

## C-Frame MKII - Series Circuit Breakers



The C-Frame MKII is a traditional circuit breaker with a front mount profile.

### Approvals

The C-Frame MKII carries various approvals such as VDE, cURus and is CE certified. It is also recognised to UL 1077 and listed to UL 489A.



### Features

- AC and DC circuit breaker
- Hydraulic-magnetic technology
- 100% rating capability independent of ambient temperature
- Up to three poles
- VDE approved, CE certified
- UL compliant (Listed / recognised)
- Ratings 0.1 A to 30 A (Specific certifications)
- Precision tripping characteristics
- Wide range of circuits, mountings, terminations and time delays
- Optional auxiliary switch

### Applications

- Telecom DC power distribution
- UPS equipment
- Mobile power generation equipment
- Power conditioning equipment
- Alternative energy equipment
- Lighting control

**Hydraulic-Magnetic Circuit Breakers 100% rated, unaffected by ambient temperature**

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### Technical Data

Product Type	C-Frame MKII
Ambient Operating Temperature	-40 °C to +85 °C
Endurance	10000 operations DC, 6000 operations AC (IEC 60934 Clause 9.11)* 6000 operations with current (UL1077 Clause 22)*
Dielectric Strength	1000 - 2000 Vac for one minute (IEC 60934 Clause 9.7)*
Weight	50 g per pole (unpacked)
Altitude	Certification tests done at altitude ≈ 2000 metres. Will operate at higher altitudes.
Shock	100 G to MIL-STD-202G, test method 213B, test condition 1
Vibration	10 G to MIL-STD-202G test method 204D, test condition A
Flammability	I3 - Ignition does not persist at 850 °C after glow wire is withdrawn with an oxygen index of ≥ 28
Toxicity	F1 - Smoke index of ≤ 20 which determines the fume class
Pollution Degree	PD2 - Normally only non-conductive pollution occurs. Temporary conductivity caused by condensation is to be expected.
Accessories	Protective splash boot, mounting hardware 6 - 32, M3 Screws

\* Refer to the standard for details

Product Type	Circuit Breaker	Circuit Breaker	Circuit Breaker
Approvals	UL 489A	UL 1077	DIN / EN 60934, CE, UKCA
Number of Poles	1	1 - 3	1 - 3
Maximum Voltages	30 Vdc	240 Vac, 277 Vac, 65 Vdc	240 Vac, 65 Vdc
Current Ratings	0.1 - 30 A	0.1 - 30 A (AC & DC)	0.1 - 30 A (AC & DC)
Interrupting Capacity	5 kA	3 kA (AC), 1 kA (DC)	3 kA (AC), 1 kA (DC)

Verify approvals for specific ratings in accordance with the relevant test certificates.

### Torque Table

Description	Size	Torque Value
Front Inserts	M3	0.5 - 0.8 Nm
	6 - 32	5 - 7 in/lbf
Rear Screws	M5	1.7 - 2.3 Nm
	10 - 32	15 - 20 in/lbf

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## Ordering Information

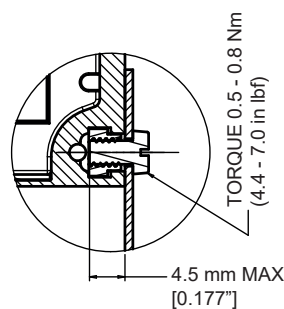
Group 1: Frame	Code	Description	Comments					
	C	C-Frame						
Group 2: Type	Code	Description	Comments					
	A	C-Frame MKII						
Group 3: Mounting	Code	Description	Comments					
	2	Front mount round aperture, fleet						
	3	Snap-in mount edges bevelled - without handle guards						
	B	Snap-in mount edges flush - without handle guards						
Group 4: Handle Type	Code	Description	Comments					
	A	Standard (toggle) handle						
	C	Cut-off handle	Single pole only					
Group 5: Termination	Code	Description	Comments	Code	Description	Comments		
	22	Screw terminal, bus connected (M5 or 10-32)	30 A max	52	Screw terminal 30° bent upturned ears, bus connected (M5 or 10-32)	30 A max		
	32	Screw terminal, upturned ears (M5 or 10-32)	30 A max	CX	Quick connect terminal (0.8 mm x 6.35 mm)	30 A max		
Group 6: Number of Poles	Code	Description	Code	Description				
	1	1 pole metric	A	1 pole imperial				
	2	2 pole metric	B	2 pole imperial				
	3	3 pole metric	C	3 pole imperial				
Group 7: Rated Voltage and Frequency - Main	Code	Description	Code	Description				
	E	65 Vdc	K	277 V 50 / 60 Hz				
	J	240 V 50 / 60 Hz	M	65 Vdc / 240 Vac				
Group 8: Time Delay Characteristics (Curve Details); Pulse Tolerance at 10 ms	Code	Description	System	Pulse Tolerance (X In)	Code	Description	System	Pulse Tolerance (X In)
	AD	Long delay 50 / 60 Hz AS & dual rated	AC and DC	8 - 10	BS	Medium delay 50 / 60 Hz	AC or DC	8 - 10
	BD	Medium delay 50 / 60 Hz BS & dual rated	AC and DC	8 - 10	CS	Short delay 50 / 60 Hz	AC or DC	6 - 8
	CD	Short delay 50 / 60 Hz CS & dual rated	AC and DC	6 - 8	AW	Long delay 50 / 60 Hz AD & inertia delay	AC and DC	16 - 20
	AI	Long delay 50 / 60 Hz AS & inertia delay	AC or DC	16 - 20	BW	Medium delay 50 / 60 Hz BD & inertia delay	AC and DC	16 - 20
	BI	Medium delay 50 / 60 Hz BS & inertia delay	AC or DC	16 - 20	CW	Short delay 50 / 60 Hz CD & inertia delay	AC and DC	12 - 15
	CI	Short delay 50 / 60 Hz CS & inertia delay	AC or DC	12 - 15	OP	Instantaneous trip 50 / 60 Hz	AC and DC	None
	AS	Long delay 50 / 60 Hz	AC or DC	8 - 10				
Group 9: Rated Current (Main Circuit) - Examples Only - Specific A Ratings Possible	Code	Description	Comments					
		0.1 A - 30 A	specific ampere ratings possible from 0.1 A - 30 A					
Group 10: Circuit Configuration (Circuit Breaker's Internal Construction)	Code	Description	Comments					
	BX	Series trip	Circuit breaker, current coil in series					
	KX	Series trip, with auxiliary switch						

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## Technical Data

	Code	Description	Comments
<b>Group 11: Auxiliary and Alarm Switches</b>	X	Not applicable	
	A	DB3-Gold Tips, Equally spaced terminals, 2.75 mm (EN61058 0.1 A @ 250 Vac & 0.1 A @ 80 Vdc and UL1054 0.1 A @ 125/250 Vac & 0.1 A @ 30 Vdc & 0.3 A @ 60 Vdc)	
	B	DB2-Silver Tips, Equally spaced terminals, 2.75 mm (EN61058 10 A @ 250 Vac & 0.1 A @ 80 Vdc and UL1054 10 A @ 125/250 Vac)	
<b>Group 12 - 15:</b>	Code	Description	Comments
	X	Not applicable	
<b>Group 16: Handle Colour</b>	Code	Description	Comments
	B	Black handle, white marking	
<b>Group 17: Marking Handle</b>	Code	Description	Comments
	W	White handle, black marking	
<b>Group 18: Mounting Orientation for Marking</b>	Code	Description	Comments
	D	I - 0 and ON - OFF	
<b>Group 19: Front Plate</b>	Code	Description	Comments
	V	Vertical (standard mounting, line @ top)	
<b>Group 20:</b>	Code	Description	Comments
	B	No marking	
<b>Group 21: Approvals (Product Normally Approved to)</b>	Code	Description	Comments
	-	Not applicable	
<b>Group 22: Safety Marks</b>	Code	Description	Comments
	1	UL 1077, UL 489A, CSA - (C22.2 No. 235), DIN / EN 60934, CE, UKCA	
<b>Group 22: Safety Marks</b>	Code	Description	Comments
	X	Not applicable	

**For options not listed, please contact CBI**



**MOUNTING SCREW DETAIL**



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