

Thermal Magnetic Trip Units

FD frame

Record Plus™ circuit breakers are designed to isolate and switch low voltage distribution circuits and to protect the conductors, equipment and devices included in these circuits.

The FD frame size is designed to use electro-mechanical trip units. These are typical thermal magnetic devices which offer an overload (thermal) and short-circuit protection (magnetic).

The breaker can also be equipped with a Mag Break™ magnetic-only trip unit that offers short-circuit protection.

The trip units have been designed with the user in mind. The trip unit ratings are always indicated in amperes. To prevent unauthorized manipulation of the breaker settings each trip unit comes with a transparent, tamper-free (sealable) cover. All units come as 3 and 4 pole devices (2p on request) and are available in a number of application-defined subvariants.

The trip unit is an integrated part of the breaker and is not interchangeable. The following versions are available:

LTM (Line thermal magnetic protection)

For the Effective breaker type only.

Has a thermal setting of 0.8 to 1 times and a magnetic release set at 10 x the selected rating. Designed for the protection of generic loads.

LTMD (Selective line thermal magnetic)

Available in the FD160S, N, H and L breaker types.

A trip unit offering selectivity with downstream devices as the ElfaPlus MCBs and Surion motor starter. Has a thermal setting of 0.8 to 1 times, and a magnetic release set at 10 x the selected rating. Designed for the selective protection of generic loads.

GTM (Generator thermal magnetic)

Available in the FD160N and H breaker types

Suitable for generator protection and/or long cable runs where a low magnetic threshold is required. Has a thermal setting of 0.8 to 1 times, and a magnetic release set at 4 or 5 times the selected rating.

Mag Break™ (Magnetic only)

Available in the FD160N, H and L breaker types.

A trip unit designed to offer short-circuit protection only and specifically suited for motor protection in coordination with a contactor and a thermal relay (EN 60947-4).

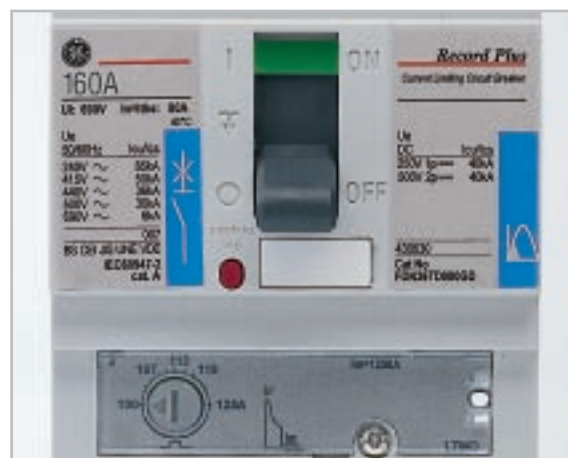
Has a settable magnetic threshold of 10 to 15 x In.

Y (Non automatic - switch disconnecter)

A device available in a 63A and 160A variant.

Has no protection elements.

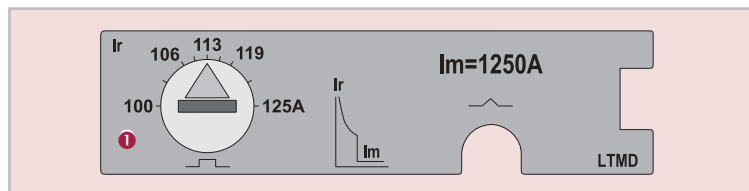
Designed as switch disconnecter



FD63/160 breakers - trip unit overview

FD frame			Trip unit overview												
	In	Thermal setting Ir		Magnetic setting Im		Neutral protection									
		pick-up band 1.05 ÷ 1.3 Ir		pick-up band ± 20% Im		4P4T	4P 3.5T	4P3T							
		min [A]	max [A]	fix [A]											
LTM	C	E	16	12.8	16	10In	160	=Ir							
			20	16	20		200	=Ir							
			25	20	25		250	=Ir							
			32	25.6	32		320	=Ir							
			40	32	40		400	=Ir							
			50	40	50		500	=Ir							
			63	50.4	63		630	=Ir							
			80	64	80		800	=Ir							
			100	80	100		1000	=Ir							
			125	100	125		1250	=Ir							
			160	128	160		1280	=Ir							
LTMD	S	N	H	L	10In	160	=Ir	not protected (1)							
						20	16		200	=Ir					
						25	20		250	=Ir					
						32	25.6		320	=Ir					
						40	32		400	=Ir					
						50	40		500	=Ir					
						63	50.4		630	=Ir					
						80	64		800	=Ir					
						100	80		1000	=Ir					
						125	100		1250	=Ir					
						160	128		1600	=Ir					
GTM		N	H		5In	125	=Ir	not protected (1)							
						32	25.6		32	160	=Ir				
						40	32		40	160	=Ir				
						50	40		50	200	=Ir				
						63	50.4		63	252	=Ir				
						80	64		80	320	=Ir				
						100	80		100	400	=Ir				
						125	100		125	500	=Ir				
						160	128		160	640	=Ir				
						Mag. Break™			N	H	L	10÷15In	30	45	not protected (1)
													70	110	
125	187.5														
200	300														
300	450														
500	750														
800	1200														
1000	1500														
Y		Y				No protection									

(1) Not available in S type



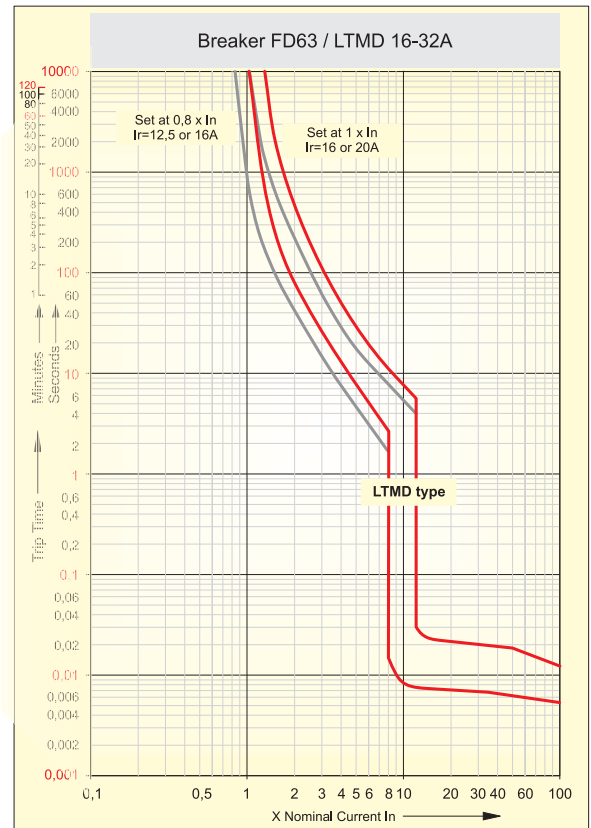
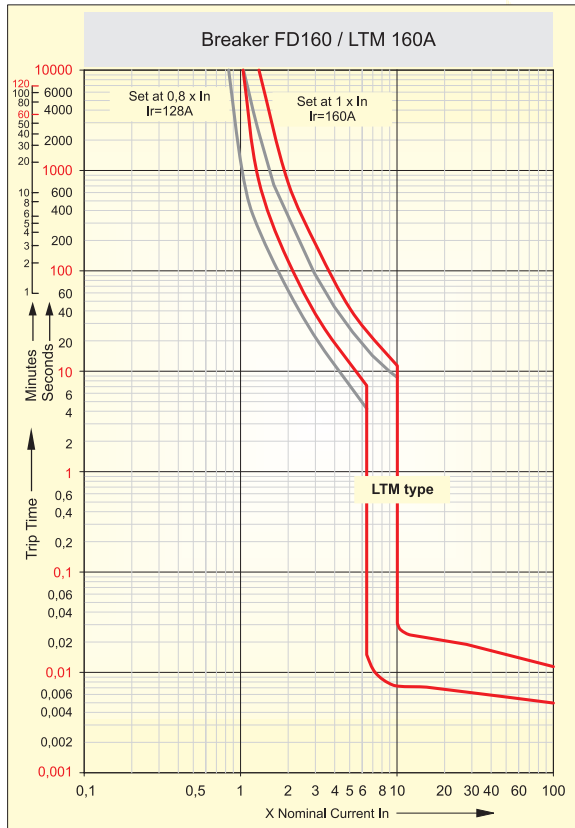
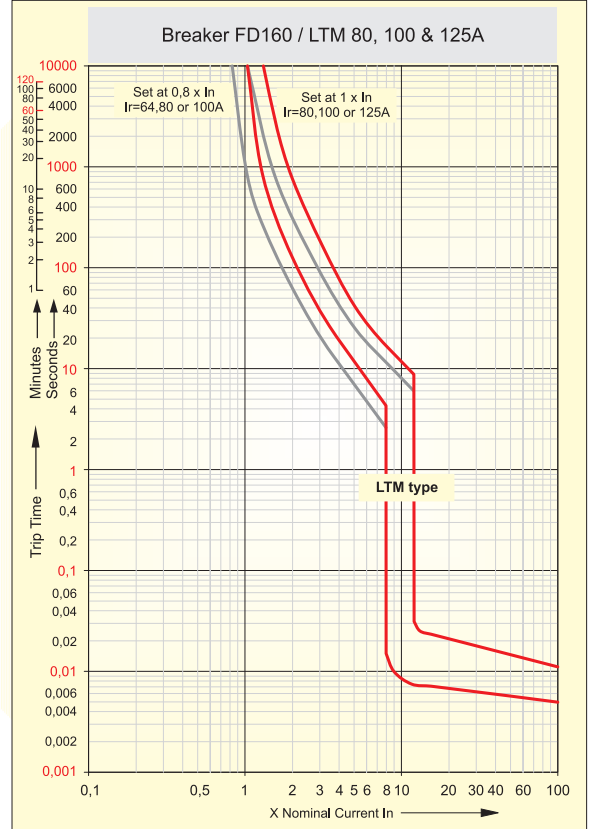
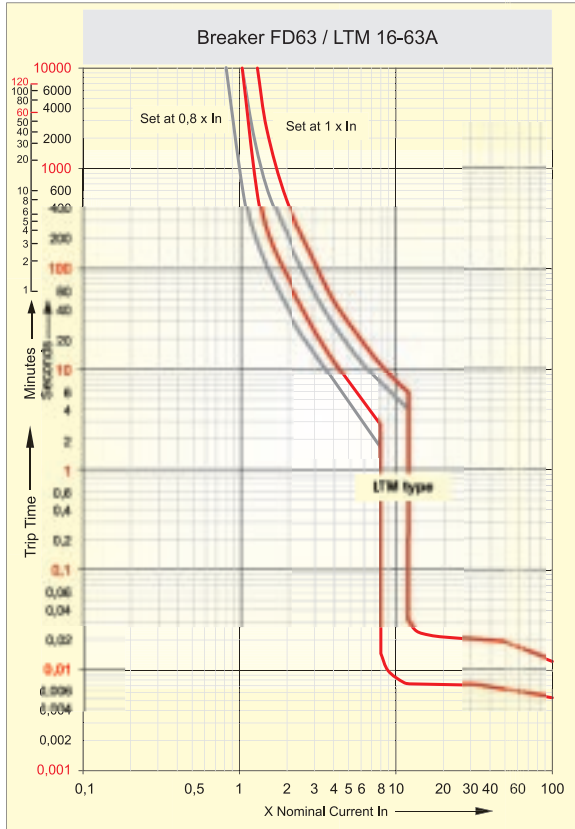
Depicted LTM type, Mag Only type has a modified scale

Time Current Curves

FD frame

Trip units

B



Time Current Curves

