





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.













#### **Technical Data**

Product Type	T-Frame	
Ambient Operating Temperature	-40°C to +85°C	
<b>Mounting Options</b>	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Flammability	I3 - Ignition does not persist at 850°C after glow wire is withdrawn with an oxygen index of ≥ 28	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.	

<sup>\*</sup> 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:	Code	Description	Comments
Frame	Т	T-Frame	
Group 2:	Code	Description	Comments
Туре	2	T-Frame, T-Type	
Group 3:	Code	Description	Comments
Mounting	S	Front mount, rectangular aperture, flush rocker handle type	
Group 4:	Code	Description	Comments
Handle Type or Blank for Multipoles	Н	Flush rocker handle for mounting version S, reduced handle version	Only 1 handle per unit
	М	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:	Code	Description	Comments
Termination	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)



#### **Ordering Information Continues**

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

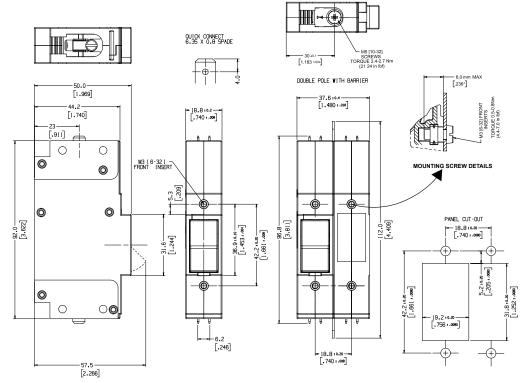


#### **Ordering Information Continues**

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

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

#### **T-Frame: Outline Dimensions**



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

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