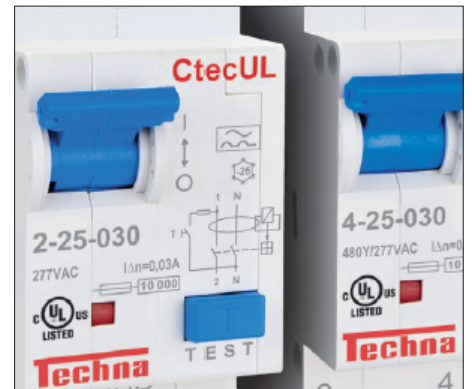
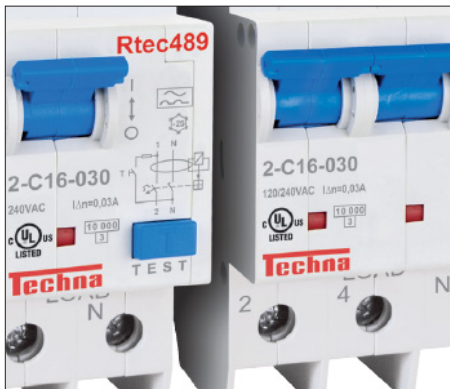
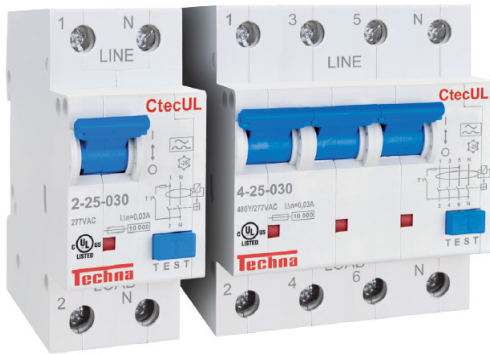


TECHNA Ground Fault Protection



TECHNA Circuit Protection RCCBs



Introducing Techna's new range of Ground fault protection devices. They have the same compact profile as our range of DIN mount circuit breakers, so it's quick and easy to provide ground fault protection almost anywhere.

Our range of cULus listed ground fault devices provides a comprehensive selection of ground fault sensitivity, current ratings and trip curves to suit any application. They share many of the same features of our popular JTEC489 and JTECUL circuit breakers – ie: large cable capacity, trip free mechanisms, lockable toggle, available auxiliary contacts and trip status indicator. All devices feature live and neutral disconnect for optimum safety. Test buttons are standard.

Rtec and Ctec devices are perfectly suited for providing ground fault protection in a wide variety of applications such as:

- Water treatment
- Campgrounds, Marinas, pools and spas.
- Fairground equipment and rides
- Water pumps/irrigation equipment
- Machinery
- Crane and elevator controls

Our family of ground fault protection:

Rtec489

The Rtec489 is cULus listed Ground fault interrupter combined with a branch rated thermal magnetic circuit breaker. The Rtec489 provides ground fault protection as well as overload and short circuit protection up to 10kA. Depending on the system voltage employed, it is available in a 2 or 3 module wide package. (See spec chart) The Rtec489 is suitable for whole panel feed and ground fault applications.

RtecUL

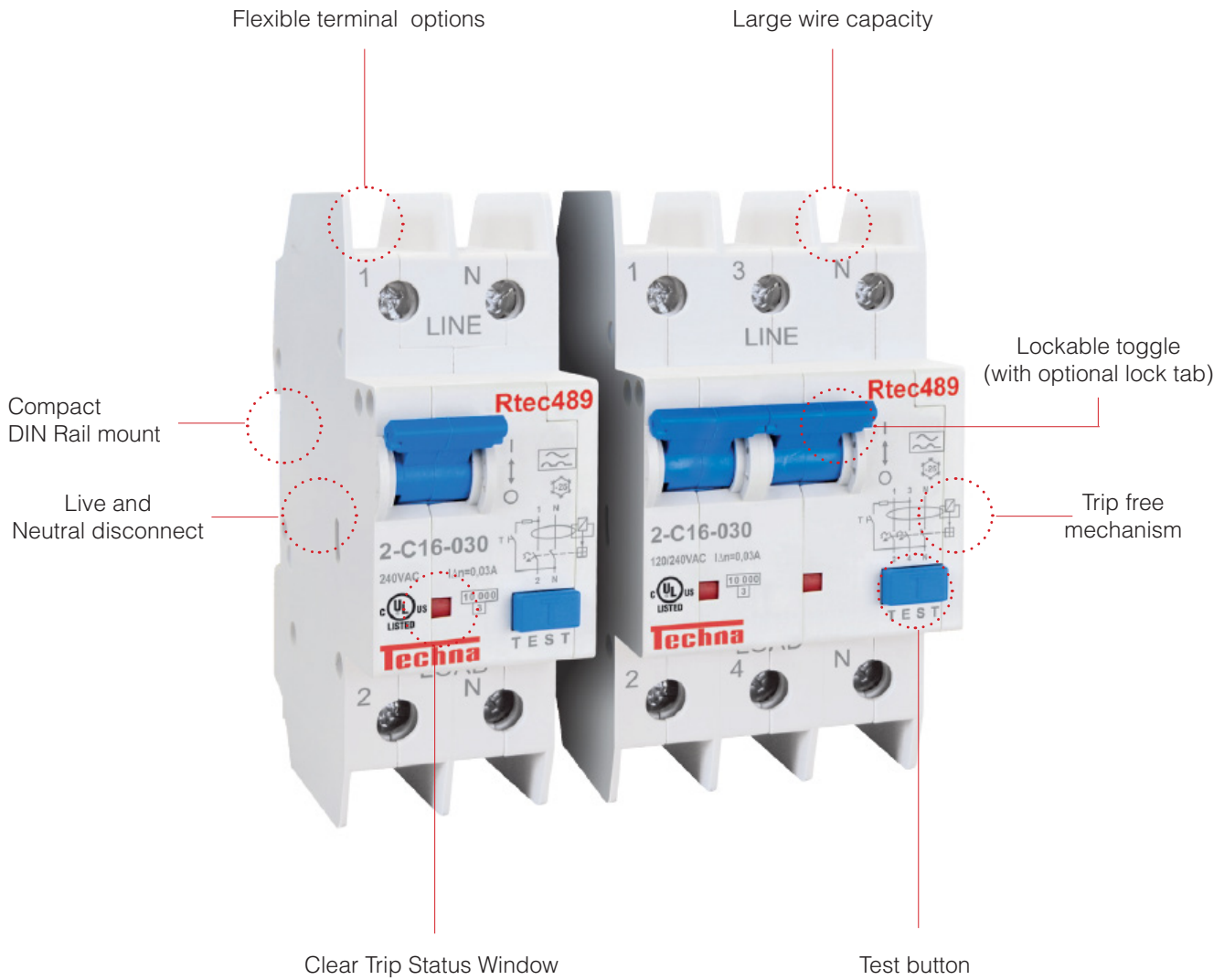
The RtecUL is cULus listed Ground fault interrupter combined with a supplemental rated thermal magnetic circuit breaker. The RtecUL provides ground fault protection as well as overload and short circuit protection up to 10kA with backup. Depending on the system voltage employed, it is available in a 2 or 4 module wide package. (See spec chart) The RtecUL is suitable for dedicated equipment protection where branch protection is provided by other upstream devices.

CtecUL

The CtecUL is cULus listed Ground fault interrupter combined with a branch rated thermal magnetic circuit breaker. The RtecUL provides ground fault protection only up to a maximum of 10kA with backup. Depending on the system voltage employed, it is available in a 2 or 4 module wide package. (See spec chart) The CtecUL is suitable for whole panel Ground fault protection where branch protection is already provided by other devices.

All three families are available in a range of ampere ratings and ground fault trip sensitivities (see spec chart). In addition, the Rtec489 and RtecUL series are available in B, C or D trip curves, the same as our Techna MCB family.

TECHNA GFI Features

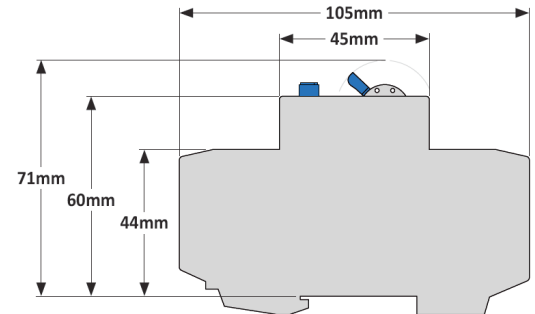
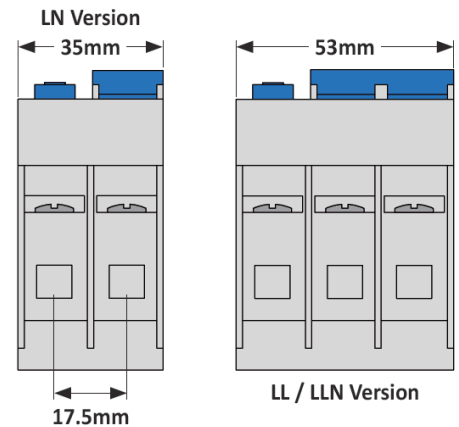
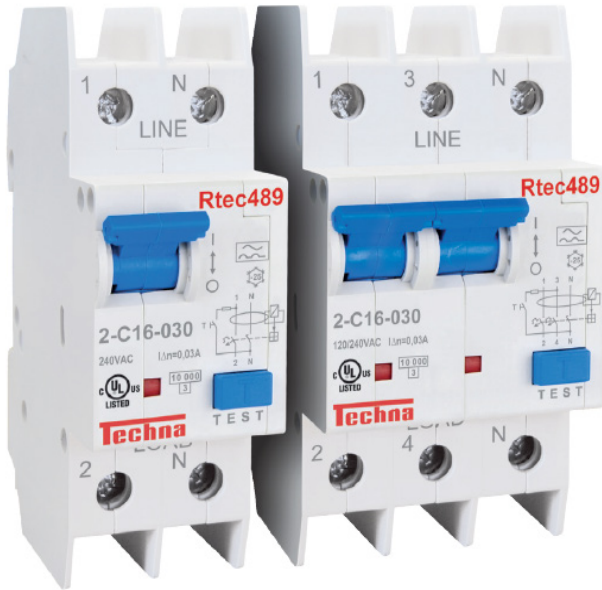


General specifications can be viewed on page 10.

TECHNA Circuit Protection RCCBs

Rtec489 5A - 40A

10kA UL489 Listed Branch Rated Circuit Breaker with Equipment Ground Fault Protection (RCBO)



The Rtec489 range is a combined Branch Circuit Breaker and Equipment Ground Fault Protector, featuring dual pole switching (live and neutral disconnect) and designed to provide protection against short circuits, overloads, AC ground faults (residual current faults) as well as pulsating DC ground faults.

NOTE:

- LN = 240V Single Phase System with neutral connection.
- LL = 120/240V Split Phase System with no neutral connection.
- LLN = 120/240V Split Phase System with neutral connection.

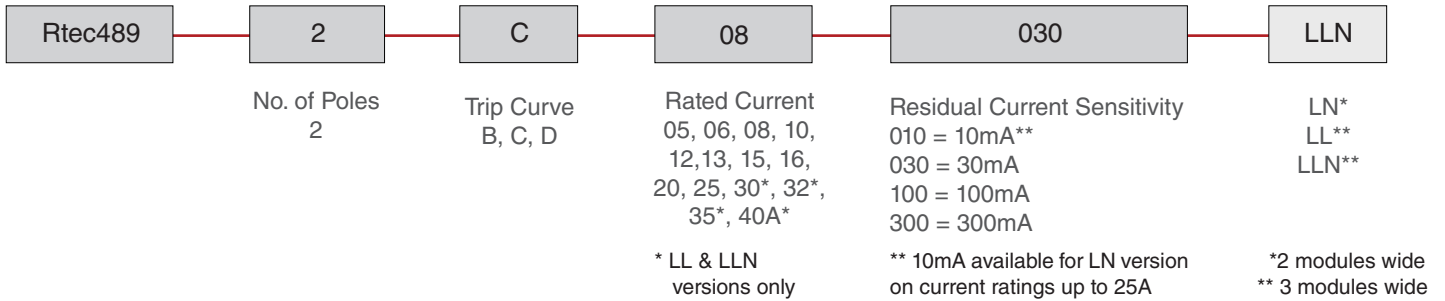
Rtec489 RCBO Technical Specification

Number of Poles	1+N (LN)		2 (LL), 2+N (LLN)
	Rated Voltage (Un)	120VAC	240VAC
Rated Current	5, 6, 8, 10, 12, 13, 15, 16, 20, 25A		5, 6, 8, 10, 12, 13, 15, 16, 20, 25, 30, 32, 35, 40A
Rated Residual Operating Current (In)	10*, 30, 100, 300mA		
Rated Frequency	50/60Hz		
Overload Tripping	B, C and D		
Cable Size & Tightening Torque	Stranded wire sized 16 - 3 AWG (1.5mm ² - 25mm ²) @ 17.5lb-in (2.0Nm)		
	Solid wire sized 16 - 10 AWG (1.5mm ² - 5.5mm ²) @ 17.5lb-in (2.0Nm)		
	Solid wire sized 18 - 16 AWG (1mm ² - 1.5mm ²) @ 25lb-in (2.8Nm)		
Electrical Life	6000 Switching Operations		
Mechanical Life	10000 Switching Operations		

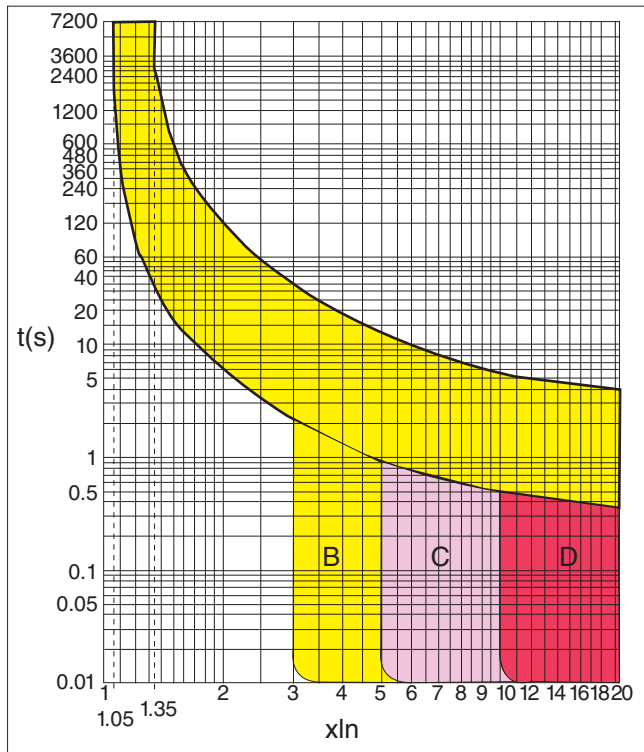
*** 10mA available for LN (2 pole) version on 25Amp or less.

Rtec489 5A - 40A

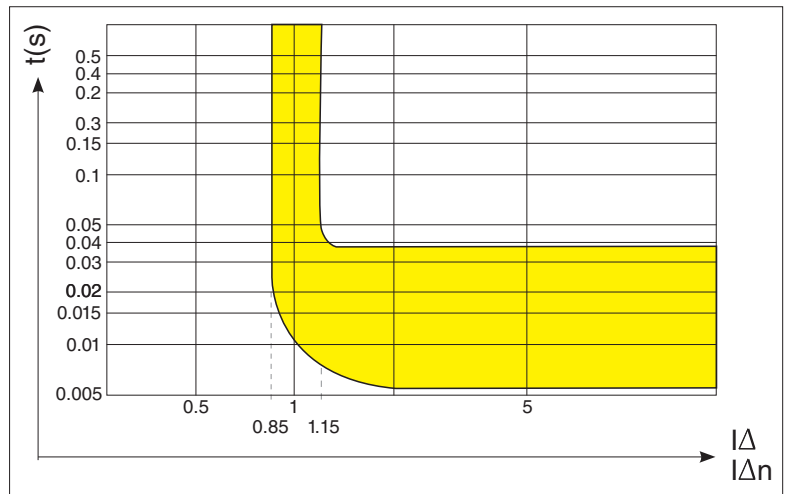
Rtec489 RCBO Ordering Scheme



Rtec489 Overload Trip Curves Characteristics B, C, D



Rtec489 RCBO Ground Fault Trip Curve



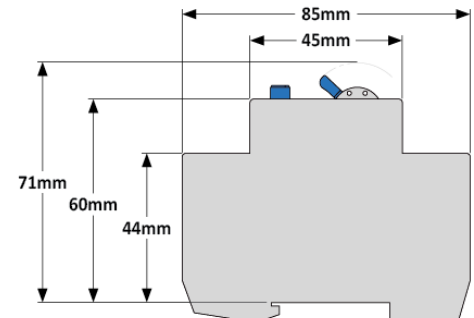
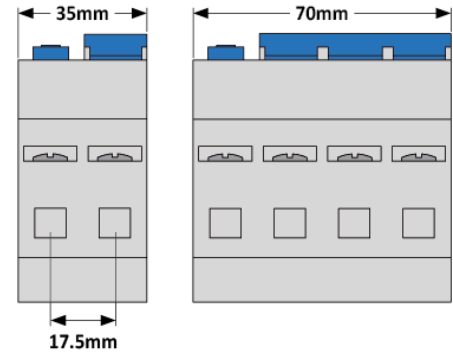
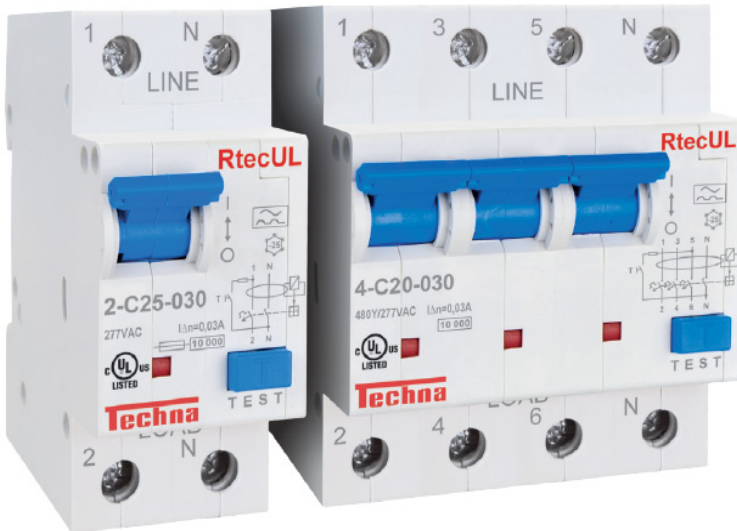
RtecUL 5A - 40A

480Y/277Vac Equipment Ground Fault Protection Relay with inbuilt Overload Protection (RCBO)



E475399

Ground Fault Sensing & Relay Equipment



The RtecUL range is a combined Equipment Ground Fault Relay and Overload Protector (RCBO), featuring dual pole switching (live and neutral disconnect) and designed to provide protection against short circuits, overloads, AC ground faults (residual current faults) as well as pulsating DC ground faults and has an interrupting capacity of 10kA.

The RtecUL device is also rated to UL1077 (E243696) as a Supplementary Overload Protector.

RtecUL RCBO Technical Specification

	RtecUL2	RtecUL4
Number of Poles	2	4
Rated Voltage (Un)	277VAC	480Y/277Vac
Rated Current	5, 6, 8, 10, 12, 13, 15, 16, 20, 25, 30, 32, 35, 40A	
Rated Residual Operating Current (In)	10*, 30, 100, 300, 500mA	
Rated Frequency	50/60Hz	
Overload Tripping	B, C and D	
Cable Size & Tightening Torque	Stranded wire sized 16 - 3 AWG (1.5mm ² - 25mm ²) @ 17.5lb-in (2.0Nm)	
	Solid wire sized 16 - 10 AWG (1.5mm ² - 5.5mm ²) @ 17.5lb-in (2.0Nm)	
	Solid wire sized 18 - 16 AWG (1mm ² - 1.5mm ²) @ 25lb-in (2.8Nm)	
Electrical Life	6000 Switching Operations	
Mechanical Life	10000 Switching Operations	

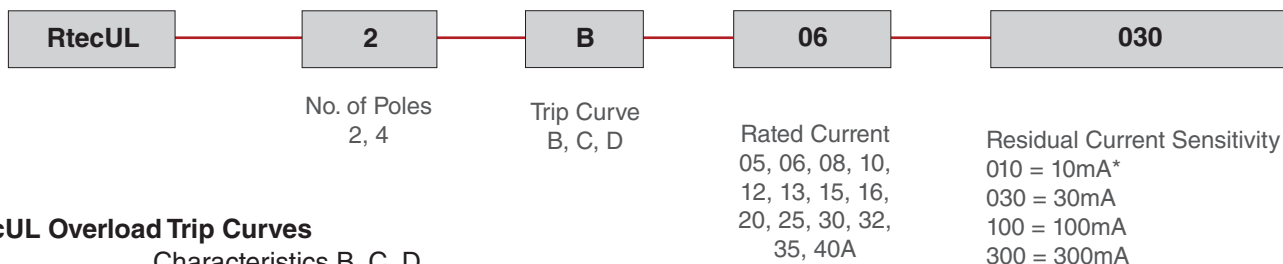
** 10mA available for 25Amps or less.

RtecUL 5A - 40A

RtecUL Interrupting Capacities

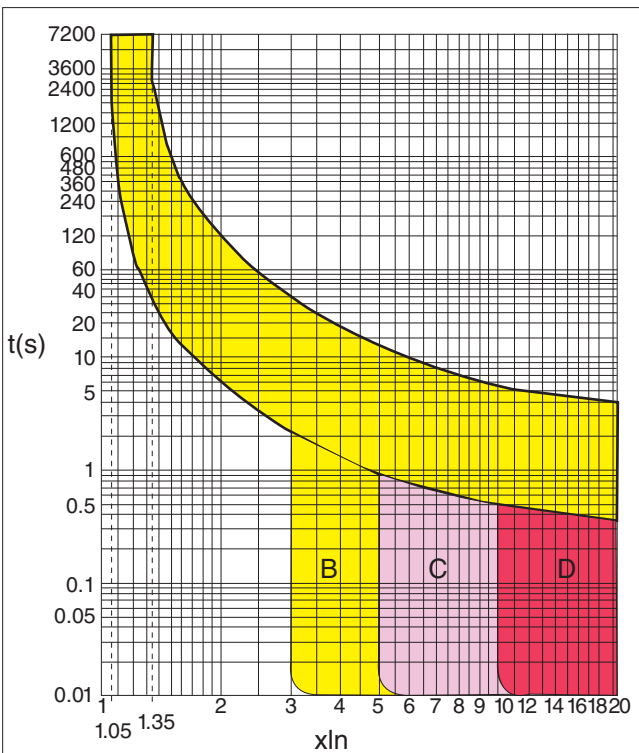
Voltage	Current Rating	Interrupting Rating	Series Back up Device
2 Pole 277 VAC	≤20	10kA	None
	>20A	10kA	Class J Fuse 250A or lower
			Techna Jtec489 Branch Circuit Breaker Techna JtecUL Supplementary Protector
4 pole 480Y/277VAC	≤20	10kA	None
	>20A	10kA	Class J Fuse 250A or lower
			Techna Jtec489 Branch Circuit Breaker Techna JtecUL Supplementary Protector

RtecUL RCCB Ordering Scheme

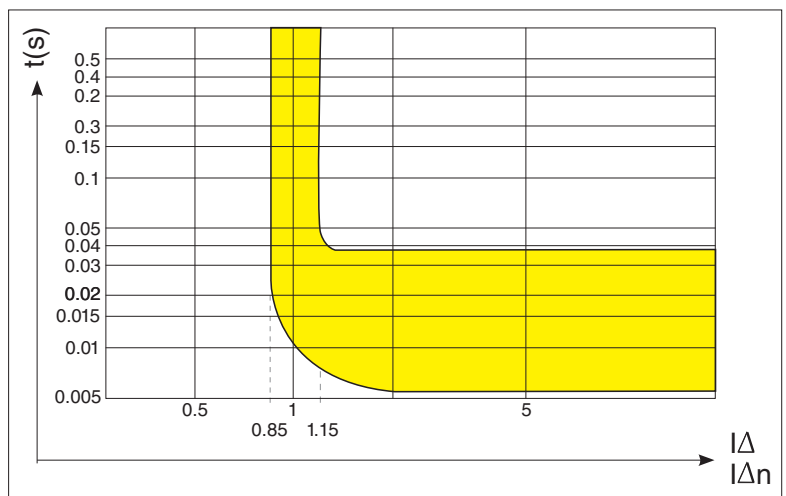


RtecUL Overload Trip Curves

Characteristics B, C, D



RtecUL RCBO Ground Fault Trip Curve



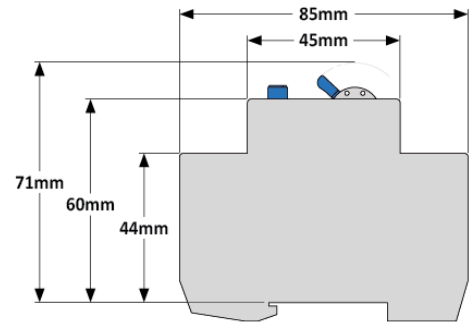
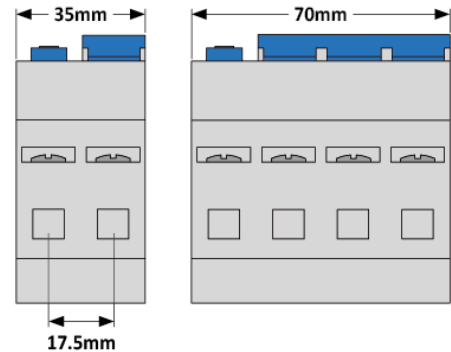
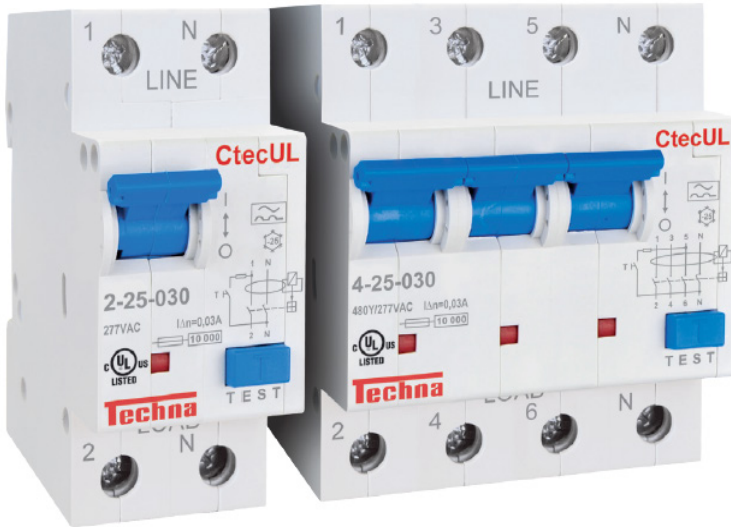
TECHNA Circuit Protection RCCBs

CtecUL 25A - 63A

480Y/277Vac Equipment Ground Fault Protection Relay (RCCB)



E475399
Ground Fault Sensing & Relay Equipment



The CtecUL series of Equipment Ground Fault Protection Relays (Earth Leakage Protection) is the latest addition to Techna's UL Listed product range, providing ground fault (residual current) protection for circuits with loads up to 63A with a short circuit interrupting capacity of 10kA.

CtecUL RCCB Technical Specification

Number of Poles	CtecUL2	CtecUL4
Rated Voltage (Un)	277VAC	480Y/277Vac
Rated Current	25, 40, 63A	
Rated Residual Operating Current (In)	10*, 30, 100, 300, 500mA	
Rated Frequency	50/60Hz	
Cable Size & Tightening Torque	Stranded wire sized 16 - 3 AWG (1.5mm ² - 25mm ²) @ 17.5lb-in (2.0Nm)	
	Solid wire sized 16 - 10 AWG (1.5mm ² - 5.5mm ²) @ 17.5lb-in (2.0Nm)	
	Solid wire sized 18 - 16 AWG (1mm ² - 1.5mm ²) @ 25lb-in (2.8Nm)	
Electrical Life	6000 Switching Operations	
Mechanical Life	10000 Switching Operations	

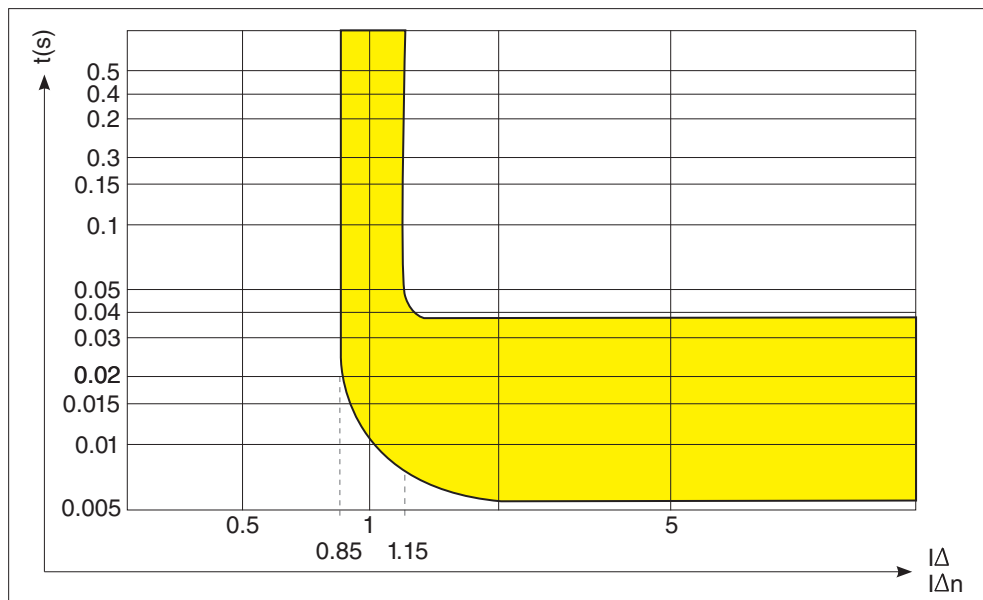
* 10mA only available on 2 pole with current ratings up to 25A

CtecUL 25A - 63A




CtecUL Interrupting Capacities

VOLTAGE	Interrupting Rating	Series Back up Device
2 Pole 277 VAC	10kA	Class J Fuse 250A or Less
		Techna Jtec489 Branch Circuit Breaker
		Techna JtecUL Supplementary Protector
4 pole 480Y/277VAC	10kA	Class J Fuse 250A or lower
		Techna Jtec489 Branch Circuit Breaker
		Techna JtecUL Supplementary Protector

CtecUL Ground Fault Trip Curve



General Specifications

System Voltage	Ground Fault with Branch rated overload and short circuit protection.			Ground Fault with Supplemental rated overload and short circuit protection.		Ground fault protection only	
	Rtec4892**LN	Rtec4892**LL	Rtec4892**LLN	RtecUL2**	RtecUL4**	CtecUL2**	CtecUL4**
120VAC	☒			☒		☒	
120/240Vac w/o Neutral		☒					
120/240Vac w. Neutral			☒				
Up to 240Vac 1PH	☒			☒		☒	
Up to 277Vac 1PH				☒		☒	
208V 3PH					☒		☒
230V 3PH					☒		☒
277/480V 3PH					☒		☒
Wiring	L-N	L-L	L-L-N	L-N	3pH-N	L-N	3Ph-N
Devise width (poles)	2	2	3	2	4	2	4
Devise width (mm)	35mm	35mm	53mm	35mm	70mm	35mm	70mm
Rated frequency	50/60hz			50/60hz		50/60hz	
Ground Fault sensitivity	10ma*, 30ma, 100ma, 300ma			10ma*, 30ma, 100ma, 300ma, 500ma			
Available Amp ratings	5,6,8,10,12,13,15,16, 20, 25A30,32,35,40 AMP			5,6,8,10,12,13,15,16, 20,25, 30,32,35,40 AMP		25,40,63 Amp	
Trip Curves	B, C, D			B, C, D		Not applicable	
Interrupt rating	10kA without backup			≤ 20A - 10kA without backup >20A - 10kA with up to 250Amp Class J or JTEC mcb.		10kA with up to 250A Class J or JTEC mcb.	
Electrical life	6000 operations			6000 operations		6000 operations	
Mechanical life	10,000 operations			10,000 operations		10,000 operations	
Cable size and tightening torque	Stranded wire 16-3AWG (1.5mm ² -25mm ²) @ 17.5lb-in.(2.0 Nm)						
	solid wire 16-10AWG (1.5mm ² -5.5mm ²) @ 17.5lb-in.(2.0 Nm)						
	solid wire 18-16AWG (1mm ² -1.5mm ²) @ 25lb-in.(2.8 Nm)						
Approvals	E475400			E475399			E475399 

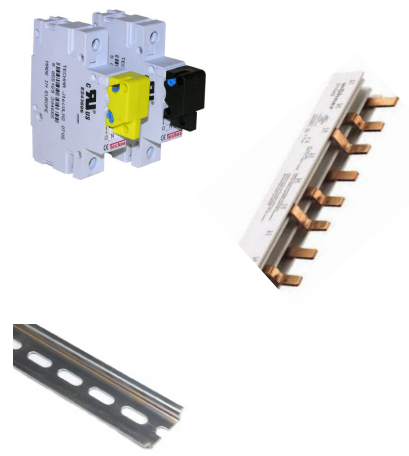
* - 10ma trip setting only available on ratings 25A or less.

** - add amp rating required.

Techna offers an extensive range of electrical and mechanical products with superior functionality at sensible prices. Techna products can be found throughout the electrical, wire and cable, temporary power, transportation, marine, motion control, packaging industries, along with many others.

Available accessories

- Auxiliary contacts
- Comb busbar and connections
- Locking tabs for toggles
- DIN rail.



Other Techna Lines

- Jtec UL breakers
- Jtec489 breakers
- 22mm Pilot Lights . All voltages and colors
- BA9S LED replacement bulbs. All voltages & colours
- 30mm to 22mm adapter rings
- DIN rail.



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