

B-Frame Series Circuit Breakers

Very compact circuit breaker for space-saving distributions and various forms of device protection. The CBI B frame series is available in single-pole and double-pole configurations. The products are primarily intended for panel mounting and are available with different handles, the most common being rocker handle with rocker guard, push-pull handle and push-to-reset handle.

Features

- Hydraulic-Magnetic Technology
- 100% Rating Capability Independent of Ambient Temperature
- Up to Two Poles
- UL, VDE, CE and CCC approved
- Ratings up to 30A
- Optional Auxiliary Switch
- Wide Range of Circuits, Mountings, Terminations and Time Delays
- Optional Illuminated Rocker Handle
- Precision Tripping



Applications

- Lighting Equipment
- Power Supplies
- Small Generators and Motors
- Entertainment Systems
- Vending Machines
- Office Equipment
- Telecom Power Distribution
- Railway Signalling Systems
- Marine Power Systems
- Power Distribution Units (PDU)



Technical Data

Product Type	Circuit Breaker	Circuit Breaker	Switch
Approvals	UL 1077 / CSA, UL 1500, IEC / EN 60934, CCC, CE	UL 489A, IEC / EN 60934	UL 508
Number of Poles	1, 2	1	2
Maximum Voltages	240VAC, 65VDC	80VDC	300VDC
Current Ratings	0.02 - 30A (AC), 0.02 - 25A (DC)	0.1 - 30A	10A
Interrupting Capacity	1kA @ 240VAC 0.5kA @ 65VDC	0.6kA @ 80VDC	-
Operating Temp. Range	-40°C to +85°C		

Time Delay Data (Standard Delays)

Curve Code	Limits	% Rated Current Trip Time in Seconds						
		125%	150%	200%	300%	400%	600%	1200%
AS	Min - Max	90 - 1200	32 - 400	12 - 100	3.5 - 37	0.6 - 17	0.008 - 5.6	<0.06
BS	Min - Max	15 - 300	7.3 - 90	2.6 - 30	0.47 - 8	0.06 - 3.2	0.006 - 0.7	<0.06
CS	Min - Max	1.3 - 40	0.65 - 7	0.28 - 2.5	0.09 - 0.8	0.04 - 0.49	0.006 - 0.28	<0.06
OP	Max	0.1	0.06	0.04	<0.04	<0.04	<0.04	<0.04

All specifications are subject to change without prior notice.

Long Code

	Code	Description	Code	Description					
Group 1: Frame and Handle	BA	Black body, Square handle	BP	Grey body, Square handle					
	BB	Black body, Paddle handle	BQ	Grey body, Paddle handle					
	BC	Black body, Baton handle	BR	Grey body, Baton handle					
	BD	Black body, Rocker handle	BS	Grey body, Rocker handle					
	BE	Black body, Illuminated Rocker handle	BT	Grey body, Illuminated Rocker handle					
	BF	Black body, Push-to-Reset handle	BV	Grey body, Push-to-Reset handle					
	BG	Black body, Push-Pull handle	BW	Grey body, Push-Pull handle					
	Group 2: Mounting	Code	Description	Comments					
A		Metric (M12)	Thread neck. Rocker handle is not an option.						
C		Imperial (1/2" – 32)	Thread neck. Rocker handle is not an option.						
G		Snap-in vertical mounting (without rocker guard)	Rocker & Illuminated Rocker handle only.						
H		Snap-in vertical mounting (with rocker guard)	Rocker & Illuminated Rocker handle only.						
M		Snap-in horizontal mounting (without rocker guard)	Rocker & Illuminated Rocker handle only.						
N		Snap-in horizontal mounting (with rocker guard)	Rocker & Illuminated Rocker handle only.						
P		PCB mounting	M12 thread neck only, 1 pole only.						
Q		Imperial (3/8" – 32)	Thread neck. Only option for double pole push-to-reset and push-pull handles. Rocker handle is not an option.						
Group 3: Number of Poles and Termination	Code	Description	Code	Description	Comments				
	1	Single pole unit, quick connect	B	Double pole unit, 90° bent quick connect terminal					
	2	Double pole unit, quick connect	C	Single pole unit, screw terminal (M4 / 8-32)					
	3	Single pole unit, 45° bent screw terminal (M4 / 8-32)	D	Double pole unit, screw terminal (M4 / 8-32)					
	4	Double pole unit, 45° bent screw terminal (M4 / 8-32)	H	Single pole unit, rear flush screw terminal	Only for UL 489A version, 30A max.				
	5	Single pole unit, clamp terminal	J	Single pole unit, plug-in terminal	Only for UL 489A version, 30A max.				
	6	Double pole unit, clamp terminal	Z	Special - specify					
	A	Single pole unit, 90° bent quick connect terminal							
Group 4: Voltage	Code	Description	Comments						
	E	65V DC							
	F	80V DC	Only for UL 489A version.						
	M	65V DC / 240V AC							
	P	240V AC							
Group 5: Frequency	Code	Description	Comments						
	A	AC	Group 4 option P only.						
	D	DC	Group 4 options E & F only.						
	M	AC / DC	Group 4 option M only.						
Group 6: Circuit	Code	Description	Comments						
	A	Switch	May be used with auxiliary.						
	B	Series trip	May be used with auxiliary.						
	C	Relay trip (current sensing)	Auxiliary not an option.						
	D	Relay trip (voltage sensing)	Auxiliary not an option.						
	E	Shunt tap (current sensing)	Auxiliary not an option.						
	F	Shunt tap (voltage sensing)	Auxiliary not an option.						
Group 7: Auxiliary Switch(es)	Code	Description	Comments						
	0	Not applicable	Only option with rear flush screw terminal.						
	1	1 X change-over (3A 125V AC)	Silver contacts.						
	2	2 X change-over (3A 125V AC)	Silver contacts. Double pole units only.						
	3	1 X change-over (0.1A 125V AC)	Gold contacts.						
Group 8: Handle, Indicator Colour and Marking	Code	Description	Code	Description	Code	Description	Comments		
	A	Green (I-O & ON-OFF)	J	Orange (I-O)	S	Yellow (ON-OFF)	5	Grey (No marking)	I-O for VDE. ON-OFF for UL. I-O & ON-OFF for VDE & UL.
	B	Green (I-O)	K	White (I-O & ON-OFF)	T	Red (ON-OFF)	6	Yellow (No marking)	
	C	White (I-O)	L	Black (I-O & ON-OFF)	U	Orange (ON-OFF)	7	Red (No marking)	
	D	Black (I-O)	M	Green (ON-OFF)	Y	Red (I-O & ON-OFF)	8	Orange (No marking)	
	E	Blue (I-O)	N	White (ON-OFF)	1	Green (No marking)	X	Not applicable	
	F	Grey (I-O)	P	Black (ON-OFF)	2	White (No marking)	Z	Special - specify	
	G	Yellow (I-O)	Q	Blue (ON-OFF)	3	Black (No marking)			
H	Red (I-O)	R	Grey (ON-OFF)	4	Blue (No marking)				
Group 9: Voltages for Illuminated Rocker Units	Code	Description	Code	Description					
	1	100 – 125V AC Lead connections	B	200 – 240V AC quick connect terminals					
	2	200 – 240V AC Lead connections	C	4 – 16V DC quick connect terminals					
	3	4 – 16V DC Lead connections	D	16 – 24V DC quick connect terminals					
	4	16 – 24V DC Lead connections	E	24 – 32V DC quick connect terminals					
	5	24 – 32V DC Lead connections	F	32 – 50V DC quick connect terminals					
	6	32 – 50V DC Lead connections	X	Not applicable					
	A	100 – 125V AC quick connect terminals	Z	Special - specify					
Group 10: Time Delay and Instantaneous Trip Point	Code	Description	System	Pulse Tolerance (X In)	Code	Description	System	Pulse Tolerance (X In)	
	AS	Long delay	AC or DC	6 - 8	CI	CS & inertia delay	AC or DC	11 - 12	
	AI	AS & inertia delay	AC or DC	11 - 12	CD	CS & Dual rated	AC and DC	6 - 8	
	AD	AS & Dual rated	AC and DC	6 - 8	CW	CD & inertia delay	AC and DC	11 - 12	
	AW	AD & inertia delay	AC and DC	11 - 12	OP	Instantaneous trip	AC or DC	None	
	BS	Medium delay	AC or DC	6 - 8	OPD	Instantaneous trip	AC and DC	None	
	BI	BS & inertia delay	AC or DC	11 - 12	OX	Switch	AC or DC	-	
	BD	BS & Dual rated	AC and DC	6 - 8	XX	Not applicable			
	BW	BD & inertia delay	AC and DC	11 - 12	ZZ	Special - specify			
	CS	Short delay	AC or DC	6 - 8					

Long Code

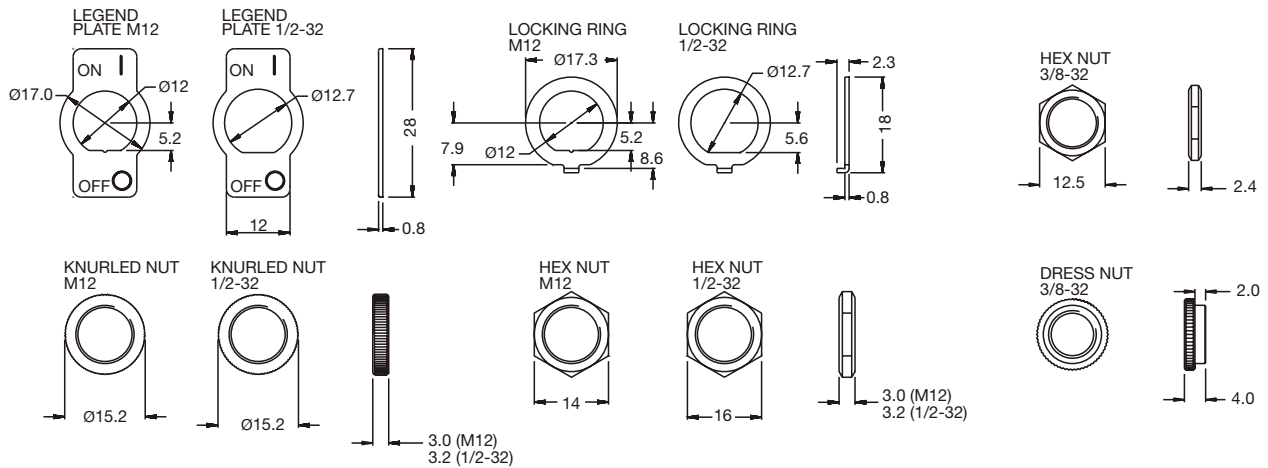
Group 11: Main Circuit Current Ratings	Code	Description	Comments	
	020M	20mA	Examples only. Any ampere rating possible from 0.02 - 30A.	
	0500	5A		
	1000	10A		
	1250	12.5A		
	3000	30A		
	XXXX	No Rating		
Group 12: Relay Trip Coils	Code	Description	Code	Description
	A024	24VAC/ DC Voltage Coil	K005	5A Current Coil
	A065	65VAC Voltage Coil	K015	15A Current Coil
	A100	100VAC Voltage Coil	K025	25A Current Coil
	A110	110 - 125VAC Voltage Coil	M020	20mA Current Coil
	A220	220 - 240VAC Voltage Coil	M100	100mA Current Coil
	D012	12VDC Voltage Coil	X	Not Applicable
	D024	24VDC Voltage Coil	Z	Special - Specify
Group 13: Approvals/ Marks	Code	Description	Comments	
	1	UL 1077, CSA, VDE	IEC / EN 60934	
	2	No Approvals		
	3	UL 489A		
Group 14: Safety Marks	Code	Description	Comments	
	1	CCC	Required for products exported to Peoples Republic of China.	
	2	No Safety mark		

For options not listed, please contact Emcomp for assistance

Example Code: BDG2PA-B0KXBS-1500X-12

Mounting Accessories

Mounting hardware must be ordered separately. Legend plates available for M12 and 1.2" only.



Mounting Kit Ordering Information

Reference	A	B	C	D	E	F	G	H	I	J
Mounting Kit Description	2 x Hex Nuts	2 x Hex Nuts 1 x Vertical Legend Plate	2 x Hex Nuts 1 x Horizontal Legend Plate	2 x Hex Nuts 1 x Vertical Legend Plate 1 x Locking Ring	2 x Hex Nuts 1 x Horizontal Legend Plate 1 x Locking Ring	1 x Hex Nut 1 x Knurled Nut 1 x Vertical Legend Plate	1 x Hex Nut 1 x Knurled Nut 1 x Horizontal Legend Plate	1 x Hex Nut 1 x Knurled Nut 1 x Vertical Legend Plate 1 x Locking Ring	1 x Hex Nut 1 x Knurled Nut 1 x Horizontal Legend Plate 1 x Locking Ring	1 x Hex Nut 1 x Dress Nut

Reference	M12 Order Number	1/2" - 32 Order Number	3/8" - 32 Order Number
A	3670031	3670041	3670129
B	3670032	3670042	-
C	3670033	3670043	-
D	3670034	3670044	-
E	3670035	3670045	-
F	3670036	3670046	-
G	3670037	3670047	-
H	3670038	3670048	-
I	3670039	3670049	-
J	-	-	3670130

