

T-Frame - Series Circuit Breakers



The T-Frame is a compact, low profile circuit breaker. It is available in single and double pole configurations and its low profile design makes it ideal for power distribution applications. The T-Frame has the rocker handle configuration and is available in both AC and DC.

Features

- AC and DC circuit breaker
- Hydraulic-magnetic technology
- 100% rating capability independent of ambient temperature
- Up to two poles
- VDE approved, CE certified
- UL Listed
- Ratings 0.1 A to 30 A (Specific certifications)
- Precision tripping characteristics
- Wide range of time delays
- Two colour handle indication (Two tone flush rocker)

Applications

- AC and DC branch circuit installations
- Power conditioning
- Telecom power distribution
- Alternative energy equipment
- UPS equipment
- Lighting control
- Mobile power generation equipment

Approvals

The T-Frame circuit breaker carries various approvals such as DIN/EN 60947-2, GB14048.2, VDE, cURus and is CE certified. It is also recognised and listed to UL489.



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

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Technical Data

Product Type	T-Frame
Ambient Operating Temperature	-40°C to +85°C
Mounting Options	Front mounting, rectangular aperture and flush rocker handle type
Endurance	10000 operations; 1500 with current, 8500 without current (IEC60947-2 Clause 7.2.4.2)* 10000 operations; 6000 with current, 4000 without current (UL489 Clause 7.1.5)* 6000 operations with current (UL1077 Clause 22)*
Dielectric Strength	1000 - 2000 Vac for one minute (IEC60947-2 Clause 8.3.3.3)* 1000 Vac plus twice the rated voltage for one minute (UL489 Clause 7.1.9)* 1000 Vac plus twice the rated voltage for one minute (UL1077 Clause 23)*
Rated Impulse Withstand Voltage	4 kV (IEC60947-2 Clause 8.3.3.2)*
Weight	90 g per pole (unpacked)
Altitude	Certification tests done at altitude ≈ 2000 metres. Will operate at higher altitudes.
Flammability	I3 - Ignition does not persist at 850°C after glow wire is withdrawn with an oxygen index of ≥ 28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.

* Refer to the standard for details

Product Type	Circuit Breaker	Circuit Breaker
Approvals	UL489	DIN/EN 60947-2, GB/T14048.2, CE, UKCA
Number of Poles	1, 2	1, 2
Maximum Voltages	120 / 240 Vac, 120 Vdc, 240 Vac, 80 Vdc	240 Vac, 80 Vdc
Current Ratings	0.1 - 30 A (AC) 0.1 - 30 A (DC)	0.1 - 30 A (AC) 0.1 - 30 A (DC)
Interrupting Capacity	5 kA	5 kA (DC & AC)
AIC	10 kA	

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

Ordering Information

Group 1: Frame	Code	Description	Comments
	T	T-Frame	
Group 2: Type	Code	Description	Comments
	2	T-Frame, T-Type	
Group 3: Mounting	Code	Description	Comments
	S	Front mount, rectangular aperture, flush rocker handle type	
Group 4: Handle Type or Blank for Multipoles	Code	Description	Comments
	H	Flush rocker handle for mounting version S, reduced handle version	Only 1 handle per unit
	M	Flush rocker handle, two tone for mounting version S, reduced handle version	Only 1 handle per unit
	W	No handle, blank front plate	For reduced handle version, on pole(s) without handle
	Q	Flush rocker handle, push-to-reset handle, for mounting version S	
	R	Flush rocker handle, push-to-reset, two tone, for mounting version S	
Group 5: Termination	Code	Description	Comments
	4X	Screw terminal, M5 or 10-32, top and bottom	30 A max
	5X	Double quick connect terminal (0.8 mm x 6.35 mm)	30 A max (Pending approvals)

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Ordering Information Continues

Group 6: Number of Poles	Code	Description		Comments	
	1	1 pole metric			
	2	2 pole metric			
	A	1 pole imperial			
	B	2 pole imperial			
Group 7: Rated Voltages and Frequency - Main Circuit	Code	Description		Comments	
	J	240 Vac (UL489 & IEC60947-2)		Single pole	
	N	80 Vdc			
	S	240 Vac (UL489 & IEC60947-2)		Double pole	
Group 8: Time Delay Characteristics (Curves Details); Pulse Tolerance at 10 ms	Code	Description	System	Pulse Tolerance (X In)	Comments
	AD	Long delay 50 / 60 Hz AS & dual rated	AC and DC	8 - 10	
	BD	Medium delay 50 / 60 Hz BS & dual rated	AC and DC	8 - 10	
	CD	Short delay 50 / 60 Hz CS & dual rated	AC and DC	6 - 8	
	AH	Long delay 50 / 60 Hz AS & high inrush	AC	16 - 20	
	BH	Medium delay 50 / 60 Hz BS & high inrush	AC	16 - 20	
	CH	Short delay 50 / 60 Hz CS & high inrush	AC	12 - 15	
	AS	Long delay 50 / 60 Hz	AC or DC	8 - 10	
	BS	Medium delay 50 / 60 Hz	AC or DC	8 - 10	
	CS	Short delay 50 / 60 Hz	AC or DC	6 - 8	
	H3	Short delay	DC	6 - 8	
	OP	Instantaneous trip 50 / 60 Hz	AC or DC	None	
	Group 9: Rated Current (Main Circuit) Examples only - Specific A Rating Possible	Code	Description		Comments
100M		100 mA		Specific A rating possible from 0.1 A – 30 A	
0100		1 A			
3000		30 A			
Group 10: Circuit Configuration (Circuit Breaker's Internal Construction)	Code	Description		Comments	
	BX	Circuit breaker (series trip, current coil in series)			
Group 11: Auxiliary and Alarm Switches	Code	Description		Comments	
	X	Not applicable		No auxiliary switch – flat base plate	
Group 12: Voltage and Current Ratings for Dual Control, Shunt and Relay Trip Construction	Code	Description		Comments	
	XX	Not applicable			
Group 13: Terminal Options for Dual Control, Shunt and Relay Coils	Code	Description		Comments	
	X	Not applicable			
Group 14: Future use	Code	Description		Comments	
	X	Not applicable			
Group 15: Customer Specific	Code	Description		Comments	
	X	Not applicable			
Group 16: Handle Colour	Code	Description		Comments	
	X	No handle			
	B	Black handle, white marking		Not applicable on the two tone version	
	G	Green handle, white marking			
	W	White handle, black marking			
	R	Red handle, white marking			
	Y	Yellow handle, black marking			
Group 17: Handle Markings	Code	Description		Comments	
	X	No handle			
	H	I – O and ON - OFF and ampere rating			
	I	Push-to-reset and ampere rating		Group 3 option S only. Group 4 options Q or R only. Flush rocker or two tone rocker handle.	

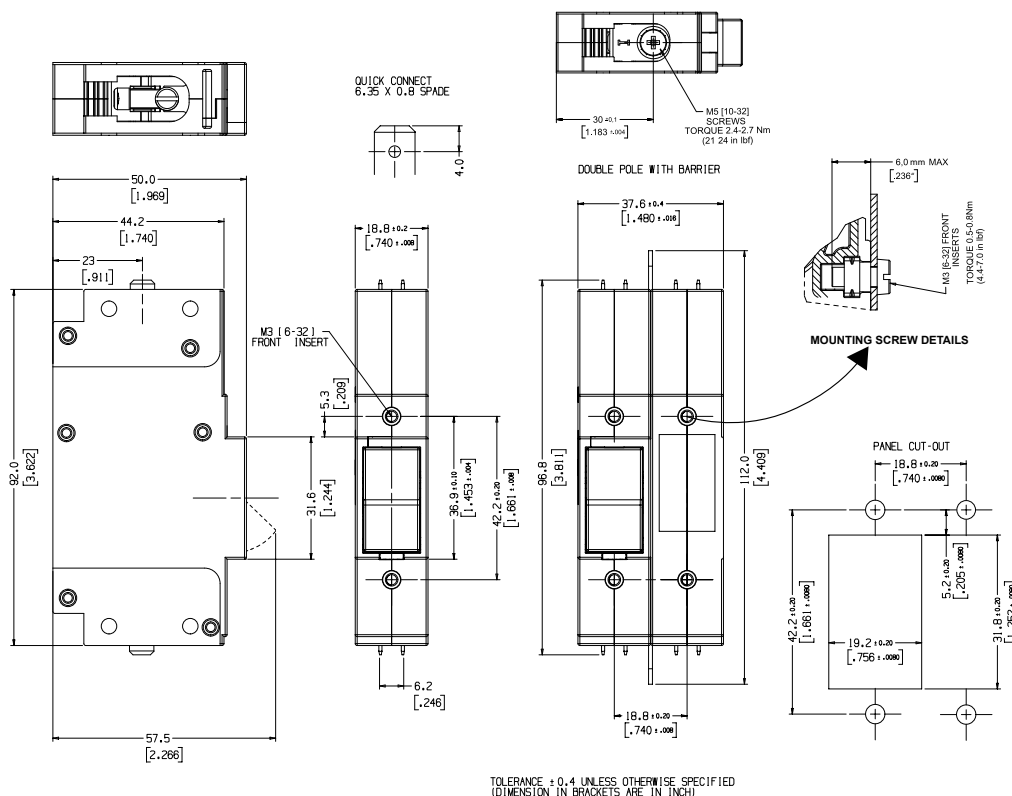
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Ordering Information Continues

Group	Code	Description	Comments
Group 18: Mounting Orientation for Marking	2	Horizontal (ON handle on the LEFT)	
	H	Horizontal (ON handle on the RIGHT)	
	V	Vertical (ON handle on the BOTTOM)	
	X	Not applicable	
Group 19: Front Plate Marking and Test Button	2	No marking, with test button, rocker handle	Test button for mechanical trip
	B	No marking, rocker handle	
Group 20: Inter-phase Barrier and Terminal Cover	X	Not applicable	
	E	T-Frame barriers	Interphase barriers to always be used with the Double Quick Connect terminal
Group 21: Approvals (Product Normally Approved to)	2	UL489, DIN/EN 60947-2, CE, UKCA	Normally UL489, DIN/EN 60947-2
Group 22: Safety Marks	X	Not applicable	
	C	CCC	GB14048.2

For options not listed, please contact CBI

T-Frame: Outline Dimensions



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AUSTRALIA
CBI-electric: Australia
 27 Wedgewood Rd, Hallam
 Victoria 3803 Australia
 Tel: +61 3 8752 9300
 Fax: +61 3 9796 5407
 Email: sales@cbi-electric.com.au
 Website: www.cbi-electric.com.au

INDIA
CBI-electric: Asia
 A1, Pushpagiri Residency, 1st Cross
 2nd Main, Jyothi Nagar, B.G Road
 Bengaluru 560083, India
 Tel: +91-9880553153
 Email: salesasia@cbi-electric.com
 Website: www.cbibreakers.com
 Website: www.cbi-lowvoltage.com

SOUTH AFRICA
CBI-electric: low voltage
 Tripswitch Drive Elandsfontein
 Gauteng South Africa
 Tel: +27 11 928 2000
 Fax: +27 11 392 2354
 Email: cbi@cbi-electric.com
internationalsales@cbi-electric.com
 Website: www.cbi-lowvoltage.com

USA
CBI-electric: North America
 35 E. Uwchlan Ave Suite 328
 Exton PA 19341 USA
 Tel: +1 610 524 9949
 Fax: +1 610 524 9945
 E-mail: info@cbibreakers.com
 Website: www.cbibreakers.com