

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

T-Frame - Series Circuit Breakers

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)*
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)*
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Flammability	I3 - Ignition does not persist at 850°C after glow wire is withdrawn with an oxygen index of ≥ 28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.

Product Type	Circuit Breaker	Circuit Breaker
Approvals	UL489	
Number of Poles	1	2
Maximum Voltages	240 Vac, 80 Vdc	
Current Ratings	0.1 - 30 A	0.1 - 30 A
AIC	10 kA	

Product Type	Circuit Breaker	Circuit Breaker
Approvals	IEC 60947-2, GB/T14048.2, CE, UKCA	
Number of Poles	1	2
Maximum Voltages	240 Vac, 80 Vdc	
Current Ratings	0.1 - 30 A	0.1 - 30 A
Icu	5 kA	

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

Torque Table

Description	Size	Torque Value
Front Inserts	M3	0.5 - 0.8 N.m
	6 - 32	5 - 7 lbf.in
Rear Screw	M5	1.7 - 2.3 N.m
	10 - 32	15 - 20 lbf.in
Quick Connect	M3	0.8 - 1.0 N.m

Ordering Information

Group 1: Frame	Code	Description	Comments
	T	T-Frame	
Group 2: Type	Code	Description	Comments
	2	Standard	
Group 3: Mounting	Code	Description	Comments
	M	Front mount, rectangular aperture, 44 mm space between front inserts	Maximum penetration depth into the mounting screw is 5.4 mm, 0.21 inch
	S	Front mount, rectangular aperture, 42.2 mm space between front inserts	Maximum penetration depth into the mounting screw is 5.4mm, 0.21 inch Similar to DD Frame
Group 4: Handle Type or Blank for Multipoles	Code	Description	Comments
	H	Flush Rocker Handle, One Colour	
	M	Flush Rocker Handle - Two Tone	
	Q	Flush rocker handle, Push to Reset; Use Test button to switch OFF. One Colour	PTR HANDLE - Select Test button in Group 19 Code 2
	R	Flush rocker handle, Push to Reset- Two Tone; Use Test button to switch OFF.	PTR HDL TT - Select Test button in Group 19 Code 2
	W	Blank Front Plate (no handle)	
Group 5: Termination	Code	Description	Comments
	4X	M5 or 10 - 32 screw terminals	30 A Max
	5X	Double Quick Connect Terminal (0.8 mm x 6.35 mm)	20 A Maximum @ Vac, 2 poles

T-Frame - Series Circuit Breakers

Ordering Information Continues

Group 6: Number of Poles	Code	Description	Comments		
	1	Single pole - METRIC			
	2	Double pole - METRIC			
	A	Single pole - IMPERIAL			
	B	Double pole - IMPERIAL			
Group 7: Rated Voltages and Frequency - Main Circuit	Code	Description	Comments		
	J	240 Vac (applicable to listed single pole products)	Single pole products		
	N	80V DC	Single and double pole products		
	S	240 Vac (applicable to double pole products)	Double pole products		
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		
	=	Customer identification (A-Z)	To be allocated.		
	X	Not applicable			
Group 16: Handle Colour	Code	Description	Comments		
	B	BLACK HANDLE, WHITE MARKING.	Black Colour Not available on the Two Tone Flush Rocker		
	G	GREEN HANDLE, WHITE MARKING (Used with Code H or Q on group 4) OR BLACK HANDLE, GREEN INDICATOR AND MARKING (Used with Code M or R ON group 4 - Two Tone)	Refer to Group 4		
	R	RED HANDLE, WHITE MARKING (Used with Code H or Q on group 4) OR BLACK HANDLE, RED INDICATOR AND MARKING (Used with Code M or R ON group 4 - Two Tone)	Refer to Group 4		
	W	WHITE HANDLE, BLACK MARKING (Used with Code H or Q on group 4) OR BLACK HANDLE, WHITE INDICATOR AND MARKING (Used with Code M or R ON group 4 - Two Tone)	Refer to Group 4		
	X	Not applicable			
	Y	YELLOW HANDLE, WHITE MARKING (Used with Code H or Q on group 4) OR BLACK HANDLE, YELLOW INDICATOR AND MARKING (Used with Code M or R ON group 4 - Two Tone)	Refer to Group 4		
Group 17: Handle Markings	Code	Description	Comments		
	H	I - O / ON - OFF and AMP RATING			
	I	ON - I marked on Functional handle ,PUSH TO RESET and AMP RATING marked on non-functional handle			
	X	Not applicable			

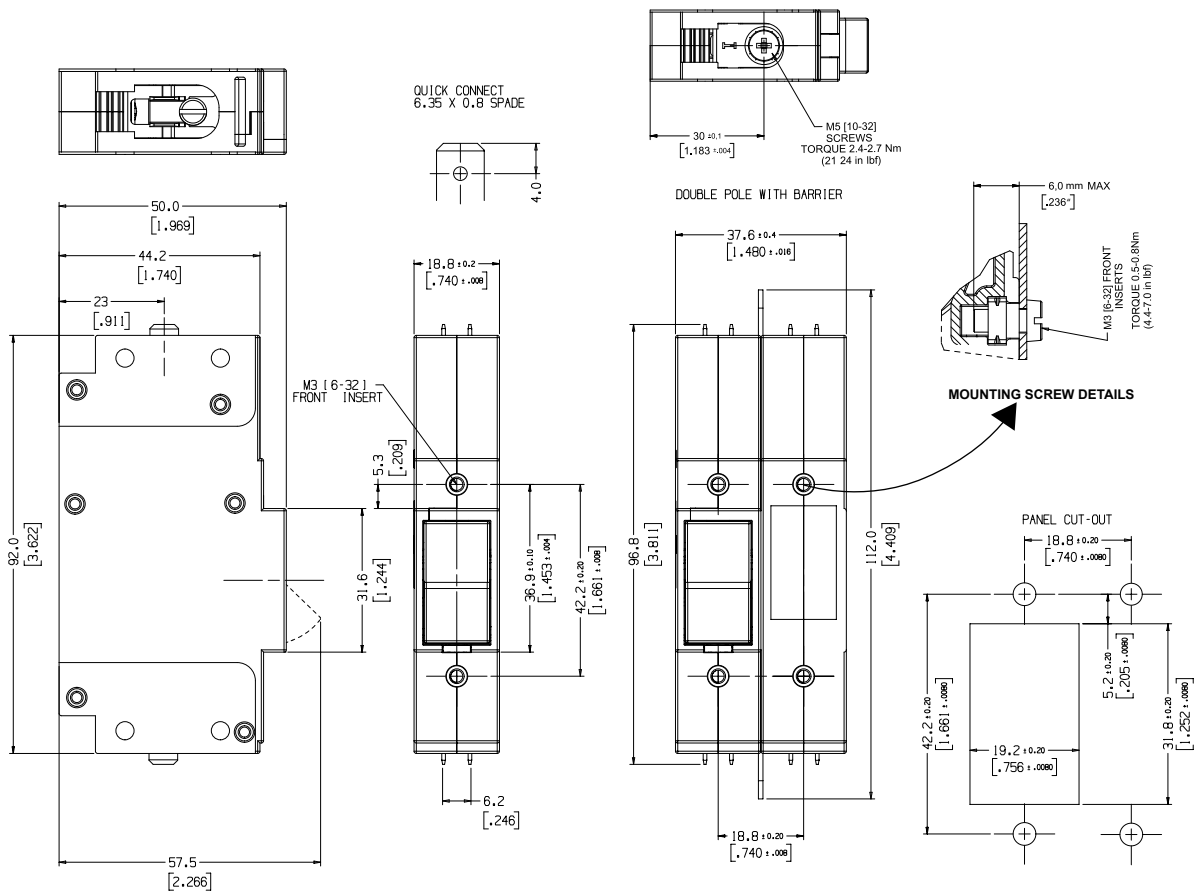
T-Frame - Series Circuit Breakers

Ordering Information Continues

Group 18: Mounting Orientation for Marking	Code	Description	Comments
	1	Breaker mounted in Vertical Axis with LINE at the BOTTOM, Marking reads left to right - normal horizontal	
	2	Breaker mounted in Horizontal Axis with LINE at the RIGHT HAND SIDE, Marking reads left to right - normal horizontal	
	H	Breaker mounted in Horizontal Axis with LINE at the LEFT HAND SIDE, Marking reads left to right - normal horizontal	
	V	Breaker mounted in Vertical Axis with LINE at the TOP, Marking reads left to right - normal horizontal	
	X	Not applicable	
Group 19: Front Plate Marking and Test Button	Code	Description	Comments
	2	Black Front Plate, No Marking, Rocker Handle, Test Button	Applicable to Rocker handle, Use with Group 4, Codes H, M, Q and R
	B	Black Front Plate NO Marking	
Group 20: Inter-phase Barrier and Terminal Cover	Code	Description	Comments
	E	Inter-Phase Barrier-Z Type	Interphase barrier to be used with the Double Quick Connect Terminal
	X	Not applicable	
Group 21: Approvals (Product Normally Approved to)	Code	Description	Comments
	1	UL recognised UL1077, CUR, IEC/EN60934, CE, UKCA	Verify Certification on physical certificates - attached
	2	UL listed UL489, CUL, IEC/EN60947-2, CE, UKCA	UL489, IEC60947-2@240/415V. Verify Certification on physical certificates - attached
	Z	No approvals	
Group 22: Safety Marks	Code	Description	Comments
	C	CCC (GB14048.2)	GB14048.2
	X	Not applicable	

For options not listed, please contact CBI

T Frame 42.2mm space between front insets

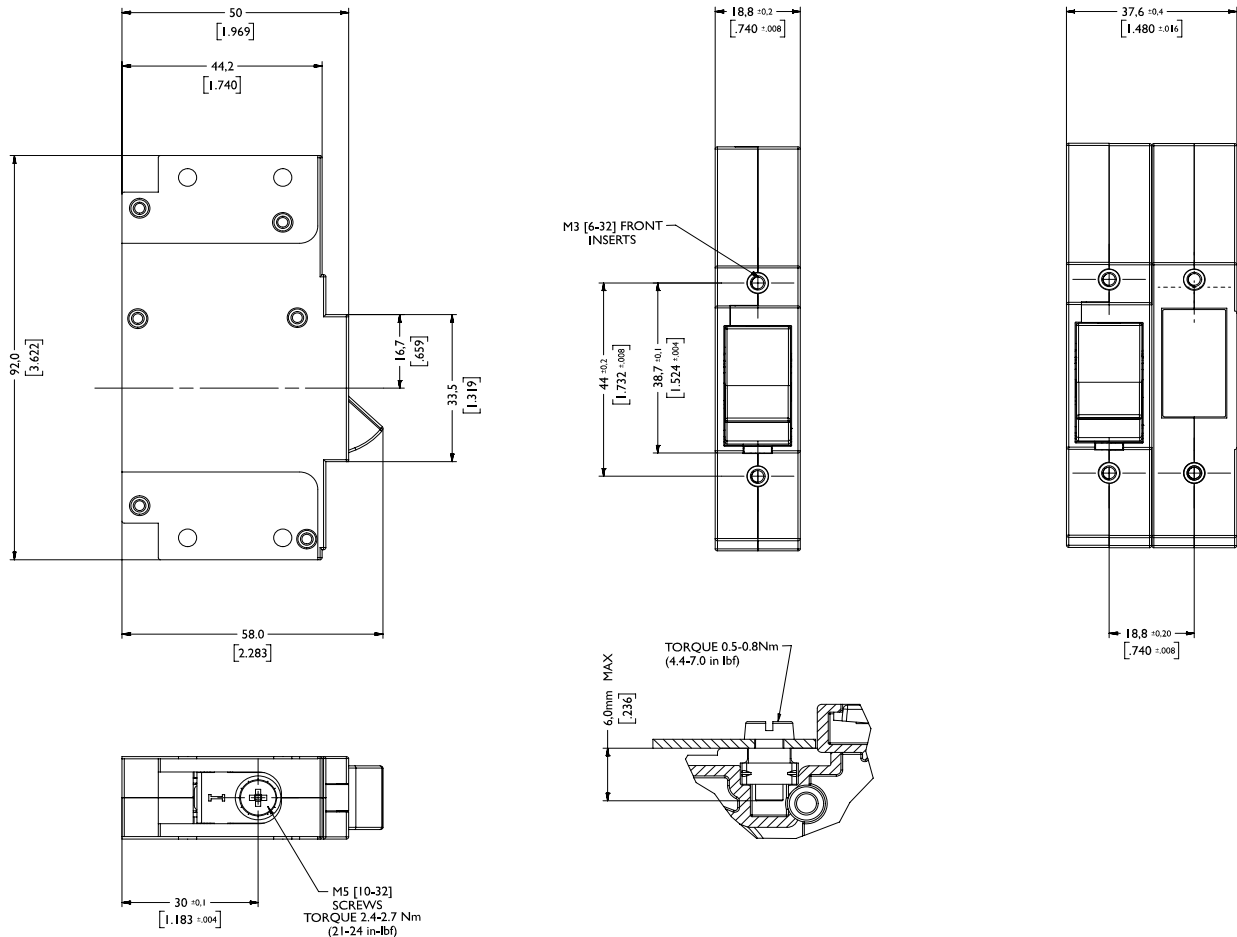


TOLERANCE ± 0.4 UNLESS OTHERWISE SPECIFIED
(DIMENSION IN BRACKETS ARE IN INCH)

T-Frame - Series Circuit Breakers

T-Frame: Outline Dimensions

T Frame 44 mm space between front insets



Please review our Customer Terms and Conditions on www.cbi-lowvoltage.co.za

© CBI (Pty) Ltd. All Rights Reserved.

All rights reserved. Unless otherwise indicated, all materials on these pages are copyrighted by CBI (Pty) Ltd. No part of these pages, either text or image may be used for any purpose other than personal use. Therefore, reproduction, modification, storage in a retrieval system or retransmission, in any form or by any means, electronic, mechanical or otherwise, for reasons other than personal use, is strictly prohibited without prior written permission. CBI (Pty) Ltd reserves the right to alter any details of this document without notice and while every effort is made to ensure the accuracy of the content, no warranty is given as to the accuracy of this document and no responsibility will be accepted for error or misinterpretation and any resulting loss.

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
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