



D-FRAME SERIES CIRCUIT BREAKERS



Applications

- AC and DC Branch Circuit Installations
- Telecom DC Power Distribution
- UPS Equipment
- Mobile Power-Generation Equipment
- Power Conditioning
- Alternative Energy Equipment
- Lighting Controls

Features

- Hydraulic-Magnetic Technology
- Up to Six Poles
- UL, CSA, VDE, and TUV Approved
- Ratings to 250 A
- Stud, Screw, and Plug-in (Bullet) Terminals
- Optional Trip Alarm Switch and Auxiliary Switches
- Instantaneous, Short, Medium, Long Time Delays

Technical Data

• Approvals	UL1077/CSA	UL 489/UL 489A	VDE (EN 60934)	VDE (EN 60947)
• Number of Poles	1, 2, 3	1, 2	1, 2, 3	1, 2
• Maximum Voltage	277/480 VAC	120/240 VAC	240/415 VAC	240/415 VAC
	80 VDC	125 VDC	80 VDC	80 VDC
• Minimum Current Rating	0.02 A	0.1 A	0.1 A	0.1 A
• Maximum Current Rating	125 A (2 pole breaking)	250 A (3 pole breaking)	125 A (2 pole breaking)	100 A (1 pole)
	100 A (1 pole)	100 A (1 pole)	100 A (1 pole)	50 A (2 pole)
	70 A (2/3 pole)	50 A (2 pole)	60 A (2/3 pole)	10kA @ 80 VDC
• Interrupting Capacity	5 kA @ 80 VDC	10 kA @ 80 VDC	5 kA @ 80 VDC	10 kA @ 240 VAC
	2 kA @ 277/480 VAC	10 kA @ 120/240 VAC	3 kA @ 240/415 VAC	5 kA @ 120/240 VAC
• Time Delays	Instantaneous, Short, Medium, Long			
• Dielectric Strength	3750 VAC			
• Insulation Resistance	100 Megohms @ 500 VDC			
• Operating Temp. Range	-40°C to +85°C			

Time Delay Data

Std. Curve Codes	Limits	Percentage of Rated Current Trip Time in Seconds											
		125%	130%	135%	150%	200%	300%	400%	500%	600%	800%	1000%	1200%
AS	Min (s)	80	68	60	48	21	7	3.5	2	0.45	0.01	0.0075	0.005
	Max (s)	560	500	375	260	80	32	17	19	6.8	0.8	0.08	0.005
BS	Min (s)	12	9	7.5	5.5	2	0.55	0.21	0.12	0.02	0.007	0.006	0.005
	Max (s)	100	90	75	40	14	5	2.8	1.8	1.2	0.5	0.08	0.05
CS	Min (s)	0.6	0.5	0.4	0.3	0.13	0.031	0.014	0.008	0.007	0.005	0.0043	0.0042
	Max (s)	10	6	5	3.5	1	0.2	0.075	0.04	0.03	0.02	0.018	0.018

Contact Customer Service for availability of additional Current Ratings and Time Delay Curves.
Curves are available online at www.CBIbreakers.com

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Part Number Coding

Example Code:

D - DA - A - B - A - 1 - PA - B - 0 - X - B - P - AS - 1500 - X
 Group Number: 0 1 2 3 4 5 6 & 7 8 9 10 11 12 13 14 15

Options with * and in red applicable only to UL489 product.

Group 0: Approval	
Code	Description
D*	UL489 Approved
	Blank (for other)

Group 1: Frame and Mounting	
Code	Description
DA*	Front Mounting (Standard)
DB	Snap-In Mounting
DC	Front Mounting, C-Frame Aperture
DE	Front Mounting, Standard Rocker
DF	Front Mounting, Illuminated Rocker
DG	Flush Mounting, Standard Rocker
DK	Flush Mounting, Illuminated Rocker

Group 2: Terminations	
Code	Description
A*	Rear Studs for Eye Lugs (M5 or 10-32)
B	Rear Clamp, 30 A Max.
C	Rear Push-On, 25 A Max.
M*	Rear Studs for Eye Lugs (M6 or 1/4-20)
N	Rear Studs M5 + Flat Base Plate
P	Rear Studs M6 + Flat Base Plate
Q	Studs for Main Circuit, Push-on Terminals for Control Circuit
2*	Plug-in Terminals (6.25 dia. x 21.5)
3*	Plug-in Terminals (7.80 dia. x 24.5)
4*	Rear Screw Terminal (M5 or 10-32)
Z	Special

Group 3: Mounting System and Interphase Barriers	
Code	Description
A*	Metric, No Interphase Barriers
B	Metric, Type A (Small) Interphase Barriers
C*	Imperial, No Interphase Barriers
D	Imperial, Type A (Small) Interphase Barriers
E	Metric, Type B (Large) Interphase Barriers
F	Imperial, Type B (Large) Interphase Barriers

Group 4: Handle Configuration	
Code	Description
A*	1 Handle/Pole
D	Rocker With Guards
E	Rocker Without Guards
G	Reduced Standard Handles/Unit

Group 5: Number Of Poles	
Code	Description
1*	Single-Pole Unit
2*	Double-Pole Unit
3	Triple-Pole Unit
4	Four-Pole Unit
5	Five-Pole Unit
6	Six-Pole Unit

Group 6: Rated Voltages	
Code	Description
F*	125 V
H	277 V
M	80 VDC/240 VAC
N*	80 V
P	240 V
Q	240/415 V
R	277/480 V
S*	120/240 V
T*	120 V
U*	80 VDC/120 VAC
ZZ	Special (Specify)

Group 7: Voltage Type	
Code	Description
A*	AC
D*	DC
M*	AC/DC

Group 8: Circuit	
Code	Description
1*	Series Mid-Trip
A	Switch
B*	Series Trip
C	Relay Trip (Current Sensing)
D	Relay Trip (Voltage Sensing)
E	Shunt Trip (Current Sensing)
F	Shunt Trip (Voltage Sensing)
H*	Dual Control (3 Terminals) - Shunt Trip
J	Dual Control (4 Terminals) - Relay Trip
Z	Special (Specify)

Group 9: Auxiliary Switches	
Code	Description
0*	None
5*	Trip Alarm (5 A 125/250 VAC)
7*	1 x Change-Over (6 A 250 VAC)
8*	1 x Change-Over (0.1 A 250 VAC)
9	Special (Specify)

Group 10: Voltages for Illuminated Rocker Units	
Code	Description
X*	Not Applicable
1	100 - 125 VAC
2	220 - 240 VAC
3	8 - 16 VDC
4	16 - 24 VDC
5	24 - 32 VDC
6	32 - 48 VDC
7	48 - 65 VDC
8	65 - 80 VDC
Z	Special (Specify)

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Group 11: Color of Front Plate	
Code	Description
B*	Black
Z	Special (Specify)

Group 14: Main Circuit Current	
Code	Description
020M	20 mA
100M*	100 mA
0100*	1 A
1000*	10 A
1375*	13.75 A
1500*	15 A
2000*	20 A
2500*	25 A
K100*	100 A
K125*	125 A (multipole configuration only)
K250*	250 A (multipole configuration only)

Group 15: Du-con Or Relay Trip Units			
Ratings for Voltage Coils		Ratings for Current Coils	
		<i>OR</i>	
Code	Description	Code	Description
X	Not Applicable	X*	Not Applicable
D006*	6 VDC	020M	20 mA
D125*	125 VDC	100M	100 mA
A006*	6 VAC	K005	5 A
A125*	125 VAC		

Group 12: Handle Color and Marking Details	
Code	Description
K*	White (On/I - Off/O)
L*	Black (On/I - Off/O)
Y*	Red (On/I - Off/O)
Z	Special (specify)

Note: Please consult CBI Inc. for availability of other handle colors

Group 13: Time Delay and Instantaneous Trip Point (Silicon Oil)				
Code	Time Delay Details	System	Pulse Tolerance	Comments
AS*	Long Time Delay	50/60 Hz, DC	8 x In	
AI*	Long Time Delay	50/60 Hz, DC	20 x In	AS + Inertial Delay
AH*	Long Time Delay	50/60 Hz	20 x In	
BS*	Medium Time Delay	50/60 Hz, DC	8 x In	
BI*	Medium Time Delay	50/60 Hz, DC	20 x In	BS + Inertial Delay
BH*	Medium Time Delay	50/60 Hz	20 x In	
CS*	Short Time Delay	50/60 Hz, DC	6 x In	
CI*	Short Time Delay	50/60 Hz, DC	15 x In	CS + Inertial Delay
CH*	Short Time Delay	50/60 Hz	15 x In	
US	Ultra-Short Delay	50/60 Hz, DC	--	
OP*	Instantaneous	50/60 Hz, DC	--	
AE	Long Time Delay	50/60 Hz	35 x In	AH + Inertial Delay
BE	Medium Time Delay	50/60 Hz	35 x In	BH + Inertial Delay
CE	Short Time Delay	50/60 Hz	35 x In	CH + Inertial Delay
AD	Long Time Delay	Dual Rated: 50/60Hz/DC	8 x In	
BD	Medium Time Delay	Dual Rated: 50/60Hz/DC	8 x In	
CD	Short Time Delay	Dual Rated: 50/60Hz/DC	8 x In	
AW	Long Time Delay	Dual Rated: 50/60Hz/DC	20 x In	AD + Inertial Delay
BW	Medium Time Delay	Dual Rated: 50/60Hz/DC	20 x In	BD + Inertial Delay
CW	Short Time Delay	Dual Rated: 50/60Hz/DC	15 x In	CD + Inertial Delay
OX	Switch			

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