Thermal Magnetic Trip Units

FE frame

The breaker is built up of a frame and an interchangeable trip unit. The interchangeability also includes the electronic trip unit and the non-automatic switch variant. The FE frame size trip units are designed to distinguish between an overload or short-circuit and are equipped with indicating flags. This patented GE system saves down time by enabling the user to identify an overload fault and, in accordance with the HD 384 standards to immediately reclose after an overload event. Each trip unit is equipped with an interchange prevention interlock that does not allow one to incorrectly place a 200 or 250A trip unit in a 160A frame size.

The following versions are available:

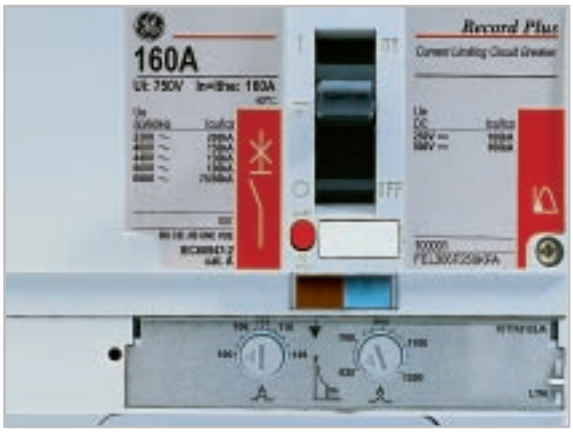
LTM (Line thermal magnetic protection)
Available in the FE160N, H & L and the FE250V breaker types.
Has a thermal setting of 0.8 to 1 and a magnetic setting of 5 to 10 times the selected rating.
Designed for the for protection of generic loads.

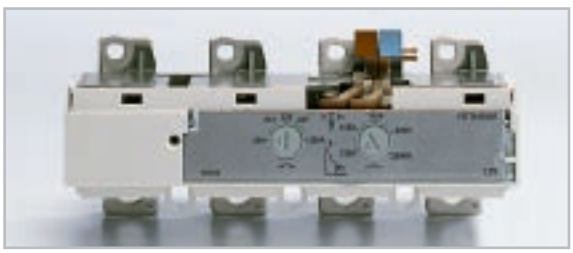
LTMD (Selective thermal magnetic protection)
Available in the FE160N, H & L and FE250N, H & L breaker types. A trip unit that offers selectivity with downstream devices as the Elfa Plus, FD63/160 range and the Surion motor starter.
Designed for the protection of generic loads.

GTM (Generator thermal magnetic)
Available in the FE160N, H & L and FE250N, H & L breaker types. Has a thermal setting of 0.8 to 1 and a magnetic setting of 3 to 5 times the selected rating.
Suitable for generator protection and/or long cable runs where a low magnetic threshold is required.

Mag Break™ (Magnetic only)
Available in the FE160N, H & L FE250N, H & 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 disconnector)
A 'dummy' trip unit available in a 160A and 250A variant. Has no protection elements.
Designed as switch disconnector

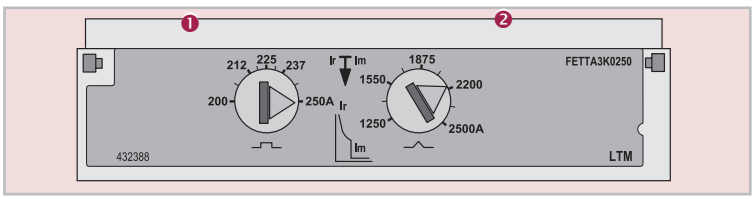




FE160 and FE250 breakers - trip unit overview (electromechanical)

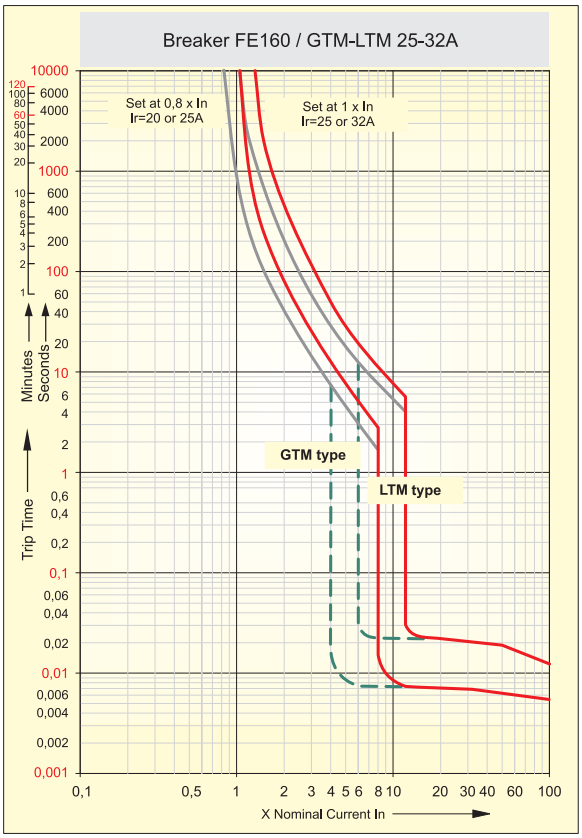
FE frame					Electro-mechanical trip unit overview								
					In	Thermal Ir pick-up band 1.05 ÷ 1.3 Ir			Magnetic Im pick-up band ± 20% Im			Neutral protection		
					[A]		min [A]	max [A]		min [A]	max [A]	4P4T	4P 3.5T	4P3T
LTM & LTMD	N	H	L	FE160	25	0.8÷1In	20	25	Fixed 8 x In	200		=Ir		not protected
					32		26	32		256		=Ir		
					40		32	40		320		=Ir		
					50		40	50		400		=Ir		
					63		50	63		504		=Ir	=Ir/2	
					80		64	80	adjustable 5÷10 In	400	800	=Ir	=Ir/2	
					100		80	100		500	1000	=Ir	=Ir/2	
					125		100	125		625	1250	=Ir	=Ir/2	
					160		128	160		800	1600	=Ir	=Ir/2	
				FE250	125	0.8÷1In	100	125		625	1250	=Ir	=Ir/2	
					160		128	160		800	1600	=Ir	=Ir/2	
					200		160	200		1000	2000	=Ir	=Ir/2	
					250		200	250		1250	2500	=Ir	=Ir/2	
GTM	N	H	L	FE160	40	0.8÷1In	32	40	Fixed 4 x In	160		=Ir		
					50		40	50		200		=Ir		
					63		50	63		252		=Ir	=Ir/2	
					100		80	100		400		=Ir	=Ir/2	
					125		100	125	adjustable 3-5 In	375	625	=Ir	=Ir/2	
					160		128	160		480	800	=Ir	=Ir/2	
				FE250	125	0.8÷1In	100	125		375	625	=Ir	=Ir/2	
					160		128	160		480	800	=Ir	=Ir/2	
					200		160	200		700	1000	=Ir	=Ir/2	
					250		200	250		750	1250	=Ir	=Ir/2	
Mag. Break™	N	H	L	FE160	3	No protection			adjustable 7÷15In	21	45			not protected
					7					49	105			
					12.5					88	188			
					20					140	300			
					30					210	450			
					50					350	750			
					100				adjustable 10÷15In	1000	1500			
					125					1250	1875			
					160					1600	2400			
				FE250	160					1600	2400			
					200					2000	3000			
					250					2500	3750			
Y	Y			FE160	160	No protection								
				FE250	250									
					250									

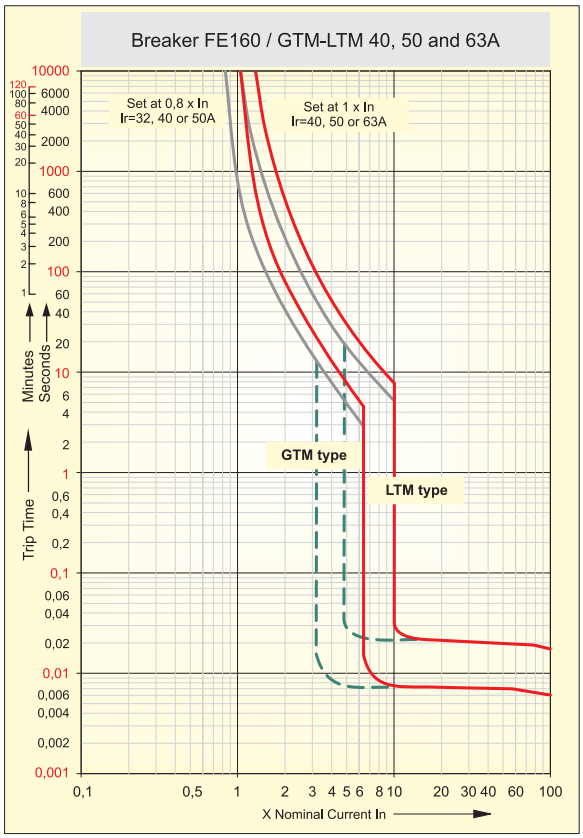
Available LTMD versions marked in yellow

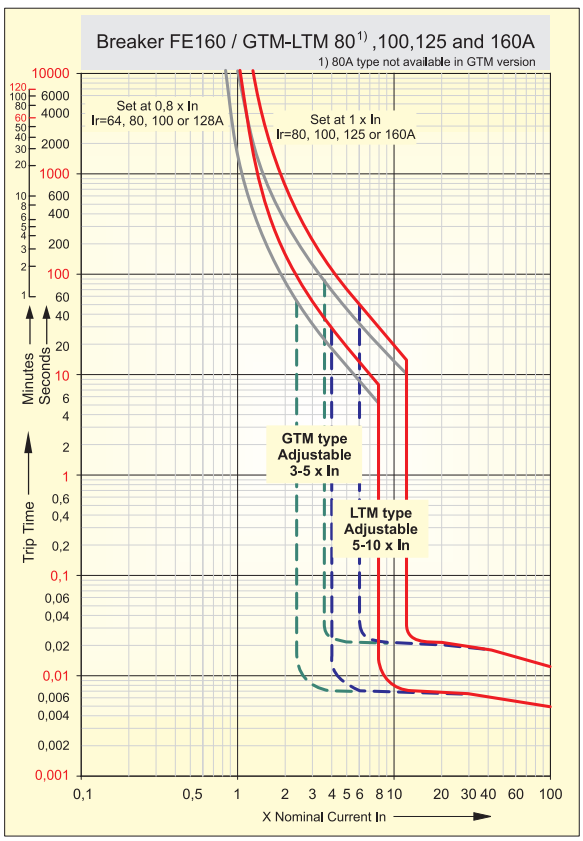


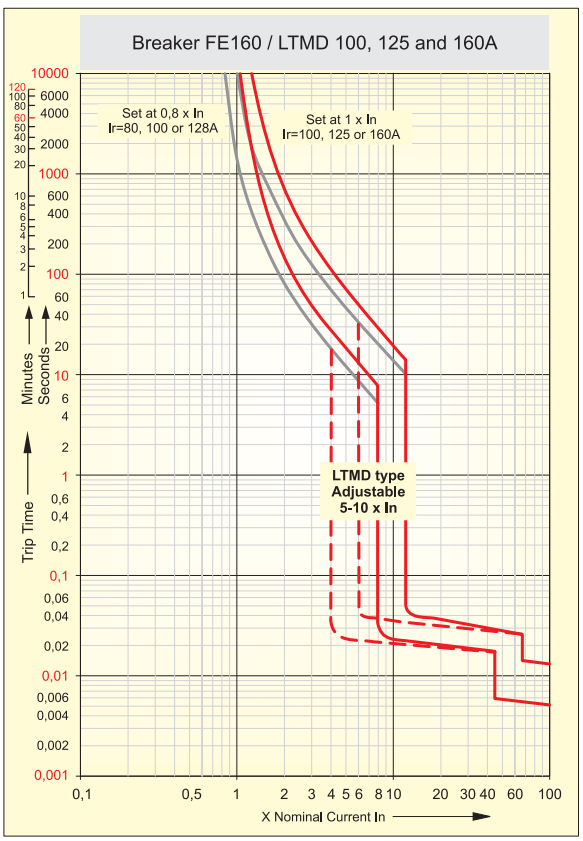
Time Current Curves

FE frame









Time Current Curves