

TIME CURRENT CHARACTERISTICS
STATIC OVERCURRENT TRIP DEVICES
For Low Voltage Power Circuit Breakers



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Supersedes 4/65 issue

Trip Rating Table

Breaker Type	Models A3,AG2, 4WAG,D2,DG1,4WDG					Tripping Transformer Group No.	Models AG2 and DG1				Models 4WAG and 4WDG			
	Long Time Delay Elements Available Pickup Settings (Amperes)						Long Time Delay Element Available Ground Fault Settings (Amperes)				Inst. or Short Time Delay Available Ground Fault Settings (Amperes)			
							Percent of "A" Pickup				Percent of "A" Pickup			
	A	B	C	D	E		20%	40%	60%	80%	20%	40%	60%	80%
LA-600	40	50	60	70	80	I	—	—	—	—	—	—	—	—
LA-600	75	95	110	130	150	II	—	—	—	—	—	30	45	60
LA-600 LA-1600	125	155	175	220	250	III	—	—	—	—	25	50	75	100
LA-600 LA-1600	200	250	300	350	400	IV	40	80	120	160	40	80	120	160
LA-600 LA-1600	300	375	450	525	600	V	60	120	180	240	60	120	180	240
LA-600 LA-1600	400	500	600*	700	800	V-x	80	160	240	320	80	160	240	320
LA-1600	500	625	750	875	1000	VI	100	200	300	400	100	200	300	400
LA-1600	800	1000	1200	1400	1600	VII	160	320	480	640	160	320	480	640
LA-1600	1000	1250	1500*	1750	2000	VII-x	200	400	600	800	200	400	600	800
LA-3000	1200	1500	1800	2100	2400	VIII	240	480	720	960	240	480	720	960
LA-3000 LA-4000	2000	2500	3000			IX	400	800	1200	1600	400	800	1200	1600
LA-3000	2000	2500	3000	3500*	4000*	IX-x	400	800	1200	1600	400	800	1200	1600
LA-4000	2000	2500	3000	3500	4000	X	400	800	1200	1600	400	800	1200	1600

* Maximum continuous current for LA-600 is 600A, LA-1600 is 1600A, LA-3000 is 3000A and LA-4000 is 4000A.

GENERAL NOTES

1. Types

 - A – Dual Static (long time and instantaneous elements).
 - D – Selective Static (long time and short time elements).
 - AG – Dual Static with ground fault element for 3-wire circuits.
 - DG – Selective Static with ground fault element for 3-wire circuits.
 - 4WAG – Dual Static with ground fault element for 4-wire or 3-wire circuits.
 - 4WDG – Selective Static with ground fault element for 4-wire or 3-wire circuits.
2. The pickup settings of the instantaneous and short time delay elements are calibrated at 3, 5, 8 and 12 multiples of the long time delay pickup setting.
3. The maximum interrupting time is the maximum length of time that fault current flows, including arcing time.
4. Instantaneous maximum interrupting time may be greater when breakers are closed in on a fault depending on actual fault conditions. The maximum potential increase for a 3-phase fault is 0.01 seconds and for a single-phase ground fault is 0.02 seconds.
5. The lower limit of ground fault recognition is 25 amperes for an LA-600 breaker. For an LA-1600 breaker the lower limit is 40 amperes. Application of Models 4WAG and 4WDG is not recommended for LA-600 breakers having a minimum continuous current setting of less than 75 amperes or an LA-1600 breaker with a minimum continuous current setting of less than 200 amperes.

DUAL DEVICE

Model A – a general purpose device normally used for phase overcurrent protection. The pickup range is selected from the tripping table and is continuously adjustable from "A" through "E" in the field. The instantaneous element is continuously field adjustable from 3 to 12 multiples of the long time delay pickup settings selected. The time delay band is selected and set at the factory – it is not field adjustable. Available time delays are minimum, intermediate and maximum.

Model AG (optional) – provides phase overcurrent protection plus sensitive ground fault overcurrent protection for systems with phase-to-phase loading. Ground current pickup settings are independent of the phase pickup settings, and continuously adjustable in the field from 20% through 80% of the minimum phase pickup setting shown in column "A."

Model 4WAG (optional) – provides phase overcurrent protection plus sensitive ground fault overcurrent protection for 3-wire and 4-wire circuits for systems with phase-to-neutral loading. Ground current pickup settings are independent of the phase pickup settings, and continuously adjustable in the field from 20% through 80% of the minimum phase pickup setting shown in column "A."

SELECTIVE DEVICE

Model D (optional) – an overcurrent trip device which provides time delay tripping only. It allows field adjustment of long time delay and pickup and short time delay and pickup. The continuous adjustment feature allows a setting selection anywhere within calibrated points. The user can adjust the current at which the device transfers from long time to short time delay between these limits. Any one of the three short time delay curves can be chosen to be used with any of the three long time delay curves.

Model DG (optional) – provides phase overcurrent protection plus sensitive ground fault overcurrent protection for systems with phase-to-phase loading. Ground current pickup settings are independent of the phase pickup settings, and continuously adjustable in the field from 20% through 80% of the minimum phase pickup setting shown in column "A."

Model 4WDG (optional) – provides phase overcurrent protection plus sensitive ground fault overcurrent protection for 3-wire and 4-wire circuits for systems with phase-to-neutral loading. Ground current pickup settings are independent of the phase pickup settings and continuously adjustable in the field from 20% through 80% of the minimum phase pickup settings shown in column "A."