73	31.24
N	.115	.135	2.92	3.43
P	.475	.495	12.07	12.57
R	2.146	2.166	54.51	55.02
S	5.790	5.810	147.06	147.57
T	4.740	4.760	120.47	120.90
U	2.365	2.385	60.07	60.58
V	.210	.230	5.33	5.84
W	4.834	4.854	122.78	123.29
X	.190	.210	4.83	5.33
Y	1.016	1.036	25.81	26.31
Z	1.016	1.036	25.81	26.31
AA	.508	.518	12.90	13.16

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ± 0.010 inch (.254 mm).
4. Configuration optional providing overall dimension are not exceeded.
5. Screw (0 - 50 amperes) .190-32 UNF-2A.
(51 - 100 amperes) .250-20 UNC-2A.
6. Lockwasher, internal or external tooth, for 0-50 amperes, NASM35333-107 or MS35335-88 and for 51 - 100 amperes, NASM35333-108 or MS35335-89, or equivalent.
7. Mounting slot: Clearance for .164-32 UNC screw, 4 places.

FIGURE 1. Dimensions and configurations - Continued.

REQUIREMENTS

Dimensions and configuration: See figure 1.

Current ratings: See table I.

Voltage ratings: See table II.

Tripping-time delays: See table II.

Terminal and mounting hardware: See figure 1.

Terminals: See figure 1.

Actuator strength: 40 pounds.

Actuator operating force: 8 pounds, maximum.

Shock:

- a. MIL-STD-202, method 213, test condition I.
- b. 60 G's for 21 ms.

Interrupting capacities: 5,000 amperes at 125 V dc and 240 V ac, 60 Hz and 400 Hz in accordance with the applicable requirements of UL489. Interrupt test is not performed at 400 Hz..

High inrush. Applicable to time delay characteristics K, L, N, P, R, and S.

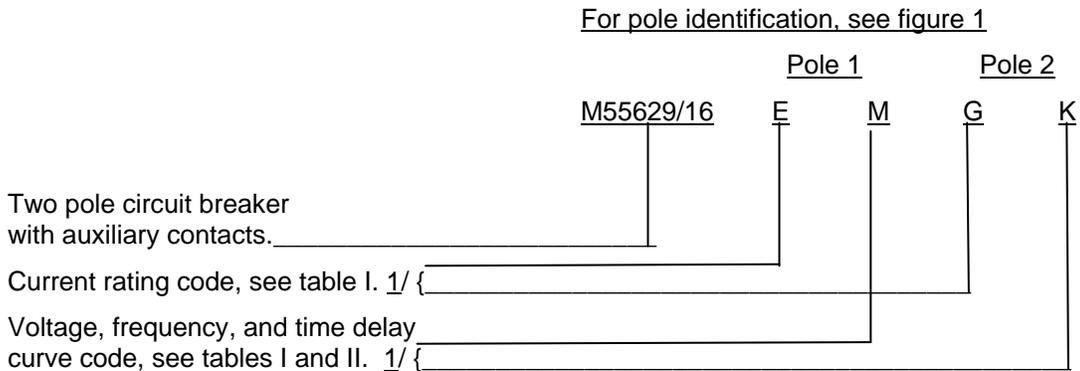
Vibration: Energized current shall be 80 percent of rated current and the frequency range shall be 10 to 55 Hz.

VERIFICATION:

Qualification inspection: Not applicable.

Conformance inspection: Group A tests of MIL-PRF-55629.

Part or Identifying Number (PIN): The military PIN consists of the prefix M55629/16 and four code letters selected from tables I and II as shown in the following example.



1/ Poles 1 and 2, respectively, shall be coded in ascending order of current rating code letter. If both poles have identical current rating code letters, the voltage, frequency, and time delay code letter shall be assigned in ascending order.

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TABLE I. Part numbering code letters and parameters.

Current rating		Voltage frequency and tripping time delay code letter from table II	Resistance or impedance ohms (max)	Current rating		Voltage frequency and tripping time delay code letter from table II	Resistance or impedance ohms (max)
(am-peres)	Code letter			(am-peres)	Code letter		
1	A	K, L, or M	2.0 at dc	30	I	K, L, or M	.005 at dc
1	A	N, P, or Q	2.20 at 60 Hz	30	I	N, P, or Q	.005 at 60 Hz
1	A	R, S, or T	6.4 at 400 Hz	30	I	R, S, or T	.010 at 400 Hz
2	B	K, L, or M	.5 at dc	35	J	K, L, or M	.004 at dc
2	B	N, P, or Q	.52 at 60 Hz	35	J	N, P, or Q	.004 at 60 Hz
2	B	R, S, or T	2.0 at 400 Hz	35	J	R, S, or T	.008 at 400 Hz
5	C	K, L, or M	.08 at dc	40	K	K, L, or M	.0035 at dc
5	C	N, P, or Q	.102 at 60 Hz	40	K	N, P, or Q	.0035 at 60 Hz
5	C	R, S, or T	.372 at 400 Hz	40	K	R, S, or T	.006 at 400 Hz
7	D	K, L, or M	.04 at dc	50	L	K, L, or M	.003 at dc
7	D	N, P, or Q	.048 at 60 Hz	50	L	N, P, or Q	.003 at 60 Hz
7	D	R, S, or T	.216 at 400 Hz	50	L	R, S, or T	.005 at 400 Hz
10	E	K, L, or M	.018 at dc	60	M	K, L, or M	.0027 at dc
10	E	N, P, or Q	.02 at 60 Hz	60	M	N, P, or Q	.0027 at 60 Hz
10	E	R, S, or T	.1 at 400 Hz	60	M	R, S, or T	.004 at 400 Hz
15	F	K, L, or M	.01 at dc	70	N	K, L, or M	.0024 at dc
15	F	N, P, or Q	.011 at 60 Hz	70	N	N, P, or Q	.0024 at 60 Hz
15	F	R, S, or T	.045 at 400 Hz	70	N	R, S, or T	.0035 at 400 Hz
20	G	K, L, or M	.007 at dc	80	P	K, L, or M	.0022 at dc
20	G	N, P, or Q	.007 at 60 Hz	80	P	N, P, or Q	.0022 at 60 Hz
20	G	R, S, or T	.022 at 400 Hz	80	P	R, S, or T	.003 at 400 Hz
25	H	K, L, or M	.006 at dc	100	Q	K, L, or M	.002 at dc
25	H	N, P, or Q	.006 at 60 Hz	100	Q	N, P, or Q	.002 at 60 Hz
25	H	R, S, or T	.015 at 400 Hz	100	Q	R, S, or T	.0025 at 400 Hz

TABLE II. Tripping-time delay. 1/

Time delay percent rated current	Tripping-time delay at 25°C ±2°C (tripping time in seconds)											
	125 V dc						240 V , 60 Hz					
	K		L		M		N		P		Q	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
100	no trip one hour		no trip one hour		no trip one hour		no trip one hour		no trip one hour		no trip one hour	
125	1,000	120	120	8	10	.44	880	100	90	13	7.0	.80
150	360	60	60	5.9	4.0	.25	500	48	37	6	3.0	.40
200	110	22	21	2.5	1.5	.13	200	20	10.5	2.1	1.0	.15
400	16	4	4.0	0.5	.35	.03	30	4	1.84	.46	.25	.032
600	7	0.7	1.7	.19	.2	Inst	9	.9	.9	.03	.15	.019
800	4	inst	.65	Inst	.16	Inst	5	.025	.6	Inst	.11	Inst
1,000	2.75	inst	.35	Inst	.12	Inst	2.75	.020	.51	Inst	.095	Inst
1,800 <u>2/</u>	no trip		no trip		N/A		no trip		no trip		N/A	

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TABLE II. Tripping-time delay - Continued. 1/

Time delay percent rated current	Tripping-time delay at 25°C ±2°C (tripping time in seconds)					
	240 V , 400 Hz					
	R		S		T	
	Max	Min	Max	Min	Max	Min
100	no trip one hour		no trip one hour		no trip one hour	
125	---	---	---	---	---	---
150	450	80	40.0	9.5	4.0	.6
200	195	35	17.0	3.8	1.5	.23
400	22	4.3	2.2	.35	.16	.03
600	7	.025	1.3	.02	.07	Inst
800	.09	Inst	.50	Inst	.06	Inst
1,000	.05	Inst	.055	Inst	.06	Inst
1,800 <u>2/</u>	no trip		no trip		N/A	

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TABLE II. Tripping-time delay - Continued. 1/

Time delay percent rated current	Tripping-time delay at high and low temperature (tripping time in seconds) <u>3/</u>											
	125 V dc						240 V , 60 Hz					
	K		L		M		N		P		Q	
	-40° Max	+85° Min	-40° Max	+85° Min	-40° Max	+85° Min	-40° Max	+85° Min	-40° Max	+85° Min	-40° Max	+85° Min
200	1,000	5	100	.5	5	.03	1,000	5	100	.3	5	.03

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TABLE II. Tripping-time delay - Continued. 1/

Time delay percent rated current	Tripping-time delay at 25°C ±2°C (tripping time in seconds) <u>3/</u>					
	240 V , 400 Hz					
	R		S		T	
	-40° Max	+85° Min	-40° Max	+85° Min	-40° Max	+85° Min
200	1,000	5	100	.3	20	.03

1/ Circuit breakers shall not trip at 100 percent of rated current but must trip at 125 percent or 150 percent of rated current as applicable.

Between 100 percent and 125 or 150 percent, they may trip. Instantaneous is defined as less than 15 milliseconds.

2/ High inrush test shall be performed using one alternation which has a peak value of 2,000 percent of rated current. 400 Hz and dc delays are subjected to a 400 Hz waveform, 60 Hz delays shall be subjected to a 60 Hz waveform.

3/ High and low test temperature tolerances are ±2°C.

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TABLE III. Supersession and substitution data.

Circuit breakers covered by this specification sheet are substitutable for the manufacturer's PINs as shown below. This information in no way implies that the manufacturer's PIN is substitutable for the military PIN.

Superseding military PIN	Superseded manufacturers PIN	
M55629/16XXXX	CAGE 81541	CAGE 74193
	Type 209-2	Type CE2
	The complete PIN consists of the type (above) plus identification codes for comparable mounting, terminal configuration, internal connections, voltage, frequency, time delay, current rating, with or without high-inrush feature, or UL listing, or recognition.	

Reference documents. In addition to [MIL-PRF-55629](#), this document references the following:

[MIL-STD-202](#) [UL489](#)

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 - EC
 Air Force - 85
 DLA - CC

Preparing activity:
 Army - CR
 Agent
 DLA - CC

Review activities:
 Army - AV, CR4, MI
 Navy - AS, MC, OS
 Air Force - 19, 99

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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.daps.dla.mil>.