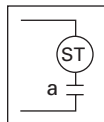


Shunt Trip



The Shunt Trip provides remote controlled tripping of the circuit breaker. The shunt trip consists of an intermittent rated solenoid with a tripping plunger and a cutoff switch assembled to a plug-in module. When required for ground fault protection applications, certain ac rated

shunt trips, as noted in the Electrical Rating Table, are suitable for operation at 55 percent of rated voltage.

Select shunt trip catalog number for the voltage within the indicated voltage range. Shunt trip coils are designed to be applied at specific ac or dc voltages within the voltage range shown. Electrical ratings are also shown on applicable circuit breaker accessory nameplates.

Table 12-416. F-Frame Electrical Rating Data ①②③

50/60 Hz			dc		
Supply Voltage	Minimum Operating Voltage	VA	Supply Voltage	Minimum Operating Voltage	VA
12	6.75	75	12	9	100
24		300	24		400
48	36	92	48	36	100
60		140	60		160
110	156	480	110	77	55
120		570	120		66
127		640	125		71
208		180	—		—
220		200	—		—
240		240	—		—
380	300	610	127	—	72
415		130	220		110
440		330	250		140
480	300	380	—	—	—
525		450	—		—
550		530	—		—
600		590	—		—

- ① Average unlatching time: 6 milliseconds.
- ② Average circuit breaker contact total opening time: 18 milliseconds.
- ③ Endurance: 6,000 electrical operations plus 4,000 mechanical operations.

Table 12-417. J-Frame Electrical Rating Data ④⑤⑥

50/60 Hz			dc		
Supply Voltage	Minimum Operating Voltage	VA	Supply Voltage	Minimum Operating Voltage	VA
12	9	31	12	8.4	50
24		173	24		247
48	36	686	48	33.6	1094
60		1014	60		1698
110	60.5	66	110	77	112
120		84	120		138
127		102	125		150
208		354	—		—
220		396	—		—
240		432	—		—
380	285	180	110	154	40
400		200	120		58
415		240	125		—
440		610	127		—
480	360	34	—	—	—
525		42	—		—
550		50	—		—
600		60	—		—

- ④ Average unlatching time: 6 milliseconds.
- ⑤ Average circuit breaker contact total opening time: 18 milliseconds.
- ⑥ Endurance: 6,000 electrical operations plus 2,000 mechanical operations.
- ⑦ Supply voltages suitable for use with Class 1 GFP devices. Marking label included with accessory kits.

Table 12-418. K-Frame Electrical Rating Data ⑧⑨⑩

50/60 Hz			dc		
Supply Voltage	Minimum Operating Voltage	VA	Supply Voltage	Minimum Operating Voltage	VA
12	9	45	12	8.4	35
24		200	24		170
48	36	830	48	36	710
60		1280	60		1105
110	60	100	110	77	110
120		120	120		130
127		140	125		140
208		420	—		—
220		470	—		—
240		550	—		—
380	285	95	220	154	41
400		108	250		54
415		120	—		—
440		136	—		—
480	360	40	—	—	—
525		50	—		—
550		50	—		—
600		70	—		—

- ⑧ Approximate unlatching time: 6 milliseconds.
- ⑨ Approximate total circuit breaker contact opening time: 8 milliseconds.
- ⑩ Endurance: 5,000 electrical operations plus 1,000 mechanical operations.
- ⑪ Supply voltages suitable for use with Class 1 GFP devices. Marking label included with accessory kits.

Table 12-419. L- and M-Frame Electrical Rating Data ⑫⑬⑭

50/60 Hz			dc		
Supply Voltage	Minimum Operating Voltage	VA	Supply Voltage	Minimum Operating Voltage	VA
12	9	45	12	9	35
24		200	24		170
48	34	830	48	34	710
60		1280	60		1105
110	60	100	110	77	110
120		120	120		130
127		140	125		140
208		420	—		—
220		470	—		—
240		550	—		—
380	266	95	220	154	41
400		108	250		54
415		120	—		—
440		136	—		—
480	336	40	—	—	—
525		50	—		—
550		50	—		—
600		70	—		—

- ⑫ Approximate unlatching time: 6 milliseconds.
- ⑬ Approximate total circuit breaker contact opening time: 18 milliseconds.
- ⑭ Endurance: 5,000 electrical operations plus 1,000 mechanical operations.
- ⑮ Supply voltages suitable for use with Class 1 GFP devices. Marking label included with accessory kits.

Shunt Trip

Table 12-422. G-Frame Shunt Trip (LH 3-Pole only)

Electrical Ratings			Suffix Number	Adder U.S. \$	Catalog Number	Price U.S. \$
Volts	Frequency	Amperes				
120	50/60 Hz	1.1	S1		1373D62G01	
240	50/60 Hz	2.1	S2		1373D62G02	
12	dc	2.8	S3		1373D62G15	
24	dc	5.7	S4		1373D62G16	
24	60 Hz	—	S7		1373D62G20	

Note: G-Frame circuit breakers are factory sealed. Underwriters Laboratories requires that internal accessories be installed at the factory.

Note: Internal accessories are UL listed for factory installation under E7819.

Note: Where local codes and standards permit and UL listing is not required, internal accessories can be field installed. Accessory installation should be done before the circuit breaker is mounted and connected.

Table 12-423. F-Frame and HMCP (F) Shunt Trip

Voltage Rating (ac Frequency = 50/60 Hz)	Factory Mounted								Factory Installation Kit ①			
	Connection Type and Location											
	18-Inch (457.2 mm) Pigtail Leads ②								Terminal Block			
	Same Side		Rear ③		Opposite Side		Same Side		Pigtail Leads		Terminal Block	
Suffix Number	Adder U.S. \$	Suffix Number	Adder U.S. \$	Suffix Number	Adder U.S. \$	Suffix Number	Adder U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	

Left-Pole Mounting ac/dc Ratings

12 – 24 Vac or dc	S01		S02		S03		S04		SNT1LP03K		SNT1LT03K	
48 – 127 Vac or 48 – 60 Vdc ④	S05		S06		S07		S08		SNT1LP08K		SNT1LT08K	
208 – 380 Vac or 110 – 127 Vdc	S09		S10		S11		S12		SNT1LP12K		SNT1LT12K	
415 – 600 Vac or 220 – 250 Vdc	S13		S14		S15		S16		SNT1LP18K		SNT1LT18K	

Right- or Neutral-Pole Mounting ac/dc Ratings ⑤

12 – 24 Vac or dc	S17		S18		S19		S20		SNT1RP03K		SNT1RT03K ⑥	
48 – 127 Vac or 48 – 60 Vdc ④	S21		S22		S23		S24		SNT1RP08K		SNT1RT08K ⑥	
208 – 380 Vac or 110 – 127 Vdc	S25		S26		S27		S28		SNT1RP12K		SNT1RT12K ⑥	
415 – 600 Vac or 220 – 250 Vdc	S29		S30		S31		S32		SNT1RP18K		SNT1RT18K ⑥	

① Not listed with Underwriters Laboratories, for field installation.

② Pigtail wire size: 18 AWG (0.82 mm²).

③ Standard pigtail lead exit location.

④ 120 Vac marked suitable for ground fault protection devices.

⑤ Standard mounting location.

⑥ Not for use on 4-pole circuit breakers

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