



New

Record Plus PremEon™ S

Electronic trip unit for frames FE and FG

Simple and reliable



GE imagination at work

Simple sophistication



PremEon is a new line of electronic trip units designed to offer uncompromising reliability in all network environments.

The first of the line, **PremEon S**, combines sophisticated 32 bit technology with a complete set of protection functions.

Simple dials provide access to a wide setting range of 0.3 to 1 times I_n .

Designed to fit the Record Plus line of moulded case circuit breakers, the devices are available as 3 or 4 pole units in a current range of 7 to 630A.

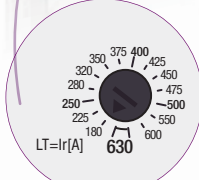
PremEon™ S

Each standard unit has between two and four overcurrent protection devices:

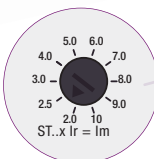
- An overload protection (**LT**) with a range of 0.3 to 1 times the chosen trip unit rating⁽¹⁾. Each of the possible 15 positions has a rating mentioned in Amps.
- A delayed short-circuit protection (**ST**) with a wide setting band of 2 to 13⁽²⁾ times the **LT** device setting or I_r value. A fixed time setting per breaker size is applied.
- A selective instantaneous device (**I**) set at a fixed value of 14⁽²⁾ times the chosen trip unit rating, using waveform recognition to assure selectivity.
- An optional ground fault protection device (**GF**) (residual principle) can be set from 0.4 to 1 times the chosen trip unit rating and be used with multiple delay and/or I^2T settings.

Each device is equipped with a LED indicator that flashes when the current reaches 0.95 times I_r and illuminates constantly when an overload trip is imminent (at 1.05 times I_r). The electronics also continuously perform self diagnostics and warn the user of any defect by the LED indicator.

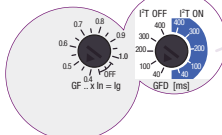
An integrated temperature sensor prevents the electronic components from reaching temperatures that could damage the breaker or its surroundings.



LT=Ir[A]



ST.x Ir = Im



GF=I_r=I_g

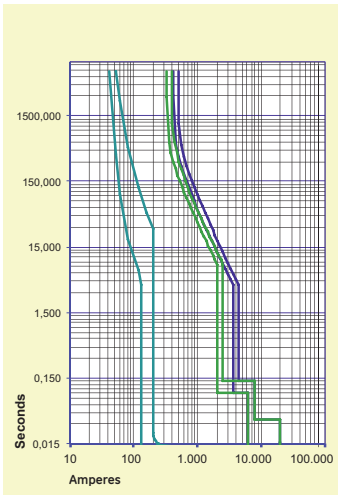


Pickup/Error

(1) Version without LT protection is available.
 (2) For FG630 630A: 2-10 x I_r and 11 x I_n



The selective choice



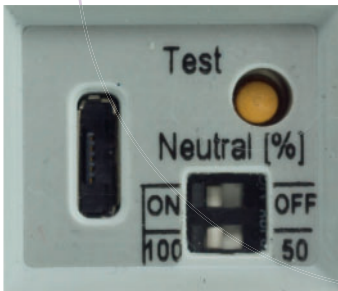
PremEon together with the unique selective and current limiting line of Record Plus line circuit breakers offer strongly improved selectivity between upstream and downstream devices.

The use of highly accurate sensing technology and of state-of-the-art electronics, reduces the tolerances on expected tripping currents and the associated time spans to a minimum.

The result as depicted in the time current curve: selectivity up to 10,000A between a upstream breaker set at 180A and a downstream breaker set at 145A.

PremEon makes selectivity possible between downstream and upstream devices with a ratio between settings of 1.25.

Selectivity on higher currents is assured by the unique selective and current limiting properties of the implemented Record Plus FG630 (set at 180A) and FE160 (set at 145A) circuit breakers.



Integrated test kit

Simply connect a standard mobile phone charger⁽¹⁾ to the micro USB port and the "TEST" button goes live. Depress it and it checks the full electronic circuit and then trips the connected breaker.

Integrated "TEST" function that only needs a USB phone charger.

The USB port also functions as a data access port, allowing the user to verify the breaker settings. The data are covering last 10 fault occurrences and waveform data of the last event⁽²⁾.

In this configuration, the PC powers the trip unit (charger no longer needed).

Prepared for the future

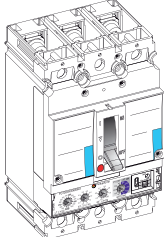

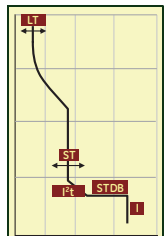

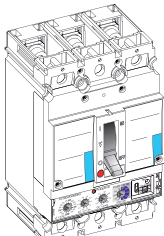

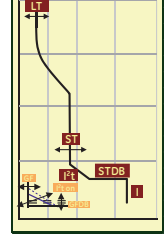

PremEon S is the first of a new generation of Record Plus trip units. They are interchangeable, designed to allow for future upgrades and have a user definable neutral protection (4 pole devices only).

(1) To IEC 62684 - Standard for mobile phone chargers

(2) Software available on request.

FE frame circuit breakers with PremEon™ S electronic trip units

New electronic trip unit

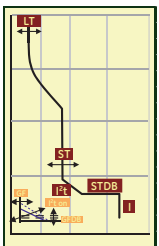
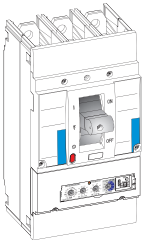
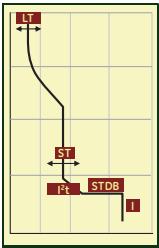
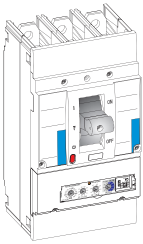
LT, ST and I	FE160 circuit breaker					FE250 circuit breaker			
	In (A)	3 pole		4 pole		3 pole		4 pole	
		Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.
 36kA FEV ⁽¹⁾	25	FEV37DA025JF	437405	FEV47DA025JF	437420	-	-	-	-
	63	FEV37DA063JF	437444	FEV47DA063JF	437452	-	-	-	-
	125	FEV37DA125JF	437476	FEV47DA125JF	437484	FEV37DA125KF	437540	FEV47DA125KF	437548
	160	FEV37DA160JF	437508	FEV47DA160JF	437516	FEV37DA160KF	437572	FEV47DA160KF	437580
	250	-	-	-	-	FEV37DA250KF	437604	FEV47DA250KF	437612
One code covers: a standard fixed front connection breaker + fixation hardware									
 50kA FEN	25	FEN37DA025JF	437400	FEN47DA025JF	437416	-	-	-	-
	63	FEN37DA063JF	437441	FEN47DA063JF	437449	-	-	-	-
	125	FEN37DA125JF	437473	FEN47DA125JF	437481	FEN37DA125KF	437537	FEN47DA125KF	437545
	160	FEN37DA160JF	437505	FEN47DA160JF	437513	FEN37DA160KF	437569	FEN47DA160KF	437577
	250	-	-	-	-	FEN37DA250KF	437601	FEN47DA250KF	437609
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware									
 80kA FEH	25	FEH37DA025JF	437401	FEH47DA025JF	437418	-	-	-	-
	63	FEH37DA063JF	437442	FEH47DA063JF	437450	-	-	-	-
	125	FEH37DA125JF	437474	FEH47DA125JF	437482	FEH37DA125KF	437538	FEH47DA125KF	437546
	160	FEH37DA160JF	437506	FEH47DA160JF	437514	FEH37DA160KF	437570	FEH47DA160KF	437578
	250	-	-	-	-	FEH37DA250KF	437602	FEH47DA250KF	437610
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware									
 150kA FEL	25	FEL37DA025JF	437402	FEL47DA025JF	437419	-	-	-	-
	63	FEL37DA063JF	437443	FEL47DA063JF	437451	-	-	-	-
	125	FEL37DA125JF	437475	FEL47DA125JF	437483	FEL37DA125KF	437539	FEL47DA125KF	437547
	160	FEL37DA160JF	437507	FEL47DA160JF	437515	FEL37DA160KF	437571	FEL47DA160KF	437579
	250	-	-	-	-	FEL37DA250KF	437603	FEL47DA250KF	437611
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware									
LT, ST, I and GF	FE160 circuit breaker					FE250 circuit breaker			
	In (A)	3 pole		4 pole		3 pole		4 pole	
		Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.
 36kA FEV ⁽¹⁾	25	FEV37DD025JF	437428	FEV47DD025JF	437432	-	-	-	-
	63	FEV37DD063JF	437460	FEV47DD063JF	437464	-	-	-	-
	125	FEV37DD125JF	437492	FEV47DD125JF	437496	FEV37DD125KF	437556	FEV47DD125KF	437560
	160	FEV37DD160JF	437524	FEV47DD160JF	437528	FEV37DD160KF	437588	FEV47DD160KF	437592
	250	-	-	-	-	FEV37DD250KF	437620	FEV47DD250KF	437624
One code covers: a standard fixed front connection breaker + fixation hardware									
 50kA FEN	25	FEN37DD025JF	437425	FEN47DD025JF	437429	-	-	-	-
	63	FEN37DD063JF	437457	FEN47DD063JF	437461	-	-	-	-
	125	FEN37DD125JF	437489	FEN47DD125JF	437493	FEN37DD125KF	437553	FEN47DD125KF	437557
	160	FEN37DD160JF	437521	FEN47DD160JF	437525	FEN37DD160KF	437585	FEN47DD160KF	437589
	250	-	-	-	-	FEN37DD250KF	437617	FEN47DD250KF	437621
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware									
 80kA FEH	25	FEH37DD025JF	437426	FEH47DD025JF	437430	-	-	-	-
	63	FEH37DD063JF	437458	FEH47DD063JF	437462	-	-	-	-
	125	FEH37DD125JF	437490	FEH47DD125JF	437494	FEH37DD125KF	437554	FEH47DD125KF	437558
	160	FEH37DD160JF	437522	FEH47DD160JF	437526	FEH37DD160KF	437586	FEH47DD160KF	437590
	250	-	-	-	-	FEH37DD250KF	437618	FEH47DD250KF	437622
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware									
 150kA FEL	25	FEL37DD025JF	437427	FEL47DD025JF	437431	-	-	-	-
	63	FEL37DD063JF	437459	FEL47DD063JF	437463	-	-	-	-
	125	FEL37DD125JF	437491	FEL47DD125JF	437495	FEL37DD125KF	437555	FEL47DD125KF	437559
	160	FEL37DD160JF	437523	FEL47DD160JF	437527	FEL37DD160KF	437587	FEL47DD160KF	437591
	250	-	-	-	-	FEL37DD250KF	437619	FEL47DD250KF	437623
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware									

(1) Please contact us for availability



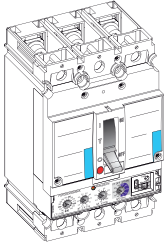
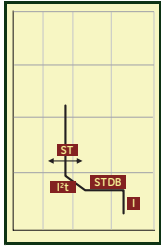
FG frame circuit breakers with PremEon™ S electronic trip units

LT, ST and I		FG400 circuit breaker				FG630 circuit breaker				
In (A)	Cat. No.	Ref. No.	3 pole		4 pole		3 pole		4 pole	
			Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.
50kA FGN	250	FGN37DA250LF	438400	FGN47DA250LF	438408	-	-	-	-	
	400	FGN37DA400LF	438432	FGN47DA400LF	438440	FGN37DA400NF	438464	FGN47DA400NF	438472	
	630	-	-	-	-	FGN37DA630NF	438496	FGN47DA630NF	438504	
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware										
80kA FGH	250	FGH37DA250LF	438401	FGH47DA250LF	438409	-	-	-	-	
	400	FGH37DA400LF	438433	FGH47DA400LF	438441	FGH37DA400NF	438465	FGH47DA400NF	438473	
	630	-	-	-	-	FGH37DA630NF	438497	FGH47DA630NF	438505	
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware										
150kA FGL	250	FGL37DA250LF	438402	FGL47DA250LF	438410	-	-	-	-	
	400	FGL37DA400LF	438434	FGL47DA400LF	438442	FGL37DA400NF	438466	FGL47DA400NF	438474	
	630	-	-	-	-	FGL37DA630NF	438498	FGL47DA630NF	438506	
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware										
LT, ST, I and GF		FG400 circuit breaker				FG630 circuit breaker				
In (A)	Cat. No.	Ref. No.	3 pole		4 pole		3 pole		4 pole	
			Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.
50kA FGN	250	FGN37DD250LF	438416	FGN47DD250LF	438420	-	-	-	-	
	400	FGN37DD400LF	438448	FGN47DD400LF	438452	FGN37DD400NF	438480	FGN47DD400NF	438484	
	630	-	-	-	-	FGN37DD630NF	438512	FGN47DD630NF	438516	
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware										
80kA FGH	250	FGH37DD250LF	438417	FGH47DD250LF	438421	-	-	-	-	
	400	FGH37DD400LF	438449	FGH47DD400LF	438453	FGH37DD400NF	438481	FGH47DD400NF	438485	
	630	-	-	-	-	FGH37DD630NF	438513	FGH47DD630NF	438517	
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware										
150kA FEL	250	FGL37DD250LF	438418	FGL47DD250LF	438422	-	-	-	-	
	400	FGL37DD400LF	438450	FGL47DD400LF	438454	FGL37DD400NF	438482	FGL47DD400NF	438486	
	630	-	-	-	-	FGL37DD630NF	438514	FGL47DD630NF	438518	
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware										



FE and FG frame circuit breakers with PremEon™ S electronic trip units

New electronic trip unit

ST and I	FE160 circuit breaker					FE250 circuit breaker			
	In (A)	3 pole		4 pole		3 pole		4 pole	
		Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.
  36kA FEV ⁽¹⁾	25	FEV37DN025JF	437413	FEV47DN025JF	437424	-	-	-	-
	63	FEV37DN063JF	437448	FEV47DN063JF	437456	-	-	-	-
	125	FEV37DN125JF	437480	FEV47DN125JF	437488	FEV37DN125KF	437544	FEV47DN125KF	437552
	160	FEV37DN160JF	437512	FEV47DN160JF	437520	FEV37DN160KF	437576	FEV47DN160KF	437584
	250	-	-	-	-	FEV37DN250KF	437608	FEV47DN250KF	437616
One code covers: a standard fixed front connection breaker + fixation hardware									
50kA FEN	25	FEN37DN025JF	437406	FEN47DN025JF	437421	-	-	-	-
	63	FEN37DN063JF	437445	FEN47DN063JF	437453	-	-	-	-
	125	FEN37DN125JF	437477	FEN47DN125JF	437485	FEN37DN125KF	437541	FEN47DN125KF	437549
	160	FEN37DN160JF	437509	FEN47DN160JF	437517	FEN37DN160KF	437573	FEN47DN160KF	437581
	250	-	-	-	-	FEN37DN250KF	437605	FEN47DN250KF	437613
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware									
80kA FEH	25	FEH37DN025JF	437409	FEH47DN025JF	437422	-	-	-	-
	63	FEH37DN063JF	437446	FEH47DN063JF	437454	-	-	-	-
	125	FEH37DN125JF	437478	FEH47DN125JF	437486	FEH37DN125KF	437542	FEH47DN125KF	437550
	160	FEH37DN160JF	437510	FEH47DN160JF	437518	FEH37DN160KF	437574	FEH47DN160KF	437582
	250	-	-	-	-	FEH37DN250KF	437606	FEH47DN250KF	437614
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware									
150kA FEL	25	FEL37DN025JF	437412	FEL47DN025JF	437423	-	-	-	-
	63	FEL37DN063JF	437447	FEL47DN063JF	437455	-	-	-	-
	125	FEL37DN125JF	437479	FEL47DN125JF	437487	FEL37DN125KF	437543	FEL47DN125KF	437551
	160	FEL37DN160JF	437511	FEL47DN160JF	437519	FEL37DN160KF	437575	FEL47DN160KF	437583
	250	-	-	-	-	FEL37DN250KF	437607	FEL47DN250KF	437615
One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware									

ST and I	FG400 circuit breaker				FG630 circuit breaker				
	In (A)	3 pole		4 pole		3 pole		4 pole	
		Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.
  50kA FGN	250	FGN37DN250LF	438404	FGN47DN250LF	438412	-	-	-	-
	400	FGN37DN400LF	438436	FGN47DN400LF	438444	FGN37DN400NF	438468	FGN47DN400NF	438476
	500	-	-	-	-	FGN37DN500NF	438500	FGN47DN500NF	438508
	One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware								
80kA FGH	250	FGH37DN250LF	438405	FGH47DN250LF	438413	-	-	-	-
	400	FGH37DN400LF	438437	FGH47DN400LF	438445	FGH37DN400NF	438469	FGH47DN400NF	438477
	500	-	-	-	-	FGH37DN500NF	438501	FGH47DN500NF	438509
	One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware								
150kA FGL	250	FGL37DN250LF	438406	FGL47DN250LF	438414	-	-	-	-
	400	FGL37DN400LF	438438	FGL47DN400LF	438446	FGL37DN400NF	438470	FGL47DN400NF	438478
	500	-	-	-	-	FGL37DN500NF	438502	FGL47DN500NF	438510
	One code covers: a standard fixed front connection breaker + toggle elongator + finishing covers + fixation hardware								

Sensors for use with ground fault protection

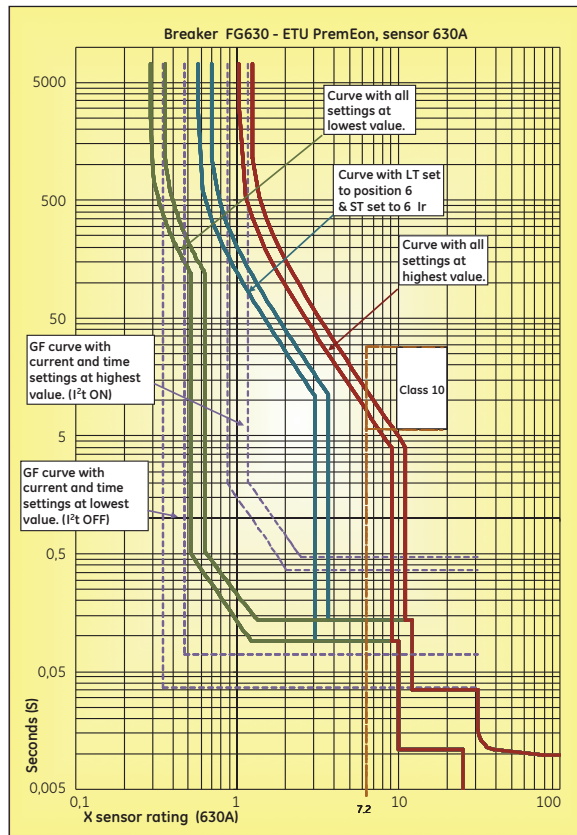
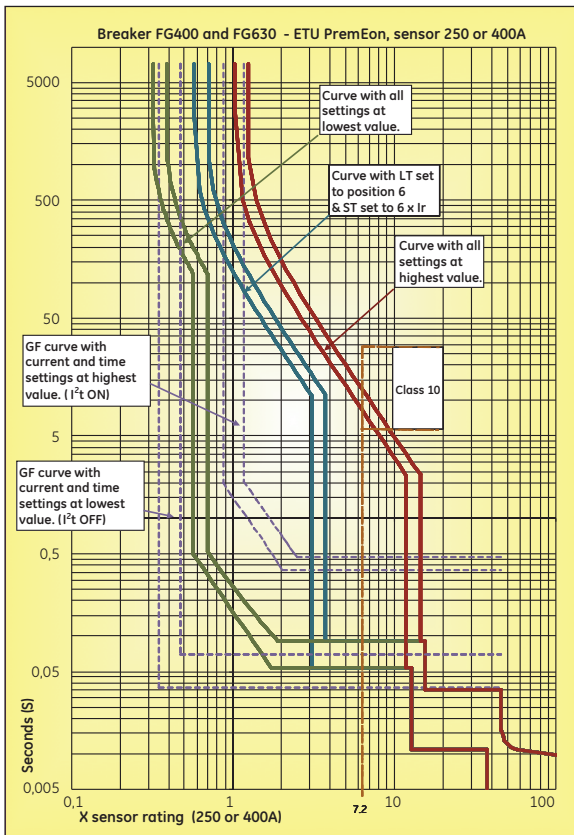
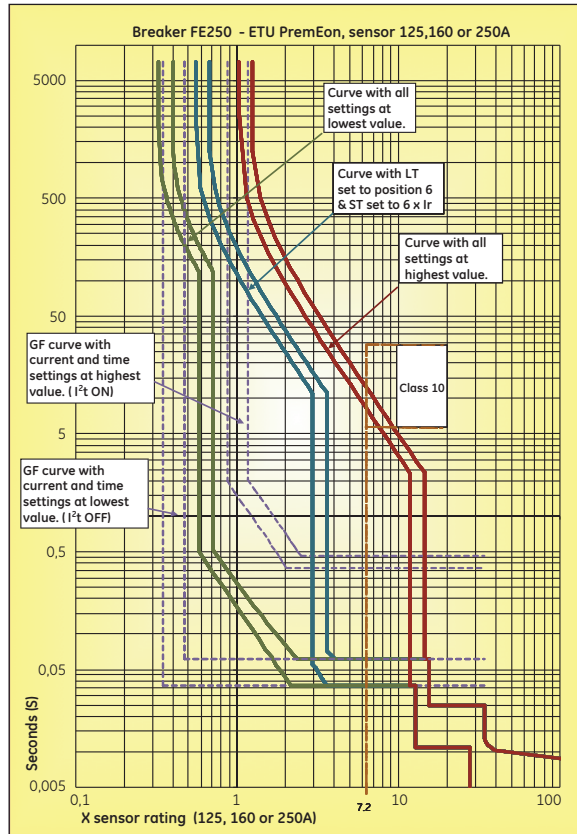
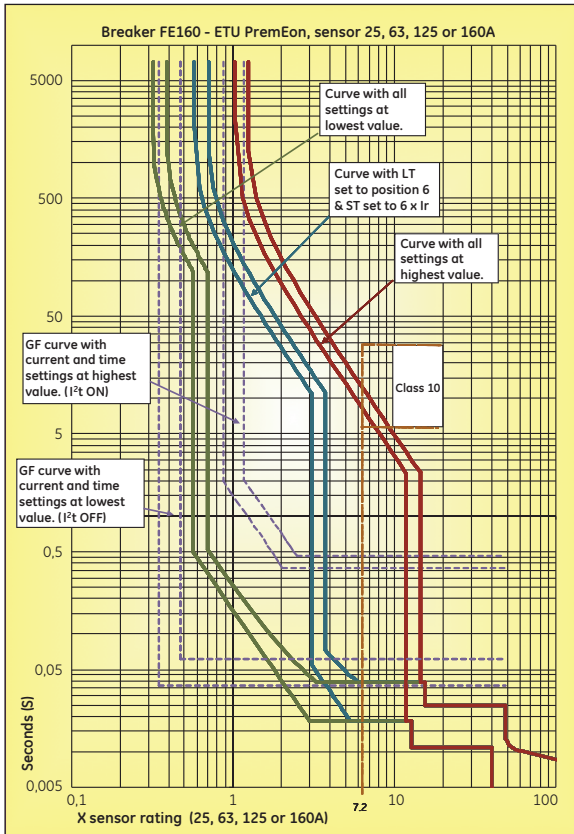
Neutral sensors ⁽²⁾	For FE160 and FE250 breakers		For FG400 and FG630 breakers	
	Cat. No.	Ref. No.	Cat. No.	Ref. No.
In = 25A	FEGS0025	437881	-	-
In = 63A	FEGS0063	437882	-	-
In = 125A	FEGS0125	437883	-	-
In = 160A	FEGS0160	437884	-	-
In = 250A	FEGS0250	437885	FGGS0250	431870
In = 400A	-	-	FGGS0400	432838
In = 630A	-	-	FGGS0630	432839

(1) Please contact us for availability

(2) Image is of the FG model



Time current curves



GE Industrial Solutions is a first class global supplier of low and medium voltage products including wiring devices, residential and industrial electrical distribution components, automation products, enclosures and switchboards. Demand for the company's products comes from wholesalers, installers, panelboard builders, contractors, OEMs and utilities worldwide.

www.ge.com/ex/industrialsolutions

www.ge.com/uk/industrialsolutions

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