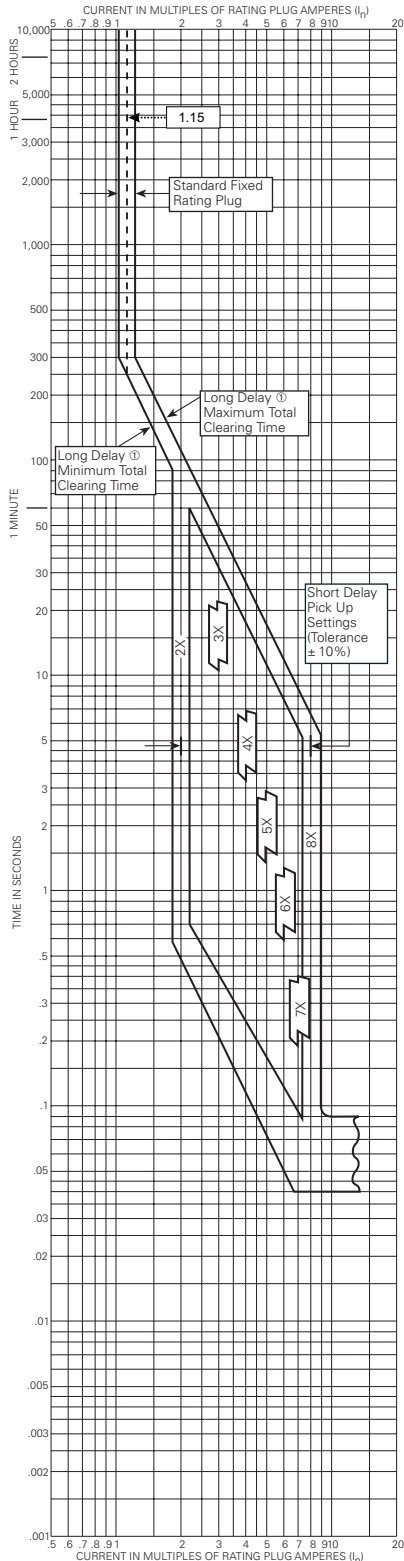


Types LD, HLD, CLD, and CHLD Equipped With Type LES Digitrip RMS 310 Trip Units, Types LES3600LS, LES3600LSG, LES4600LS, LES4600LSE, LES4600LSP



Circuit Breaker Time/Current Curves (Phase Current)
Series C L-Frame Circuit Breakers

Equipped With Type LES Digitrip RMS 310 Trip Units

Catalog Types: LES3600LS, LES3600LSG, LES4600LS, LES4600LSE, and LES4600LSP Digitrip RMS 310 Trip Units for use with Circuit Breaker Types LD, HLD, CLD, and CHLD 3 and 4 Poles.

Fixed Short Delay Time

Typical Trip Unit Nameplate



Available Rating Plugs

Ampere Rating	Type	Rating Plug Catalog Number	Short Delay Pickup Range Amperes
600	Fixed	6LES600T	1200-4800
500	Fixed	6LES500T	1000-4000
450	Fixed	6LES450T	900-3600
400	Fixed	6LES400T	800-3200
350	Fixed	6LES350T	700-2800
300	Fixed	6LES300T	600-2400
300, 400, 500, 600	Adjustable	6LES600T1	600-4800

Interrupting Rating

Breaker Type	UL/CSA rms Sym. kA, 50/60 Hz		
	240V	480V	600V
LD, CLD	65	35	25
HLD, CHLD	100	65	35

Breaker Type	IEC 60947-2 rms Sym. kA, 50/60 Hz					
	240V		380V		415V	
	Icu	Ics	Icu	Ics	Icu	Ics
LD, CLD	65	33	40	20	40	20
HLD, CHLD	100	50	65	33	65	33

Utilization Category A
 $U_{IMP} = 8 \text{ kV}$

Notes:

Digitrip RMS 310 trip units are suitable for functional field testing with test kit Cat. No. STK2. For field testing using primary injection methods, follow NEMA AB4 guidelines.

Calibration response in short delay pick-up range is same for 1, 2 or 3 poles in series.

There is a memory effect that can act to shorten the long delay. The memory effect comes into play if a current above the long delay pick-up value exists for a time and then is cleared by the tripping of a downstream device or the circuit breaker itself. A subsequent overload will cause the circuit breaker to trip in shorter time than normal. The amount of time delay reduction is inverse to the amount of time that has elapsed since the previous overload. Approximately five minutes is required between overloads to completely reset the memory.

- Curve accuracy applies from -20°C to $+55^{\circ}\text{C}$ ambient. For possible continuous ampere derating for ambient above 40°C , refer to Eaton.
- For high fault current levels a fixed instantaneous override is provided at 5620A. (Tolerance $\pm 15\%$).
- The end of the curve is determined by the interrupting rating of the circuit breaker. See above tabulation.
- Long Delay Pickup is 115% of I_{tr} $\pm 5\%$.

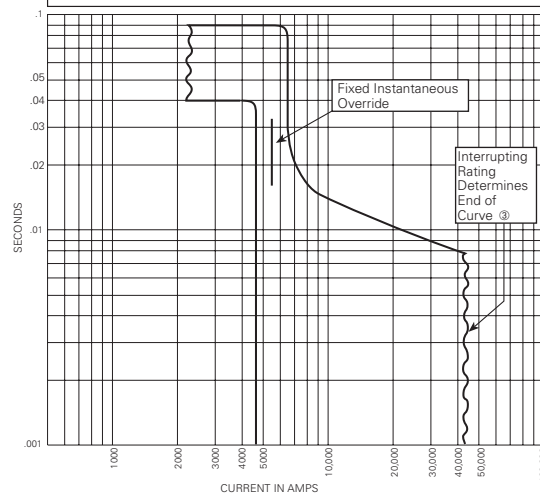
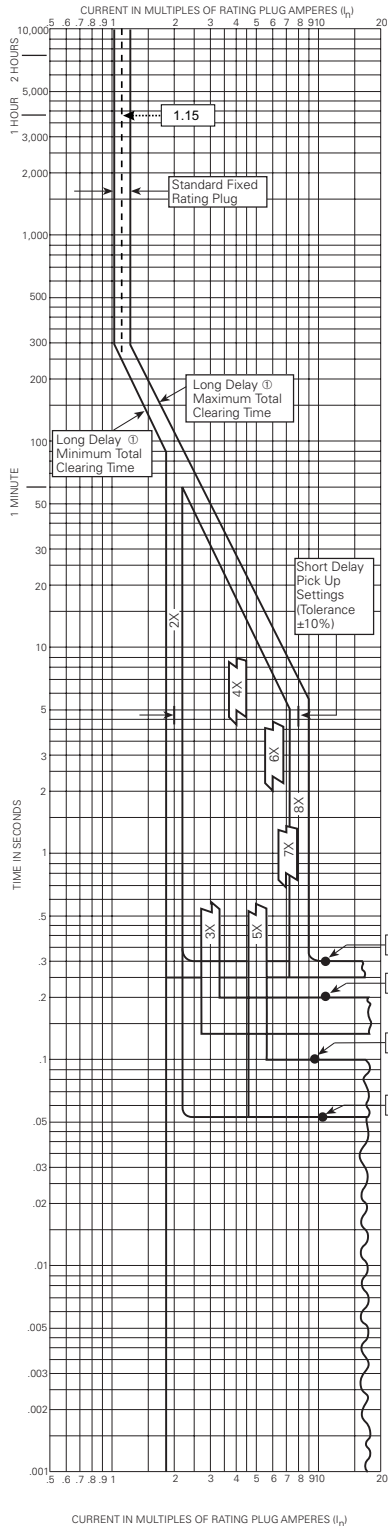


Figure 8. Catalog Types LES3600LS, LES3600LSG, LES4600LS, LES4600LSE, LES4600LSP - Curve Number SC-5653-93, June 2007

Types LD, HLD, CLD, and CHLD Equipped With Type LES Digitrip RMS 310 Trip Units, Types LES3600LSI, LES3600LSIG, LES4600LSI, LES4600LSIP

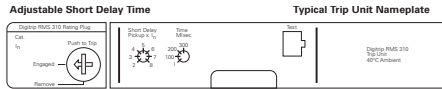


Circuit Breaker Time/Current Curves (Phase Current)

Series C L-Frame Circuit Breakers

Equipped With Type LES Digitrip RMS 310 Trip Units

Catalog Types: LES3600LSI, LES3600LSIG, LES4600LSI, and LES4600LSIP Digitrip RMS 310 Trip Units for use with Circuit Breaker Types LD, HLD, CLD, and CHLD 3 and 4 Poles.



Available Rating Plugs

Ampere Rating	Type	Rating Plug Catalog Number	Short Delay Pickup Range Amperes
600	Fixed	6LES600T	1200-4800
500	Fixed	6LES500T	1000-4000
450	Fixed	6LES450T	900-3600
400	Fixed	6LES400T	800-3200
350	Fixed	6LES350T	700-2800
300	Fixed	6LES300T	600-2400
300, 400, 500, 600	Adjustable	A6LES600T1	600-4800

Interrupting Rating

Breaker Type	UL/CSA rms Sym. kA, 50/60 Hz		
	240V	480V	600V
LD, CLD	65	35	25
HLD, CHLD	100	65	35

Breaker Type	IEC 60947-2 rms Sym. kA, 50/60 Hz		
	240V	380V	415V
LD, CLD	Icu 65 Ics 33	Icu 40 Ics 20	Icu 40 Ics 20
HLD, CHLD	Icu 100 Ics 50	Icu 65 Ics 33	Icu 65 Ics 33

Utilization Category A
 $U_{IMP} = 8 \text{ kV}$

Notes:

Digitrip RMS 310 trip units are suitable for functional field testing with test kit Cat. No. STK2. For field testing using primary injection methods, follow NEMA AB4 guidelines.

Calibration response in short delay pick-up range is same for 1, 2 or 3 poles in series.

There is a memory effect that can act to shorten the long delay. The memory effect comes into play if a current above the long delay pick-up value exists for a time and then is cleared by the tripping of a downstream device or the circuit breaker itself. A subsequent overload will cause the circuit breaker to trip in shorter time than normal. The amount of time delay reduction is inverse to the amount of time that has elapsed since the previous overload. Approximately five minutes is required between overloads to completely reset the memory.

- Curve accuracy applies from -20°C to $+55^{\circ}\text{C}$ ambient. For possible continuous ampere derating for ambient above 40°C , refer to Eaton.
- For high fault current levels a fixed instantaneous override is provided at 5620A. (Tolerance $\pm 15\%$).
- The end of the curve is determined by the interrupting rating of the circuit breaker. See above tabulation.
- Long Delay Pickup is 115% of I_n , $\pm 5\%$.

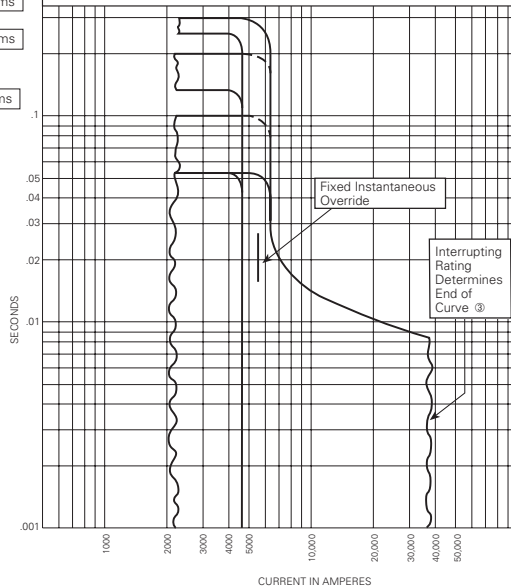
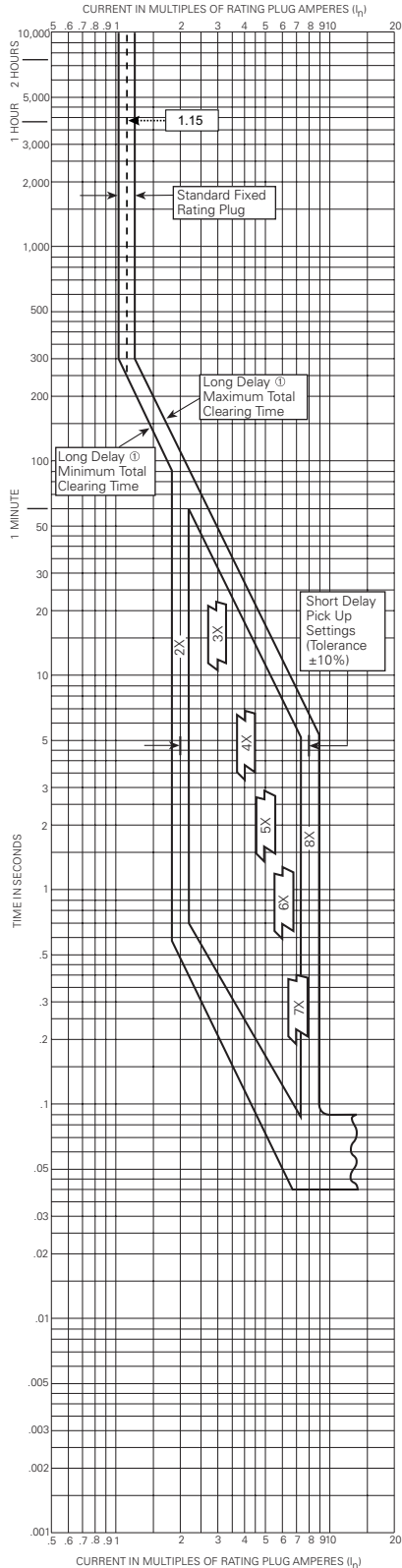


Figure 9. Catalog Types LES3600LSI, LES3600LSIG, LES4600LSI, LES4600LSIP - Curve Number SC-5654-93, June 2007

Types LDC and CLDC Equipped With Type LES Digitrip RMS 310 Trip Units, Types LES3600LS, LES3600LSG, LES4600LS, LES4600LSE, LES4600LSP



Circuit Breaker Time/Current Curves (Phase Current)

Series C L-Frame Circuit Breakers

Equipped With Type LES Digitrip RMS 310 Trip Units

Catalog Types: LES3600LS, LES3600LSG, LES4600LS, LES4600LSE, and LES4600LSP
Digitrip RMS 310 Trip Units for use with Circuit Breaker Types LDC and CLDC 3 and 4 Poles.



Available Rating Plugs

Amperes Rating	Type	Rating Plug Catalog Number	Short Delay Pickup Range Amperes
600	Fixed	6LES600T	1200-4800
500	Fixed	6LES500T	1000-4000
450	Fixed	6LES450T	900-3600
400	Fixed	6LES400T	800-3200
350	Fixed	6LES350T	700-2800
300	Fixed	6LES300T	600-2400
300, 400, 500, 600	Adjustable	A6LES600T1	600-4800

Interrupting Rating

Breaker Type	UL/CSA rms Sym. kA, 50/60 Hz		
	240V	480V	600V
LDC, CLDC	200	100	50

Breaker Type	IEC 60947-2 rms Sym. kA, 50/60 Hz					
	240V		380V		415V	
	Icu	Ics	Icu	Ics	Icu	Ics
LDC, CLDC	200	100	100	50	100	50

Utilization Category A

$U_{IMP} = 8 \text{ kV}$

Notes:

Digitrip RMS 310 trip units are suitable for functional field testing with test kit Cat. No. STK2. For field testing using primary injection methods, follow NEMA AB4 guidelines.

Calibration response in short delay pick-up range is same for 1, 2 or 3 poles in series.

There is a memory effect that can act to shorten the long delay. The memory effect comes into play if a current above the long delay pick-up value exists for a time and then is cleared by the tripping of a downstream device or the circuit breaker itself. A subsequent overload will cause the circuit breaker to trip in shorter time than normal. The amount of time delay reduction is inverse to the amount of time that has elapsed since the previous overload. Approximately five minutes is required between overloads to completely reset the memory.

- Curve accuracy applies from -20°C to $+55^{\circ}\text{C}$ ambient. For possible continuous ampere derating for ambient above 40°C , refer to Eaton.
- For high fault current levels a fixed instantaneous override is provided at 5620A. (Tolerance $\pm 15\%$).
- The end of the curve is determined by the interrupting rating of the circuit breaker. See above tabulation.
- Long Delay Pickup is 115% of I_{tr} , $\pm 5\%$.

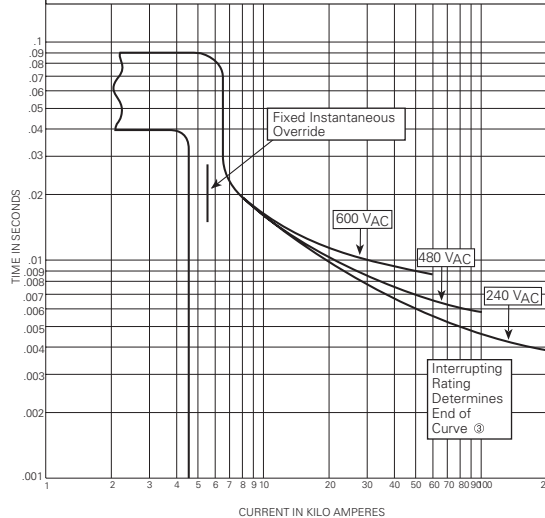
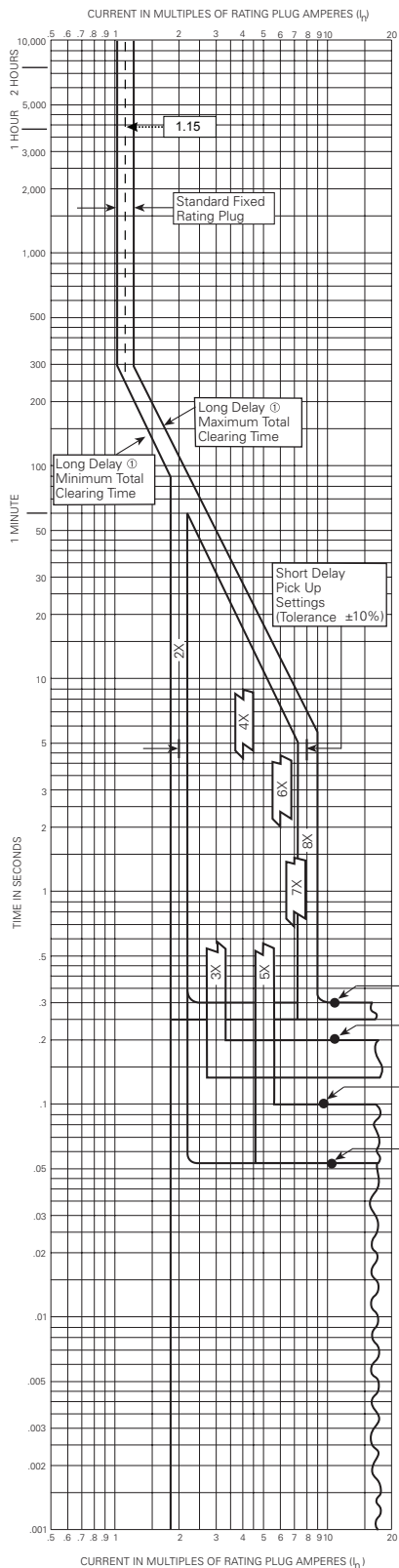


Figure 10. Catalog Types LES3600LS, LES3600LSG, LES4600LS, LES4600LSE, LES4600LSP - Curve Number SC-5657-93, June 2007

Types LDC and CLDC Equipped With Type LES Digitrip RMS 310 Trip Units, Types LES3600LSI, LES3600LSIG, LES4600LSI, LES4600LSIP



Circuit Breaker Time/Current Curves (Phase Current)

Series C L-Frame Circuit Breakers

Equipped With Type LES Digitrip RMS 310 Trip Units

Catalog Types: LES3600LSI, LES3600LSIG, LES4600LSI, and LES4600LSIP Digitrip RMS 310 Trip Units for use with Circuit Breaker Types LDC and CLDC 3 and 4 Poles.

Fixed Short Delay Time

Typical Trip Unit Nameplate



Available Rating Plugs

Ampere Rating	Type	Rating Plug Catalog Number	Short Delay Pickup Range Amperes
600	Fixed	6LES600T	1200-4800
500	Fixed	6LES500T	1000-4000
450	Fixed	6LES450T	900-3600
400	Fixed	6LES400T	800-3200
350	Fixed	6LES350T	700-2800
300	Fixed	6LES300T	600-2400
300, 400, 500, 600	Adjustable	A6LES600T1	600-4800

Interrupting Rating

Breaker Type	UL/CSA rms Sym. kA, 50/60 Hz		
	240V	480V	600V
LDC, CLDC	200	100	50

Breaker Type	IEC 60947-2 rms Sym. kA, 50/60 Hz					
	240V		380V		415V	
LDC, CLDC	I _{cu}	I _{cs}	I _{cu}	I _{cs}	I _{cu}	I _{cs}
	200	100	100	50	100	50

Utilization Category A
U_{IMP} = 8 kV

Notes:

Digitrip RMS 310 trip units are suitable for functional field testing with test kit Cat. No. STK2. For field testing using primary injection methods, follow NEMA AB4 guidelines.

Calibration response in short delay pick-up range is same for 1, 2 or 3 poles in series.

There is a memory effect that can act to shorten the long delay. The memory effect comes into play if a current above the long delay pick-up value exists for a time and then is cleared by the tripping of a downstream device or the circuit breaker itself. A subsequent overload will cause the circuit breaker to trip in shorter time than normal. The amount of time delay reduction is inverse to the amount of time that has elapsed since the previous overload. Approximately five minutes is required between overloads to completely reset the memory.

- Curve accuracy applies from -20°C to +55°C ambient. For possible continuous ampere derating for ambient above 40°C, refer to Eaton.
- For high fault current levels a fixed instantaneous override is provided at 5620A. (Tolerance ±15%).
- The end of the curve is determined by the interrupting rating of the circuit breaker. See above tabulation.
- Long Delay Pickup is 115% of I_n, +/- 5%.

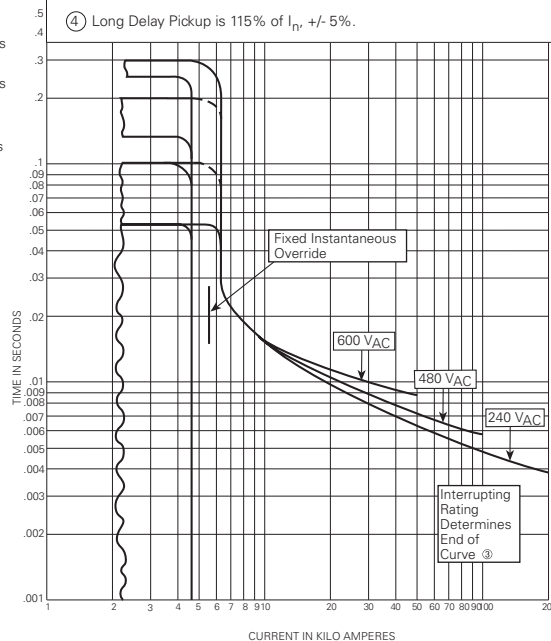


Figure 11. Catalog Types LES3600LSI, LES3600LSIG, LES4600LSI, LES4600LSIP - Curve Number SC-5658-93, June 2007