Switch Settings - I_r (Multi)

.438 .500 .563 .625 .688 .750 .781 .875 .938 1.0

t [S]

Time in Seconds

t_r 30s 25s 20s 17s 14s 10s 8s 6s 4s 2.5s

1.25 1.5 2 3 4 5 6

I_{ld} - Long Time Pickup

I_r = Switch Setting

I_{ld} = +5% +30%

I_{ld} = 105% - 130% X I_r

t_r - Time Delay

-10% +10%

t_r – @ 6 X I_r

I_i – Instantaneous Pickup

I_i

−20% +20%

I_n = 1600 Amp

Switch Settings

I_i(kA) 3.2 4.8 2.4 6.4 2.0 8.0 9.6 9.6 9.6 9.6

Equivalent I_n- Multiples

I_i 1.5 2 3 4 1.25 5 6 6 6 6

(Multi) X I_n

I_n = 1200 Amp

Switch Settings

I_i(kA) 2.4 3.6 1.8 4.8 1.5 6.0 12.0 7.2 12.0 9.6

Equivalent I_n- Multiples

I_i 1.5 2 3 4 1.25 5 10 6 10 8

(Multi) X I_n

For Max. Interruption Rating, See table above.

Time Current Characteristics Curve

SIEMENS **PG** Frame Circuit Breaker

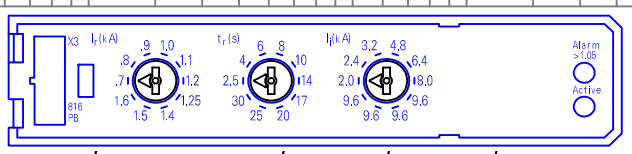
Electronic Trip Unit 555 3-Pole
with LI and LIG Protection

Example Settings are for I_n = 1600 Amps

Interruption Ratings

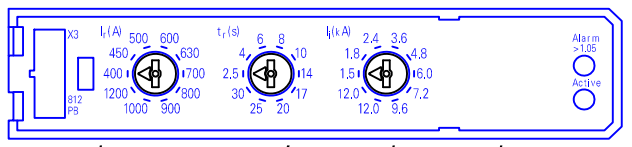
Type	Maximum Trip Unit Rating (I_n)	Symmetrical RMS Amperes 240V	480V	600V
NPG	1200 A, 1600 A	65kA	35kA	25kA
HPG		100kA	65kA	35kA
LPG		200kA	100kA	65kA

The effects of Thermal Memory are not shown. 806998 A01



I_n = 1600 Amps I_r (AMPS) = I_r (Multi) X I_n

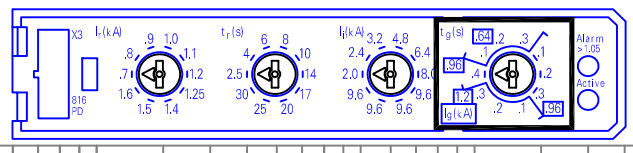
700 A = .438 X I_n	1000 A = .625 X I_n	1250 A = .781 X I_n	1600 A = 1.0 X I_n
800 A = .500 X I_n	1100 A = .688 X I_n	1400 A = .875 X I_n	
900 A = .563 X I_n	1200 A = .750 X I_n	1500 A = .938 X I_n	



I_n = 1200 Amps I_r (AMPS) = I_r (Multi) X I_n

400 A = .333X I_n	600 A = .500 X I_n	800 A = .667 X I_n	1200 A = 1.0 X I_n
450 A = .375 X I_n	630 A = .525 X I_n	900 A = .750 X I_n	
500 A = .417 X I_n	700 A = .583 X I_n	1000 A = .833 X I_n	

For LIG 4 switch Trip Units with Ground Fault function see Ground Fault Curve 806998 F01



806998A01
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Multiples of Continuous Current Rating x I_n

Time Current Characteristics Curve

SIEMENS **PG** Frame Circuit Breaker

Electronic Trip Unit 555 3-Pole
with LSI and LSIG Protection - I^2t OFF

Example Settings are for I_n = 1600 Amps

Interruption Ratings

Type	Maximum Trip Unit Rating (I_n)	Symmetrical RMS Amperes		
		240V	480V	600V
NPG	1200 A, 1600 A	65kA	35kA	25kA
HPG		100kA	65kA	35kA
LPG		200kA	100kA	65kA

The effects of Thermal Memory are not shown. 806998 B01

Switch Settings - I_r (Multi) .625 .750 .875 .938 1.0

I_{ld} - Long Time Pickup

I_r = Switch Setting

I_{ld} = +5% +30%

I_{ld} = 105% - 130% X I_r

t_r - Long Time Delay

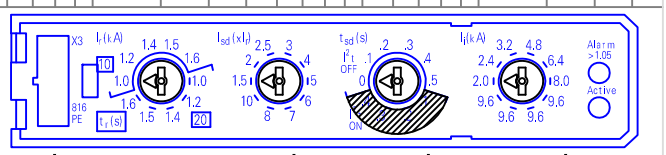
-10% +10%

t_r – @ 6 X I_r

t_r 20s 10s

t_{sd} .5s .4s .3s .2s .1s

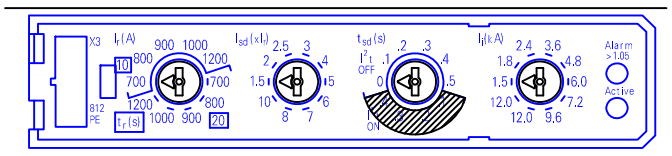
t_{sd} - Short Time Delay
Fixed Tolerance
-0.0 sec. to +0.06 sec.



I_n = 1600 Amps — I_r (AMPS) = I_r (Multi) X I_n

1000 A = .625 X I_n | 1400 A = .875 X I_n | 1600 A = 1.0 X I_n

1200 A = .750 X I_n | 1500 A = .938 X I_n

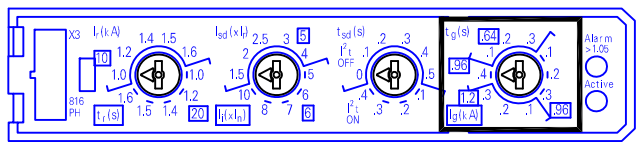


I_n = 1200 Amps — I_r (AMPS) = I_r (Multi) X I_n

700 A = .583 X I_n | 900 A = .750 X I_n | 1200 A = 1.0 X I_n

800 A = .667 X I_n | 1000 A = .833 X I_n

For LSIG 4 switch Trip Units with Ground Fault function see Ground Fault Curve 806998 F01



I_{sd} – Short Time Pickup

I_{sd}

–20% +20%

I_{sd} = (1.5, 2, 2.5 ... 10 X I_r)

1200A = 8 X I_n MAX

1600A = 5 X I_n MAX

I_i - Instantaneous Amps

1200A LSIG units have 5X and 10X I_n only.

1600A LSIG units have 5X and 6X I_n only.

I_i tolerance is ± 20%

0s

Tolerance Zone for Short Time Delay Set at "0"

For Max. Interruption Rating, See table above.

Time in Seconds

Multiples of Continuous Current Rating x I_n

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Time Current Characteristics Curve

SIEMENS **PG** Frame Circuit Breaker

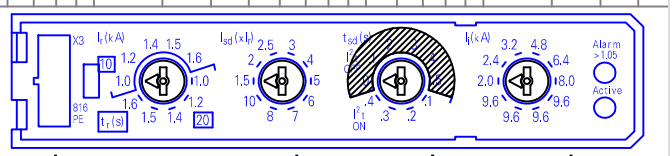
Electronic Trip Unit 555 3-Pole
with LSI and LSIG Protection - I^2t ON

Example Settings are for I_n = 1600 Amps

Interruption Ratings

Type	Maximum Trip Unit Rating (I_n)	Symmetrical RMS Amperes 240V	480V	600V
NPG	1200 A, 1600 A	65kA	35kA	25kA
HPG		100kA	65kA	35kA
LPG		200kA	100kA	65kA

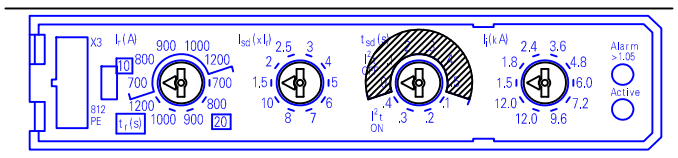
The effects of Thermal Memory are not shown. 806998 C01



I_n = 1600 Amps — I_r (AMPS) = I_r (Multi) X I_n

1000 A = .625 X I_n | 1400 A = .875 X I_n | 1600 A = 1.0 X I_n

1200 A = .750 X I_n | 1500 A = .938 X I_n

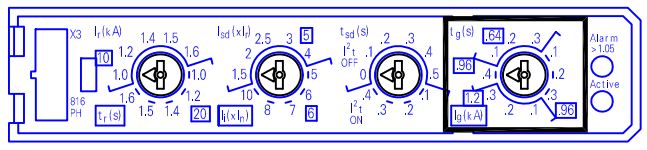


I_n = 1200 Amps — I_r (AMPS) = I_r (Multi) X I_n

700 A = .583 X I_n | 900 A = .750 X I_n | 1200 A = 1.0 X I_n

800 A = .667 X I_n | 1000 A = .833 X I_n

For LSIG 4 switch Trip Units with Ground Fault function see Ground Fault Curve 806998 F01



Switch Settings - I_r (Multi) .625 .750 .875 1.0

I_{ld} - Long Time Pickup

I_r = Switch Setting

I_{ld} = +5% … +30%

I_{ld} = 105% - 130% X I_r

t_r - Long Time Delay

-10% … +10%

t_r – @ 6 X I_r

t_r 20s / 10s

I_{sd} – Short Time Pickup

I_{sd}

−20% … +20%

I_{sd} = (1.5, 2, 2.5 ... 10 X I_r)

1200A = 8 X I_n MAX

1600A = 5 X I_n MAX

t_{sd} – Short Time Delay

-20% … +20%

t_{sd} = 0.1s .... 0.4s @ 8 x I_r

I_i - Instantaneous Amps

1200A LSIG units have 5X and 10X I_n only.

1600A LSIG units have 5X and 6X I_n only.

I_i tolerance is ± 20%

For Max. Interruption Rating, See table above.

Time in Seconds

t [s]

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Multiples of Continuous Current Rating x I_n

Time Current Characteristics Curve

SIEMENS **PG** Frame Circuit Breaker

Electronic Trip Unit 555 3-Pole
with Ground Fault Protection.

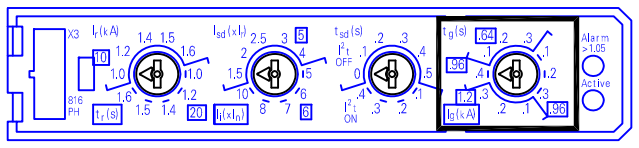
Interruption Ratings

Type	Maximum Trip Unit Rating (I_n)	Symmetrical RMS Amperes 240V	480V	600V
NPG	1200 A, 1600 A	65kA	35kA	25kA
HPG		100kA	65kA	35kA
LPG		200kA	100kA	65kA

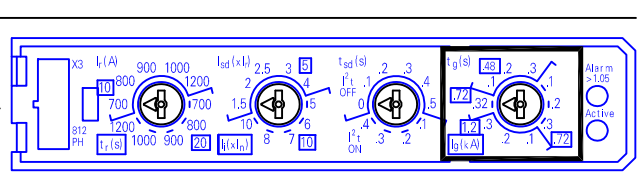
The effects of Long Time, Short Time and Instantaneous are not shown.

806998 F01

I_n = 1600 A

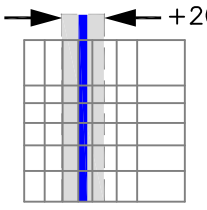


I_n = 1200 A



I_g - Ground Fault Pickup

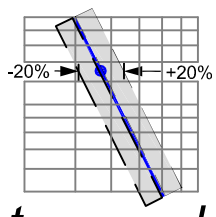
−20% +20%



I_g = 0.4, 0.6, or 1.0 x I_n

% of *In*	*In = 1200A*	*In = 1600A*
40%	480 A	640 A
60%	720 A	960 A
75%		1200 A
100%	1200 A	

t_g - Ground Fault Delay



t_g - @ 2.0 x I_g

960A .4s

720A .32s

.3s

.2s

.1s

Ground Fault Delay is a function of I^2t

t_g - Ground Fault Delay
tolerance of -0.00 sec to +0.06 sec

Time in Seconds

Multiples of Continuous Current Rating x I_n

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