



DEFENSE LOGISTICS AGENCY
LAND AND MARITIME
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January 4, 2021

MEMORANDUM FOR MILITARY/INDUSTRY DISTRIBUTION

SUBJECT: Initial Draft of Commercial Item Descriptions (CIDs) A-A-CRKTB, A-A-CRKTB/1, A-A-CRKTB/2 and A-A-CRKTB/3; Project Numbers 5925-2021-002, -003, -004 and -005

The initial drafts of the subject documents are now available for viewing and downloading from the DLA Land and Maritime-VA web site:

<https://landandmaritimeapps.dla.mil/programs/milspec/default.aspx>

These initial drafts were generated to provide suitable substitutes for MIL-PRF-55629/20, MIL-PRF-55629/21 and MIL-PRF-55629/22 circuit breakers, which will be obsoleted soon.

If these documents are of interest to you, please provide your comments electronically. This can be in the form of a return e-mail, with or without an attached text file. A 30-day coordination cycle from the date of this letter has been allotted. Please provide your comments within that time period. Comments from military departments must be identified as either "Essential" or "Suggested." Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians or this office, as applicable, in sufficient time to allow for consolidating the department reply. If an electronic response is not possible we will still accept comments via letter, facsimile or phone call but only after you have contact the project officer listed below.

You have supplied MIL-PRF-55629/20, MIL-PRF-55629/21 and MIL-PRF-55629/22 circuit breakers to DLA Land and Maritime in the past, therefore, we would like your company to be listed as a source for these new CIDs. If you are interested in this proposal and your circuit breakers meets the requirements of these drawings, we are requesting that you complete and submit the attached Certificates of Compliance along with any comments.

If no comments are received in the allotted 30-day coordination cycle, concurrence is assumed. All late comments will be held to the next specification action. Any further coordination concerning these documents will be circulated only to firms and organizations that furnish comments or reply that they have an interest.

If there are any questions, please contact Fred Lester by the preferred method of E-Mail at Fred.Lester@dlm.mil or by telephone at commercial 614-692-0548; or by facsimile at 614-693-1644. Our mailing address, as a last resort is DLA Land and Maritime-VAT, P.O. Box 3990, Columbus, OH 43218-3990.

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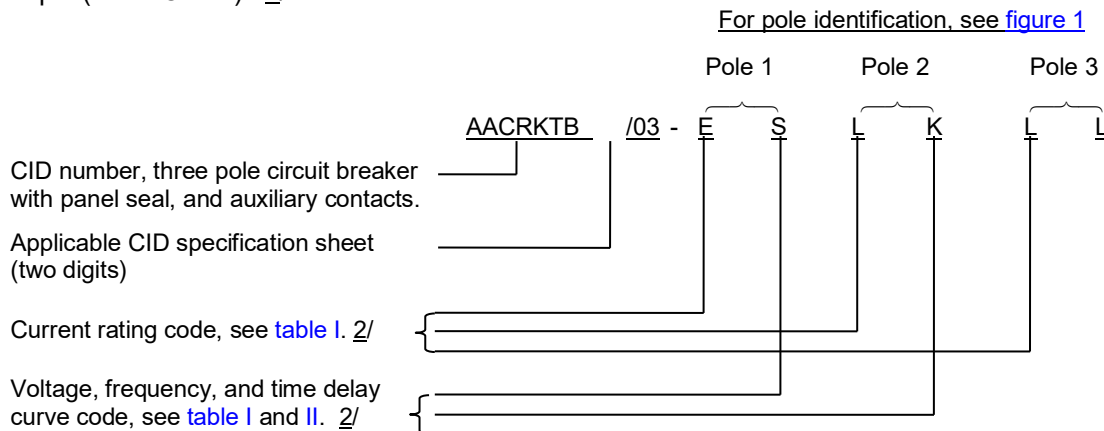
COMMERCIAL ITEM DESCRIPTION SPECIFICATION SHEET

CIRCUIT BREAKERS, MAGNETIC, PANEL SEAL, TRIP-FREE, SERIES TRIP, DOUBLE POLE (0.2 TO 30 AMPERES)

The General Services Administration has authorized the use of this commercial item description (CID) for all federal agencies.

The complete requirements for procuring the circuit breakers described herein shall consist of this document and the issue in effect of CID A-A-****.

CLASSIFICATION/PART OR IDENTIFICATION NUMBER (PIN). This commercial item description (CID) specification sheet uses a classification system which is included in the PIN as shown in the following example (see NOTES). 1/



1/ Special PINs for equipment manufacturers use only. Equipment manufacturers who do not require the high-inrush feature or auxiliary contacts in specific production applications may order circuit breakers without these features by modifying the prefix AACRKTB/03-XXXXXX as follows: Replace slash with A for items without auxiliary contacts (AACRKTBA03-XXXXXX). Replace slash with B for items without the high-inrush feature (AACRKTBB03-XXXXXX). Replace slash with C for items without either the high-inrush feature or auxiliary contacts (AACRKTBC03-XXXXXX).

2/ If all poles have identical ratings, code letters will repeat for each pole. If all poles are not identical, poles 1, 2, and 3, respectively (see [figure 1](#)) shall be coded in ascending order of the current rating code letter. If all poles have identical current ratings but different voltage, frequency, and time delay code letters, then these code letters shall be coded in ascending order.

When circuit breakers without auxiliary contacts are installed in new equipment, replacement spares should possess this feature since it is more economic for the DoD to stock one version of this item instead of two. Therefore, stock numbers should not be requested (or assigned) for this special PIN.

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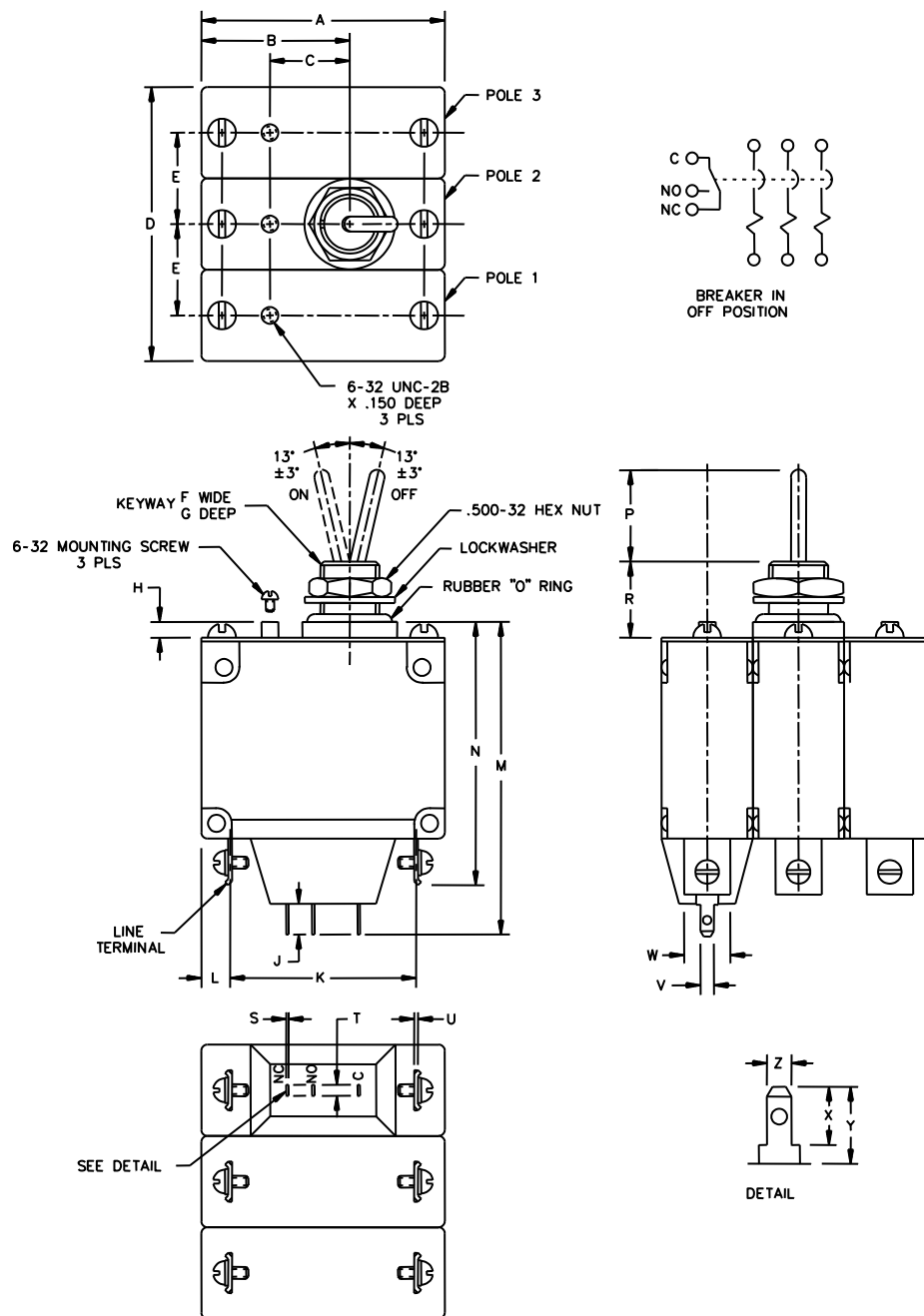


FIGURE 1. Configuration and dimensions.

A-A-CRKTB/3

Ltr	Inches		mm	
	Min	Max	Min	Max
A	1.985	2.015	50.42	51.18
B	1.205	1.235	30.61	31.37
C	.641	.671	16.28	17.04
D	---	2.265	---	57.53
E	.735	.765	18.67	19.43
F	.060	.065	1.52	1.65
G	.030	.035	0.76	0.89
H	.115	.145	2.92	3.68
J	.280	.310	7.11	7.87
K	1.515	1.545	38.48	39.24
L	.215	.245	5.46	6.22
M	---	2.620	---	66.55
N	---	2.256	---	57.30
P	.735	.765	18.67	19.43
R	.610	.640	15.50	16.26
S	.019	.021	0.48	0.53
T	.095	.125	2.41	3.18
U	.030	.033	0.76	0.84
V	.095	.125	2.41	3.18
W	.360	.390	9.14	9.91
X	.245	.275	6.22	6.99
Y	.329	.359	8.36	9.12
Z	.095	.125	2.41	3.18

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .015$ (0.38 mm).
4. Lockwasher, split, No. 8 [NASM35338-137](#) or equivalent.
5. Terminal screw, No. 8, .164-32UNC-2A, .187 $\pm$.015 long. Material: Brass, tin plated ([ASTM B545](#) or equivalent).
6. Passivated - corrosion resisting steel screw - slotted head with integral O-ring, may be replaced by the [NASM3212-12](#) with cross-recessed head or equivalent.
7. Hex mounting nut: .500 - 32 UNF-2B thread, .625 $\pm$.010 across flats, .120/.125 thick, brass nickel plated, [SAE-AMS-QQ-N-290](#) nonglare or equivalent; may be replaced with [MS25082-B22](#) or equivalent.
8. Internal tooth lockwasher, .625 $\pm$.005 O.D., .510 $\pm$.005 I.D., .028 $\pm$.005 thick, stainless steel.
9. O-ring, material: Material shall be selected to enable the O-ring to meet the performance requirements of this specification. Butadiene acrylonitrile has been successfully used in the past and should be considered for meeting the O-ring requirements of the specification.
10. Auxiliary switch terminals shall provide for soldered connections.
11. Physical item marking of the words "LOAD" and "CB CONT OPEN" is optional.

FIGURE 2. Dimensions and configurations (configuration 2) - Continued.

SALIENT CHARACTERISTICS.

Interface and physical dimensions. Circuit breakers supplied to this CID specification sheet shall be as specified herein (see [figure 1](#)).

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

High Inrush. Applies unless otherwise specified. [1/](#)

Voltage ratings. See [table II](#). Ratings are maximum; the minimum operating voltage is limited by the internal resistance or impedance of the circuit breaker (see [table I](#)).

Auxiliary contacts. Contact capacity shall be 10 amperes to 250 volts 60/400 Hz and 2 amperes resistive, 1 ampere inductive to 50 V dc.

Tripping-time delays. See [table I](#) and [table II](#).

Terminal and mounting hardware. See [figure 1](#).

Terminals. See [figure 1](#). Solderability is applicable to auxiliary contact terminals.

Actuator strength. 25 pounds.

Actuator operating force. 4 pounds, maximum.

Terminal strength.

Applied load. 30 pounds.

Applied torque. 10 inch-pounds.

Interrupting capacities.

2,000 amperes at 50 V dc.

2,000 amperes at 120 V ac

1,500 amperes at 120 V ac, 400 Hz.

1,000 amperes at 240 V ac, 60 and 400 Hz.

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TABLE II. Circuit breaker dash numbers and applicable characteristics.

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)
Amperes	Code letter			Amperes	Code letter		
0.1	A	K or L	186 at dc	4.0	K	K or L	0.113 at dc
0.1	A	M or N	142 at 60 Hz	4.0	K	M or N	0.1 at 60 Hz
0.1	A	P, R, or S	350 at 400 Hz	4.0	K	P, R, or S	0.3 at 400 Hz
0.250	B	K or L	26.4 at dc	5.0	L	K or L	0.08 at dc
0.250	B	M or N	26.4 at 60 Hz	5.0	L	M or N	0.08 at 60 Hz
0.250	B	P, R, or S	60 at 400 Hz	5.0	L	P, R, or S	0.175 at 400 Hz
0.35	C	K or L	13.2 at dc	7.5	M	K or L	0.035 at dc
0.35	C	M or N	13.2 at 60 Hz	7.5	M	M or N	0.035 at 60 Hz
0.35	C	P, R, or S	30 at 400 Hz	7.5	M	P, R, or S	0.11 at 400 Hz
0.5	D	K or L	6 at dc	10.0	N	K or L	0.02 at dc
0.5	D	M or N	6.36 at 60 Hz	10.0	N	M or N	0.02 at 60 Hz
0.5	D	P, R, or S	13.2 at 400 Hz	10.0	N	P, R, or S	0.04 at 400 Hz
0.75	E	K or L	3 at dc	12.5	P	K or L	0.016 at dc
0.75	E	M or N	3 at 60 Hz	12.5	P	M or N	0.015 at 60 Hz
0.75	E	P, R, or S	7 at 400 Hz	12.5	P	P, R, or S	0.03 at 400 Hz
1.0	F	K or L	2 at dc	15.0	R	K or L	0.012 at dc
1.0	F	M or N	2 at 60 Hz	15.0	R	M or N	0.011 at 60 Hz
1.0	F	P, R, or S	4 at 400 Hz	15.0	R	P, R, or S	0.02 at 400 Hz
1.75	G	K or L	0.9 at dc	20.0	S	K or L	0.0075 at dc
1.75	G	M or N	0.9 at 60 Hz	20.0	S	M or N	0.007 at 60 Hz
1.75	G	P, R, or S	2 at 400 Hz	20.0	S	P, R, or S	0.01 at 400 Hz
2.5	H	K or L	0.35 at dc	25.0	T	K or L	0.006 at dc
2.5	H	M or N	0.35 at 60 Hz	25.0	T	M or N	0.006 at 60 Hz
2.5	H	P, R, or S	0.7 at 400 Hz	25.0	T	P, R, or S	0.009 at 400 Hz
3.0	J	K or L	0.3 at dc	30.0	U	K or L	0.005 at dc
3.0	J	M or N	0.3 at 60 Hz	30.0	U	M or N	0.005 at 60 Hz
3.0	J	P, R, or S	0.5 at 400 Hz	30.0	U	P, R, or S	0.006 at 400 Hz

TABLE II. Operating voltage, frequency, and tripping-time delay. 1/

Time delay percent rated current	Tripping-time delay at 25°C ±2°C (tripping time in seconds)													
	50 V dc				240 V ac, 60 Hz				240 V ac, 400 Hz					
	K		L		M		N		P		R		S	
	Max	Min	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		no trip one hour	
125	60	7	6.5	0.5	120	10	12	0.7	N/A	N/A	N/A	N/A	N/A	N/A
150	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70	5	8	0.5	400	40
200	10	0.6	1.2	0.13	20	2.2	3	0.13	25	2.1	1.9	0.15	150	9.5
400	2	0.15	0.5	0.031	3	0.3	1	0.03	5	0.4	0.4	0.02	19	1.9
600	1	Inst	0.25	Inst	2	Inst	0.3	Inst	2.4	Inst	0.25	Inst	7	Inst
800	0.5	Inst	0.1	Inst	0.8	Inst	0.15	Inst	1	Inst	0.1	Inst	0.4	Inst
1,000	0.1	Inst	Inst	Inst	0.25	Inst	0.1	Inst	0.1	Inst	0.05	Inst	0.043	Inst
1,800 2/	no trip		no trip		no trip		no trip		no trip		no trip		no trip	

See footnotes at end of [table II](#)

TABLE II. Operating voltage, frequency, and tripping-time delay. - Continued. 1/

Time delay percent rated current	Tripping-time delay at high and low temperature °C (tripping time in seconds)													
	50 V dc				240 V ac, 60 Hz				240 V ac, 400 Hz					
	K		L		M		N		P		R		S	
	-40°C Max	+85°C Min	-40°C Max	+85°C Min	-40°C Max	+85°C Min	-40°C Max	+85°C Min	-40°C Max	+85°C Min	-40°C Max	+85°C Min	-40°C Max	+85°C 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		no trip one hour	
125	500	5	100	0.1	700	1	100	0.1	N/A	N/A	N/A	N/A	N/A	N/A
150	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	600	0.5	100	0.1	1500	5
200	100	0.1	10	0.05	160	0.05	10	0.05	130	0.1	10	0.05	500	0.5
400	20	Inst	3	Inst	26	Inst	3	Inst	32	Inst	3	Inst	100	Inst
600	5	Inst	1	Inst	13	Inst	1	Inst	26	Inst	1	Inst	24	Inst
800	2	Inst	0.5	Inst	2.8	Inst	0.5	Inst	8.4	Inst	0.5	Inst	3	Inst

- 1/ Circuit breakers shall not trip at 100 percent rated current but must trip at 125 or 150 percent of rated current. 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 1,800 percent of rated current. 400 Hz and dc delays shall be 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 degree Celsius.

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NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID specification sheet. See the classification information for PIN format example.

Commercial products. As part of the market analysis and research effort, this CID specification sheet was coordinated with the following manufacturers of commercial products. At the time of CID specification sheet preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID specification sheet. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict acquisition to only the manufacturers shown.)

<u>MFR's CAGE</u>	<u>MFR's name and address</u>
CAGE	Manufacturer's NAME Manufacturer's ADDRESS Manufacturer's ADDRESS (Continued) Manufacturer's PHONE NUMBER Manufacturer's FAX NUMBER Manufacturer's GENERIC E-MAIL Manufacturer's Uniform Resource Locator (URL):

Part number (P/N) supersession data. These CID specification sheet PINs supersede the following MFR's P/N's as shown. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE III. P/N supersession data.

CID dash number	MFR's CAGE	MFR's P/N
AACRKTB/03-XXXXXX (see table I)	XXXXXX	XXXXXX

1/ The manufacturer's P/N shall not be used for acquisition to the requirements of this CID. At the time of preparation of this CID, the aforementioned commercial products were reviewed and could be replaced by the CID P/N shown. For actual part marking requirements see the marking paragraph of A-A-CRKTB.

MILITARY INTERESTS:

Custodians:

Navy - EC
Air Force - 85
DLA - CC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FAS

Preparing activity:

DLA-CC

Project 5920-2021-005

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>.

A-A-CRKTB/3

CERTIFICATE OF COMPLIANCE
FOR COMMERCIAL ITEM DESCRIPTION (CID)

DLA LAND AND MARITIME-VAT CONTACT Fred W. Lester TELEPHONE 614-692-0548,
FAX 614-692-6939

MANUFACTURER'S NAME AND LOCATION: _____

CAGE _____

☐

I (We) have reviewed the enclosed CID and hereby certify that our product, currently designed as:

Manufacturer's part number

and assembled at our plant location in:

(write "same" if applicable)

meets or exceeds the performance requirements of this CID.

☐

I (We) have reviewed the enclosed CID and hereby certify that our product, currently designed as:

Manufacturer's part number

and assembled at our plant location in:

(write "same" if applicable)

will meet this CID, provided that the attached comments are incorporated into the document.

I (We) understand that this certificate is not to be used nor construed as a guarantee of continued or indefinite availability for the described commercial item description. However, under present circumstances, we would expect to supply a separate certificate of compliance in company format pertaining to lot date code shipped on the order. On the basis of the statement checked above, please list us as a "known source of supply" on your commercial item description.

☐

No interest in this CID.

AUTHORIZED SIGNATURE(S)

(TITLE)

(DATE)

(TELEPHONE)

(FAX)