GE
Industrial Solutions

WORLDWIDE PARTNER

New

Record Plus PremEon™S

Electronic trip unit for frames FE and FG

Reliable and simplified

GE imagination at work

New electronic trip unit

Simple sophistication

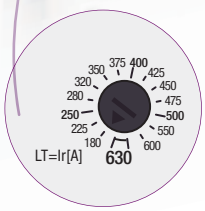
PremEon is a new line of electronic trip units designed to offer uncompromising reliability in all network environments.

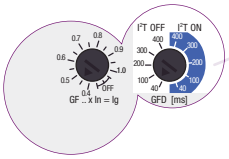
The first of the line, **PremEon S** combines sophisticated 32 bit technology with a complete set of protection functions.

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

Designed to fit the Record Plus line of 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:

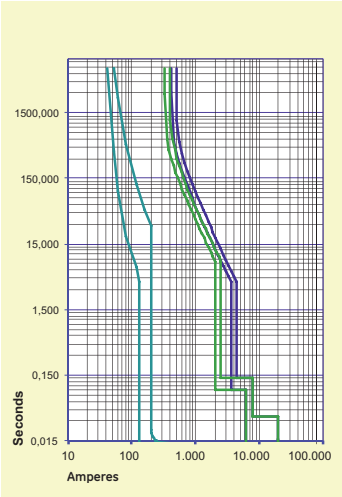
- An overload protection **(LT)** with a range of 0.3 to 1 times the chosen trip unit rating(1). Each of the possible 15 positions has a rating mentioned in Amps.
- A delayed short-circuit protection **(ST)** with a wide setting band of 2 to 13(2) times the **LT** device setting or Ir value. A fixed time setting per breaker size is applied.
- A selective instantaneous device **(I)** set at a fixed values of 14(2) times the chosen trip unit rating and uses 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 Ir and illuminates constantly when an overload trip is imminent (at 1.05 times Ir). 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 it's surroundings.

(1) A version without LT protection is available.
(2) FG630 630A type is 2-10 x Ir and 11 x In

The selective choice



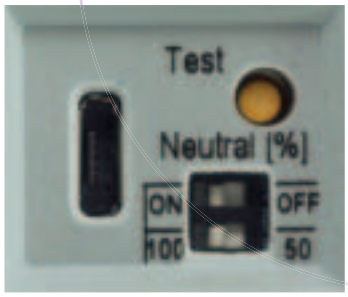
PremEon together with the unique selective and current limiting line of Record Plus line circuit breakers offer strongly improved selectivity between upstream and downstream devices.

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.

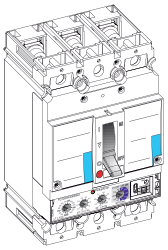
The USB port also functions as a data access port, allowing the user to verify the breaker settings. The data are covering last 10 fault occurrences and wave-form data of the last event(2).
In this configuration, the PC powers the trip unit (charger no longer needed).

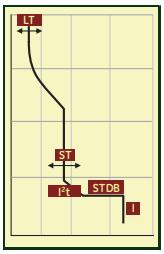
Prepared for the future
PremEon S is the first of a new generation of Record Plus trip units. They are interchangeable, designed to allow for future upgrades and have a user definable neutral protection (4 pole devices only).

(1) To IEC 62684 - Standard for mobile phone chargers
(2) Software available on request.

FE frame circuit breakers with PremEon™ S electronic trip units

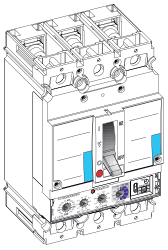
LT, ST and I

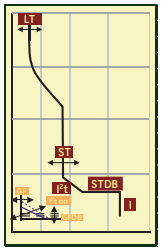




		FE160 circuit breaker				FE250 circuit breaker			
		3 pole		4 pole		3 pole		4 pole	
	In (A)	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.
36kA FEV(1)	25	FEV37DA025JF	**437405**	FEV47DA025JF	**437420**	-	-	-	-
	63	FEV37DA063JF	**437444**	FEV47DA063JF	**437452**	-	-	-	-
	125	FEV37DA125JF	**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



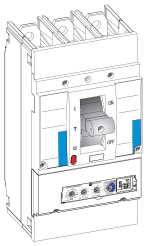


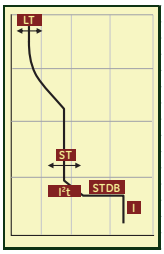
		FE160 circuit breaker				FE250 circuit breaker			
		3 pole		4 pole		3 pole		4 pole	
	In (A)	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.
36kA FEV(1)	25	FEV37DD025JF	**437428**	FEV47DD025JF	**437432**	-	-	-	-
	63	FEV37DD063JF	**437460**	FEV47DD063JF	**437464**	-	-	-	-
	125	FEV37DD125JF	**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

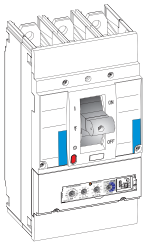
LT, ST and I

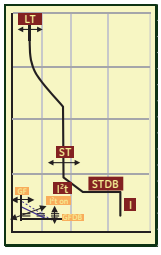




		FG400 circuit breaker				*FG630 circuit breaker*			
		3 pole		4 pole		3 pole		4 pole	
	In (A)	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.
50kA FGN	250	FGN37DA250LF	**438400**	FGN47DA250LF	**438408**	-	-	-	-
	400	FGN37DA400LF	**438432**	FGN47DA400LF	**438440**	FGN37DA400NF	**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							

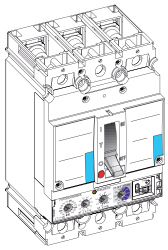
LT, ST, I and GF

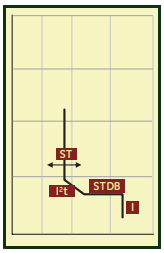




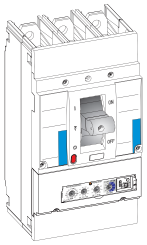
		FG400 circuit breaker				*FG630 circuit breaker*			
		3 pole		4 pole		3 pole		4 pole	
	In (A)	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.
50kA FGN	250	FGN37DD250LF	**438416**	FGN47DD250LF	**438420**	-	-	-	-
	400	FGN37DD400LF	**438448**	FGN47DD400LF	**438452**	FGN37DD400NF	**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							

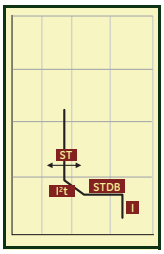
FE and FG frame circuit breakers with PremEon™ S electronic trip units





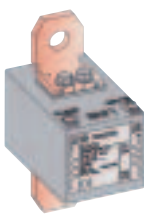
ST and I		FE160 circuit breaker				FE250 circuit breaker			
		3 pole		4 pole		3 pole		4 pole	
	In (A)	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.	Cat. No.	Ref. No.
36kA FEV[1]	25	FEV37DN025JF	**437413**	FEV47DN025JF	**437424**	-	-	-	-
	63	FEV37DN063JF	**437448**	FEV47DN063JF	**437456**	-	-	-	-
	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			
		3 pole		4 pole		3 pole		4 pole	
	In (A)	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							

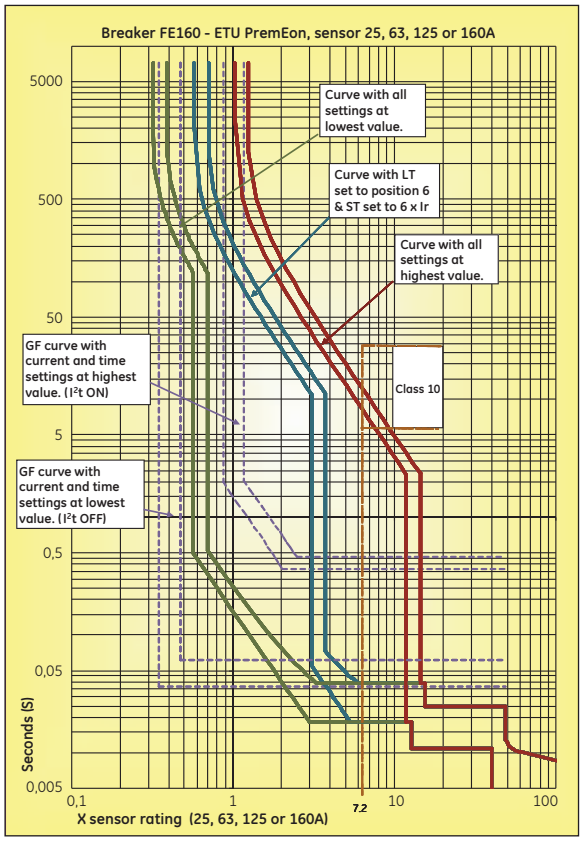
PremEon™ S electronic trip units: sensors for use with ground fault protection

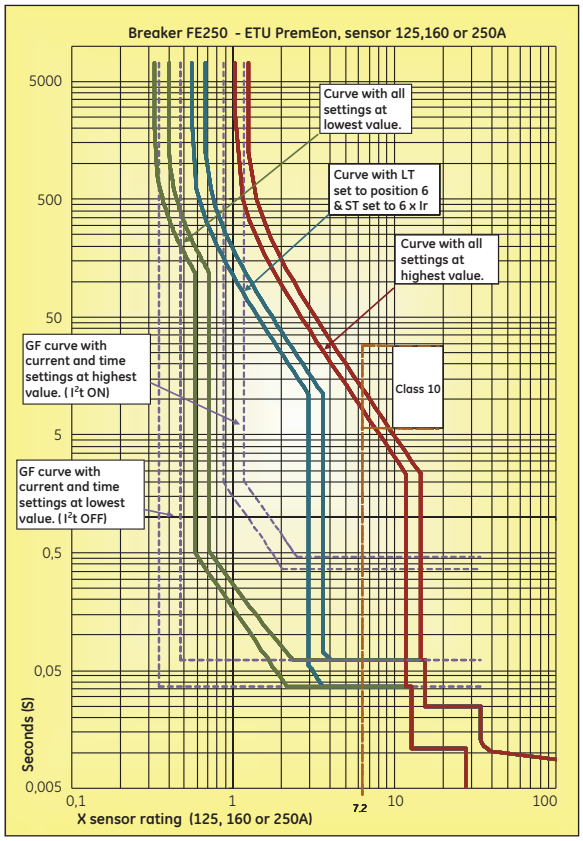


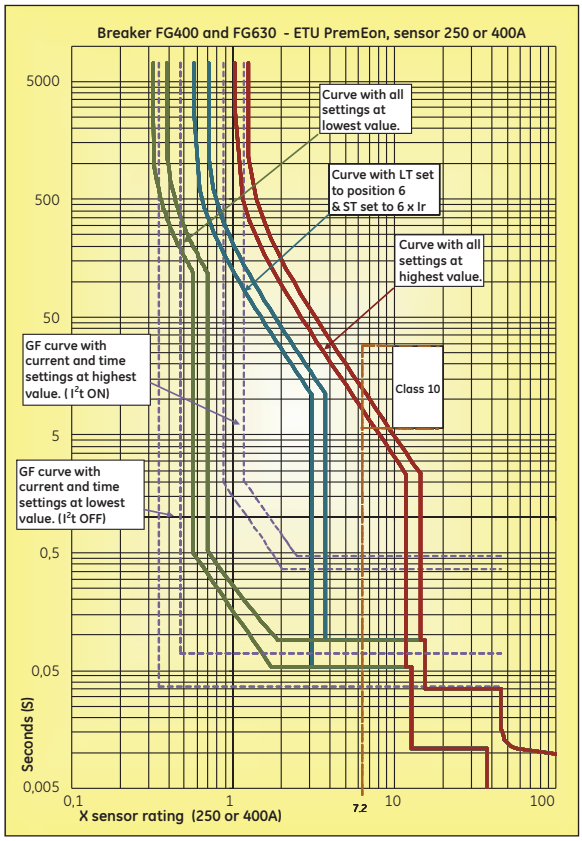
Neutral sensors[2]	FE160 and FE250 models		FG400 and FG630 models	
	Cat. No.	Ref. No.	Cat. No.	Ref. No.
In = 25A	FEGS0025	**437881**	-	-
In = 63A	FEGS0063	**437882**	-	-
In = 125A	FEGS0125	**437883**	-	-
In = 160A	FEGS0160	**437884**	-	-
In = 250A	FEGS0250	**437885**	FGGS0250	**431870**
In = 400A	-	-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

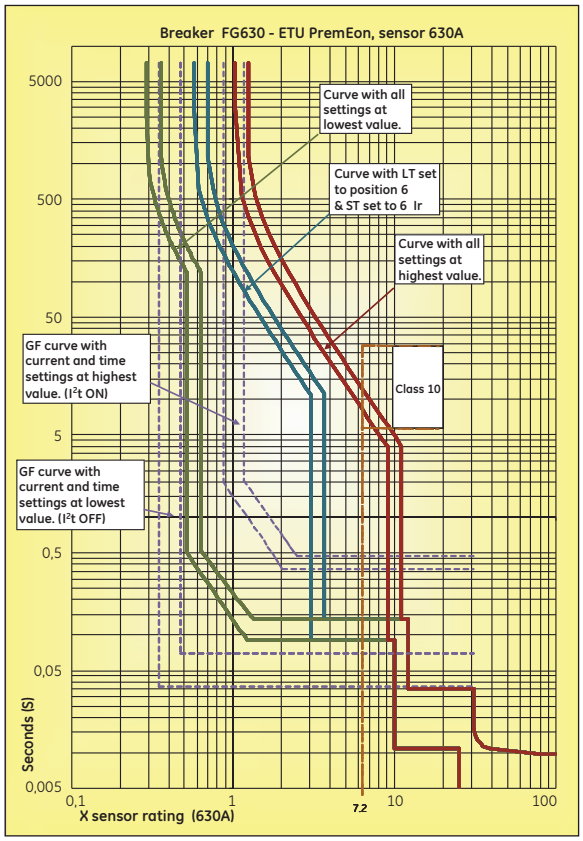
(1) Please contact us for availability
(2) Image is of the FG model

Time current curves









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www.ge.com/ex/industrialsolutions
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Belgium
GE Industrial Belgium
Nieuwevaart 51
B-9000 Gent
Tel. +32 (0)9 265 21 11

Finland
GE Industrial Solutions
Kuortaneenkatu 2
FI-00510 Helsinki
Tel. +358 (0)10 394 3760

France
GE Industrial Solutions
Paris Nord 2
13, rue de la Perdrix
F-95958 Roissy CDG Cédex
Tel. +33 (0)800 912 816

Germany
GE Industrial Solutions
Robert-Bosch Str. 2a
D-50354 Hürth-Efferen
Tel. +49 (0) 2233/ 9719-0

Hungary
GE Hungary Kft.
Vaci ut 81-83.
H-1139 Budapest
Tel. +36 1 447 6050

Italy
GE Industrial Solutions
Centro Direzionale Colleoni
Via Paracelso 16
Palazzo Andromeda B1
I-20864 Agrate Brianza (MB)
Tel. +39 039 637 3701

Netherlands
GE Industrial Solutions
Parallelweg 10
Nl-7482 CA Haaksbergen
Tel. +31 (0)53 573 03 03

Poland
GE Power Controls
Ul. Odrowaza 15
03-310 Warszawa
Tel. +48 22 519 76 00

Ul. Leszczyńska 6
43-300 Bielsko-Biała
Tel. +48 33 828 62 33

Portugal
GE Industrial Solutions
Rua Camilo Castelo Branco, 805
Apartado 2770
P-4401-601 Vila Nova de Gaia
Tel. +351 22 374 60 00

Russia
GE Industrial Solutions
27/8, Electrozavodskaya street
Moscow, 107023
Tel. +7 495 937 11 11

South Africa
GE Industrial Solutions
Unit 4, 130 Gazelle Avenue
Corporate Park Midrand 1685
P.O. Box 76672 Wendywood 2144
Tel. +27 11 238 3000

Spain
GE Industrial Solutions
P.I. Clot del Tufau, s/n
E-08295 Sant Vicenç de Castellet
Tel. +34 900 993 625

United Arab Emirates
GE Industrial Solutions
Injaz Building, 3rd Floor
Dubai Internet City
PO Box 11549, Dubai
Tel. +971 4 4546912

United Kingdom
GE Industrial Solutions
2 The Arena, Downshire Way
Bracknell, Berkshire.
RG12 1PU
Tel. +44 (0)800 587 1239

GE imagination at work

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