INCH-POUND

MIL-PRF-55629/10C
9 October 1997

SUPERSEDING
MIL-C-55629/10B
1 November 1984

PERFORMANCE SPECIFICATION SHEET

CIRCUIT BREAKERS, MAGNETIC, LOW-POWER, UNSEALED, TRIP-FREE, SERIES TRIP, DOUBLE POLE, AUXILIARY CONTACTS (0.2 TO 30 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 and MIL-PRF-55629.

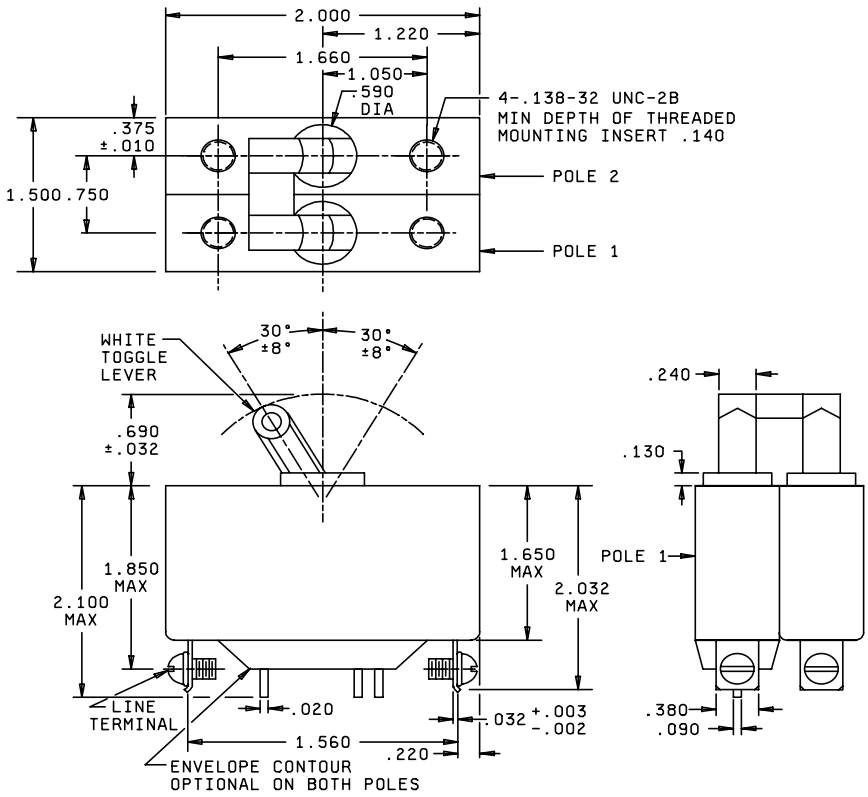
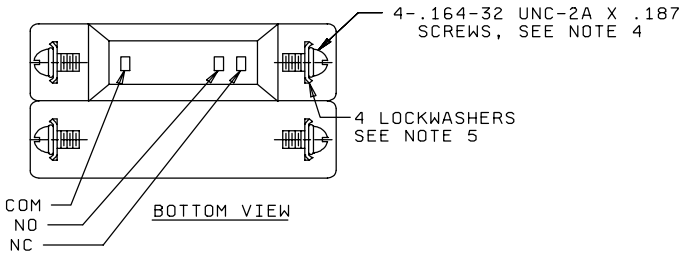
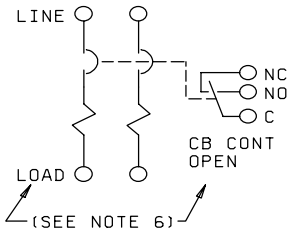


FIGURE 1. Dimensions and configurations.

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.





Inches	mm	Inches	mm	Inches	mm	Inches	mm
.002	.05	.140	3.56	.590	14.99	1.650	41.91
.003	.08	.187	4.75	.690	17.53	1.660	42.16
.010	.25	.220	5.59	.750	19.05	1.850	46.99
.020	.51	.240	6.10	1.050	26.67	2.000	50.80
.032	.81	.250	6.35	1.220	30.99	2.032	51.61
.090	2.29	.375	9.52	1.500	38.10	2.100	53.34
.130	3.30	.380	9.65	1.560	39.62		

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ±.031 (0.79 mm).
4. Terminal screw, No. 8, .164-32UNC-2A, .187 ±.015 long, material - brass, tin plated (ASTM B545 or equivalent.
5. Lockwasher - split, No. 8 MS35338-137 or equivalent.
6. Physical item marking of the words “LOAD” and “CB CONT OPEN” is optional.

FIGURE 1. Dimensions and configurations - Continued.

REQUIREMENTS

Dimensions and configuration: See figure 1.

Current ratings: See table I.

Voltage ratings: See table I. 240 V ac breakers are designed also for use at 120 V ac.

Tripping-time delays: See tables II.

Terminal and mounting hardware: See figure 1.

Terminals: See figure 1. Solderability is applicable. Solder terminals are formed by removal of screws.

Auxiliary contact terminals: Contact capacity shall be 3.0 amperes at 50 V dc, inductive; 5.0 amperes at 50 V dc, resistive; and 5.0 amperes at 120 or 240 V ac.

Actuator strength: 25 pounds.

Actuator operating force: 8 pounds, maximum.

Terminal strength:

Applied load: 30 pounds.

Applied torque: 10 inch-pounds.

Interrupting capacities:

2,000 amperes at 50 Volts, dc.

2,000 amperes at 120 Volts, ac, 60 Hz.

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

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

Part number: M55629/10- (dash number from table I).

TABLE I. Circuit breaker dash numbers and applicable characteristics.

Dash no.	Current rating (amperes)	Voltage rating	Tripping time delay	Resistance or impedance ohms (max.)
001	0.2	50 Vdc	A	32
002	0.2	50 Vdc	B	32
003	0.2	240 Vac, 60 Hz	C	34
004	0.2	240 Vac, 60 Hz	D	34
005	0.2	240 Vac, 400 Hz	E	72
006	0.2	240 Vac, 400 Hz	F	72
007	0.2	240 Vac, 400 Hz	G	72
008	0.5	50 Vdc	A	6
009	0.5	50 Vdc	B	6
010	0.5	240 Vac, 60 Hz	C	6
011	0.5	240 Vac, 60 Hz	D	6
012	0.5	240 Vac, 400 Hz	E	12
013	0.5	240 Vac, 400 Hz	F	12
014	0.5	240 Vac, 400 Hz	G	12
015	1.0	50 Vdc	A	2
016	1.0	50 Vdc	B	2
017	1.0	240 Vac, 60 Hz	C	2
018	1.0	240 Vac, 60 Hz	D	2
019	1.0	240 Vac, 400 Hz	E	4
020	1.0	240 Vac, 400 Hz	F	4
021	1.0	240 Vac, 400 Hz	G	4
022	2.0	50 Vdc	A	.5
023	2.0	50 Vdc	B	.5
024	2.0	240 Vac, 60 Hz	C	.5
025	2.0	240 Vac, 60 Hz	D	.5
026	2.0	240 Vac, 400 Hz	E	.8
027	2.0	240 Vac, 400 Hz	F	.8
028	2.0	240 Vac, 400 Hz	G	.8
029	3.0	50 Vdc	A	.3
030	3.0	50 Vdc	B	.3
031	3.0	240 Vac, 60 Hz	C	.3
032	3.0	240 Vac, 60 Hz	D	.3
033	3.0	240 Vac, 400 Hz	E	.5
034	3.0	240 Vac, 400 Hz	F	.5
035	3.0	240 Vac, 400 Hz	G	.5
036	4.0	50 Vdc	A	.1
037	4.0	50 Vdc	B	.1
038	4.0	240 Vac, 60 Hz	C	.1
039	4.0	240 Vac, 60 Hz	D	.1
040	4.0	240 Vac, 400 Hz	E	.3
041	4.0	240 Vac, 400 Hz	F	.3
042	4.0	240 Vac, 400 Hz	G	.3
043	5.0	50 Vdc	A	.08
044	5.0	50 Vdc	B	.08
045	5.0	240 Vac, 60 Hz	C	.08
046	5.0	240 Vac, 60 Hz	D	.08
047	5.0	240 Vac, 400 Hz	E	.15
048	5.0	240 Vac, 400 Hz	F	.15
049	5.0	240 Vac, 400 Hz	G	.15

TABLE I. Circuit breaker dash numbers and applicable characteristics - continued.

Dash no.	Current rating (amperes)	Voltage rating	Tripping time delay	Resistance or impedance ohms (max.)
050	6.0	50 Vdc	A	.06
051	6.0	50 Vdc	B	.06
052	6.0	240 Vac, 60 Hz	C	.06
053	6.0	240 Vac, 60 Hz	D	.06
054	6.0	240 Vac, 400 Hz	E	.08
055	6.0	240 Vac, 400 Hz	F	.08
056	6.0	240 Vac, 400 Hz	G	.08
057	7.0	50 Vdc	A	.04
058	7.0	50 Vdc	B	.04
059	7.0	240 Vac, 60 Hz	C	.04
060	7.0	240 Vac, 60 Hz	D	.04
061	7.0	240 Vac, 400 Hz	E	.07
062	7.0	240 Vac, 400 Hz	F	.07
063	7.0	240 Vac, 400 Hz	G	.07
064	8.0	50 Vdc	A	.03
065	8.0	50 Vdc	B	.03
066	8.0	240 Vac, 60 Hz	C	.03
067	8.0	240 Vac, 60 Hz	D	.03
068	8.0	240 Vac, 400 Hz	E	.06
069	8.0	240 Vac, 400 Hz	F	.06
070	8.0	240 Vac, 400 Hz	G	.06
071	9.0	50 Vdc	A	.018
072	9.0	50 Vdc	B	.018
073	9.0	240 Vac, 60 Hz	C	.02
074	9.0	240 Vac, 60 Hz	D	.02
075	9.0	240 Vac, 400 Hz	E	.05
076	9.0	240 Vac, 400 Hz	F	.05
077	9.0	240 Vac, 400 Hz	G	.05
078	10.0	50 Vdc	A	.02
079	10.0	50 Vdc	B	.02
080	10.0	240 Vac, 60 Hz	C	.02
081	10.0	240 Vac, 60 Hz	D	.02
082	10.0	240 Vac, 400 Hz	E	.04
083	10.0	240 Vac, 400 Hz	F	.04
084	10.0	240 Vac, 400 Hz	G	.04
085	12.5	50 Vdc	A	.013
086	12.5	50 Vdc	B	.013
087	12.5	240 Vac, 60 Hz	C	.015
088	12.5	240 Vac, 60 Hz	D	.015
089	12.5	240 Vac, 400 Hz	E	.03
090	12.5	240 Vac, 400 Hz	F	.03
091	12.5	240 Vac, 400 Hz	G	.03
092	15.0	50 Vdc	A	.01
093	15.0	50 Vdc	B	.01
094	15.0	240 Vac, 60 Hz	C	.011
095	15.0	240 Vac, 60 Hz	D	.011
096	15.0	240 Vac, 400 Hz	E	.02
097	15.0	240 Vac, 400 Hz	F	.02
098	15.0	240 Vac, 400 Hz	G	.02

TABLE I. Circuit breaker dash numbers and applicable characteristics - continued.

Dash no.	Current rating (amperes)	Voltage rating	Tripping time delay	Resistance or impedance ohms (max.)
099	20.0	50 Vdc	A	.02
100	20.0	50 Vdc	B	.02
101	20.0	240 Vac, 60 Hz	C	.007
102	20.0	240 Vac, 60 Hz	D	.007
103	20.0	240 Vac, 400 Hz	E	.01
104	20.0	240 Vac, 400 Hz	F	.01
105	20.0	240 Vac, 400 Hz	G	.01
106	25.0	50 Vdc	A	.006
107	25.0	50 Vdc	B	.006
108	25.0	240 Vac, 60 Hz	C	.006
109	25.0	240 Vac, 60 Hz	D	.006
110	25.0	240 Vac, 400 Hz	E	.007
111	25.0	240 Vac, 400 Hz	F	.007
112	25.0	240 Vac, 400 Hz	G	.007
113	30.0	50 Vdc	A	.005
114	30.0	50 Vdc	B	.005
115	30.0	240 Vac, 60 Hz	C	.005
116	30.0	240 Vac, 60 Hz	D	.005
117	30.0	240 Vac, 400 Hz	E	.006
118	30.0	240 Vac, 400 Hz	F	.006
119	30.0	240 Vac, 400 Hz	G	.006

TABLE II. 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					
	A		B		C		D		E		F		G	
	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	70	7	7	.5	120	10	17	.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	60	5	5.8	.50	400	40
200	8	.6	1.4	.13	20	2.2	1.6	.13	20	2.1	1.9	.15	150	9.5
400	1.5	.15	.25	.031	2.3	.3	.25	.03	3.2	.4	.19	.02	19	1.9
600	.5	Inst	.12	Inst	.75	Inst	.13	Inst	.19	Inst	.08	Inst	1.6	Inst
800	.051	Inst	.051	Inst	.16	Inst	.07	Inst	.06	Inst	.05	Inst	.06	Inst
1,000	.026	Inst	.026	Inst	.04	Inst	.04	Inst	.045	Inst	.036	Inst	.043	Inst

See footnotes at end of table.

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

Time delay percent rated current	Tripping-time delay at high and low temperature ±2°C (tripping time in seconds)													
	50 V dc				240 V ac, 60 Hz				240 V ac, 400 Hz					
	A		B		C		D		E		F		G	
	-40° Max	+85° Min	-40° Max	+85° Min	-40° Max	+85° Min	-40° Max	+85° Min	-40° Max	+85° Min	-40° Max	+85° Min	-40° Max	+85° 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	.1	500	1	100	.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	500	.5	100	.1	1500	5
200	100	.1	10	.05	100	.05	10	.05	100	.1	10	.05	500	.5
400	20	Inst	3	Inst	20	Inst	3	Inst	20	Inst	3	Inst	100	Inst
600	5	Inst	1	Inst	5	Inst	1	Inst	5	Inst	1	Inst	5	Inst
800	2	Inst	.5	Inst	.5	Inst	.5	Inst	.5	Inst	.5	Inst	.5	Inst

1/ Circuit breakers shall not trip at 100 percent rated current. Delays A, B, C, and D must trip at 125 percent of rated current and delays E, F, and G must trip at 150 percent of rated current. Between 100 percent and 125 or 150 percent, they may trip. Instantaneous is defined as less than 15 milliseconds.

TABLE III. Supersession and substitution data.

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

Superseding military part number	Superseded manufacturers part number	
M55629/10-XXX	FSCM 81541	FSCM 74193
	Type APGH-66 UPGH-66	Type JA2
	The complete part number consists of the type (above) plus identification codes for comparable internal connections, auxiliary switch, voltage, frequency, time delay, and current rating.	

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
Army - CR
Navy - EC
Air Force -85

Review activities:
Army - AV, CR4, MI
Navy - AS, MC, OS, SH
Air Force - 17, 19, 99
DLA - CC

Preparing activity:
Army - CR

Agent:
DLA - CC

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