





# Siemens VL Circuit Breakers

## Technical Overview

Technical

Frame Summary and Ratings Table

Frame Family	DG		FG		JG	
						
<b>Continuous Ampere Range</b>	30 to 150A		40 to 250A		70 to 400A	
<b>Number of Poles</b>	2,3	4	2,3	4	2,3	4
<b>Maximum Voltage Rating</b>	600V		600V		600V	
<b>Type of Protection</b>						
Thermal-Magnetic	◆		◆		◆	
Electronic	◆		◆		◆	
Electronic with LCD	◆		◆		◆	
Motor Circuit Protector	◆		◆		◆	
Molded Case Switch	◆		◆		◆	
100% Rated Breaker	—		—		◆	
50°C Calibrated Breaker <sup>2</sup>	◆		◆		◆	
Interchangeable Trip Unit	◆		◆		◆	
 W In.(mm)	4.1 (105) 2, 3-pole / 5.5 (139) 4-pole		5.5 (139)   7.2 (183)			
H	7.3 (175)		11 (279)			
D	3.4 (81)		4.2 (102)			
D2	4.2 (107)		5.4 (138)			
<b>Type N – Normal</b> Interrupting Rating <sup>1</sup> , RMS Symmetrical Amperes (kA)						
<b>UL</b>	240Vac	65	65	65	65	
	480Vac	35	35	35	35	
	600Vac	18	18	18	25	
<b>IEC</b> (I <sub>cu</sub> /I <sub>cs</sub> )	240Vac	65/65	65/65	65/65	65/65	
	415Vac	40/40	40/40	40/40	45/45	
	—	—	—	—	—	
	690Vac	12/6	12/6	12/6	12/6	
<b>DC Voltages – Interrupting Rating (kA)<sup>4</sup></b>						
	250Vdc - 2p	30	30	30	30	
	500Vdc - 3p <sup>3</sup>	18	18	18	25	
	600Vdc - 3p	—	—	—	—	
	750Vdc - 4p <sup>2</sup>	—	—	—	—	
<b>Type H – High</b> Interrupting Rating <sup>1</sup> , RMS Symmetrical Amperes (kA)						
<b>UL</b>	240Vac	100	100	100	100	
	480Vac	65	65	65	65	
	600Vac	20	20	20	25	
<b>IEC</b> (I <sub>cu</sub> /I <sub>cs</sub> )	240Vac	100/75	100/75	100/75	100/75	
	415Vac	70/70	70/70	70/70	70/70	
	—	—	—	—	—	
	690Vac	12/6	12/6	12/6	15/8	
<b>DC Voltages – Interrupting Rating (kA)<sup>4</sup></b>						
	250Vdc - 2p	30	30	30	30	
	500Vdc - 3p <sup>3</sup>	18	18	18	35	
	600Vdc - 3p	—	—	—	—	
	750Vdc - 4p <sup>2</sup>	—	—	—	—	
<b>Type L – Very High</b> Interrupting Rating <sup>1</sup> , RMS Symmetrical Amperes (kA)						
<b>UL</b>	240Vac	200	200	200	200	
	480Vac	100	100	100	100	
	600Vac	25	25	25	25	
<b>IEC</b> (I <sub>cu</sub> /I <sub>cs</sub> )	240Vac	200/150	200/150	200/150	200/150	
	415Vac	100/75	100/75	100/75	100/75	
	—	—	—	—	—	
	690Vac	12/6	12/6	12/6	15/8	
<b>DC Voltages – Interrupting Rating (kA)<sup>4</sup></b>						
	250Vdc - 2p	30	30	30	30	
	500Vdc - 3p <sup>3</sup>	18	30	30	35	
	600Vdc - 3p	—	—	—	—	
	750Vdc - 4p <sup>2</sup>	—	—	—	—	

① UL does not recognize AIC ratings for Molded Case Switches or Motor Circuit Protectors.  
 ② Not UL.

③ 500Vdc nominal, 600Vdc max. for ungrounded DC UPS systems.






④ DC Interruption Ratings do not apply to electronic trip circuit breakers.

# Siemens VL Circuit Breakers

## Technical Overview

Technical

### Frame Summary and Ratings Table — Continued

Frame Family	LG	MG	NG	PG
				
<b>Continuous Ampere Range</b>	150 to 600A	200 to 800A	300 to 1200A	400 to 1600A
<b>Number of Poles</b>	2, 3	2,3   4	2,3   4	3   4
<b>Maximum Voltage Rating</b>	600V	600V	600V	600V
<b>Type of Protection</b>				
Thermal-Magnetic	◆	◆	◆	◆
Electronic	◆	◆	◆	◆
Electronic with LCD	◆	◆	◆	◆
Motor Circuit Protector	◆	◆	◆	—
Molded Case Switch	◆	◆	◆	◆
100% Rated	—	◆	◆	◆
50°C Calibrated Breaker <sup>2</sup>	◆	◆	◆	◆
Interchangeable Trip Unit	◆	◆	◆	◆
 W In.(mm)	5.5 (139)	7.5 (190)   10 (253)	9 (229) 2, 3-pole / 12 (305) 4-pole	
H	11 (279)	16 (406)	16 (406)	
D	4.2 (102)	4.7 (114)	6.2 (157)	
D2	5.4 (138)	5.9 (151)	8.1 (207)	
<b>Type N – Normal</b> Interrupting Rating <sup>1</sup> , RMS Symmetrical Amperes (kA)				
<b>UL</b>	240Vac	65	65	65
	480Vac	35	35	35
	600Vac	25	25	25
<b>IEC</b> (I <sub>cu</sub> /I <sub>cs</sub> )	240Vac	65/65	65/65	65/65
	415Vac	45/45	50/50	50/25
	—	—	—	—
	690Vac	12/6	20/10	20/10
<b>DC Voltages – Interrupting Rating (kA)<sup>4</sup></b>				
	250Vdc - 2p	30	22	22
	500Vdc - 3p <sup>3</sup>	25	35	35
	600Vdc - 3p	—	—	—
	750Vdc - 4p <sup>2</sup>	—	—	—
<b>Type H – High</b> Interrupting Rating <sup>1</sup> , RMS Symmetrical Amperes (kA)				
<b>UL</b>	240Vac	100	100	100
	480Vac	65	65	65
	600Vac	25	35	35
<b>IEC</b> (I <sub>cu</sub> /I <sub>cs</sub> )	240Vac	100/75	100/75	100/75
	415Vac	70/70	70/70	70/35
	—	—	—	—
	690Vac	15/8	30/15	30/15
<b>DC Voltages – Interrupting Rating (kA)<sup>4</sup></b>				
	250Vdc - 2p	30	25	25
	500Vdc - 3p <sup>3</sup>	35	50	50
	600Vdc - 3p	—	—	—
	750Vdc - 4p <sup>2</sup>	—	—	—
<b>Type L – Very High</b> Interrupting Rating <sup>1</sup> , RMS Symmetrical Amperes (kA)				
<b>UL</b>	240Vac	200	200	200
	480Vac	100	100	100
	600Vac	25	50	65
<b>IEC</b> (I <sub>cu</sub> /I <sub>cs</sub> )	240Vac	200/150	200/150	200/150
	415Vac	100/75	100/75	100/75
	—	—	—	—
	690Vac	15/8	35/17	35/17
<b>DC Voltages – Interrupting Rating (kA)<sup>4</sup></b>				
	250Vdc - 2p	30	42	42
	500Vdc - 3p <sup>3</sup>	35	65	65
	600Vdc - 3p	—	—	—
	750Vdc - 4p <sup>2</sup>	—	—	—

① UL does not recognize AIC ratings for Molded Case Switches or Motor Circuit Protectors.  
 ② Not UL.

③ 500Vdc nominal, 600Vdc max. for ungrounded DC UPS systems.

④ DC Interruption Ratings do not apply to electronic trip circuit breakers.

# VL Circuit Breakers

## Trip Unit Overview

## Selection

The interchangeability of the VL circuit breaker trip units allow for easy conversion from any of 3 types of protection. They are thermal-magnetic, electronic, or electronic with a built-in LCD display. The thermal-magnetic trip unit features an adjustable magnetic trip setting. The electronic trip units are microprocessor based true RMS sensing devices and are available with a variety of adjustable trip settings, configurations, and infor-

mation menus. With precise control over the circuit breaker functions and access to system status, diagnostics, and information, these trip units allow for unsurpassed flexibility in circuit coordination.

An example of coordination is the out of the box Ground Fault function on the Model 545 trip units. The pick-up and time delay settings are fixed for each

frame and do not overlap with the settings on the other frames. Therefore, when VL breakers are used together in a system the GF protection is automatically coordinated. The user also has the ability to program a custom coordination scheme with the high level of adjustability available on the Model 576 trip units.

Trip Unit Functions	VL Trip Units						
	Model 525	Model 545				Model 576	
	Thermal-Magnetic	Electronic LI	Electronic LIG	Electronic LSI	Electronic LSIg	Electronic with LCD LSI	Electronic with LCD LSIg
Continuous Current Setting ( $I_r$ )	Fixed	◆	◆	◆	◆	◆	◆
Long Time Delay ( $t_r$ )	□	◆	◆	Fixed	Fixed	◆	◆
Instantaneous Overcurrent Setting ( $I_i$ )	◆	◆	◆	Fixed	Fixed	◆	◆
Short Time Pick-up ( $I_{sd}$ )	□	□	□	◆	◆	(ON/OFF)	(ON/OFF)
Short Time Delay ( $t_{sd}$ )	□	□	□	◆	◆	◆	◆
Short Time $I^2t$ Pick-up	□	□	□	◆	◆	◆	◆
Ground Fault Pick-up ( $I_g$ )	□	□	Fixed	□	Fixed	□	◆
Ground Fault Delay ( $t_g$ )	□	□	Fixed	□	Fixed	□	◆
Alarm & Status LEDs	□	●	●	●	●	□	□
Built-in Display (LCD)	□	□	□	□	□	●	●
Pre-Trip Alarm <sup>①</sup>	□	□	□	□	□	●	●
Last trip information <sup>①</sup>	□	□	□	□	□	●	●
Zone Selective <sup>①</sup>	□	□	□	□	□	●	●
Communications <sup>①</sup>	□	□	□	□	□	●	●

◆ – Adjustable setting.

● – This feature is included.

“fixed” – Non-Adjustable setting.

□ – Feature is not included.

① – Requires the trip unit to be connected to a PC (via a COMPRO or COMMOD communications module) for access or programming.

### Continuous Amps Rating ( $I_r$ )

This setting is the continuous current that the breaker will carry without tripping. It can be set up to 100% of the trip unit's nominal rating ( $I_n$ ).

### Long Time Delay ( $t_r$ )

Sometimes referred to as the “overload” position, this function controls the breaker's “pause-in-tripping” time. It allows low level, temporary inrush currents such as those encountered when starting a motor to pass without tripping. The time delay begins when the current reaches  $6 \times I_r$ .

### Instantaneous Pick-up ( $I_i$ )

This function sets the breaker to trip instantaneously during high fault conditions. On Model 545 trip units this set-

ting is fixed on LSI and LSIg trip units and adjustable on LI and LIG trip units. These features are fully adjustable on Model 576 trip units.

### Short Time Pick-Up ( $I_{sd}$ )

This function controls the level of fault current the breaker will carry for a short time without tripping, thus allowing downstream devices to clear short circuits ahead of up-stream protection. It may be defeated (turned-off) on Model 576 trip units.

### Short Time Delay ( $t_{sd}$ )

This controls the interval of time the breaker will remain closed against a fault (at the Short Time Pick-up current level) without tripping. The time delay may be set at fixed points or at short time intervals based on  $I^2t$  curves. This function is

used with the Short Time Pick-up to achieve selectivity and better system coordination.

### Ground Fault Pick-Up ( $I_g$ )

This setting controls the level of ground fault current that will cause the breaker to trip. Model 545 Electronic Trip Units act on the residual current to sense ground current. The Model 576 Electronic Trip Unit is programmable and allows the user to select either the residual current method or direct detection (via a separate current transformer) to detect ground current.

### Ground Fault Time Delay ( $t_g$ )

This controls the interval of time the breaker will remain closed after a ground fault is detected (at the Ground Fault Pick-up current level) without tripping.



# VL Circuit Breakers

## DG 150A Frame, VL Series

Selection

### Ordering Information

#### Complete Assembled Breaker

Prices for a complete factory assembled DG breaker include the frame, trip unit, and standard line and load connectors, all factory installed and shipped as a complete breaker. Assembled breakers are only available with standard connectors.

For any other configuration, order the frame, trip unit, and terminals as separate items.

For DC applications, use thermal magnetic trip unit only.

For reverse feed applications, select non-interchangeable trip breakers only. For non-interchangeable trip breakers, change the third digit of the catalog number to "X" for standard breakers.

For 50°C and special applications, refer to page 6-144.A

Mounting hardware is included with each frame or complete breaker.



### Interrupting Ratings

Breaker Type	RMS Symmetrical Amperes (KA)										
	UL 489					IEC 60947-2					
	Volts AC (50/60 Hz)		Volts DC			Volts AC (50/60 Hz)					
	240	480	600	250	500	220/240		380/415		690	
					I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>	
NDG	65	35	18	30	18	65	65	40	40	12	6
HDG	100	65	20	30	18	100	75	70	70	12	6
LDG	200	100	25	30	18	200	150	100	75	12	6

### Connectors for 75°C Wire

Construction	Ampere Rating	Wire Range	No. of cables per connector	Catalog Number	List Price \$
Steel	30-150	#8-1/0 Cu	1	3TW1DG20 <sup>②</sup>	22.00
Aluminum <sup>①</sup>	30-150	#6-3/0 Al/Cu	1	3TA1DG30 <sup>②</sup>	22.00
Copper <sup>②</sup>	30-150	#6-3/0 Cu	1	3TC1DG30 <sup>②</sup>	101.00
<b>Distribution Lugs</b>					
	30-150	#14-#2 Cu (3pcs. Max)	3	3TA3DG02 <sup>②</sup>	110.00
	30-150	#14-#4 Cu	6	3TA6DG04 <sup>②</sup>	110.00
<b>Compression Lugs</b>					
	30-150	#14-2/0 kcmil Al/Cu	-	2CLD20 <sup>③</sup>	54.00
	30-150	#14-2/0 kcmil Al/Cu	-	3CLD20 <sup>④</sup>	81.00

- ① Standard connector supplied with complete breakers.
- ② Kit consists of 3 terminal connectors.
- ③ 2 Lugs for 2-pole breakers.
- ④ 3 Lugs for 3-pole breakers.

### DG Thermal-Magnetic, Instantaneous Trip Adjustment Range

Trip Unit Continuous Amp Rating (I <sub>n</sub> )	Instantaneous Overcurrent Setting (I <sub>t</sub> )	
	Min.	Max.
50	450	700
60	450	700
70	450	700
80	450	800
90	500	1000
100	500	1000
110	550	1100
125	625	1250
150	800	1600

Note: Each breaker has 6 trip settings in this range.

A - Consult with Siemens for availability.

### Dimensions, inches (mm)

Number of Poles	Width	Length	Depth	To Handle D1
2, 3	4.1 (105)	6.9 (175)	3.4 (81)	4.2(107)
4	5.5 (139)			

### Approx. Shipping Weight, lbs. (kg)

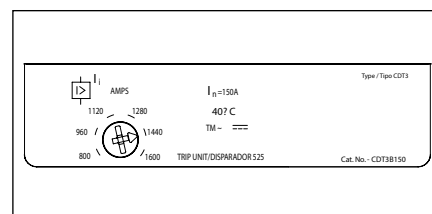
Poles	Frame	Trip Unit		Complete Breaker
		Thermal-Mag.	Electronic	
2, 3	3.7 (1.7)	2.2 (1.0)	2.6 (1.2)	5.9 (2.7)
4	4.9 (2.2)	2.6 (1.2)	3.3 (1.5)	7.5 (3.4)

External Accessories pages 6-125 through 6-139

# VL Case Circuit Breakers

## DG 150A Thermal-Magnetic Trip Unit

**Selection**



Model 525 Trip Unit

### DG 150A Frame 2-Pole with Thermal-Magnetic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	NDG2F150	618.00	HDG2F150	1533.00	LDG2F150	2664.00	TRIP UNIT ONLY	
	COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER						TRIP UNIT ONLY	
50	NDG2B050L	1002.00	HDG2B050L	1917.00	LDG2B050L	3048.00	CDT2B050	355.00
60	NDG2B060L	1002.00	HDG2B060L	1917.00	LDG2B060L	3048.00	CDT2B060	355.00
70	NDG2B070L	1074.00	HDG2B070L	1989.00	LDG2B070L	3120.00	CDT2B070	427.00
80	NDG2B080L	1074.00	HDG2B080L	1989.00	LDG2B080L	3120.00	CDT2B080	427.00
90	NDG2B090L	1074.00	HDG2B090L	1989.00	LDG2B090L	3120.00	CDT2B090	427.00
100	NDG2B100L	1074.00	HDG2B100L	1989.00	LDG2B100L	3120.00	CDT2B100	427.00
110	NDG2B110L	2234.00	HDG2B110L	3149.00	LDG2B110L	4280.00	CDT2B110	1587.00
125	NDG2B125L	2234.00	HDG2B125L	3149.00	LDG2B125L	4280.00	CDT2B125	1587.00
150	NDG2B150L	2234.00	HDG2B150L	3149.00	LDG2B150L	4280.00	CDT2B150	1587.00

### DG 150A Frame 3-Pole with Thermal-Magnetic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	NDG3F150	768.00	HDG3F150	1796.00	LDG3F150	2948.00	TRIP UNIT ONLY	
	COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER						TRIP UNIT ONLY	
50	NDG3B050L	1227.00	HDG3B050L	2255.00	LDG3B050L	3407.00	CDT3B050	416.00
60	NDG3B060L	1227.00	HDG3B060L	2255.00	LDG3B060L	3407.00	CDT3B060	416.00
70	NDG3B070L	1344.00	HDG3B070L	2372.00	LDG3B070L	3524.00	CDT3B070	533.00
80	NDG3B080L	1344.00	HDG3B080L	2372.00	LDG3B080L	3524.00	CDT3B080	533.00
90	NDG3B090L	1344.00	HDG3B090L	2372.00	LDG3B090L	3524.00	CDT3B090	533.00
100	NDG3B100L	1344.00	HDG3B100L	2372.00	LDG3B100L	3524.00	CDT3B100	533.00
110	NDG3B110L	2793.00	HDG3B110L	3821.00	LDG3B110L	4973.00	CDT3B110	1982.00
125	NDG3B125L	2793.00	HDG3B125L	3821.00	LDG3B125L	4973.00	CDT3B125	1982.00
150	NDG3B150L	2793.00	HDG3B150L	3821.00	LDG3B150L	4973.00	CDT3B150	1982.00

**6**  
MOLDED CASE  
CIRCUIT BREAKERS

### DG 150A Frame 4-Pole with Thermal-Magnetic Trip Unit<sup>A</sup>

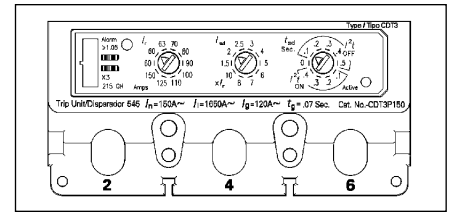
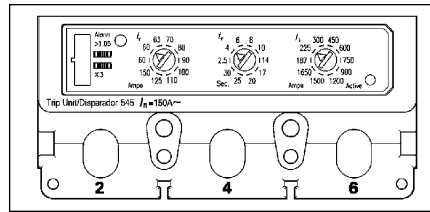
Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	NDG4F150	998.00	HDG4F150	2335.00	LDG4F150	3833.00	TRIP UNIT ONLY	
	COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER						TRIP UNIT ONLY	
50	NDG4B050L	1597.00	HDG4B050L	2934.00	LDG4B050L	4432.00	CDT4B050	541.00
60	NDG4B060L	1597.00	HDG4B060L	2934.00	LDG4B060L	4432.00	CDT4B060	541.00
70	NDG4B070L	1750.00	HDG4B070L	3087.00	LDG4B070L	4585.00	CDT4B070	694.00
80	NDG4B080L	1750.00	HDG4B080L	3087.00	LDG4B080L	4585.00	CDT4B080	694.00
90	NDG4B090L	1750.00	HDG4B090L	3087.00	LDG4B090L	4585.00	CDT4B090	694.00
100	NDG4B100L	1750.00	HDG4B100L	3087.00	LDG4B100L	4585.00	CDT4B100	694.00
110	NDG4B110L	3634.00	HDG4B110L	4971.00	LDG4B110L	6469.00	CDT4B110	2578.00
125	NDG4B125L	3634.00	HDG4B125L	4971.00	LDG4B125L	6469.00	CDT4B125	2578.00
150	NDG4B150L	3634.00	HDG4B150L	4971.00	LDG4B150L	6469.00	CDT4B150	2578.00

A - Consult with Siemens for availability.

# VL Circuit Breakers

## DG 150A Electronic 3-Knob & LCD Trip Units

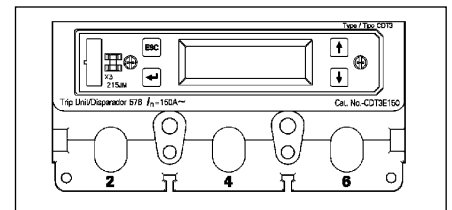
Selection



Model 545 Trip Units

### DG 150A Frame 3-Pole Electronic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	<b>FRAME ONLY</b>							
<b>COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER</b>								
<b>ELECTRONIC LI TRIP</b>								
60	NDG3N060L	1591.00	HDG3N060L	2619.00	LDG3N060L	3771.00	CDT3N060	780.00
100	NDG3N100L	1709.00	HDG3N100L	2737.00	LDG3N100L	3889.00	CDT3N100	898.00
150	NDG3N150L	3157.00	HDG3N150L	4185.00	LDG3N150L	5337.00	CDT3N150	2346.00
<b>ELECTRONIC LSI TRIP</b>								
60	NDG3P060L	1925.00	HDG3P060L	2953.00	LDG3P060L	4105.00	CDT3P060	1114.00
100	NDG3P100L	2043.00	HDG3P100L	3071.00	LDG3P100L	4223.00	CDT3P100	1232.00
150	NDG3P150L	3492.00	HDG3P150L	4520.00	LDG3P150L	5672.00	CDT3P150	2681.00
<b>ELECTRONIC LSIG TRIP</b>								
60	NDG3U060L	3806.00	HDG3U060L	4834.00	LDG3U060L	5986.00	CDT3U060	2995.00
100	NDG3U100L	3923.00	HDG3U100L	4951.00	LDG3U100L	6103.00	CDT3U100	3112.00
150	NDG3U150L	5372.00	HDG3U150L	6400.00	LDG3U150L	7552.00	CDT3U150	4561.00
<b>ELECTRONIC LIG TRIP</b>								
60	NDG3X060L	3472.00	HDG3X060L	4500.00	LDG3X060L	5652.00	CDT3X060	2661.00
100	NDG3X100L	3590.00	HDG3X100L	4618.00	LDG3X100L	5770.00	CDT3X100	2779.00
150	NDG3X150L	5038.00	HDG3X150L	6066.00	LDG3X150L	7218.00	CDT3X150	4227.00



Model 576 Trip Unit

### DG 150A Frame 3-Pole Electronic LCD Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	<b>FRAME ONLY</b>							
<b>COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER</b>								
<b>LCD ELECTRONIC LSI TRIP</b>								
60	NDG3D060L	2092.00	HDG3D060L	3120.00	LDG3D060L	4272.00	CDT3D060	1281.00
100	NDG3D100L	2226.00	HDG3D100L	3254.00	LDG3D100L	4406.00	CDT3D100	1415.00
150	NDG3D150L	3894.00	HDG3D150L	4922.00	LDG3D150L	6074.00	CDT3D150	3083.00
<b>LCD ELECTRONIC LSIG TRIP</b>								
60	NDG3E060L	3974.00	HDG3E060L	5002.00	LDG3E060L	6154.00	CDT3E060	3163.00
100	NDG3E100L	4108.00	HDG3E100L	5136.00	LDG3E100L	6288.00	CDT3E100	3297.00
150	NDG3E150L	5775.00	HDG3E150L	6803.00	LDG3E150L	7955.00	CDT3E150	4964.00

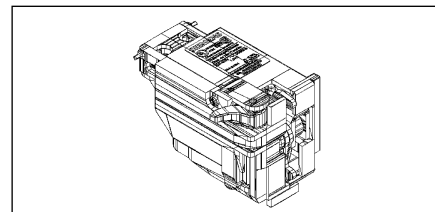
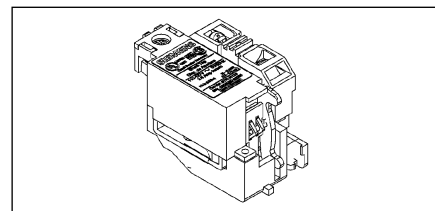
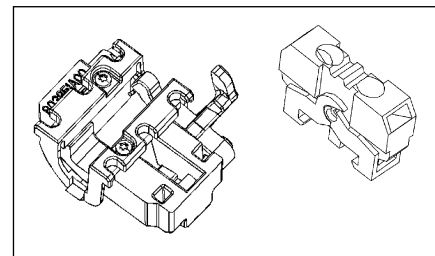
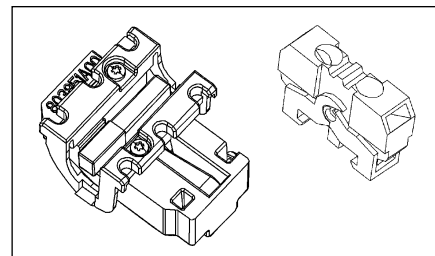
# VL Circuit Breakers

## Internal Accessories for DG 150A and FG 250A Frames

### Selection

### Auxiliary Switch and Alarm Switch Combination Kits

Description	Mounting Pocket <sup>①</sup>	Catalog Number	List Price \$
1 Alarm Switch 1A/B <sup>③</sup> Bases AMBL2 & AMBL3	Left, Right <sup>②</sup>	ASKL1	265.00
2 Aux. Switches 1A + 1B Bases AMBL1	Left, Right, Neutral	ASKL2	265.00
2 Aux. + 1 Alarm Switch 1A + 1B, 1A/B <sup>③</sup> Bases AMBL2 & AMBL3	Left, Right <sup>②</sup>	ASKL3	530.00



### Auxiliary/Alarm Switch Mounting Base Only

Description	Mounting Pocket	Catalog Number	List Price \$
Up to 3 Auxiliary Switches	Left, Right, Neutral	AMBL1	61.00
2 Aux. + 1 Alarm Switch	Left Pocket Only	AMBL2	61.00
2 Aux. + 1 Alarm Switch	Right Pocket Only	AMBL3	61.00

### Auxiliary/Alarm Switch Only

Common to DG - PG Frames

Description	Catalog Number	List Price \$
1 Normally Open Contact (1A)	ASWPA	108.00
1 Normally Closed Contact (1B)	ASWPB	108.00

### Shunt Trips

Description	Mounting Pocket	Catalog Number	List Price \$
24 VDC	Right Pocket Only	STRLB24DC	594.00
48-60 VDC		STRLC60DC	594.00
110-127 VDC		STRLD125DC	594.00
220-250 VDC		STRLE250DC	594.00
48-60 VAC		STRLM60	594.00
110-127 VAC		STRLN120	594.00
208-277 VAC		STRLS277	594.00
380-600 VAC		STRLV600	594.00

### Undervoltage Release

Description	Mounting Pocket	Catalog Number	List Price \$
12 VDC	Right Pocket Only	UVRLA12DC	594.00
24 VDC		UVRLB24DC	594.00
48 VDC		UVRLC48DC	594.00
60 VDC		UVRLG60DC	594.00
110-127 VDC		UVRLD125DC	594.00
220-250 VDC		UVRLE250DC	594.00
110-127 VAC		UVRLN120	594.00
220-240 VAC		UVRLR240	594.00
208 VAC		UVRLP208	594.00
277 VAC		UVRLS277	594.00
380-415 VAC		UVRLT415	594.00
440-480 VAC		UVRLU480	594.00
600 VAC		UVRLV600	594.00

<sup>①</sup> 'A' refers to a normally open contact (open when the breaker contacts are open).

<sup>②</sup> 'B' refers to a normally closed contact (closed when the breaker contacts are open).

<sup>③</sup> Refer to the "Accessory Locations" chart for guidelines and limitations about which pockets may be used for accessory combinations.

<sup>④</sup> These kits include two bases, one for mounting switches in the left pocket and another for mounting in the right.

<sup>⑤</sup> Includes 1A and 1B contact for alarm purposes, only one of which may be installed at any time.

External Accessories pages 6-125 through 6-139

6  
MOLDED CASE  
CIRCUIT BREAKERS



# VL Circuit Breakers

## FG 250A Frame, VL Series

## Selection/Dimensions

### Ordering Information

#### Complete Assembled Breaker

Prices for a complete factory assembled FG breaker include the frame, trip unit, and standard line and load connectors, all factory installed and shipped as a complete breaker. Assembled breakers are available only with standard connectors.

For any other configuration, order the frame, trip unit, and terminals as separate items.

For DC applications, use thermal magnetic trip unit only.

For reverse feed applications, select non-interchangeable trip breakers only.

For non-interchangeable trip breakers, change the third digit of the catalog number to "X" for standard breakers.

For 50°C and special applications, refer to page 6-144.A

Mounting hardware is included with each frame or complete breaker.



Dimensions, inches (mm)

Number of Poles	Width	Length	Depth	To Handle D1
2, 3	4.1 (105)	6.9 (175)	3.4 (81)	4.2 (107)
4	5.5 (139)			

Shipping Weight, lbs. (kg)

Poles	Frame	Trip Unit		Complete Breaker
		Thermal-Mag.	Electronic	
2, 3	4.0 (1.8)	2.2 (1.0)	2.6 (1.2)	6.2 (2.8)
4	5.3 (2.4)	2.6 (1.2)	3.3 (1.5)	7.9 (3.6)

Enclosures<sup>A</sup>

NEMA Class	Catalog Number	List Price \$
1 (Flush)	FG0251F	CSO
1 (Surface)	FG0221S (225A max)	CSO
1 (Surface)	FG0251S (250A)	CSO
3R	FG0253R	CSO
4 - 4X	FG0254S	CSO
7-9	FG02579	CSO
12	FG02512	CSO
Neutral	(future)	—

### Interrupting Ratings

Breaker Type	RMS Symmetrical Amperes (KA)										
	UL 489					IEC 60947-2					
	Volts AC (50/60 Hz)			Volts DC		Volts AC (50/60 Hz)					
	240	480	600	250	500	220/240		380/415		690	
					I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>	
NFG	65	35	18	30	18	65	65	40	40	12	6
HFG	100	65	20	30	25	100	75	70	70	12	6
LFG	200	100	25	30	30	200	150	100	75	12	6

### Connectors for 75°C Wire

Construction	Ampere Rating	Wire Range	No. of cables per connector	Catalog Number	List Price \$
Steel	50-250	#4-350 kcmil Cu	1	3TW1FG350 <sup>②</sup>	65.00
Aluminum <sup>①</sup>	50-250	#4-350 kcmil Al/Cu	1	3TAW1FG350 <sup>②</sup>	65.00
Copper	50-250	#4-350 kcmil Cu	1	3TCW1FG350 <sup>②</sup>	104.00
Distribution Lugs					
	50-250	#12-2/0 Cu	3	3TA3FG20 <sup>②</sup>	110.00
	50-250	#14-#4 Cu	6	3TA6FG04 <sup>②</sup>	110.00
Compression Lugs					
	50-250	#6-350 kcmil Al/Cu	—	2CLF350 <sup>③</sup>	102.00
	50-250	#6-350 kcmil Al/Cu	—	3CLF350 <sup>④</sup>	152.00

① Standard connector supplied with complete breakers.

② Kit consists of 3 terminal connectors.

③ 2 Lugs for 2-pole breakers.

④ 3 Lugs for 3-pole breakers.

### FG Thermal-Magnetic, Instantaneous Trip Adjustment Range

Trip Unit Continuous Amp Rating (I <sub>n</sub> )	Instantaneous Overcurrent Setting (I <sub>b</sub> )	
	Min.	Max.
100	625	1250
110	800	1600
125	800	1600
150	800	1600
175	1000	2000
200	1000	2000
225	1250	2500
250	1250	2500

Note: Each breaker has 6 trip settings in this range.

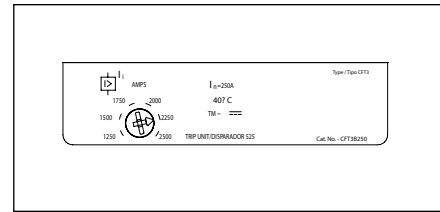
A - Consult with Siemens for availability.

External Accessories pages 6-125 through 6-139

# VL Circuit Breakers

## FG 250A Thermal-Magnetic Trip Unit

Selection



Model 525 Trip Unit

### FG 250A Frame 2-Pole with Thermal-Magnetic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$		
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$				
	FRAME ONLY									
	NFG2F250	1128.00	HFG2F250	2994.00	LFG2F250	4505.00				
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER							TRIP UNIT ONLY			
100	NFG2B100L	2374.00	HFG2B100L	4240.00	LFG2B100L	5751.00	CFT2B100	1158.00		
110	NFG2B110L	2374.00	HFG2B110L	4240.00	LFG2B110L	5751.00	CFT2B110	1158.00		
125	NFG2B125L	2374.00	HFG2B125L	4240.00	LFG2B125L	5751.00	CFT2B125	1158.00		
150	NFG2B150L	2374.00	HFG2B150L	4240.00	LFG2B150L	5751.00	CFT2B150	1158.00		
175	NFG2B175L	2374.00	HFG2B175L	4240.00	LFG2B175L	5751.00	CFT2B175	1158.00		
200	NFG2B200L	2374.00	HFG2B200L	4240.00	LFG2B200L	5751.00	CFT2B200	1158.00		
225	NFG2B225L	2374.00	HFG2B225L	4240.00	LFG2B225L	5751.00	CFT2B225	1158.00		
250	NFG2B250L	2999.00	HFG2B250L	4865.00	LFG2B250L	6376.00	CFT2B250	1783.00		

### FG 250A Frame 3-Pole with Thermal-Magnetic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$		
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$				
	FRAME ONLY									
	NFG3F250	1388.00	HFG3F250	3493.00	LFG3F250	4971.00				
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER							TRIP UNIT ONLY			
100	NFG3B100L	2882.00	HFG3B100L	4987.00	LFG3B100L	6465.00	CFT3B100	1362.00		
110	NFG3B110L	2882.00	HFG3B110L	4987.00	LFG3B110L	6465.00	CFT3B110	1362.00		
125	NFG3B125L	2882.00	HFG3B125L	4987.00	LFG3B125L	6465.00	CFT3B125	1362.00		
150	NFG3B150L	2882.00	HFG3B150L	4987.00	LFG3B150L	6465.00	CFT3B150	1362.00		
175	NFG3B175L	2882.00	HFG3B175L	4987.00	LFG3B175L	6465.00	CFT3B175	1362.00		
200	NFG3B200L	2882.00	HFG3B200L	4987.00	LFG3B200L	6465.00	CFT3B200	1362.00		
225	NFG3B225L	2882.00	HFG3B225L	4987.00	LFG3B225L	6465.00	CFT3B225	1362.00		
250	NFG3B250L	3617.00	HFG3B250L	5722.00	LFG3B250L	7200.00	CFT3B250	2097.00		

6  
MOLDED CASE  
CIRCUIT BREAKERS

### FG 250A Frame 4-Pole with Thermal-Magnetic Trip Unit<sup>A</sup>

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$		
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$				
	FRAME ONLY									
	NFG4F250	1805.00	HFG4F250	4542.00	LFG4F250	6463.00				
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER							TRIP UNIT ONLY			
100	NFG4B100L	3752.00	HFG4B100L	6489.00	LFG4B100L	8410.00	CFT4B100	1771.00		
110	NFG4B110L	3752.00	HFG4B110L	6489.00	LFG4B110L	8410.00	CFT4B110	1771.00		
125	NFG4B125L	3752.00	HFG4B125L	6489.00	LFG4B125L	8410.00	CFT4B125	1771.00		
150	NFG4B150L	3752.00	HFG4B150L	6489.00	LFG4B150L	8410.00	CFT4B150	1771.00		
175	NFG4B175L	3752.00	HFG4B175L	6489.00	LFG4B175L	8410.00	CFT4B175	1771.00		
200	NFG4B200L	3752.00	HFG4B200L	6489.00	LFG4B200L	8410.00	CFT4B200	1771.00		
225	NFG4B225L	3752.00	HFG4B225L	6489.00	LFG4B225L	8410.00	CFT4B225	1771.00		
250	NFG4B250L	4707.00	HFG4B250L	7444.00	LFG4B250L	9365.00	CFT4B250	2726.00		

A - Consult with Siemens for availability.



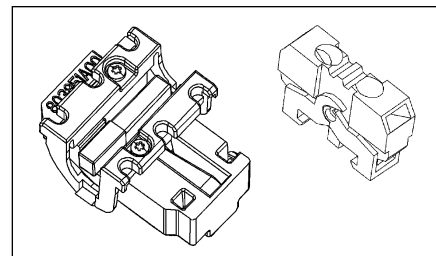
# VL Circuit Breakers

## Internal Accessories for DG 150A and FG 250A Frames

### Selection

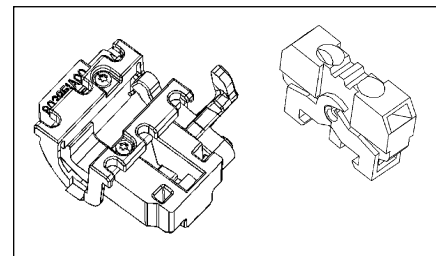
### Auxiliary Switch and Alarm Switch Combination Kits

Description	Mounting Pocket <sup>①</sup>	Catalog Number	List Price \$
1 Alarm Switch 1A/B <sup>③</sup> Bases AMBL2 & AMBL3	Left, Right <sup>②</sup>	ASKL1	265.00
2 Aux. Switches 1A + 1B Bases AMBL1	Left, Right, Neutral	ASKL2	265.00
2 Aux. + 1 Alarm Switches 1A + 1B, 1A/B <sup>③</sup> Bases AMBL2 & AMBL3	Left, Right <sup>②</sup>	ASKL3	530.00



### Auxiliary/Alarm Switch Mounting Base Only

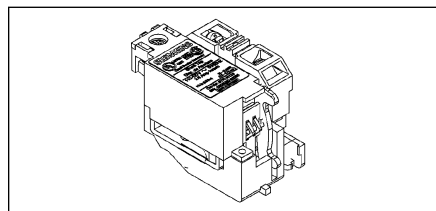
Description	Mounting Pocket	Catalog Number	List Price \$
Up to 3 Auxiliary Switches	Left, Right, Neutral	AMBL1	61.00
2 Aux. + 1 Alarm Switch	Left Pocket Only	AMBL2	61.00
2 Aux. + 1 Alarm Switch	Right Pocket Only	AMBL3	61.00



### Auxiliary/Alarm Switch Only

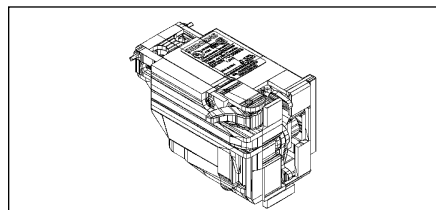
Common to DG - PG Frames

Description	Catalog Number	List Price \$
1 Normally Open Contact (1A)	ASWPA	108.00
1 Normally Closed Contact (1B)	ASWPB	108.00



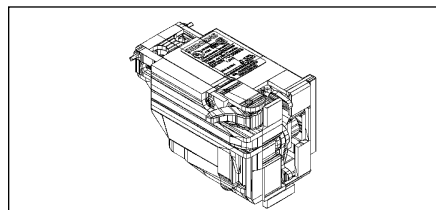
### Shunt Trips

Description	Mounting Pocket	Catalog Number	List Price \$
24 VDC	Right Pocket Only	STRLB24DC	594.00
48-60 VDC		STRLC60DC	594.00
110-127 VDC		STRLD125DC	594.00
220-250 VDC		STRLE250DC	594.00
48-60 VAC		STRLM60	594.00
110-127 VAC		STRLN120	594.00
208-277 VAC		STRLS277	594.00
380-600 VAC		STRLV600	594.00



### Undervoltage Release

Description	Mounting Pocket	Catalog Number	List Price \$
12 VDC	Right Pocket Only	UVRLA12DC	594.00
24 VDC		UVRLB24DC	594.00
48 VDC		UVRLC48DC	594.00
60 VDC		UVRLG60DC	594.00
110-127 VDC		UVRLD125DC	594.00
220-250 VDC		UVRLE250	594.00
110-127 VAC		UVRLN120	594.00
220-240 VAC		UVRLR240	594.00
208 VAC		UVRLP208	594.00
277 VAC		UVRLS277	594.00
380-415 VAC		UVRLT415	594.00
440-480 VAC		UVRLU480	594.00
600 VAC		UVRLV600	594.00



'A' refers to a normally open contact (open when the breaker contacts are open).

'B' refers to a normally closed contact (closed when the breaker contacts are open).

① Refer to the "Accessory Locations" chart for guidelines and limitations about which pockets may be used for accessory combinations.

② These kits include two bases, one for mounting switches in the left pocket and another for mounting in the right.

③ Includes 1A and 1B contact for alarm purposes, only one of which may be installed at any time.

External Accessories pages 6-125 through 6-139

# VL Circuit Breakers

## JG 400A Frame, VL Series

## Selection/Dimensions

### Ordering Information

#### Complete Assembled Breaker

Prices for a complete factory assembled JG breaker include the frame, trip unit, and standard line and load connectors, all factory installed and shipped as a complete breaker. Assembled breakers are available only with standard connectors.

For any other configuration, order the frame, trip unit, and terminals as separate items.

For DC applications, use thermal magnetic trip unit only.

For reverse feed applications, select non-interchangeable trip breakers only. For non-interchangeable trip breakers, change the third digit of the catalog number to "X" for standard breakers.

100% Rated: For 100% rated breakers (or frames) with an interchangeable trip unit, change the 3<sup>rd</sup> character of the catalog name to "H".

For 100% rated breakers with a non-interchangeable trip unit, change the 3<sup>rd</sup> character of the catalog number to "Y".

For 50°C and special applications, refer to page 6-144.A

Mounting hardware is included with each frame or complete breaker.



Dimensions, inches (mm)

Number of Poles	Width	Length	Depth	To Handle D1
2, 3	5.5 (139)	11 (279)	4.2 (102)	5.4 (138)
4	7.2 (183)			

Shipping Weight, lbs. (kg)

Poles	Frame	Trip Unit		Complete Breaker
		Thermal-Mag.	Electronic	
2, 3	9.3 (4.2)	4.0 (1.8)	4.0 (1.8)	12.6 (5.7)
4	12.1 (5.5)	5.0 (2.3)	5.0 (2.3)	16.3 (7.4)

Enclosures<sup>A</sup>

NEMA Class	Catalog Number	List Price \$
1	JG0401S	CSO
1 (Compact)	JG0401SC	CSO
3R	JG0403R	CSO
3R (Compact)	JG0403RC	CSO
7-9	JG03579 (350A max)	CSO
12	JG04012	CSO
Neutral	(future)	—

### Interrupting Ratings

Breaker Type	RMS Symmetrical Amperes (KA)										
	UL 489 AIR (File E10848)					IEC 60947-2					
	Volts AC (50/60 Hz)			Volts DC		Volts AC (50/60 Hz)					
	240	480	600	250	500	220/240		380/415		690	
					I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>	
NJG	65	35	25	30	25	65	65	45	45	12	6
HJG	100	65	25	30	35	100	75	70	70	15	8
LJG	200	100	25	30	35	200	150	100	75	15	8

### Connectors for 75°C Wire

Construction	Ampere Rating	Wire Range	No. of cables per connector	Catalog Number	List Price \$
Steel	70-400	1/0-600 kcmil Cu	1	3TW1JG600 <sup>Ⓢ</sup>	87.00
Aluminum <sup>Ⓢ</sup>	70-400	3/0-250 kcmil Al/Cu	2	3TA2JG250 <sup>Ⓢ</sup>	87.00
Aluminum	70-400	250-750 kcmil Al	1	3TA1JG750 <sup>Ⓢ</sup>	109.00
Aluminum	70-400	3/0-600 kcmil Cu	1	3TA1JG750 <sup>Ⓢ</sup>	109.00
Copper	70-400	3/0-750 kcmil Cu	1	TC1JG750 <sup>Ⓢ</sup>	77.00
Copper	70-400	3/0-250 kcmil Cu	2	TC2JG250	77.00
<b>Distribution Lugs</b>					
	70-400	#14-4 Cu	12	3TA12JG04 <sup>Ⓢ</sup>	265.00
	70-400	#14-2/0 Cu	6	3TA6JG20 <sup>Ⓢ</sup>	265.00
<b>Compression Lugs</b>					
	70-400	250-600 kcmil Al/Cu	—	3CLJ600 <sup>Ⓢ</sup>	449.00
	70-400	#6-350 kcmil	—	3CLJ350	449.00
	70-400	250-750 kcmil	—	3CLJ750	449.00

<sup>Ⓢ</sup> Standard construction supplied for each breaker.

<sup>Ⓢ</sup> Kit consists of 3 terminal connectors.

<sup>Ⓢ</sup> 3 Lugs for 3-pole breakers.

<sup>Ⓢ</sup> For 100% rate applications, 90°C.

### JG Thermal-Magnetic, Instantaneous Trip Adjustment Range

Trip Unit Continuous Amp Rating (I <sub>n</sub> )	Instantaneous Overcurrent Setting (I <sub>b</sub> )	
	Min.	Max.
250	1250	2500
300	1500	3000
350	1750	3500
400	2000	4000

Note: Each breaker has 6 trip settings in this range.

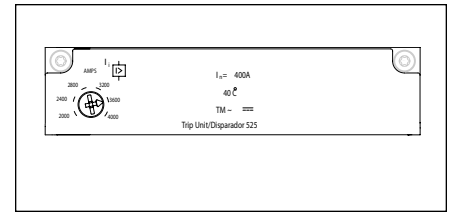
A - Consult with Siemens for availability.

External Accessories pages 6-125 through 6-139

# VL Circuit Breakers

## JG 400A Thermal-Magnetic Trip Unit

Selection



JG 400A Frame 2-Pole with Thermal-Magnetic Trip Unit

Model 525 Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	NJG2F400	1600.00	HJG2F400	3842.00	LJG2F400	5208.00		
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
250	NJG2B250L	3210.00	HJG2B250L	5452.00	LJG2B250L	6818.00	CJT2B250	1494.00
300	NJG2B300L	3210.00	HJG2B300L	5452.00	LJG2B300L	6818.00	CJT2B300	1494.00
350	NJG2B350L	3210.00	HJG2B350L	5452.00	LJG2B350L	6818.00	CJT2B350	1494.00
400	NJG2B400L	3210.00	HJG2B400L	5452.00	LJG2B400L	6818.00	CJT2B400	1494.00

JG 400A Frame 3-Pole with Thermal-Magnetic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	NJG3F400	1972.00	HJG3F400	4484.00	LJG3F400	5740.00		
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
250	NJG3B250L	3903.00	HJG3B250L	6415.00	LJG3B250L	7671.00	CJT3B250	1757.00
300	NJG3B300L	3903.00	HJG3B300L	6415.00	LJG3B300L	7671.00	CJT3B300	1757.00
350	NJG3B350L	3903.00	HJG3B350L	6415.00	LJG3B350L	7671.00	CJT3B350	1757.00
400	NJG3B400L	3903.00	HJG3B400L	6415.00	LJG3B400L	7671.00	CJT3B400	1757.00

JG 400A Frame 4-Pole with Thermal-Magnetic Trip Unit<sup>A</sup>

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	NJG4F400	2563.00	HJG4F400	5829.00	LJG4F400	7462.00		
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
250	NJG4B250L	5080.00	HJG4B250L	8346.00	LJG4B250L	9979.00	CJT4B250	2285.00
300	NJG4B300L	5080.00	HJG4B300L	8346.00	LJG4B300L	9979.00	CJT4B300	2285.00
350	NJG4B350L	5080.00	HJG4B350L	8346.00	LJG4B350L	9979.00	CJT4B350	2285.00
400	NJG4B400L	5080.00	HJG4B400L	8346.00	LJG4B400L	9979.00	CJT4B400	2285.00

JJ 400A Frame 240V max., 2-pole with Thermal-Magnetic Non-Interchangeable Trip Unit

Continuous Ampere Rating	N-Interrupting Class	
	Catalog Number	List Price \$
	COMPLETE BREAKER	
250	NJJ2B250L	2642.00
300	NJJ2B300L	2642.00
350	NJJ2B350L	2642.00
400	NJJ2B400L	2642.00

JJ 400A Frame 240V max., 3-pole with Thermal-Magnetic Non-Interchangeable Trip Unit

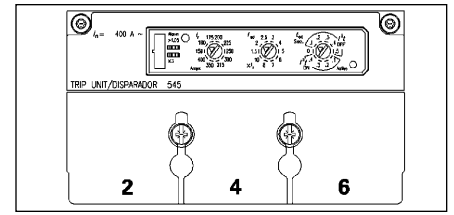
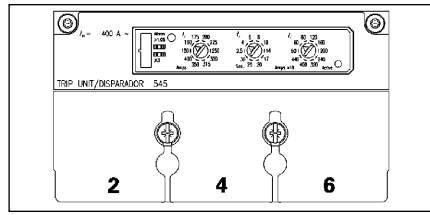
Continuous Ampere Rating	N-Interrupting Class	
	Catalog Number	List Price \$
	COMPLETE BREAKER	
250	NJJ3B250L	3192.00
300	NJJ3B300L	3192.00
350	NJJ3B350L	3192.00
400	NJJ3B400L	3192.00

A - Consult with Siemens for availability.

# VL Circuit Breakers

## JG 400A Electronic 3-Knob & LCD Trip Units

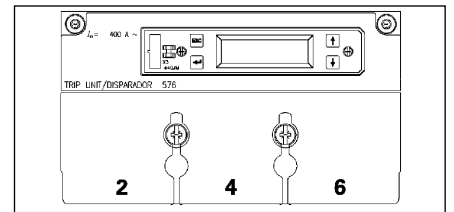
*Selection*



Model 545 Trip Units

### JG 400A Frame 3-Pole Electronic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER							
<b>ELECTRONIC LI TRIP</b>								
250	NJG3N250L	4468.00	HJG3N250L	6980.00	LJG3N250L	8236.00	CJT3N250	2322.00
400	NJG3N400L	4468.00	HJG3N400L	6980.00	LJG3N400L	8236.00	CJT3N400	2322.00
<b>ELECTRONIC LSI TRIP</b>								
250	NJG3P250L	4800.00	HJG3P250L	7312.00	LJG3P250L	8568.00	CJT3P250	2654.00
400	NJG3P400L	4800.00	HJG3P400L	7312.00	LJG3P400L	8568.00	CJT3P400	2654.00
<b>ELECTRONIC LSIg TRIP</b>								
250	NJG3U250L	6682.00	HJG3U250L	9194.00	LJG3U250L	10450.00	CJT3U250	4536.00
400	NJG3U400L	6682.00	HJG3U400L	9194.00	LJG3U400L	10450.00	CJT3U400	4536.00
<b>ELECTRONIC LIG TRIP</b>								
250	NJG3X250L	6347.00	HJG3X250L	8859.00	LJG3X250L	10115.00	CJT3X250	4201.00
400	NJG3X400L	6347.00	HJG3X400L	8859.00	LJG3X400L	10115.00	CJT3X400	4201.00



Model 576 Trip Unit

### JG 400A Frame 3-Pole Electronic LCD Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER							
<b>LCD ELECTRONIC LSI TRIP</b>								
250	NJG3D250L	5198.00	HJG3D250L	7710.00	LJG3D250L	8966.00	CJT3D250	3052.00
400	NJG3D400L	5198.00	HJG3D400L	7710.00	LJG3D400L	8966.00	CJT3D400	3052.00
<b>LCD ELECTRONIC LSIg TRIP</b>								
250	NJG3E250L	7080.00	HJG3E250L	9592.00	LJG3E250L	10848.00	CJT3E250	4934.00
400	NJG3E400L	7080.00	HJG3E400L	9592.00	LJG3E400L	10848.00	CJT3E400	4934.00

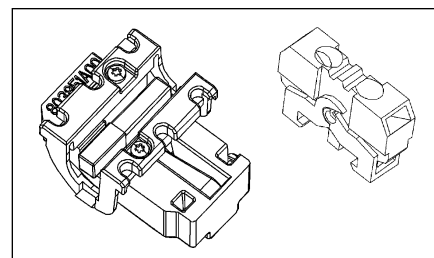
# VL Circuit Breakers

## Internal Accessories for JG 400A and LG 600A Frames

### Selection

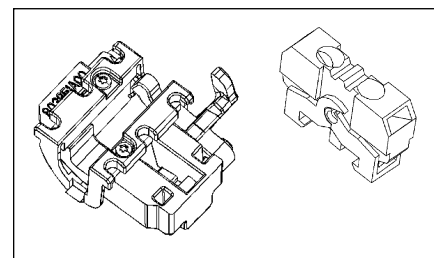
### Auxiliary Switch and Alarm Switch Combination Kits

Description	Mounting Pocket <sup>①</sup>	Catalog Number	List Price \$
1 Alarm Switch 1A/B <sup>③</sup> Bases AMBL2 & AMBL3	Left, Right <sup>②</sup>	ASKL1	265.00
2 Aux. Switches 1A + 1B Bases AMBL1	Left, Right, Neutral	ASKL2	265.00
2 Aux. + 1 Alarm Switches 1A + 1B, 1A/B <sup>③</sup> Bases AMBL2 & AMBL3	Left, Right <sup>②</sup>	ASKL3	530.00



### Auxiliary/Alarm Switch Mounting Base Only

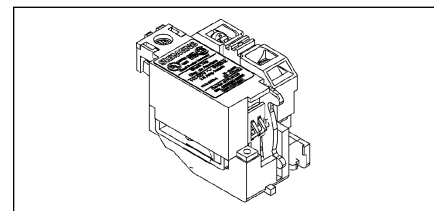
Description	Mounting Pocket	Catalog Number	List Price \$
Up to 3 Auxiliary Switches	Left, Right, Neutral	AMBL1	61.00
2 Aux. + 1 Alarm Switch	Left Pocket Only	AMBL2	61.00
2 Aux. + 1 Alarm Switch	Right Pocket Only	AMBL3	61.00



### Auxiliary/Alarm Switch Only

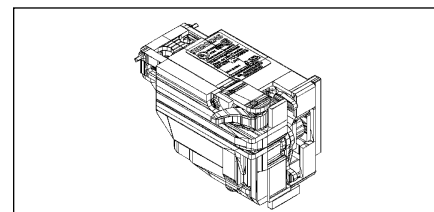
Common to DG - PG Frames

Description	Catalog Number	List Price \$
1 Normally Open Contact (1A)	ASWPA	108.00
1 Normally Closed Contact (1B)	ASWPB	108.00



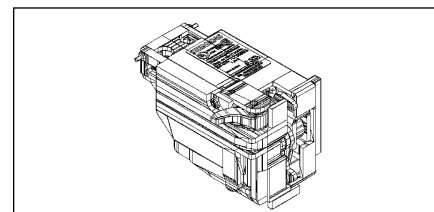
### Shunt Trips

Description	Mounting Pocket	Catalog Number	List Price \$
24 VDC	Right Pocket Only	STRLB24DC	594.00
48-60 VDC		STRLC60DC	594.00
110-127 VDC		STRLD125DC	594.00
220-250 VDC		STRLE250DC	594.00
48-60 VAC		STRLM60	594.00
110-127 VAC		STRLN120	594.00
208-277 VAC		STRLS277	594.00
380-600 VAC		STRLV600	594.00



### Undervoltage Release

Description	Mounting Pocket	Catalog Number	List Price \$
12 VDC	Right Pocket Only	UVRLA12DC	594.00
24 VDC		UVRLB24DC	594.00
48 VDC		UVRLC48DC	594.00
60 VDC		UVRLG60DC	594.00
110-127 VDC		UVRLD125DC	594.00
220-250 VDC		UVRLE250DC	594.00
110-127 VAC		UVRLN120	594.00
220-240 VAC		UVRLR240	594.00
208 VAC		UVRLP208	594.00
277 VAC		UVRLS277	594.00
380-415 VAC		UVRLT415	594.00
440-480 VAC		UVRLU480	594.00
600 VAC		UVRLV600	594.00



'A' refers to a normally open contact (open when the breaker contacts are open).

'B' refers to a normally closed contact (closed when the breaker contacts are open).

① Refer to the "Accessory Locations" chart for guidelines and limitations about which pockets may be used for accessory combinations.

③ Includes 1A and 1B contact for alarm purposes, only one of which may be installed at any time.

External Accessories pages 6-125 through 6-139



# VL Circuit Breakers

## LG 600A Frame, VL Series

## Selection/Dimensions

### Ordering Information

#### Complete Assembled Breaker

Prices for a complete factory assembled LG breaker include the frame, trip unit, and standard line and load lugs, all factory installed and shipped as a complete breaker. Assembled breakers are available only with standard connectors.

For any other configuration, order the frame, trip unit, and terminals as separate items.

For DC applications, use thermal magnetic trip unit only.

For reverse feed applications, select non-interchangeable trip breakers only. Change the third digit of the catalog number to "X" for non-interchangeable trip unit.

For 50°C and special applications, refer to page 6-144.A

Mounting hardware is included with each frame or complete breaker.

A Toggle Handle Extension is included with each frame or complete breaker.



### Interrupting Ratings

Breaker Type	RMS Symmetrical Amperes (KA)										
	UL 489					IEC 60947-2					
	Volts AC (50/60 Hz)			Volts DC		Volts AC (50/60 Hz)					
	240	480	600	250	500	220/240		380/415		690	
					I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>	
NLG	65	35	25	30	25	65	65	45	45	12	6
HLG	100	65	25	30	35	100	75	70	70	15	8
LLG	200	100	25	30	35	200	150	100	75	15	8

### Connectors for 75°C Wire

Construction	Ampere Rating	Wire Range	No. of cables per connector	Catalog Number <sup>②</sup>	List Price \$
Aluminum <sup>①</sup>	150-600	#2/0-600 kcmil Al/Cu	2 (load side)	3TA2LG600LD	109.00
Aluminum <sup>①</sup>	150-600	#2/0-600 kcmil Al/Cu	2 (line side)	3TA2LG600LN	109.00
Copper	150-600	#2/0-600 kcmil Cu	2 (load side)	3TC2LG600LD	231.00
Copper	150-600	#2/0-600 kcmil Cu	2 (line side)	3TC2LG600LN	231.00
Compression Lugs					
	150-600	#6-350 kcmil Al/Cu	-	6CLL350 <sup>③</sup>	899.00
	150-600	250-750 kcmil Al/Cu	-	3CLL750 <sup>④</sup>	494.00
	150-600	250-600 kcmil Al/Cu	-	6CLL600 <sup>③</sup>	899.00

① Standard construction supplied for each breaker.

② Kit consists of 3 terminal connectors.

③ Kit consists of 6 lugs for Line or Load end.

④ Kit consists of 3 lugs for Line or Load end.

### LG Thermal-Magnetic, Instantaneous Trip Adjustment Range

Trip Unit Continuous Amp Rating (I <sub>n</sub> )	Instantaneous Overcurrent Setting (I <sub>t</sub> )	
	Min.	Max.
400	2000	4000
500	2500	5000
600	2750	5500

Note: Each breaker has 6 trip settings.

### Dimensions, inches (mm)

Number of Poles	Width	Length	Depth	To Handle D1
2, 3	5.5 (139)	11 (279)	4.2 (102)	5.4 (138)
4	7.2 (183)			
Ext. Shield		13.6 (345.5)		

### Shipping Weight, lbs. (kg)

Poles	Frame	Trip Unit		Complete Breaker
		Thermal-Mag.	Electronic	
2, 3	17.4 (7.9)	3.5 (1.6)	4.2 (1.9)	20.9 (9.5)
4	23.2 (10.5)	4.6 (2.1)	5.5 (2.5)	27.8 (12.6)

### Enclosures<sup>A</sup>

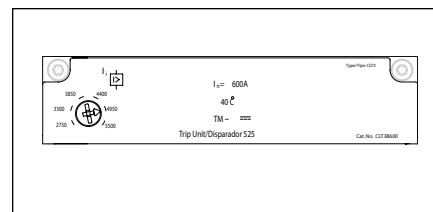
NEMA Class	Catalog Number	List Price \$
1	LG0601S	CSO
3R	LG0603R	CSO
4 - 4X	LG0604S	CSO
7-9	LG06079	CSO
12	LG06012	CSO
Neutral	(future)	-

External Accessories pages 6-125 through 6-139

# VL Circuit Breakers

## LG 600A Thermal-Magnetic Trip Unit

**Selection**



Model 525 Trip Unit

### LG 600A Frame 2-Pole with Thermal-Magnetic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	<b>FRAME ONLY</b>							
	NLG2F600	2869.00	HLG2F600	4023.00	LLG2F600	6809.00		
	<b>COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER</b>						<b>TRIP UNIT ONLY</b>	
400	NLG2B400L	5148.00	HLG2B400L	6302.00	LLG2B400L	9088.00	CLT2B400	2135.00
500	NLG2B500L	5148.00	HLG2B500L	6302.00	LLG2B500L	9088.00	CLT2B500	2135.00
600	NLG2B600L	5148.00	HLG2B600L	6302.00	LLG2B600L	9088.00	CLT2B600	2135.00

### LG 600A Frame 3-Pole with Thermal-Magnetic Trip Unit

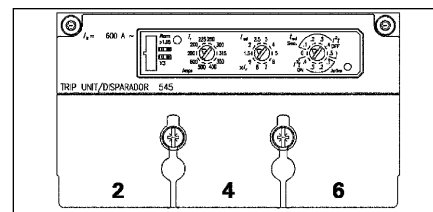
Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	<b>FRAME ONLY</b>							
	NLG3F600	3548.00	HLG3F600	4684.00	LLG3F600	7508.00		
	<b>COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER</b>						<b>TRIP UNIT ONLY</b>	
400	NLG3B400L	6276.00	HLG3B400L	7412.00	LLG3B400L	10236.00	CLT3B400	2512.00
500	NLG3B500L	6276.00	HLG3B500L	7412.00	LLG3B500L	10236.00	CLT3B500	2512.00
600	NLG3B600L	6276.00	HLG3B600L	7412.00	LLG3B600L	10236.00	CLT3B600	2512.00

**6**  
MOLDED CASE  
CIRCUIT BREAKERS

# VL Circuit Breakers

## LG 600A Electronic 3-Knob & LCD Trip Units

*Selection*

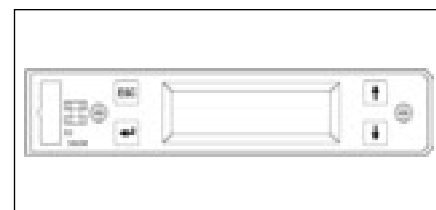


Model 545 Trip Unit

### LG 600A Frame 3-Pole Electronic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$		
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$				
	FRAME ONLY								TRIP UNIT ONLY	
	COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER									
	NLG3F600	3548.00	HLG3F600	4684.00	LLG3F600	7508.00				
<b>ELECTRONIC LI TRIP</b>										
400	NLG3N400L	6865.00	HLG3N400L	8001.00	LLG3N400L	10825.00	CLT3N400	3101.00		
600	NLG3N600L	6865.00	HLG3N600L	8001.00	LLG3N600L	10825.00	CLT3N600	3101.00		
<b>ELECTRONIC LSI TRIP</b>										
400	NLG3P400L	7200.00	HLG3P400L	8336.00	LLG3P400L	11160.00	CLT3P400	3436.00		
600	NLG3P600L	7200.00	HLG3P600L	8336.00	LLG3P600L	11160.00	CLT3P600	3436.00		
<b>ELECTRONIC LSIG TRIP</b>										
400	NLG3U400L	9128.00	HLG3U400L	10264.00	LLG3U400L	13088.00	CLT3U400	5364.00		
600	NLG3U600L	9128.00	HLG3U600L	10264.00	LLG3U600L	13088.00	CLT3U600	5364.00		
<b>ELECTRONIC LIG TRIP</b>										
400	NLG3X400L	8794.00	HLG3X400L	9930.00	LLG3X400L	12754.00	CLT3X400	5030.00		
600	NLG3X600L	8794.00	HLG3X600L	9930.00	LLG3X600L	12754.00	CLT3X600	5030.00		

**6**  
MOLDED CASE  
CIRCUIT BREAKERS



Model 576 Trip Unit

### LG 600A Frame 3-Pole Electronic LCD Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$		
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$				
	FRAME ONLY								TRIP UNIT ONLY	
	COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER									
	NLG3F600	3548.00	HLG3F600	4684.00	LLG3F600	7508.00				
<b>LCD ELECTRONIC LSI TRIP</b>										
400	NLG3D400L	7714.00	HLG3D400L	8850.00	LLG3D400L	11674.00	CLT3D400	3950.00		
600	NLG3D600L	7714.00	HLG3D600L	8850.00	LLG3D600L	11674.00	CLT3D600	3950.00		
<b>LCD ELECTRONIC LSIG TRIP</b>										
400	NLG3E400L	9643.00	HLG3E400L	10779.00	LLG3E400L	13603.00	CLT3E400	5879.00		
600	NLG3E600L	9643.00	HLG3E600L	10779.00	LLG3E600L	13603.00	CLT3E600	5879.00		

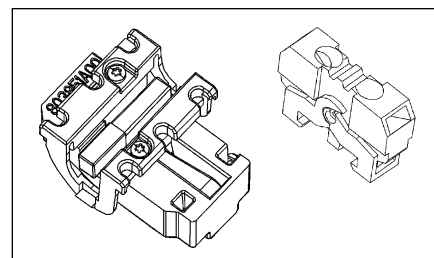
# VL Circuit Breakers

## Internal Accessories for JG 400A and LG 600A Frames

### Selection

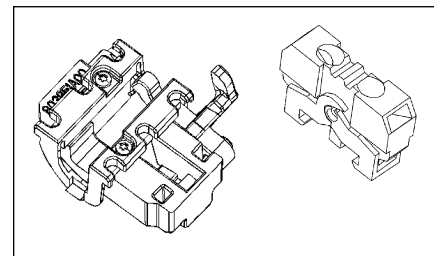
### Auxiliary Switch and Alarm Switch Combination Kits

Description	Mounting Pocket <sup>①</sup>	Catalog Number	List Price \$
1 Alarm Switch 1A/B <sup>②</sup> Bases AMBL2 & AMBL3	Left, Right <sup>②</sup>	ASKL1	265.00
2 Aux. Switches 1A + 1B Bases AMBL1	Left, Right, Neutral	ASKL2	265.00
2 Aux. + 1 Alarm Switches 1A + 1B, 1A/B <sup>②</sup> Bases AMBL2 & AMBL3	Left, Right <sup>②</sup>	ASKL3	530.00



### Auxiliary/Alarm Switch Mounting Base Only

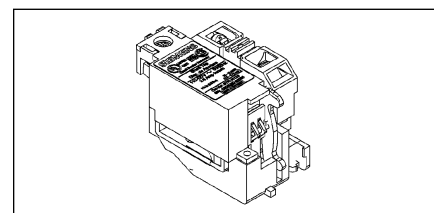
Description	Mounting Pocket	Catalog Number	List Price \$
Up to 3 Auxiliary Switches	Left, Right, Neutral	AMBL1	61.00
2 Aux. + 1 Alarm Switch	Left Pocket Only	AMBL2	61.00
2 Aux. + 1 Alarm Switch	Right Pocket Only	AMBL3	61.00



### Auxiliary/Alarm Switch Only

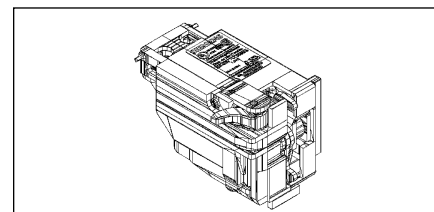
Common to DG - PG Frames

Description	Catalog Number	List Price \$
1 Normally Open Contact (1A)	ASWPA	108.00
1 Normally Closed Contact (1B)	ASWPB	108.00



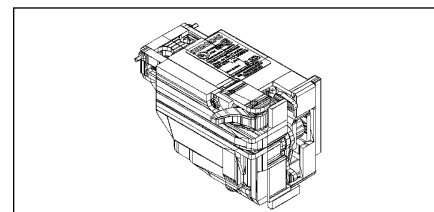
### Shunt Trips

Description	Mounting Pocket	Catalog Number	List Price \$
24 VDC	Right Pocket Only	STRLB24DC	594.00
48-60 VDC		STRLC60DC	594.00
110-127 VDC		STRLD125DC	594.00
220-250 VDC		STRLE250DC	594.00
48-60 VAC		STRLM60	594.00
110-127 VAC		STRLN120	594.00
208-277 VAC		STRLS277	594.00
380-600 VAC		STRLV600	594.00



### Undervoltage Release

Description	Mounting Pocket	Catalog Number	List Price \$
12 VDC	Right Pocket Only	UVRLA12DC	594.00
24 VDC		UVRLB24DC	594.00
48 VDC		UVRLC48DC	594.00
60 VDC		UVRLG60DC	594.00
110-127 VDC		UVRLD125DC	594.00
220-250 VDC		UVRLE250DC	594.00
110-127 VAC		UVRLN120	594.00
220-240 VAC		UVRLR240	594.00
208 VAC		UVRLP208	594.00
277 VAC		UVRLS277	594.00
380-415 VAC		UVRLT415	594.00
440-480 VAC		UVRLU480	594.00
600 VAC		UVRLV600	594.00



'A' refers to a normally open contact (open when the breaker contacts are open).

'B' refers to a normally closed contact (closed when the breaker contacts are open).

① Refer to the "Accessory Locations" chart for guidelines and limitations about which pockets may be used for accessory combinations.

② Includes 1A and 1B contact for alarm purposes, only one of which may be installed at any time.

External Accessories pages 6-125 through 6-139

# VL Circuit Breakers

## MG 800A Frame, VL Series

## Selection/Dimensions

### Ordering Information

#### Complete Assembled Breaker

Prices for a complete factory assembled MG breaker include the frame, trip unit, and standard line and load lugs, all factory installed and shipped as a complete breaker. Assembled breakers are available only with standard connectors.

For any other configuration, order the frame, trip unit, and terminals as separate items.

For DC applications, use thermal magnetic trip unit only.

For reverse feed applications, select non-interchangeable trip breakers only. For non-interchangeable trip breakers, change the third digit of the catalog number to "X" for standard breakers.

100% Rated: For 100% rated breakers (or frames) with an interchangeable trip unit, change the 3<sup>rd</sup> character of the catalog name to "H".

For 100% rated breakers with a non-interchangeable trip unit, change the 3<sup>rd</sup> character of the catalog number to "Y".

For 50°C and special applications, refer to page 6-144.A

Mounting hardware is included with each frame or complete breaker.

A Toggle Handle Extension is included with each frame or complete breaker.



Dimensions, inches (mm)

Number of Poles	Width	Length	Depth	To Handle D1
2, 3	7.5 (190)	16 (406)	4.5 (114)	5.9 (151)
4	10 (253)			

Shipping Weight, lbs. (kg)

Poles	Frame	Trip Unit	Complete Breaker
2, 3	31.3 (14.2)	4.0 (1.8)	35.3 (16.0)
4	40.2 (18.2)	5.0 (2.3)	45.2 (20.5)

Enclosures<sup>A</sup>

NEMA Class	Catalog Number	List Price \$
1	MG0801S	CSO
3R	MG0803R	CSO
Neutral	(future)	—

### Interrupting Ratings

Breaker Type	RMS Symmetrical Amperes (KA)										
	UL 489					IEC 60947-2					
	Volts AC (50/60 Hz)			Volts DC		Volts AC (50/60 Hz)					
	240	480	600	250	500	220/240		380/415		690	
						I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>
NMG	65	35	25	22	35	65	65	50	50	20	10
HMG	100	65	35	25	50	100	75	70	70	30	15
LMG	200	100	50	42	65	200	150	100	75	35	17

### Connectors for 75°C Wire

Construction	Ampere Rating	Wire Range	No. of cables per connector	Catalog Number	List Price \$
Aluminum <sup>①</sup>	200-800A	1/0-500 kcmil Al/Cu	3	3TA3MG500 <sup>②</sup>	202.00
Aluminum	200-800A	500-750 kcmil Al/Cu	2	3TA2MG750 <sup>②</sup>	364.00
Copper	200-800A	1/0-500 kcmil Cu	3	TC3MG500 <sup>③④</sup>	134.00
Aluminum	200-800A	#2-600 kcmil Al/Cu	3	3TA3MG600 <sup>②④</sup>	218.00
<b>Compression Lug Kit<sup>①</sup></b>					
	200-800A	1/0-500 kcmil Cu	—	9CLM500 <sup>①</sup>	1056.00

① Total of 9 connectors (3 per phase Line or Load).

② Kit consists of 3 terminal connectors.

③ Standard connector supplied with complete breakers.

④ Includes extended terminal cover.

⑤ Consists of one terminal.

⑥ For 100% rated applications.

### MG Thermal-Magnetic, Instantaneous Trip Adjustment Range

Trip Unit Continuous Amp Rating (I <sub>n</sub> )	Instantaneous Overcurrent Setting (I <sub>i</sub> )	
	Min.	Max.
600	3000	6000
700	3250	6500
800	3250	6500

Note: Each breaker has 6 trip settings.

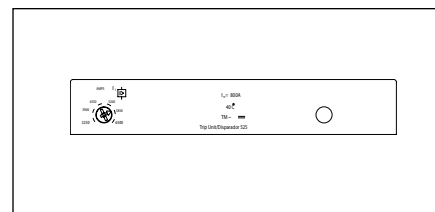
A - Consult with Siemens for availability.

External Accessories pages 6-125 through 6-139

# VL Circuit Breakers

## MG 800A Thermal-Magnetic Trip Unit

**Selection**



Model 525 Trip Unit

### MG 800A Frame 2-Pole with Thermal-Magnetic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
600	NMG2B600L	6456.00	HMG2B600L	8162.00	LMG2B600L	11192.00	CMT2B600	2686.00
700	NMG2B700L	6456.00	HMG2B700L	8162.00	LMG2B700L	11192.00	CMT2B700	2686.00
800	NMG2B800L	6456.00	HMG2B800L	8162.00	LMG2B800L	11192.00	CMT2B800	2686.00

### MG 800A Frame 3-Pole with Thermal-Magnetic Trip Unit

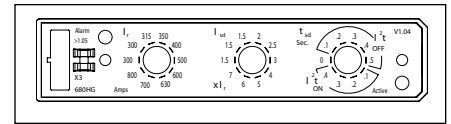
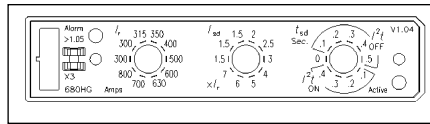
Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
600	NMG3B600L	7868.00	HMG3B600L	9596.00	LMG3B600L	12602.00	CMT3B600	3161.00
700	NMG3B700L	7868.00	HMG3B700L	9596.00	LMG3B700L	12602.00	CMT3B700	3161.00
800	NMG3B800L	7868.00	HMG3B800L	9596.00	LMG3B800L	12602.00	CMT3B800	3161.00

**6**  
MOLDED CASE  
CIRCUIT BREAKERS

# VL Circuit Breakers

## MG 800A Electronic 3-Knob & LCD Trip Units

Selection



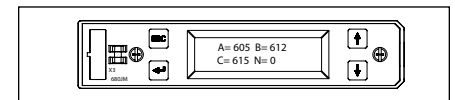
Model 545 Trip Units

### MG 800A Frame 3-Pole Electronic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	NMG3F800	4305.00	HMG3F800	6033.00	LMG3F800	9039.00		
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
ELECTRONIC LI TRIP								
600	NMG3N600L	8672.00	HMG3N600L	10400.00	LMG3N600L	13406.00	CMT3N600	3965.00
800	NMG3N800L	8672.00	HMG3N800L	10400.00	LMG3N800L	13406.00	CMT3N800	3965.00
ELECTRONIC LSI TRIP								
600	NMG3P600L	9006.00	HMG3P600L	10734.00	LMG3P600L	13740.00	CMT3P600	4299.00
800	NMG3P800L	9006.00	HMG3P800L	10734.00	LMG3P800L	13740.00	CMT3P800	4299.00
ELECTRONIC LSIG TRIP								
600	NMG3U600L	10935.00	HMG3U600L	12663.00	LMG3U600L	15669.00	CMT3U600	6228.00
800	NMG3U800L	10935.00	HMG3U800L	12663.00	LMG3U800L	15669.00	CMT3U800	6228.00
ELECTRONIC LIG TRIP								
600	NMG3X600L	10602.00	HMG3X600L	12330.00	LMG3X600L	15336.00	CMT3X600	5895.00
800	NMG3X800L	10602.00	HMG3X800L	12330.00	LMG3X800L	15336.00	CMT3X800	5895.00

### MG 800A Frame 4-Pole Electronic Trip Unit<sup>A</sup>

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	NMG4F800	5597.00	HMG4F800	7844.00	LMG4F800	11753.00		
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
ELECTRONIC LI TRIP								
600	NMG4N600L	11289.00	HMG4N600L	13536.00	LMG4N600L	17445.00	CMT4N600	5156.00
800	NMG4N800L	11289.00	HMG4N800L	13536.00	LMG4N800L	17445.00	CMT4N800	5156.00
ELECTRONIC LSI TRIP								
600	NMG4P600L	11722.00	HMG4P600L	13969.00	LMG4P600L	17878.00	CMT4P600	5589.00
800	NMG4P800L	11722.00	HMG4P800L	13969.00	LMG4P800L	17878.00	CMT4P800	5589.00
ELECTRONIC LSIG TRIP								
600	NMG4U600L	14230.00	HMG4U600L	16477.00	LMG4U600L	20386.00	CMT4U600	8097.00
800	NMG4U800L	14230.00	HMG4U800L	16477.00	LMG4U800L	20386.00	CMT4U800	8097.00
ELECTRONIC LIG TRIP								
600	NMG4X600L	13796.00	HMG4X600L	16043.00	LMG4X600L	19952.00	CMT4X600	7663.00
800	NMG4X800L	13796.00	HMG4X800L	16043.00	LMG4X800L	19952.00	CMT4X800	7663.00



Model 576 Trip Unit

### MG 800A Frame 3-Pole Electronic LCD Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	NMG3F800	4305.00	HMG3F800	6033.00	LMG3F800	9039.00		
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
LCD ELECTRONIC LSI TRIP								
600	NMG3D600L	9650.00	HMG3D600L	11378.00	LMG3D600L	14384.00	CMT3D600	4943.00
800	NMG3D800L	9650.00	HMG3D800L	11378.00	LMG3D800L	14384.00	CMT3D800	4943.00
LCD ELECTRONIC LSIG TRIP								
600	NMG3E600L	11581.00	HMG3E600L	13309.00	LMG3E600L	16315.00	CMT3E600	6874.00
800	NMG3E800L	11581.00	HMG3E800L	13309.00	LMG3E800L	16315.00	CMT3E800	6874.00

A - Consult with Siemens for availability.

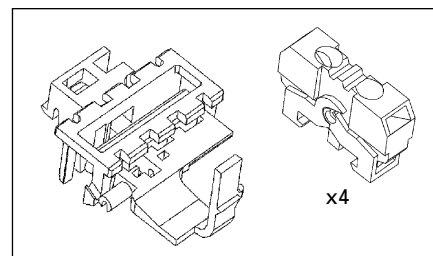
# VL Circuit Breakers

## Internal Accessories for MG 800A, NG 1200A and PG 1600A Frames

**Selection**

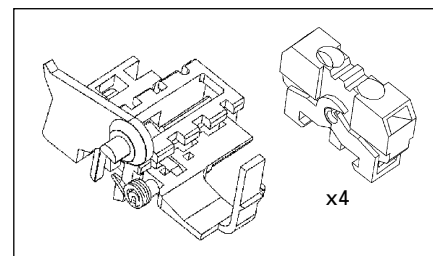
### Auxiliary Switch and Alarm Switch Combination Kits

Description	Mounting Pocket <sup>①</sup>	Catalog Number	List Price \$
2 Aux. + 2 Alarm Switches 2A + 2B Bases AMBP2	Left Pocket Only	ASKP3	530.00
4 Aux. Switches 2A + 2B Bases AMBP1	Left, Right, Neutral	ASKP4	495.00



### Auxiliary/Alarm Switch Mounting Base Only

Description	Mounting Pocket	Catalog Number	List Price \$
Up to 4 Auxiliary Switches	Left, Right, Neutral	AMBP1	83.00
2 Aux. + 2 Alarm Switches	Left Pocket Only	AMBP2	83.00



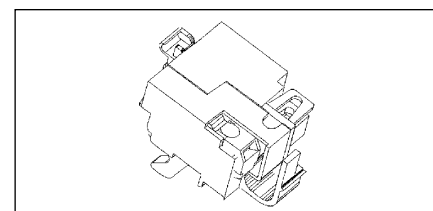
### Auxiliary/Alarm Switch Only

Common to DG - PG Frames

Description	Catalog Number	List Price \$
1 Normally Open Contact (1A)	ASWPA	108.00
1 Normally Closed Contact (1B)	ASWPB	108.00

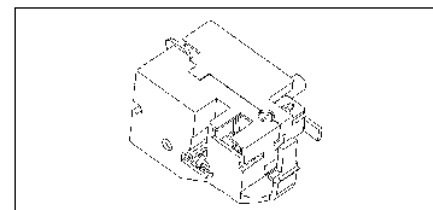
### Shunt Trips

Description	Mounting Pocket	Catalog Number	List Price \$
24 VDC	Right Pocket Only	STRPB24DC	654.00
48-60 VDC		STRPC60DC	654.00
110-127 VDC		STRPD125DC	654.00
220-250 VDC		STRPE250DC	654.00
48-60 VAC		STRPM60	654.00
110-127 VAC		STRPN120	654.00
208-277 VAC		STRPS277	654.00
380-600 VAC		STRPV600	654.00



### Undervoltage Release

Description	Mounting Pocket	Catalog Number	List Price \$
12 VDC	Right Pocket Only	UVRPA12DC	654.00
24 VDC		UVRPB24DC	654.00
48 VDC		UVRPC48DC	654.00
60 VDC		UVRPG60DC	654.00
110-127 VDC		UVRPD125DC	654.00
220-250 VDC		UVRPE250DC	654.00
110-127 VAC		UVRPN120	654.00
220-240 VAC		UVRPR240	654.00
208 VAC		UVRPP208	654.00
277 VAC		UVRPS277	654.00
380-415 VAC		UVRPT415	654.00
440-480 VAC		UVRPU480	654.00
600 VAC		UVRPV600	654.00



'A' refers to a normally open contact (open when the breaker contacts are open).

'B' refers to a normally closed contact (closed when the breaker contacts are open).

① Refer to the "Accessory Locations" chart for guidelines and limitations about which pockets may be used for accessory combinations.

**6**  
MOLDED CASE  
CIRCUIT BREAKERS

External Accessories pages 6-125 through 6-139



# VL Circuit Breakers

## NG 1200A Frame, VL Series

## Selection/Dimensions

### Ordering Information

#### Complete Assembled Breaker with Lugs

Prices for a complete factory assembled NG breaker include the frame, trip unit, and standard line and load lugs, all factory installed and shipped as a complete breaker. Assembled breakers are available only with standard connectors.

For any other configuration, order the frame, trip unit, and terminals as separate items.

For DC applications, use thermal magnetic trip unit only.

For reverse feed applications, select non-interchangeable trip breakers only. For non-interchangeable trip breakers, change the third digit of the catalog number to "X" for standard breakers.

100% Rated: For 100% rated breakers (or frames) with an interchangeable trip unit, change the 3<sup>rd</sup> character of the catalog name to "H".

For 100% rated breakers with a non-interchangeable trip unit, change the 3<sup>rd</sup> character of the catalog number to "Y".

For 50°C and special applications, refer to page 6-144.A

Mounting hardware is included with each frame or complete breaker.

A Toggle Handle Extension is included with each frame or complete breaker.



### Dimensions, inches (mm)

Number of Poles	W	L	D	To Handle D1
2, 3 4	9 (229) 12 (305)	16 (406)	6 (152)	8.1 (207)

### Shipping Weight, lbs. (kg)

Poles	Frame	Trip Unit	Complete Breaker
2, 3 4	46.3 (21.0) 60.6 (27.5)	8.8 (4.0) 13.2 (6.0)	55.1 (25.0) 73.8 (33.5)

### Enclosures<sup>A</sup>

Type	Catalog Number	List Price \$
1	NG1201S	CSO
3R	NG1203R	CSO
12	NG12012	CSO
Neutral	(future)	—

### Interrupting Ratings

Breaker Type	RMS Symmetrical Amperes (KA)										
	UL 489					IEC 60947-2					
	Volts AC (50/60 Hz)			Volts DC		Volts AC (50/60 Hz)					
	240	480	600	250	500	220/240		380/415		690	
NNG	65	35	25	22	35	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>
HNG	100	65	35	25	50	100	50	70	35	30	15
LNG	200	100	65	42	65	200	100	100	50	35	17

### Connectors for 75°C Wire

Construction	Ampere Rating	Wire Range	No. of cables per connector	Catalog Number	List Price \$
Aluminum	300-1200A	1/0-500 kcmil Al/Cu	4	3TA4NG500 <sup>③④</sup>	291.00
Aluminum	300-1200A	500-750 kcmil Al/Cu	3	3TA3NG750 <sup>②</sup>	832.00
Copper	300-1200A	1/0-500 kcmil Cu <sup>②</sup>	4	3TC4NG500 <sup>②</sup>	832.00
Aluminum	300-1200A	1/0-500 kcmil Al/Cu	4	3TA4NG500H <sup>④</sup>	875.00
<b>Compression Lug Kit<sup>①</sup></b>					
	300-1200A	1/0-500 kcmil Al/Cu	—	12CLN500	1393.00

① Total of 12 connectors (4 per phase Line or Load).

② 90 °C for 100% rated breakers.

③ Standard connector provided with complete breakers.

④ Kit consists of 3 terminal connectors.

### NG Thermal-Magnetic, Instantaneous Trip Adjustment Range

Trip Unit Continuous Amp Rating (I <sub>n</sub> )	Instantaneous Overcurrent Setting (I <sub>b</sub> )	
	Min.	Max.
800	4000	8000
900	5000	10000
1000	5000	10000
1200	7000	12000

Note: Each breaker has 6 trip settings.

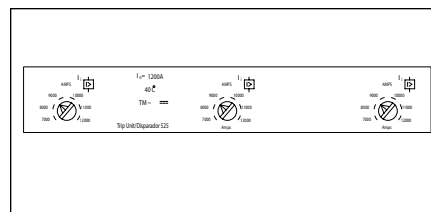
A - Consult with Siemens for availability.

External Accessories pages 6-125 through 6-139

# VL Circuit Breakers

## NG 1200A Thermal-Magnetic Trip Unit

**Selection**



Model 525 Trip Unit

### NG 1200A Frame 2-Pole with Thermal-Magnetic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$		
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$				
	FRAME ONLY								TRIP UNIT ONLY	
	COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER									
	NNG2F120	5135.00	HNG2F120	6853.00	LNG2F120	10000.00				
800	NNG2B800L	10945.00	HNG2B800L	12663.00	LNG2B800L	15810.00	CNT2B800	5418.00		
900	NNG2B900L	10945.00	HNG2B900L	12663.00	LNG2B900L	15810.00	CNT2B900	5418.00		
1000	NNG2B100L	10945.00	HNG2B100L	12663.00	LNG2B100L	15810.00	CNT2B100	5418.00		
1200	NNG2B120L	10945.00	HNG2B120L	12663.00	LNG2B120L	15810.00	CNT2B120	5418.00		

### NG 1200A Frame 3-Pole with Thermal-Magnetic Trip Unit

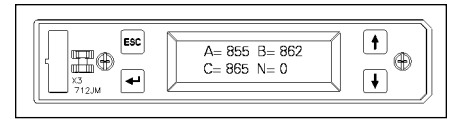
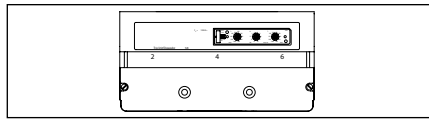
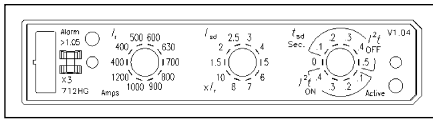
Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$		
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$				
	FRAME ONLY								TRIP UNIT ONLY	
	COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER									
	NNG3F120	6321.00	HNG3F120	7937.00	LNG3F120	10960.00				
800	NNG3B800L	13284.00	HNG3B800L	14900.00	LNG3B800L	17923.00	CNT3B800	6375.00		
900	NNG3B900L	13284.00	HNG3B900L	14900.00	LNG3B900L	17923.00	CNT3B900	6375.00		
1000	NNG3B100L	13284.00	HNG3B100L	14900.00	LNG3B100L	17923.00	CNT3B100	6375.00		
1200	NNG3B120L	13284.00	HNG3B120L	14900.00	LNG3B120L	17923.00	CNT3B120	6375.00		

**6**  
MOLDED CASE  
CIRCUIT BREAKERS

# VL Circuit Breakers

## NG 1200A Electronic 3-Knob & LCD Trip Units

**Selection**



Model 545 Trip Units

Model 576 Trip Unit

### NG 1200A Frame 3-Pole Electronic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
NNG3F120		6321.00	HNG3F120		7937.00	LNG3F120		10960.00
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
ELECTRONIC LI TRIP								
800	NNG3N800L	14651.00	HNG3N800L	16267.00	LNG3N800L	19290.00	CNT3N800	7742.00
1000	NNG3N100L	14651.00	HNG3N100L	16267.00	LNG3N100L	19290.00	CNT3N100	7742.00
1200	NNG3N120L	14651.00	HNG3N120L	16267.00	LNG3N120L	19290.00	CNT3N120	7742.00
ELECTRONIC LSI TRIP								
800	NNG3P800L	14985.00	HNG3P800L	16601.00	LNG3P800L	19624.00	CNT3P800	8076.00
1000	NNG3P100L	14985.00	HNG3P100L	16601.00	LNG3P100L	19624.00	CNT3P100	8076.00
1200	NNG3P120L	14985.00	HNG3P120L	16601.00	LNG3P120L	19624.00	CNT3P120	8076.00
ELECTRONIC LSIG TRIP								
800	NNG3U800L	16914.00	HNG3U800L	18530.00	LNG3U800L	21553.00	CNT3U800	10005.00
1000	NNG3U100L	16914.00	HNG3U100L	18530.00	LNG3U100L	21553.00	CNT3U100	10005.00
1200	NNG3U120L	16914.00	HNG3U120L	18530.00	LNG3U120L	21553.00	CNT3U120	10005.00
ELECTRONIC LIG TRIP								
800	NNG3X800L	16581.00	HNG3X800L	18197.00	LNG3X800L	21220.00	CNT3X800	9672.00
1000	NNG3X100L	16581.00	HNG3X100L	18197.00	LNG3X100L	21220.00	CNT3X100	9672.00
1200	NNG3X120L	16581.00	HNG3X120L	18197.00	LNG3X120L	21220.00	CNT3X120	9672.00

### NG 1200A Frame 4-Pole Electronic Trip Unit<sup>A</sup>

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
NNG4F120		8218.00	HNG4F120		10319.00	LNG4F120		14249.00
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
ELECTRONIC LI TRIP								
800	NNG4N800L	19066.00	HNG4N800L	21167.00	LNG4N800L	25097.00	CNT4N800	10064.00
1000	NNG4N100L	19066.00	HNG4N100L	21167.00	LNG4N100L	25097.00	CNT4N100	10064.00
1200	NNG4N120L	19066.00	HNG4N120L	21167.00	LNG4N120L	25097.00	CNT4N120	10064.00
ELECTRONIC LSI TRIP								
800	NNG4P800L	19501.00	HNG4P800L	21602.00	LNG4P800L	25532.00	CNT4P800	10499.00
1000	NNG4P100L	19501.00	HNG4P100L	21602.00	LNG4P100L	25532.00	CNT4P100	10499.00
1200	NNG4P120L	19501.00	HNG4P120L	21602.00	LNG4P120L	25532.00	CNT4P120	10499.00
ELECTRONIC LSIG TRIP								
800	NNG4U800L	22009.00	HNG4U800L	24110.00	LNG4U800L	28040.00	CNT4U800	13007.00
1000	NNG4U100L	22009.00	HNG4U100L	24110.00	LNG4U100L	28040.00	CNT4U100	13007.00
1200	NNG4U120L	22009.00	HNG4U120L	24110.00	LNG4U120L	28040.00	CNT4U120	13007.00
ELECTRONIC LIG TRIP								
800	NNG4X800L	21576.00	HNG4X800L	23677.00	LNG4X800L	27607.00	CNT4X800	12574.00
1000	NNG4X100L	21576.00	HNG4X100L	23677.00	LNG4X100L	27607.00	CNT4X100	12574.00
1200	NNG4X120L	21576.00	HNG4X120L	23677.00	LNG4X120L	27607.00	CNT4X120	12574.00

### NG 1200A Frame 3-Pole Electronic LCD Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
NNG3F120		6321.00	HNG3F120		7937.00	LNG3F120		10960.00
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
LCD ELECTRONIC LSI TRIP								
800	NNG3D800L	16196.00	HNG3D800L	17812.00	LNG3D800L	20835.00	CNT3D800	9287.00
1000	NNG3D100L	16196.00	HNG3D100L	17812.00	LNG3D100L	20835.00	CNT3D100	9287.00
1200	NNG3D120L	16196.00	HNG3D120L	17812.00	LNG3D120L	20835.00	CNT3D120	9287.00
LCD ELECTRONIC LSIG 4-W TRIP								
800	NNG3E800L	18125.00	HNG3E800L	19741.00	LNG3E800L	22764.00	CNT3E800	11216.00
1000	NNG3E100L	18125.00	HNG3E100L	19741.00	LNG3E100L	22764.00	CNT3E100	11216.00
1200	NNG3E120L	18125.00	HNG3E120L	19741.00	LNG3E120L	22764.00	CNT3E120	11216.00

A - Consult with Siemens for availability.

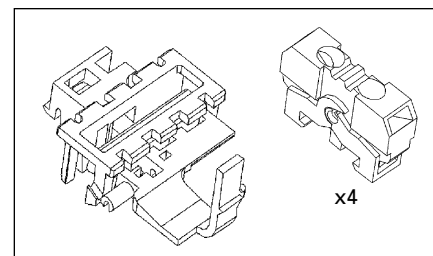
# VL Circuit Breakers

## Internal Accessories for MG 800A, NG 1200A, and PG 1600A Frames

**Selection**

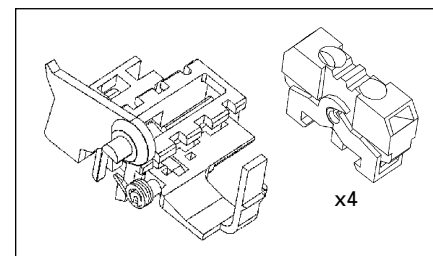
### Auxiliary Switch and Alarm Switch Combination Kits

Description	Mounting Pocket <sup>①</sup>	Catalog Number	List Price \$
2 Aux. + 2 Alarm Switches 2A + 2B Base AMBP2	Left Pocket Only	<b>ASKP3</b>	<b>530.00</b>
4 Aux. Switches 2A + 2B Base AMBP1	Left, Right, Neutral	<b>ASKP4</b>	<b>495.00</b>



### Auxiliary/Alarm Switch Mounting Base Only

Description	Mounting Pocket <sup>①</sup>	Catalog Number	List Price \$
Up to 4 Auxiliary Switches	Left, Right, Neutral	<b>AMBP1</b>	<b>83.00</b>
2 Aux. + 2 Alarm Switches	Left Pocket Only	<b>AMBP2</b>	<b>83.00</b>



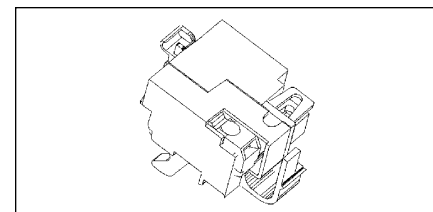
### Auxiliary/Alarm Switch Only

Common to DG-PG Frames

Description	Catalog Number	List Price \$
1 Normally Open Contact (1A)	<b>ASWPA</b>	<b>108.00</b>
1 Normally Closed Contact (1B)	<b>ASWPB</b>	<b>108.00</b>

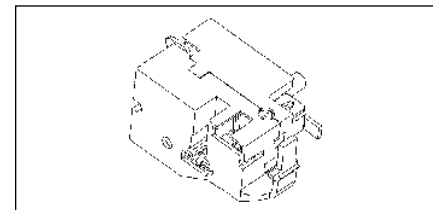
### Shunt Trips

Description	Mounting Pocket	Catalog Number	List Price \$
24 VDC	Right Pocket Only	<b>STRPB24DC</b>	<b>654.00</b>
48-60 VDC		<b>STRPC60DC</b>	<b>654.00</b>
110-127 VDC		<b>STRPD125DC</b>	<b>654.00</b>
220-250 VDC		<b>STRPE250DC</b>	<b>654.00</b>
48-60 VAC		<b>STRPM60</b>	<b>654.00</b>
110-127 VAC		<b>STRPN120</b>	<b>654.00</b>
208-277 VAC		<b>STRPS277</b>	<b>654.00</b>
380-600 VAC		<b>STRPV600</b>	<b>654.00</b>



### Undervoltage Release

Description	Mounting Pocket	Catalog Number	List Price \$
12 VDC	Right Pocket Only	<b>UVRPA12DC</b>	<b>654.00</b>
24 VDC		<b>UVRPB24DC</b>	<b>654.00</b>
48 VDC		<b>UVRPC48DC</b>	<b>654.00</b>
60 VDC		<b>UVRPG60DC</b>	<b>654.00</b>
110-127 VDC		<b>UVRPD125DC</b>	<b>654.00</b>
220-250 VDC		<b>UVRPE250DC</b>	<b>654.00</b>
110-127 VAC		<b>UVRPN120</b>	<b>654.00</b>
220-240 VAC		<b>UVRPR240</b>	<b>654.00</b>
208 VAC		<b>UVRPP208</b>	<b>654.00</b>
277 VAC		<b>UVRPS277</b>	<b>654.00</b>
380-415 VAC		<b>UVRPT415</b>	<b>654.00</b>
440-480 VAC		<b>UVRPU480</b>	<b>654.00</b>
600 VAC		<b>UVRPV600</b>	<b>654.00</b>



'A' refers to a normally open contact (open when the breaker contacts are open).

'B' refers to a normally closed contact (closed when the breaker contacts are open).

① Refer to the "Accessory Locations" chart for guidelines and limitations about which pockets may be used for accessory combinations.

# VL Circuit Breakers

## PG 1600A Frame, VL Series & Thermal-Magnetic Trip Unit

### Selection/Dimensions

#### Ordering Information

Prices for a complete factory assembled PG breaker include the frame and trip unit only. The connectors must be ordered as separate items.

For any other configuration, order the frame, trip unit, and connectors as separate items.

Connectors require a Breaker Lug Mounting Assembly or Breaker Mounting Base and must be ordered as a separate item.

For DC applications, use Thermal magnetic trip unit only.

For reverse feed applications select non-interchangeable trip breakers only. Change the third digit of the catalog number to "X" for non-interchangeable trip breakers.

100% Rated: For 100% rated breakers (or frames) with an interchangeable trip unit, change the 3<sup>rd</sup> character of the catalog name to "H".

For 100% rated breakers with a non-interchangeable trip unit, change the 3<sup>rd</sup> character of the catalog number to "Y".

For 50°C and special applications, refer to page 6-144.A

Mounting hardware is included with each frame or complete breaker.

A Toggle Handle Extension is included with each frame or complete breaker.



#### Dimensions, inches (mm)

Number of Poles	W	L	D	To Handle D1
2, 3 4	9 (229) 12 (305)	16 (406)	6 (152)	8.1 (207)

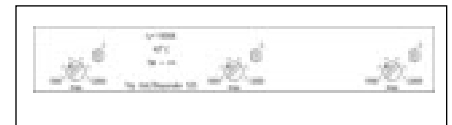
#### Shipping Weight, lbs. (kg)

Poles	Frame	Trip Unit	Complete Breaker
2, 3	60.2 (27.3)	8.8 (4.0)	69.0 (31.3)
4	76.7 (34.8)	13.2 (6.0)	89.9 (40.8)

#### PG Thermal-Magnetic, Instantaneous Trip Adjustment Range

Trip Unit Continuous Amp Rating (I <sub>n</sub> )	Instantaneous Overcurrent Setting (I <sub>t</sub> )	
	Min.	Max.
1200	7000	12000
1400	7000	12000
1600	7000	12000

Note: Each breaker has 6 trip settings in this range.



Model 525 Trip Unit

#### Interrupting Ratings

Breaker Type	RMS Symmetrical Amperes (KA)										
	UL 489					IEC 60947-2					
	Volts AC (50/60 Hz)			Volts DC		Volts AC (50/60 Hz)					
	240	480	600	250	500	220/240		380/415		690	
					I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>	I <sub>CU</sub>	I <sub>CS</sub>	
NPG	65	35	25	22	35	65	35	50	25	20	10
HPG	100	65	35	25	50	100	50	70	35	30	15
LPG	200	100	65	42	65	200	100	100	50	35	17

#### Connectors for 75°C Wire

Construction	Ampere Rating	Wire Range	No. of cables per phase	Catalog Number	List Price \$
Aluminum	1200-1600A	1/0-750 kcmil Al/Cu	6	3TA6PG750 <sup>①③④</sup>	940.00
Copper	1200-1600A	1/0-750 kcmil Cu	6	3TC6PG750 (future) <sup>①③</sup>	1342.00
Aluminum	1200-1600A	300-600 kcmil	5	TA5P600 <sup>②④</sup>	320.00
Aluminum	1200-1600A	600-750 kcmil	4	TA4P750 <sup>②④</sup>	254.00
Aluminum	1200-1600A	300-600 kcmil	6	TA6R600 <sup>②④</sup>	338.00
Copper	1200-1600A	300-600 kcmil	5	TC5R600 <sup>②④⑤</sup>	426.00

① Requires Lug Mounting Assembly LMAP1600.

② Requires Breaker Mounting Base MBPG1600 Kit or MBPG1601.

③ Consists of 3 connectors.

④ Consists of 1 connector.

⑤ For 100% rated applications, 90°C.

⑥ Standard connector provided with complete breaker.

#### Mounting Arrangement

Description	Catalog Number	List Price \$
Lug Mounting Assembly	LMAP1600	968.00
Breaker Mounting Base (Front Connect)	MBPG1600	1153.00
Breaker Mounting Base (Rear Connect)	MBPG1601	1153.00

#### PG 1600A Frame 3-Pole with Thermal-Magnetic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
	NPG3F160	8983.00	HPG3F160	9944.00	LPG3F160	12158.00		
	COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER							
1200	NPG3B120	17276.00	HPG3B120	18237.00	LPG3B120	20451.00	CPT3B120	8293.00
1400	NPG3B140	17276.00	HPG3B140	18237.00	LPG3B140	20451.00	CPT3B140	8293.00
1600	NPG3B160	17276.00	HPG3B160	18237.00	LPG3B160	20451.00	CPT3B160	8293.00

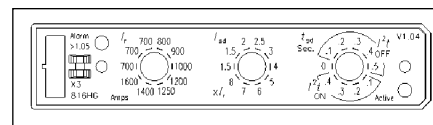
A - Consult with Siemens for availability.

External Accessories pages 6-125 through 6-139

# VL Circuit Breakers

## PG 1600A Electronic 3-Knob & LCD Trip Units

**Selection**



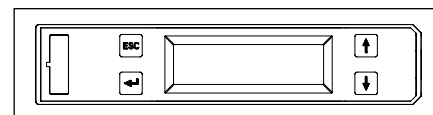
Model 545 Trip Unit

### PG 1600A Frame 3-Pole Electronic Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
NPG3F160	8983.00	HPG3F160	9944.00	LPG3F160	12158.00			
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
ELECTRONIC LI TRIP								
1200	NPG3N120	18743.00	HPG3N120	19704.00	LPG3N120	21918.00	CPT3N120	9760.00
1600	NPG3N160	18743.00	HPG3N160	19704.00	LPG3N160	21918.00	CPT3N160	9760.00
ELECTRONIC LSI TRIP								
1200	NPG3P120	19077.00	HPG3P120	20038.00	LPG3P120	22252.00	CPT3P120	10094.00
1600	NPG3P160	19077.00	HPG3P160	20038.00	LPG3P160	22252.00	CPT3P160	10094.00
ELECTRONIC LSIG TRIP								
1200	NPG3U120	21006.00	HPG3U120	21967.00	LPG3U120	24181.00	CPT3U120	12023.00
1600	NPG3U160	21006.00	HPG3U160	21967.00	LPG3U160	24181.00	CPT3U160	12023.00
ELECTRONIC LIG TRIP								
1200	NPG3X120	20672.00	HPG3X120	21633.00	LPG3X120	23847.00	CPT3X120	11689.00
1600	NPG3X160	20672.00	HPG3X160	21633.00	LPG3X160	23847.00	CPT3X160	11689.00

### PG 1600A Frame 4-Pole Electronic Trip Unit<sup>A</sup>

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
NPG4F160	11678.00	HPG4F160	12927.00	LPG4F160	15806.00			
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
ELECTRONIC LI TRIP								
1200	NPG4N120	24367.00	HPG4N120	25616.00	LPG4N120	28495.00	CPT4N120	12689.00
1600	NPG4N160	24367.00	HPG4N160	25616.00	LPG4N160	28495.00	CPT4N160	12689.00
ELECTRONIC LSI TRIP								
1200	NPG4P120	24800.00	HPG4P120	26049.00	LPG4P120	28928.00	CPT4P120	13122.00
1600	NPG4P160	24800.00	HPG4P160	26049.00	LPG4P160	28928.00	CPT4P160	13122.00
ELECTRONIC LSIG TRIP								
1200	NPG4U120	27308.00	HPG4U120	28557.00	LPG4U120	31436.00	CPT4U120	15630.00
1600	NPG4U160	27308.00	HPG4U160	28557.00	LPG4U160	31436.00	CPT4U160	15630.00
ELECTRONIC LIG TRIP								
1200	NPG4X120	26874.00	HPG4X120	28123.00	LPG4X120	31002.00	CPT4X120	15196.00
1600	NPG4X160	26874.00	HPG4X160	28123.00	LPG4X160	31002.00	CPT4X160	15196.00



Model 576 Trip Unit

### PG 1600A Frame 3-Pole Electronic LCD Trip Unit

Continuous Ampere Rating	N-Interrupting Class		H-Interrupting Class		L-Interrupting Class		Catalog Number	List Price \$
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
	FRAME ONLY							
NPG3F160	8983.00	HPG3F160	9944.00	LPG3F160	12158.00			
COMPLETE FACTORY ASSEMBLED CIRCUIT BREAKER								
LCD ELECTRONIC LSI TRIP								
1200	NPG3D120	20591.00	HPG3D120	21552.00	LPG3D120	23766.00	CPT3D120	11608.00
1600	NPG3D160	20591.00	HPG3D160	21552.00	LPG3D160	23766.00	CPT3D160	11608.00
LCD ELECTRONIC LSIG TRIP								
1200	NPG3E120	22520.00	HPG3E120	23481.00	LPG3E120	25695.00	CPT3E120	13537.00
1600	NPG3E160	22520.00	HPG3E160	23481.00	LPG3E160	25695.00	CPT3E160	13537.00

A - Consult with Siemens for availability.

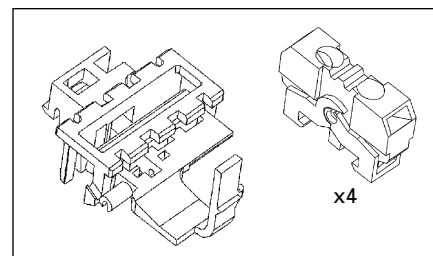
# VL Circuit Breakers

## Internal Accessories for MG 800A, NG 1200A, and PG 1600A Frames

**Selection**

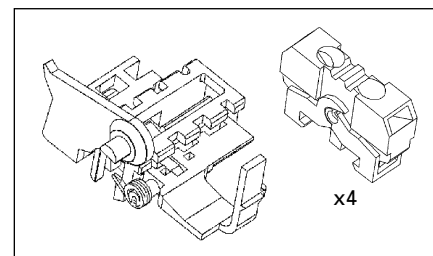
### Auxiliary Switch and Alarm Switch Combination Kits

Description	Mounting Pocket <sup>①</sup>	Catalog Number	List Price \$
2 Aux. + 2 Alarm Switches 2A + 2B Base AMBP2	Left Pocket Only	<b>ASKP3</b>	<b>530.00</b>
4 Aux. Switches 2A + 2B Base AMBP1	Left, Right, Neutral	<b>ASKP4</b>	<b>495.00</b>



### Auxiliary/Alarm Switch Mounting Base Only

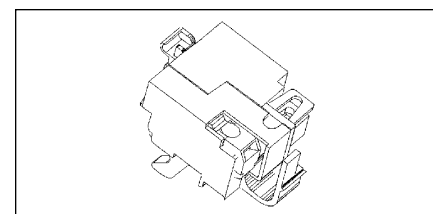
Description	Mounting Pocket <sup>①</sup>	Catalog Number	List Price \$
Up to 4 Auxiliary Switches	Left, Right, Neutral	<b>AMBP1</b>	<b>83.00</b>
2 Aux. + 2 Alarm Switches	Left Pocket Only	<b>AMBP2</b>	<b>83.00</b>



### Auxiliary/Alarm Switch Only

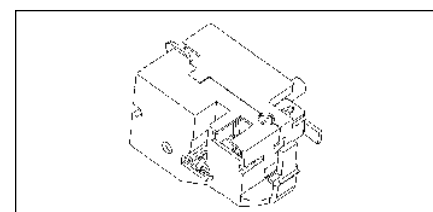
Common to DG-PG Frames

Description	Catalog Number	List Price \$
1 Normally Open Contact (1A)	<b>ASWPA</b>	<b>108.00</b>
1 Normally Closed Contact (1B)	<b>ASWPB</b>	<b>108.00</b>



### Shunt Trips

Description	Mounting Pocket	Catalog Number	List Price \$
24 VDC	Right Pocket Only	<b>STRPB24DC</b>	<b>654.00</b>
48-60 VDC		<b>STRPC60DC</b>	<b>654.00</b>
110-127 VDC		<b>STRPD125DC</b>	<b>654.00</b>
220-250 VDC		<b>STRPE250DC</b>	<b>654.00</b>
48-60 VAC		<b>STRPM60</b>	<b>654.00</b>
110-127 VAC		<b>STRPN120</b>	<b>654.00</b>
208-277 VAC		<b>STRPS277</b>	<b>654.00</b>
380-600 VAC		<b>STRPV600</b>	<b>654.00</b>



### Undervoltage Release

Description	Mounting Pocket	Catalog Number	List Price \$
12 VDC	Right Pocket Only	<b>UVRPA12DC</b>	<b>654.00</b>
24 VDC		<b>UVRPB24DC</b>	<b>654.00</b>
48 VDC		<b>UVRPC48DC</b>	<b>654.00</b>
60 VDC		<b>UVRPG60DC</b>	<b>654.00</b>
110-127 VDC		<b>UVRPD125DC</b>	<b>654.00</b>
220-250 VDC		<b>UVRPE250DC</b>	<b>654.00</b>
110-127 VAC		<b>UVRPN120</b>	<b>654.00</b>
220-240 VAC		<b>UVRPR240</b>	<b>654.00</b>
208 VAC		<b>UVRPP208</b>	<b>654.00</b>
277 VAC		<b>UVRPS277</b>	<b>654.00</b>
380-415 VAC		<b>UVRPT415</b>	<b>654.00</b>
440-480 VAC		<b>UVRPU480</b>	<b>654.00</b>
600 VAC		<b>UVRPV600</b>	<b>654.00</b>



'A' refers to a normally open contact (open when the breaker contacts are open).

'B' refers to a normally closed contact (closed when the breaker contacts are open).

① Refer to the "Accessory Locations" chart for guidelines and limitations about which pockets may be used for accessory combinations.

External Accessories pages 6-125 through 6-139

# Molded Case Circuit Breakers

## Molded Case Switch

## Selection

### General

Typically a molded case switch is used when a compact load-break switch is needed for disconnect purposes. The VL line of molded case switches from Siemens is made of the same materials and components as the VL circuit breakers but do not provide overcurrent protection. Each molded case

switch has a fixed instantaneous self-protecting trip element which may open the switch under high fault conditions.

### Application Note

Overcurrent protection must be provided by an appropriate overcurrent protective device located upstream from

the molded case switch. Also, the short-circuit current rating of the switch is limited to the interrupting rating of the upstream protective device or the ratings in the table below, **whichever is less.**

### Ordering Information

Each type VL molded case switch accepts the same terminals and accessories as the equivalent VL circuit breakers.

All type VL molded case switches are suitable for reverse feed applications.

Mounting hardware and standard line and load terminals are included on ratings through 250A. For 400 – 1600A ratings, order the lugs separately.

All ratings are UL listed and CSA certified.

## Molded Case Switch

Maximum Ampere Rating / Frame	Catalog Number	List Price \$	Catalog Number	List Price \$	Short-Circuit Current Rating*			Self Protective Instantaneous Override
					240V	480V	600V	
150A / DG 250A / FG	HDS2S150L HFS2S250L	1362.00 1618.00	HDS3S150L HFS3S250L	1447.00 1998.00	100k 100k	65k 65k	20k 35k	2,500A 3,500A
400A / JG 600A / LG	HJS2S400 HLS2S600	2840.00 3973.00	HJS3S400 HLS3S600	3357.00 4970.00	100k 100k	65k 65k	35k 35k	4,400A 5,500A
800A / MG 1200A / NG	HMS2S800 HNS2S120	4811.00 9172.00	HMS3S800 HNS3S120	5843.00 10002.00	100k 100k	65k 65k	35k 35k	6,500A 12,000A
1600A / PG	—	—	HPS3S160	18017.00	100k	65k	35k	12,000A

Maximum Ampere Rating / Frame	Catalog Number	List Price \$	Short-Circuit Current Rating*			Self Protective Instantaneous Override
			240V	480V	600V	
250A / FG	LFS3S250L	2498.00	200k	100k	25k	3,500A
400A / JG 600A / LG	LJS3S400 LLS3S600	4028.00 6863.00	200k 200k	100k 100k	42k 42k	4,400A 5,500A
800A / MG 1200A / NG	LMS3S800 LNS3S120	7597.00 12003.00	200k 200k	100k 100k	50k 65k	6,500A 12,000A
1600A / PG	LPS3S160	20179.00	200k	100k	65k	12,000A

\* The Short-Circuit Current Rating is the maximum available current of the circuit where the switch is used, when protected by an appropriate overcurrent protective device. Above 250A, terminals are not included and must be ordered separately. For terminal information and the variety of lugs available for VL breakers.



# Molded Case Circuit Breakers

## Motor Circuit Protectors

Selection

### General

#### Protection of Motor Circuits

Molded case circuit breakers are used in motor circuits as a disconnecting means and for short-circuit protection. They should be used in conjunction with motor-running, over-current protection devices, and should permit the motor to start without nuisance tripping from motor-inrush current. The circuit breaker should have a continuous current rating of not less than 115% of the motor full-load current.

The recommended motor circuit protectors listed have continuous-current ratings of at least 115% of motor full-load currents. The trip setting positions are approximately 11 times motor full-load current. The suggested trip settings may need to be adjusted upward to no higher than 1300% of full-load current for non-design E type motors, and no greater than 1700% of full-load current for design E motors, to allow for motor startup due to in-rush current.

#### Breaker Mounted Immediately Ahead of Motor Starter

Siemens motor circuit protectors are recommended for use in combination motor starters to provide selective short-circuit protection for the motor branch circuit. The adjustable instantaneous trip feature of the Siemens motor circuit protector provides for a trip setting slightly above the peak motor in-rush current. With this setting, no delay is introduced in opening the circuit when a fault occurs. This circuit breaker has no time-delay trip element. Therefore it must be used in conjunction with, and immediately ahead of, the motor-running overcurrent protection device.

Important: The information below does not apply to all motor applications: it is recommended that the user refer to the National Electrical Code (NEC) for specific needs.

**Table 1 (When Breaker is Mounted Immediately Ahead of Motor Starter)**

3-Phase Induction Type Motors (Siemens motor circuit protectors for branch circuit use with alternating-current combination, full voltage motor starters)

Motor Full Load Amperes	Trip Setting (A)	Catalog Number <sup>①</sup>	List Price \$
35-50	450	HDM3L150L	1589.00
42-60	540		
48-70	630		
55-80	720		
62-90	810		
69-100	900		
58-83	750	HDM3M150L	1589.00
69-100	900		
81-117	1050		
92-133	1200		
104-150	1350		
115-150 <sup>②</sup>	1500		
96-139	1250	HDM3H150L	1589.00
115-150 <sup>②</sup>	1500		
135-150 <sup>②</sup>	1750		
135-150 <sup>②</sup>	2000		
135-150 <sup>②</sup>	2250		
135-150 <sup>②</sup>	2500		
46-67	600	HFM3L250L	2111.00
55-80	720		
65-93	840		
74-107	960		
83-120	1080		
92-133	1200		
77-111	1000	HFM3M250L	2111.00
92-133	1200		
108-156	1400		
123-178	1600		
138-200	1800		
154-222	2000		
135-194	1750	HFM3H250L	2111.00
162-210	2100		
188-220	2450		
215-241	2800		
242-250 <sup>②</sup>	3150		
242-250 <sup>②</sup>	3500		

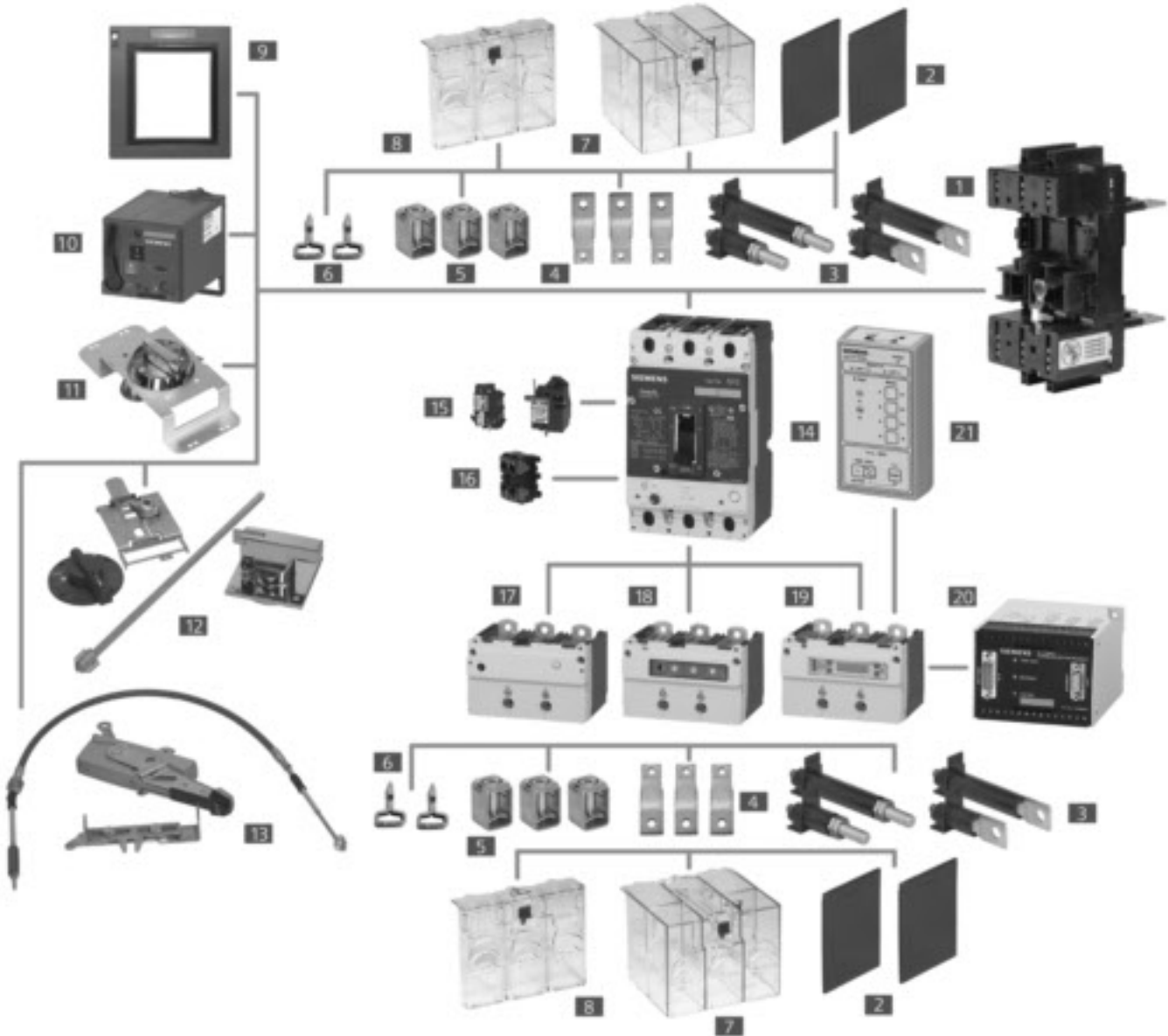
Motor Full Load Amperes	Trip Setting (A)	Catalog Number <sup>①</sup>	List Price \$
96-139	1250	HJM3L400	3881.00
115-167	1500		
135-194	1750		
154-222	2000		
173-250	2250		
192-278	2500		
154-222	2000	HJM3M400	3881.00
185-267	2400		
215-311	2800		
246-356	3200		
277-400	3600		
308-400 <sup>②</sup>	4000		
154-222	2000	HLM3L600	5771.00
185-267	2400		
215-311	2800		
246-356	3200		
277-400	3600		
308-444	4000		
212-306	2750	HLM3M600	5771.00
254-367	3300		
296-428	3850		
338-489	4400		
381-550	4950		
423-600	5500		
250-361	3250	HMM3M800	8277.00
292-422	3800		
335-483	4350		
385-556	5000		
442-638	5740		
500-722	6500		
385-556	5000	HNM3M120	13587.00
462-667	6000		
538-778	7000		
615-889	8000		
692-1000	9000		
769-1111	10,000		

① Motor circuit protectors rated 150A and 250A are supplied with line and load lugs installed. If lugs are required on 400A to 1200A motor circuit breakers, order required lugs separately.

② These settings are provided for starting currents greater than 11X but not to exceed 17X. Full Load Amps (FLA) not to exceed ampere rating of MCP.

### Modularity To Support All Your Application Needs

Modules and More: VL Circuit Breakers with Optional Accessories



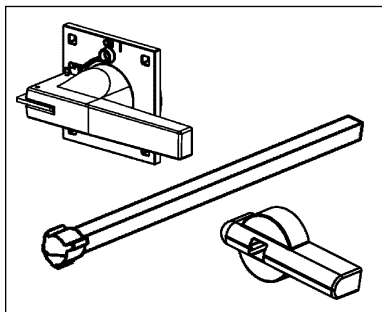
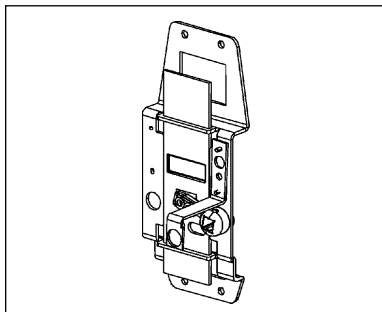
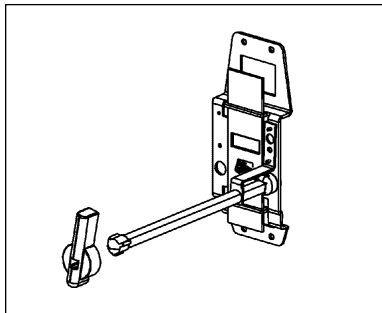
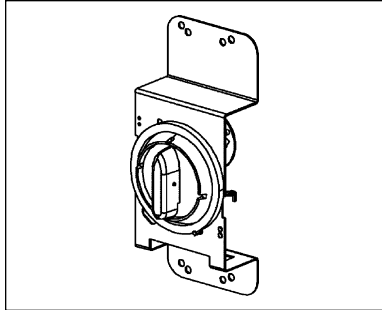
- 1 Base for Plug-In or Draw-Out
- 2 Interphase Barriers
- 3 Rear Terminals – Flat and Round
- 4 Bus Extensions
- 5 Terminal Connectors
- 6 Plug-In Terminal Blades
- 7 Extended Terminal Shield
- 8 Standard Terminal Shield

- 9 Cover Frame for Door Cutout
- 10 Stored Energy Operator
- 11 Rotary Handle Operator
- 12 Variable Depth Rotary Operator
- 13 Max Flex Operator
- 14 Circuit Breaker
- 15 Shunt Trip or Undervoltage Releases
- 16 Auxiliary/Alarm Switches

- 17 Thermal-Magnetic Trip Unit (525)
- 18 Electronic Trip Unit (545)
- 19 Elec. Trip Unit with LCD (576)
- 20 Communication Module with ZSI
- 21 Electronic Trip Unit Test Kit

# External Accessories

## Operating Mechanisms



Description	For DG to FG Frame 150 to 250 A		For JG to LG Frame 400 A to 600 A	
	Catalog Number	List Price \$	Catalog Number	List Price \$
<b>Through Door Mounted Rotary Handle Operator Kit<sup>A</sup></b> Fixed depth and the handle is mounted directly on the circuit breaker. Lockable knob (for up to 3 padlocks). NEMA 1, 12	RHFF	155.00	RHFL	193.00
Red Handle Version with red knob, yellow indicator plate NEMA 1, 12	RHFFEM	168.00	RHFLEM	205.00
<b>Door Mounted Rotary Handle Operator Kit<sup>A</sup></b> Variable depth, door mounted handle. Includes knob with masking frame, indicator plate, detachable door coupling, 12" shaft, and breaker mounted rotary operator. Lockable knob (for up to 3 padlocks). NEMA 1, 12	RHVF12	214.00	RHVL12	295.00
<b>Auxiliary Switch Kits<sup>A</sup></b> For Direct or Extended Rotary Handle Operators (RHF and RHV). Form C, Early Break type2 Aux. Switch Kit <sup>Ⓞ</sup> Includes 1 switch with 5' wire For Variable Depth For Fixed Depth	RHSFA1 RHSFA1F	187.00 187.00	RHSLA1 RHSLA1F	187.00 187.00
Includes 2 switches with 5' wire For Variable Depth For Fixed Depth	RHSFA2 RHSFA2F	237.00 237.00	RHSLA2 RHSLA2F	237.00 237.00
<b>Door Mounted Rotary Operator Mechanism Only<sup>A</sup></b> Breaker mechanism only	RHVFBM	131.00	RHVLBM	212.00
<b>Door Mounted Rotary Handle Only<sup>A</sup></b> Standard version NEMA 1, 12 NEMA 3R NEMA 4X Red Handle version	RHVM12H RHVM3RH RHVM4XH RHVMEMH	51.00 116.00 150.00 61.00	RHVM12H RHVM3RH RHVM4XH RHVMEMH	51.00 116.00 150.00 61.00
<b>Extension Shaft Only, for Door Mounted Operator<sup>A</sup></b> 2 inches (50.8mm) 3 inches (76.2mm) 12 inches (304.8 mm) 16 inches (406.4 mm) 24 inches (609.6mm) w/ support bracket	RHVMS02 — RHVMS12 RHVMS16 —	31.50 — 31.50 31.50 —	RHVMS02 — RHVMS12 RHVMS16 —	31.50 — 31.50 31.50 —

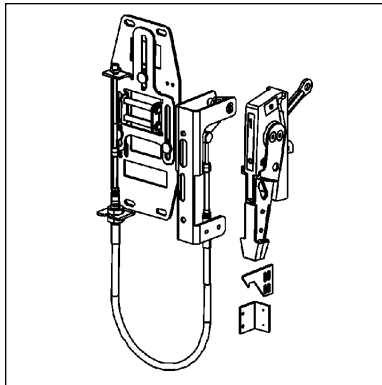
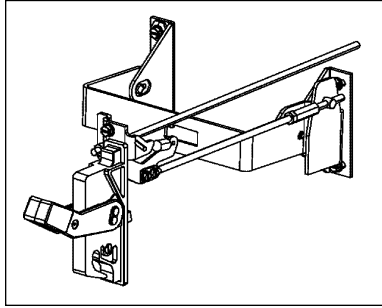
Ⓞ During manual operation, Early Break auxiliary switch contacts open before the breaker opens.  
A - Consult with Siemens for availability.

Description	For MG Frame 800 A		For NG to PG Frame 1200 to 1600 A	
	Catalog Number	List Price \$	Catalog Number	List Price \$
<b>Through Door Mounted Rotary Handle Operator Kit<sup>A</sup></b> Fixed depth, breaker mounted. For direct fitting to the circuit breaker. Lockable with up to 3 padlocks. NEMA 1, 12	RHFM	210.00	—	—
Red Handle version with red knob, yellow indicator plate NEMA 1, 12	RHFMEM	226.00	—	—
<b>Door Mounted Rotary Handle Operator Kit<sup>A</sup></b> Variable depth, door mounted handle. Includes knob with masking frame, indicator plate, detachable door coupling, 12" shaft, and breaker mounted rotary operator. Lockable knob (for up to 3 padlocks). NEMA 1, 12	RHVM12	322.00	—	—
<b>Auxiliary Switch Kits<sup>A</sup></b> For Direct or Extended Rotary Handle Operators (RHF and RHV). Early Break type2 Aux. Switch Kit Includes 1 switch with 5' wire For Variable Depth For Fixed Depth	RHSMA1 RHSMA1F	187.00 187.00	RHSPA1 RHSPA1F	187.00 187.00
Includes 2 switches with 5' wire For Variable Depth For Fixed Depth	RHSMA2 RHSMA2F	237.00 237.00	RHSPA2 RHSPA2F	237.00 237.00
<b>Door Mounted Rotary Operator Mechanism Only<sup>A</sup></b> Breaker mechanism only	RHVMBM	239.00	RHVFBM	239.00
<b>Door Mounted Rotary Handle Only<sup>A</sup></b> Standard version NEMA 1, 12 NEMA 3R NEMA 4X	RHVM12H RHVM3RH RHVM4XH	51.00 116.00 150.00	RHVP3RH RHVP3RH RHVP4XH	116.00 116.00 150.00
Red Handle version	RHVMEMH	61.00	RHVPEMH	126.00
<b>Extension Shaft Only, for Door Mounted Operator<sup>A</sup></b> 2 inches (50.8mm) 3 inches (76.2mm) 12 inches (304.8 mm) 16 inches (406.4 mm) 24 inches (609.6mm) w/ support bracket	RHVMS02 — RHVMS12 RHVMS16 —	31.50 — 31.50 31.50 —	— RHVPS03 RHVPS12 — RHVPS24	— 97.00 97.00 — 127.00

A - Consult with Siemens for availability.

# External Accessories

## Operating Mechanisms



Description	For DG and FG Frame 150 to 250 A		For JG and LG Frame 400 to 600 A	
	Catalog Number	List Price \$	Catalog Number	List Price \$
<b>Variable Depth Flange Mounted Operator Kit<sup>A</sup></b> Adjustable from 8" to 16" Complete kit, includes handle and variable depth operator. NEMA 1, 3R, 12 NEMA 4X	FHVF3R FHVF4X FHVF3RB	275.00 368.00 275.00	FHVL3R FHVL4X FHVL3RB	294.00 391.00 294.00
IEC Black Handle NEMA 1, 3R, 12				
<b>Max-Flex™, Variable Depth Flange Mounted Operator Kit<sup>A</sup></b> Complete kit, includes handle, breaker operator, and cable. NEMA 1, 3R, 12 For DG and FG operators, the cable is 36", all others are 48"	MFKF3R	588.00	MFKL3R	630.00
<b>Handle Only, for Max-Flex™ Variable Depth<sup>A</sup></b> NEMA 1, 3R, 12 Plastic NEMA 1, 3R, 12 Steel - epoxy coated NEMA 4, 4X Steel - chrome plated Solid color (all gray) Plastic <sup>①</sup> NEMA 1, 3R, 12 Solid color (black handle) Steel epoxy coated <sup>①</sup> NEMA 1, 3R, 12	MFHM3R MFHM3RS MFHM4X MFHM3RB MFHM3RSB	269.00 315.00 432.00 269.00 315.00	MFHM3R MFHM3RS MFHM4X MFHM3RB MFHM3RSB	269.00 315.00 432.00 269.00 315.00
<b>Breaker Operator Mechanism Only, for Max-Flex™<sup>A</sup></b>	MFMF	194.00	MFML	218.00
<b>Cable Only, for Max-Flex™ Variable Depth<sup>A</sup></b> 36" 48" 60" 72" 84" 96" 120" 144"	MFCF036 MFCF048 MFCF060 MFCF072 MFCF084 MFCF096 MFCF120 MFCF144	161.00 192.00 217.00 239.00 264.00 287.00 376.00 417.00	MFCM036 MFCM048 MFCM060 MFCM072 MFCM084 MFCM096 MFCM120 MFCM144	177.00 209.00 239.00 275.00 319.00 376.00 408.00 424.00
<b>Handle Auxiliary Switch<sup>A</sup></b> Form C (1NO - 1NC), early break <sup>②</sup> 1 Aux. switch 2 Aux. switch	MFSFA1 MFSFA2	165.00 330.00	MFSLA1 MFSLA2	165.00 330.00

① Max-Flex™ handles are available with solid gray or black handles instead of the customary "Red for On" flange handle.

The black handle is preferred for IEC markets, where red handles have a specific meaning.

② During manual operation, Early Break aux. contacts open before the breaker opens.

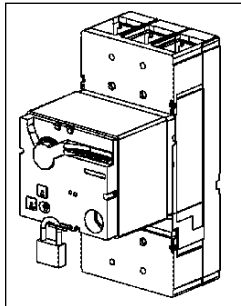
A - Consult with Siemens for availability.

Description	For MG Frame 800 A		For NG Frame 1200 A		For PG Frame 1600 A	
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
<b>Variable Depth Flange Mounted Operator Kit<sup>A</sup></b> Adjustable from 8" to 16" Complete kit, includes handle and variable depth operator. NEMA 1, 3R, 12 NEMA 4X IEC Black Handle NEMA 1, 3R, 12	— — —	— — —	— — —	— — —	— — —	— — —
<b>Max-Flex™, Variable Depth Flange Mounted Operator Kit<sup>A</sup></b> Complete kit, includes handle, breaker operator, and cable. NEMA 1, 3R, 12 For DG and FG operators, the cable is 36", all others are 48"	<b>MFKM3R</b>	<b>736.00</b>	<b>MFKP3RS</b>	<b>839.00</b>	<b>MFKP3RS</b>	<b>839.00</b>
<b>Handle Only, for Max-Flex™ Variable Depth<sup>A</sup></b> NEMA 1, 3R, 12 Plastic NEMA 1, 3R, 12 Steel - epoxy coated NEMA 4, 4X Steel - chrome plated Solid color (all gray) Plastic <sup>①</sup> NEMA 1, 3R, 12 Solid color (black handle) Steel epoxy coated <sup>①</sup> NEMA 1, 3R, 12	<b>MFHM3R</b> <b>MFHP3RS</b> <b>MFHM4X</b>  <b>MFHM3RB</b> <b>MFHM3RSB</b>	<b>269.00</b> <b>470.00</b> <b>432.00</b>  <b>269.00</b> <b>315.00</b>	— <b>MFHP3RS</b> <b>MFHP4X</b>  — <b>MFHP3RSB</b>	— <b>470.00</b> <b>630.00</b>  — <b>470.00</b>	— <b>MFHP3RS</b> <b>MFHP4X</b>  — <b>MFHP3RSB</b>	— <b>470.00</b> <b>630.00</b>  — <b>470.00</b>
<b>Breaker Operator Mechanism Only, for Max-Flex™ A</b>	<b>MFMM</b>	<b>218.00</b>	<b>MFMP</b>	<b>218.00</b>	<b>MFMP</b>	<b>218.00</b>
<b>Cable Only, for Max-Flex™ Variable Depth<sup>A</sup></b> 36" 48" 60" 72" 84" 96" 120" 144"	<b>MFCM036</b> <b>MFCM048</b> <b>MFCM060</b> <b>MFCM072</b> <b>MFCM084</b> <b>MFCM096</b> <b>MFCM120</b> <b>MFCM144</b>	<b>177.00</b> <b>209.00</b> <b>239.00</b> <b>275.00</b> <b>319.00</b> <b>376.00</b> <b>408.00</b> <b>424.00</b>	— <b>MFCP048</b> <b>MFCP060</b> <b>MFCP072</b> <b>MFCP084</b> <b>MFCP096</b> <b>MFCP120</b> <b>MFCP144</b>	— <b>237.00</b> <b>275.00</b> <b>320.00</b> <b>337.00</b> <b>401.00</b> <b>437.00</b> <b>588.00</b>	— <b>MFCP048</b> <b>MFCP060</b> <b>MFCP072</b> <b>MFCP084</b> <b>MFCP096</b> <b>MFCP120</b> <b>MFCP144</b>	— <b>237.00</b> <b>275.00</b> <b>320.00</b> <b>337.00</b> <b>401.00</b> <b>437.00</b> <b>588.00</b>
<b>Handle Auxiliary Switch<sup>A</sup></b> Form C (1NO - 1NC), early break <sup>②</sup> 1 Aux. switch 2 Aux. switch	<b>MFSPA1</b> <b>MFSPA2</b>	<b>CSO</b> <b>CSO</b>	<b>MFSPA1</b> <b>MFSPA2</b>	<b>CSO</b> <b>CSO</b>	<b>MFSPA1</b> <b>MFSPA2</b>	<b>CSO</b> <b>CSO</b>

A - Consult with Siemens for availability.

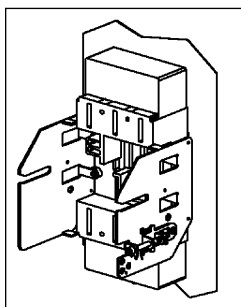
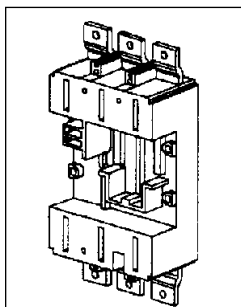
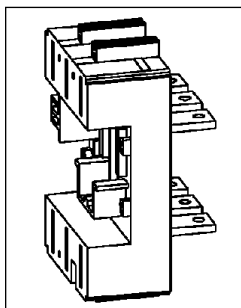
# External Accessories

## Operating Mechanisms



Description	For DG to FG Frame 150 to 250 A	
	Catalog Number	List Price \$
<b>Stored Energy and Motor Operators</b> Lockable with up to 3 padlocks.		
AC Voltage   DC Voltage	Stored Energy Type	
—   24	SEAFB	1915.00
42-48   42-48	SEAFM	1915.00
60   60	SEAFY	1915.00
110-127   110-127	SEAFN	1915.00
220-250   220-250	SEAFR	1915.00
<b>Cylinder Locks for Field Installation</b>	CLKF	120.00

## Plug-In and Draw-Out Bases



Description	For DG Frame 150 A		For FG Frame 250 A	
	Catalog Number	List Price \$	Catalog Number	List Price \$
<b>Plug-in Mounting Base Assembly</b> Includes base, terminal blade kit, sec. terminal block assembly, base trip interlock, and mounting hardware.				
<b>Rear Connected</b> 3-pole	PCBDRC3	351.00	PCBFRC3	691.00
<b>Front Connected</b> 3-pole	PCBDFC3	351.00	PCBFFC3	691.00
<b>Draw-out Assembly</b> Includes base, position indicator switch, socket, base trip interlock, crank handle, connectors, and necessary shields.				
<b>Rear Connected</b> 3-pole	DCADRC3	944.00	DCAFRC3	1194.00
<b>Front Connected</b> 3-pole (Draw-out assembly includes side plates and all hardware)	DCADFC3	944.00	DCAFFC3	1194.00
<b>Hex Wrench</b> for racking draw-out assembly and position indicator	DCHP	134.00	DCHP	134.00
<b>Position Indicator Switch</b> Form "C" switch to indicate breaker engaged/de-engaged position. <sup>①</sup>	DCIP	156.00	DCIP	156.00
<b>Secondary Terminal Block Assy.</b> Accessory connections for plug-in or draw-out breakers. Pre-wired plug and block with 8 terminal points. <sup>②</sup>	PCTF83	109.00	PCTF83	109.00
<b>90° Connection Adapter Kit</b> For rear connected 3-pole plug-in base	PCAF390	74.00	PCAF390	74.00
<b>Plug-In Spare Breaker Kit</b> Set of 6 terminal blades, 2 terminal shield, & 1 trip interlock	PCXD3	242.00	PCXF3	320.00
<b>Draw-out Spare Breaker Kit</b> Set of 6 terminal blades, & 1 trip interlock	DCXD3	210.00	DCXF3	289.00
<b>Spare Breaker Trip Interlock</b>	PCXFT	21.00	PCXFT	21.00

① Up to 2 position indicator switches may be mounted per plug-in or draw-out base.

② Up to 2 plugs per breaker (16 terminal points) may be mounted on DG, and FG breakers. Up to 3 plugs per breaker (24 terminal points) may be mounted on JG, LG, MG, NG, and PG breakers.

A - Consult Siemens for availability.

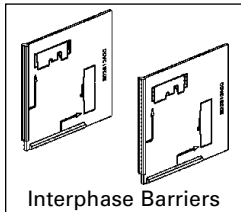
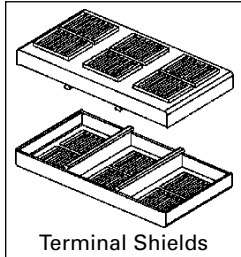
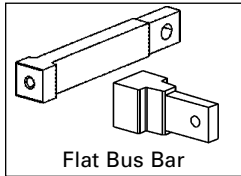
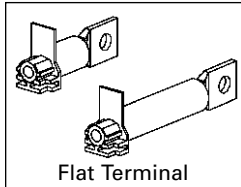
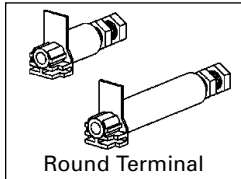
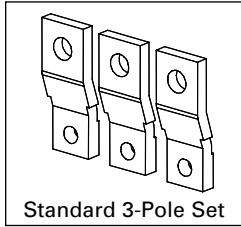
For JG to LG Frame 400 to 600 A		For MG Frame 800 A		For NG to PG Frame 1200 to 1600 A	
Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
Stored Energy Type		Stored Energy Type		Motor Operator Type	
SEALB	3525.00	SEAMB	4173.00	MTRPB	4457.00
SEALM	3525.00	SEAMM	4173.00	MTRPM	4457.00
SEALY	3525.00	SEAMY	4173.00	MTRPY	4457.00
SEALN	3525.00	SEAMN	4173.00	MTRPN	4457.00
SEALR	3525.00	SEAMR	4173.00	MTRPR	4457.00
CLKP	120.00	CLKP	120.00	CLKP	120.00

For JG Frame 400 A		For LG Frame 600 A		For MG Frame 800 A		For NG Frame 1200 A		For PG Frame 1600 A	
Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
PCBJRC3	1179.00	PCBLRC3	1865.00	PCBMRC3	2891.00	PCBNRC3	3909.00	—	—
PCBJFC3	1179.00	PCBLFC3	1865.00	—	—	—	—	—	—
DCAJRC3	1881.00	DCALRC3	2886.00	DCAMRC3	4337.00	DCAPRC3	5566.00	DCAPRC3	5566.00
DCAJFC3	1881.00	DCALFC3	2886.00	DCAMFC3	4337.00	DCAPFC3 <sup>A</sup>	5566.00	DCAPFC3 <sup>A</sup>	5566.00
DCHP	134.00	DCHP	134.00	DCHP	134.00	DCHP	134.00	DCHP	134.00
DCIP	156.00	DCIP	156.00	DCIP	156.00	DCIP	156.00	DCIP	156.00
PCTL83	133.00	PCTL83	133.00	PCTM83	143.00	PCTP83	168.00	PCTP83	168.00
—	—	—	—	—	—	—	—	—	—
PCXJ3	410.00	PCXL3	483.00	PCXM3	1085.00	PCXN3	1344.00	—	—
DCXJ3	378.00	DCXL3	452.00	DCXM3	1050.00	DCXN3	1307.00	DCXP3	1307.00
PCXLT	23.00	PCXLT	23.00	PCXMT	58.00	PCXPT	77.00	PCXPT	77.00



# External Accessories

## Connections



Description	For DG Frame 150 A		For FG Frame 250 A	
	Catalog Number	List Price \$	Catalog Number	List Price \$
<b>Front Bus Bar Connections<sup>①</sup></b> Includes nut keeper plates and shield. Standard (straight) 3-Pole Set Bus Bar Connection Strap Kit Includes 6 - Bus Bars, 6 Nut Keepers & Shields 100% rated applications	<b>FBCD3</b> —	<b>CSO</b> —	<b>FBCF3</b> —	<b>CSO</b> —
<b>Rear-Connecting Studs</b> Short length round term. (1piece) Long length round term. (1piece) 3-Pole round term. kit, 2 short + 1 long Short length flat term. (1piece) Long length flat term. (1piece) 3-Pole flat term. kit, 2 short + 1 long Flat bus bar type (1 piece) 3-Pole set of flat bus bar	<b>RTLDSR</b> <b>RTLDLR</b> <b>SRTDR3</b> <b>RTLDSF</b> <b>RTLDLF</b> <b>SRTDF3</b> — —	<b>83.00</b> <b>112.00</b> <b>277.00</b> <b>83.00</b> <b>112.00</b> <b>277.00</b> — —	<b>RTLFSR</b> <b>RTLFLR</b> <b>SRTFR3</b> <b>RTLFSF</b> <b>RTLFLF</b> <b>SRTFF3</b> — —	<b>83.00</b> <b>112.00</b> <b>277.00</b> <b>83.00</b> <b>112.00</b> <b>277.00</b> — —
<b>Terminal Shields<sup>①</sup></b> Includes 1 terminal shield, for line or load. 3-Pole Standard Shield 3-Pole Extended Shield	<b>TSSF3</b> <b>TSLF3</b>	<b>37.00</b> <b>58.00</b>	<b>TSSF3</b> <b>TSLF3</b>	<b>37.00</b> <b>58.00</b>
<b>Interphase Barriers<sup>①</sup></b> Set of 2 barriers Also fits plug-in and draw-out bases.	<b>IPBF</b>	<b>29.00</b>	<b>IPBF</b>	<b>29.00</b>
<b>Lug Mounting Assy.</b>	—	—	—	—
<b>Breaker Mounting Base</b> Front connected Rear connected	— —	— —	— —	— —

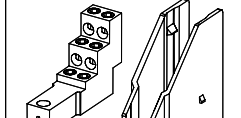
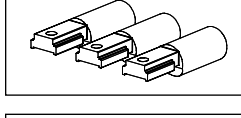
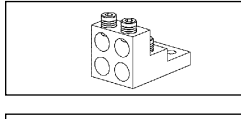
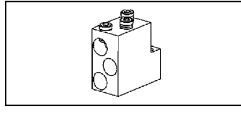
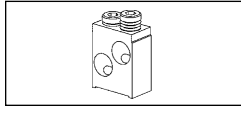
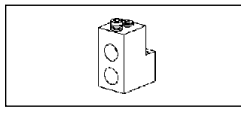
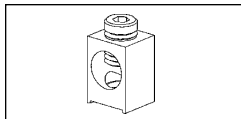
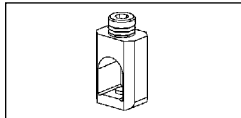
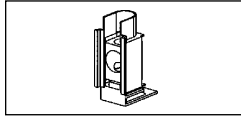
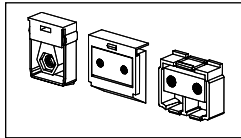
① Not UL listed.  
A - Consult Siemens for availability.

For JG Frame 400 A		For LG Frame 600 A		For MG Frame 800 A		For NG Frame 1200 A		For PG Frame 1600 A	
Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
FBCJ3A —	CSO —	FBCL3A —	CSO —	FBCM3A —	CSO —	FBCP3A SSBP SSBPH	CSO 1004.00 1227.00	FBCP3A SSBP SSBPH	CSO 1004.00 1227.00
RTLJSR RTLJLR SRTJR3 RTLJSF RTLJLF SRTJF3 — —	195.00 208.00 597.00 195.00 208.00 597.00 — —	— — — — — — RTLLSF SRTLF3	— — — — — — 224.00 671.00	— — — — — — RTLMSF SRTMF3	— — — — — — 323.00 967.00	— — — — — — RTLNSF SRTNF3	— — — — — — 434.00 1303.00	— — — — — — — —	— — — — — — — —
TSSL3 TSSL3	47.50 68.00	TSSL3 TSSL3	47.50 68.00	TSSM3 TSLM3	67.00 97.00	TSSP3 TSLP3	91.00 116.00	TSSP3 TSLP3	91.00 116.00
IPBM	38.50	IPBM	38.50	IPBM	38.50	IPBP	83.00	IPBP	83.00
—	—	—	—	—	—	—	—	LMAP1600	968.00
— —	— —	— —	— —	— —	— —	— —	— —	MBPG1600 MBPG1601	1211.00 1211.00

A - Consult with Siemens for availability.

# External Accessories

## Connections



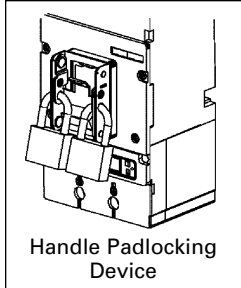
Description	For DG Frame 150 A		For FG Frame 250 A	
	Catalog Number	List Price \$	Catalog Number	List Price \$
<b>Nut Keeper Plates</b> For ring/tongue terminal or bus bar connections. (For metric threads on other than the JG or LG frame, change "TNK" to "TMK")				
1 Nut Keeper Plate	TNKD	6.10	TNKF	6.10
Kit of 3	TNKD3	19.40	TNKF3	19.40
<b>Mechanical Lugs</b> <i>Steel Wrap Around Body (Cu Wire Only)</i>				
Cable Size; (cables per phase)	#8-1/0; 1-hole		#4-350 kcmil; 1-hole	
Single Lug	TW1DG20	7.20	TW1FG350	22.00
Kit of 3	3TW1DG20	22.00	3TW1FG350	65.00
<i>Aluminum Body (Al or Cu Wire)</i>				
Cable Size; (cables per phase)	#6-3/0; 1-hole		#4-350 kcmil; 1-hole	
Single Lug	TA1DG30	7.20	TAW1FG350	22.00
Kit of 2	—	—	—	—
Kit of 3	3TA1DG30	22.00	3TAW1FG350	65.00
Cable Size; (cables per phase)	—	—	—	—
Single Lug	—	—	—	—
Kit of 2	—	—	—	—
Kit of 3	—	—	—	—
Cable Size; (cables per phase)	—	—	—	—
Single Lug	—	—	—	—
Kit of 3	—	—	—	—
<i>Copper Body (Cu Wire Only)</i>				
Cable Size; (cables per phase)	#6-3/0; 1-hole		#4-350 kcmil; 1-hole	
Single Lug	TC1DG30	33.50	TCW1FG350	34.50
Kit of 2	—	—	—	—
Kit of 3	3TC1DG30	101.00	3TCW1FG350	104.00
Cable Size; (cables per phase)	—	—	—	—
Single Lug	—	—	—	—
<b>Compression Lugs</b>				
Cable Size; (cables per phase)	#14-2/0; 1-cable		#6-350 kcmil; 1-cable	
Kit of 2	2CLD20	54.00	2CLF350	102.00
Kit of 3	3CLD20	81.00	3CLF350	152.00
Cable Size; (cables per phase)	—	—	—	—
Kit of 2	—	—	—	—
Kit of 3	—	—	—	—
Cable Size; (cables per phase)	—	—	—	—
Kit of 3	—	—	—	—
<b>Distribution Lugs</b>				
Cable Size; (cables per phase)	#14-#2; 3-hole		#14-#1; 2-hole and	
Single Lug	TA3DG02	31.50	TA3FG20	37.00
Kit of 3	3TA3DG02	110.00	3TA3FG20	110.00
Cable Size; (cables per phase)	#14-#4; 6-hole		#14-#4; 6-hole	
Single Lug	TA6DG04	33.50	TA6FG04	37.00
Kit of 3	3TA6DG04	110.00	3TA6FG04	110.00

For JG Frame 400 A		For LG Frame 600 A		For MG Frame 800 A		For NG Frame 1200 A		For PG Frame 1600 A	
Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
TMKJ TMKJ3	6.10 19.40	TNKL TNKL3	9.80 29.00	TNKM TNKM3	9.80 29.00	TNKP TNKP3	9.80 29.00	TNKP TNKP3	9.80 29.00
1/0-500 kcmil; 1-hole TW1JG600 3TW1JG600	— 29.00 87.00	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —
3/0-250 kcmil; 2-hole TA2JG250 — 3TA2JG250	29.00 — 87.00	#2-600 kcmil; 2-hole — 2TA2LG600LD <sup>①</sup> 2TA2LG600LN <sup>②</sup> 3TA2LG600LD <sup>①</sup> 3TA2LG600LN <sup>②</sup>	— 72.00 72.00 109.00 109.00	1/0-500 kcmil; 3-hole TA3MG500 3TA3MG500	67.00 202.00	1/0-500 kcmil; 4-hole — 2TA4NG500 3TA4NG500 3TA4NG500H <sup>③</sup>	— — 579.00 291.00 875.00	1/0-750 kcmil; 6-hole — — 3TA6PG750 <sup>⑤</sup>	— — 940.00
AL: 250-750 kcmil CU: 3/0-600 kcmil; 1-hole TA1JG750 — 3TA1JG750 — — —	36.00 — 109.00 — — —	AL: 250-750 kcmil CU: 3/0-600 kcmil; 1-hole TA1JG750 (400A max) — 3TA1JG750 (400A max)	36.00 — 109.00 — —	500-750 kcmil; 2-hole TA2MG750 — 3TA2MG750 — #2-600 kcmil; 3-hole — 3TA3MG600 <sup>④</sup>	122.00 — 364.00 — — 218.00	500-750 kcmil; 3-hole TA3NG750 2TA3NG750 3TA3NG750 — —	106.00 579.00 832.00 — —	600-750 kcmil; 4-hole TA4P750 <sup>⑥</sup> — — 300-600 kcmil; 5; 6-hole TA5P600 <sup>⑦</sup> TA6R600 <sup>⑧</sup> —	254.00 — — 320.00 338.00 —
3/0-250 kcmil; 2-hole TC2JG250 — — 3/0-750 kcmil; 1-hole TC1JG750	77.00 — — 77.00	#2-600 kcmil; 2-hole — 2TC2LG600LD <sup>①</sup> 2TC2LG600LN <sup>②</sup> 3TC2LG600LD <sup>①</sup> 3TC2LG600LN <sup>②</sup>	— 154.00 154.00 231.00 231.00	1/0-500 kcmil; 3-hole TC3MG500 — — —	134.00 — — —	1/0-500 kcmil; 4-hole — — 3TC4NG500 — 1/0-500 kcmil; 3-hole TC3NG500	— — 832.00 — CSO	1/0-750 kcmil; 6-hole — — 3TC6PG750 (future) — 300-600 kcmil; 5-hole TC5R600 <sup>⑨</sup>	— — 1342.00 — 426.00
#6-350 kcmil; 1-cable 3CLJ350 — 250-750 kcmil; 1-cable 3CLJ750 — 250-600 kcmil; 1-cable 3CLJ600	— 449.00 — 449.00 — 449.00	#6-350 kcmil; 2-cable — 6CLL350 — 250 kcmil-750 kcmil; 1-cable 3CLL750 — 250 kcmil-600 kcmil; 2-cable 6CLL600	— 899.00 — 494.00 — 899.00	1/0-500 kcmil; 3-cable 9CLM500 (future)	— 1056.00	1/0-500 kcmil; 4-cable — — 12CLN500 — — —	— — — 1393.00 — — —	#2-600 kcmil; 8-cable — 24CLP600 (future)	— 2787.00
#14-#4; 12-hole TA12JG04 3TA12JG04 #14-2/0; 6-hole TA6JG20 3TA6JG20	— 88.00 265.00 — 88.00 265.00	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —

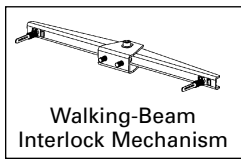
All lug kits include the nut keepers.  
<sup>①</sup> Mounted on Load Side Only.  
<sup>②</sup> Mounted on Line Side Only.  
<sup>③</sup> Rated 90° for 100% Applications.  
<sup>④</sup> Requires extended modified shield.  
<sup>⑤</sup> Used only with LMAP 1600 mounting base.  
<sup>⑥</sup> Used with MBPG 1600 or 1601 mounting base.

# External Accessories

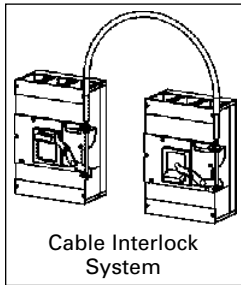
## General



Handle Padlocking Device



Walking-Beam Interlock Mechanism



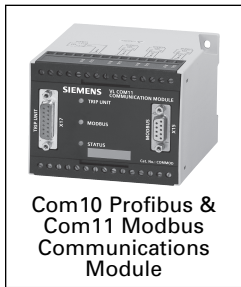
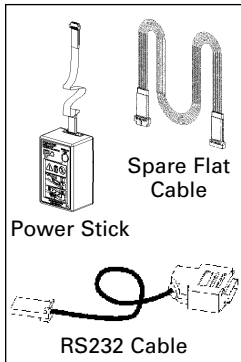
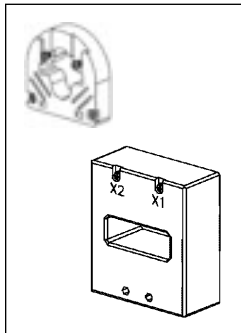
Cable Interlock System

Description	For DG Frame 150 A		For FG Frame 250 A	
	Catalog Number	List Price \$	Catalog Number	List Price \$
<b>Handle Padlocking Device</b> To padlock breaker toggle in the "OFF" position. Accepts up to 3 padlocks with 5–8 mm shackles.	HPLF	15.80	HPLF	15.80
<b>Handle Blocking Device</b> For holding the handle in the "ON" or "OFF" position. Not a lockout/tagout device.	HBDF	27.00	HBDF	27.00
<b>Walking-Beam Interlock Mechanism</b> Provides mechanical interlocking between two adjacent circuit breakers. Fixed mounted breakers Plug-in or draw-out mounted breakers (Future) Note: Both breakers must be of the same frame size.	WBMFFM WBMFDP	608.00 603.00	WBMFFM WBMFDP	608.00 603.00
<b>Cable Interlock Mechanism</b> Provides mechanical interlocking between 2 circuit-breakers - includes operator mechanism for one circuit breaker only. Combination with the next larger or smaller frame size is possible.	CBTF	481.00	CBTF	481.00
<b>Interlock Cable</b> Cable only, to connect 2 circuit breakers. Cable length 18 in. .46m (recommended up to 250A) Cable length 36 in. .91m (recommended from 600–800A) Cable length 54 in. 1.37m (recommended from 1200–1600A)	CBCF18 CBCM36 CBCP54	134.00 156.00 190.00	CBCF18 CBCM36 CBCP54	134.00 156.00 190.00
<b>Mounting Screw Kit</b> Includes the necessary hardware to mount a circuit breaker to the user's prepared surface (SAE thread) Kit with 2 screws Kit with 4 screws	MSKF2 MSKF4	3.70 3.70	MSKF2 MSKF4	3.70 3.70
<b>Trip Adjustment Sealing Cover</b> Includes a trip unit cover to prevent tampering or adjustment of trip settings. Seal not included. Electronic Trip Units Thermal-Magnetic Trip Units	TSCPET TSCFTM	15.80 38.50	TSCPET TSCFTM	15.80 38.50

For JG Frame 400 A		For LG Frame 600 A		For MG Frame 800 A		For NG Frame 1200 A		For PG Frame 1600 A	
Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
HPLL	22.00	HPLL	22.00	HPLM	57.00	HPLP	57.00	HPLP	57.00
HBDL	27.00	HBDL	27.00	HBDM	57.00	HBDP	57.00	HBDP	57.00
WBMLFM	608.00	WBMLFM	608.00	WBMMFM	608.00	WBMPFM	658.00	WBMPFM	658.00
WBMLDP	603.00	WBMLDP	603.00	WBMMDP	603.00	WBMPDP	658.00	WBMPDP	658.00
CBTL	515.00	CBTL	515.00	CBTM	548.00	CBTP	582.00	CBTP	582.00
—	—	—	—	—	—	—	—	—	—
CBCM36	156.00	CBCM36	156.00	CBCM36	156.00	—	—	—	—
CBCP54	190.00	CBCP54	190.00	CBCP54	190.00	CBCP54	190.00	CBCP54	190.00
—	—	—	—	—	—	—	—	—	—
MSKL4	10.90	MSKL4	10.90	MSKM4	15.80	MSKP4	29.00	MSKP4	29.00
TSCPET	15.80	TSCPET	15.80	TSCPET	15.80	TSCPET	15.80	TSCPET	15.80
TSCLTM	38.50	TSCLTM	38.50	TSCMTM	38.50	—	—	—	—

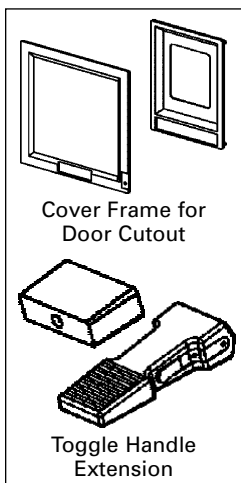
# External Accessories

## Ground Sensors & Electronic Accessories



Description	For DG Frame 150 A		For FG Frame 250 A	
	Catalog Number	List Price \$	Catalog Number	List Price \$
<b>Neutral Current Transformer (Ground Sensor, N-pole)</b>				
Neutral = 35/60A	NGSD060	402.00	—	—
Neutral = 100A	NGSF100	402.00	NGSF100	402.00
Neutral = 150A	NGSF150	402.00	NGSF150	402.00
Neutral = 250A	—	—	NGSJ250	402.00
Neutral = 400A	—	—	—	—
Neutral = 600A	—	—	—	—
Neutral = 800A	—	—	—	—
Neutral = 1000/1200A	—	—	—	—
Neutral = 1600A	—	—	—	—
<b>Communications &amp; Electronics</b>				
Power Stick - Hand held, battery operated power supply for LCD trip units. (Requires two -9V batteries) For programming and trip testing only.	EPSP18V	582.00	EPSP18V	582.00
Test Kit - Portable power supply for programming, trip test, and checking CT's plus a port for local communications of currents flow and trip settings. (Requires two 9V batteries)	ELTPHB	3428.00	ELTPHB	3428.00
Universal Power Supply - 120/240Vac adapter used in lieu of 9V batteries for Test Kit ELTPHB (includes necessary cables)	UPAPELTK	537.00	UPAPELTK	537.00
Power Supply with ZSI (for Model 576 trip units only).	COMPS	2013.00	COMPS	2013.00
Com10 Profibus Communications Module with ZSI for LCD trip Model 576 only	COMPRO	2684.00	COMPRO	2684.00
Com11 Modbus Communications Module with ZSI for LCD Trip Model 576 only	COMMOD	2684.00	COMMOD	2684.00
Communications Adapter - Interface with a laptop or PC to test or program Model 545 & 576 trip units	CSAPELTU	911.00	CSAPELTU	911.00
Cable for COM10/11 and Model 576 external power supply.....5ft. (1.5m)	COMKIT1	179.00	COMKIT1	179.00
Extension cable for COMKIT1 & COMKIT2, adds 5 ft.	COMEXT	134.00	COMEXT	134.00
Spare flat cable for Test Kits or Communications Adapters	COMPCA	358.00	COMPCA	358.00
RS232 type cable for Test Kits or Communications Adapters	COMP232	179.00	COMP232	179.00

## Door Cutouts & Extensions



<b>Cover Frame for Door Cutout</b> For fixed or plug-in mounted circuit breakers. (IP30) 2-Pole & 3-Pole	BZLF3	224.00	BZLF3	224.00
For breakers with stored energy operator. (IP40)	BZLFRHSE	224.00	BZLFRHSE	224.00
Circuit-breaker draw-out mounted and toggle handle operated. Kit includes cover frame (bezel) and escutcheon as needed. (IP40) (not for use with rotary handle or stored energy operator)	BZLFBDC	224.00	BZLFBDC	224.00
<b>Toggle Handle Extension</b> For spare or replacement. (One is included with each LG - PG frame.)	—	—	—	—

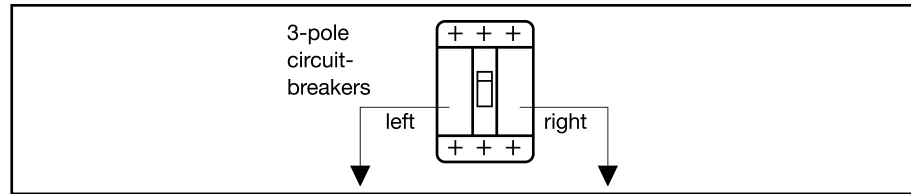
For JG Frame 400 A		For LG Frame 600 A		For MG Frame 800 A		For NG Frame 1200 A		For PG Frame 1600 A	
Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
NGSJ250	402.00	—	—	—	—	—	—	—	—
NGSL400	402.00	NGSL400	402.00	—	—	—	—	—	—
—	—	NGSM600	402.00	NGSM600	402.00	—	—	—	—
—	—	—	—	NGSN800	402.00	—	—	—	—
—	—	—	—	—	—	NGSN800	402.00	—	—
—	—	—	—	—	—	NGSP120	402.00	NGSP120	402.00
—	—	—	—	—	—	—	—	NGSP160	402.00
EPSP18V	582.00	EPSP18V	582.00	EPSP18V	582.00	EPSP18V	582.00	EPSP18V	582.00
ELTPHB	3428.00	ELTPHB	3428.00	ELTPHB	3428.00	ELTPHB	3428.00	ELTPHB	3428.00
UPAPELTK	537.00	UPAPELTK	537.00	UPAPELTK	537.00	UPAPELTK	537.00	UPAPELTK	537.00
COMPS	2013.00	COMPS	2013.00	COMPS	2013.00	COMPS	2013.00	COMPS	2013.00
COMPRO	2684.00	COMPRO	2684.00	COMPRO	2684.00	COMPRO	2684.00	COMPRO	2684.00
COMMOD	2684.00	COMMOD	2684.00	COMMOD	2684.00	COMMOD	2684.00	COMMOD	2684.00
CSAPELTU	911.00	CSAPELTU	911.00	CSAPELTU	911.00	CSAPELTU	911.00	CSAPELTU	911.00
COMKIT2	179.00	COMKIT2	179.00	COMKIT2	179.00	COMKIT1	179.00	COMKIT1	179.00
COMEXT	134.00	COMEXT	134.00	COMEXT	134.00	COMEXT	134.00	COMEXT	134.00
COMPCA	358.00	COMPCA	358.00	COMPCA	358.00	COMPCA	358.00	COMPCA	358.00
COMP232	179.00	COMP232	179.00	COMP232	179.00	COMP232	179.00	COMP232	179.00
BZLL3	224.00	BZLL3	224.00	BZLM3	279.00	BZLP3	279.00	BZLP3	279.00
BZLLRHSE	224.00	BZLLRHSE	224.00	BZLMRHSE	279.00	BZLPRHSE	279.00	BZLPRHSE	279.00
BZLLBDC	224.00	BZLLBDC	224.00	BZLMBDC	279.00	BZLPBDC	279.00	BZLPBDC	279.00
THEL	63.00	THEL	63.00	THEM	105.00	THEP	105.00	THEP	105.00



# Molded Case Circuit Breakers

## Accessory Locations

*Selection*



### Locations of Internally Mounted Accessories

Frame Family	Left Pocket	Right Pocket
<b>DG*, FG*, JG, LG</b> 150 to 600A	Up to 3 Auxiliary Switches	Shunt Trip <b>or</b> UVR <b>or</b> up to 3 Auxiliary Switches <b>or</b> up to 2 Auxiliary Switches + 1 Alarm Switch
	Up to 2 Auxiliary Switches + 1 Alarm Switch	Shunt Trip <b>or</b> UVR <b>or</b> up to 3 Auxiliary Switches <b>or</b> up to 2 Auxiliary Switches + 1 Alarm Switch
<b>MG, NG, PG</b> 800 to 1600A	Up to 4 Auxiliary Switches	Shunt Trip <b>or</b> UVR <b>or</b> up to 4 Auxiliary Switches
	Up to 2 Auxiliary Switches + 2 Alarm Switches	Shunt Trip <b>or</b> UVR <b>or</b> up to 4 Auxiliary Switches

\* Except DG and FG breakers with Electronic Trip Units. Due to the location of the Magnetic Latch, the Left Pocket is not available for accessories.

#### Accessory Information

- Aux. Switch is an Auxiliary Switch, 1A or 1B contact
- Alarm Switch has 1A or 1B contact
- UVR is an Undervoltage Release
- The standard location for factory mounted Auxiliary and Alarm Switches is the Left Pocket
- For 4-pole breakers, the 4th pole (located on the far left) can hold up to 3 Auxiliary Switches on DG, FG, JG, and up to 4 Auxiliary Switches on MG, NG, and PG breakers

#### Accessory Maximums

##### DG, FG, JG, LG Maximum Accessories:

- Maximum of six (6) switches total
- DG, FG Maximum of two (2) Alarm Switches, one each in the Left and Right Pockets. JG, LG Max. of 1 Alarm, Left only
- Maximum of three (3) switches combined in 4th Pole and Left Pockets

##### MG, NG, PG Maximum Accessories:

- Maximum of eight (8) switches total
- Maximum of two (2) Alarm Switches, Left Pocket only
- Maximum of four (4) switches combined in 4th Pole and Left Pockets

# Molded Case Circuit Breakers

**Selection**

## Suffix for factory mounted Switch Combinations

If the frame is:	And you need these functions:	Then add this suffix:	Device Catalog Number
DG, FG, JG or LG	1 Alarm Switch 1 NO Alarm 1 NC Alarm	A1	ASKL1
DG, FG, JG or LG	2 Aux. Switches 1 NO + 1 NC Aux. Contacts	A2	ASKL2
DG, FG, JG or LG	2 Aux. + 1 Alarm Switches 1NO + 1NC Aux. and 1NO Alarm 1NO + 1NC Aux. and 1NC Alarm 2NO Aux. and 1NC Alarm 2NC Aux. and 1NO Alarm	A3	ASKL3
MG, NG or PG	2 Aux. + 2 Alarm Switches 1NO + 1NC Aux. and 1NO + 1NC Alarm 2NO Aux. and 2NC Alarm 2NC Aux. and 2NO Alarm	A3	ASKP3
MG, NG or PG	4 Aux. Switches 2NO + 2NC Aux.	A4	ASKP4

## Suffix for factory mounted Shunt Trips

If the frame is:	And you need these functions:	Then add this suffix:	Device Catalog Number
DG, FG, JG or LG	24V DC 48-60V DC 110-127V DC 220-250V DC 48-60V AC 110-127V AC 208-277V AC 380-600V AC	RB RC RD RE RM RN RS RV	STRLB24DC STRLC60DC STRLD125DC STRLE250DC STRLM60 STRLN120 STRLS277 STRLV600
MG, NG or PG	24V DC 48-60V DC 110-127V DC 220-250V DC 48-60V AC 110-127V AC 208-277V AC 380-600V AC	RB RC RD RE RM RN RS RV	STRPB24DC STRPC60DC STRPD125DC STRPE250DC STRPM60 STRPN120 STRPS277 STRPV600

## Suffix for factory mounted Under Voltage Releases

If the frame is:	And you need these functions:	Then add this suffix:	Device Catalog Number
DG, FG, JG or LG	12V DC 24V DC 48V DC 60V DC 110-127V DC 220-250V DC 110-127V AC 220-240V AC 208V AC 277V AC 380-415V AC 440-480V AC 600V AC	UA UB UC UG UD UE UN UR UP US UT UU UV	UVRLA12DC UVRLB24DC UVRLC48DC UVRLG60DC UVRLD125DC UVRLE250DC UVRLN120 UVRLR240 UVRLP208 UVRLS277 UVRLT415 UVRLU480 UVRLV600
MG, NG or PG	12V DC 24V DC 48V DC 60V DC 110-127V DC 220-250V DC 110-127V AC 220-240V AC 208V AC 277V AC 380-415V AC 440-480V AC 600V AC	UA UB UC UG UD UE UN UR UP US UT UU UV	UVRPA12DC UVRPB24DC UVRPC48DC UVRPG60DC UVRPD125DC UVRPE250DC UVRPN120 UVRPR240 UVRPP208 UVRPS277 UVRPT415 UVRPU480 UVRPV600

**6**  
MOLDED CASE  
CIRCUIT BREAKERS

# Technical Data

		DG	FG	JG	LG	MG	NG	PG
<b>Max rated continuous current</b>		150	250	400	600	800	1200	1600
Rated operational voltage								
NEMA	V AC	600	600	600	600	600	600	600
IEC	V AC	690	690	690	690	690	690	690
Rated Impulse Withstand Voltage								
Main conducting paths	kV	8	8	8	8	8	8	8
Auxiliary circuits	kV	4	4	4	4	4	4	4
Ambient Temperature Range	°C	-25 to +75	-25 to +75	-25 to +75	-25 to +75	-25 to +75	-25 to +75	-25 to +75
High Ambient Derating (thermal-mag.)	50°C	93%	93%	93%	93%	95%	95%	95%
	60°C	86%	86%	86%	86%	86%	86%	80%
	70°C	80%	80%	80%	80%	80%	80%	74%
Operating Cycles		20,000	20,000	20,000	10,000	5,000	3,000	3,000
Max switching rate (per hour)		120	120	120	60	60	30	30
Power loss (at max. rated current)								
Thermal-magnetic	W	15 – 48	32 – 80	60 – 175	85 – 230	170 – 250	150 – 220	200 – 260
Electronic trip unit	W	40	60	90	160	250	210	260
IEC <sup>①</sup>								
Time constant t = 10 ms								
1 current path								
2 current paths in series								
3 current paths in series								
Up to 250V DC		—	—	—	—	—	—	—
440V DC								
600V DC								
NEMA								
Time constant t = 8 ms								
2 poles switching								
1 current path								
250V DC Max. <sup>②</sup>		30	30	30	30	42	42	42
3 poles switching								
2 current paths in series								
500V DC Max. <sup>②</sup>		18	25	35	35	65	65	65
<b>Accessories</b>								
Auxiliary/Alarm Switch								
Current rating (1 or 2 switches)		10	10	10	10	10	10	10
Current rating (3 or 4 same switch)	A	5	5	5	5	5	5	5
Shunt Trip								
Pick-up voltage	V	0.7 – 1.1	0.7 – 1.1	0.7 – 1.1	0.7 – 1.1	0.7 – 1.1	0.7 – 1.1	0.7 – 1.1
Power Consumption (short-time) at:								
48 – 60 V AC	VA	401 – 501	401 – 501	401 – 501	401 – 501	401 – 501	401 – 501	401 – 501
110 – 127 V AC	VA	424 – 489	424 – 489	424 – 489	424 – 489	424 – 489	424 – 489	424 – 489
208 – 277 V AC	VA	533 – 736	533 – 736	533 – 736	533 – 736	533 – 736	533 – 736	533 – 736
380 – 600 V AC	VA	408 – 645	408 – 645	408 – 645	408 – 645	408 – 645	408 – 645	408 – 645
24 V DC	W	594	594	594	594	594	594	594
48 – 60 V DC	W	740 – 925	740 – 925	740 – 925	740 – 925	740 – 925	740 – 925	740 – 925
110 – 127 V DC	W	559 – 648	559 – 648	559 – 648	559 – 648	559 – 648	559 – 648	559 – 648
220 – 250 V DC	W	722 – 820	722 – 820	722 – 820	722 – 820	722 – 820	722 – 820	722 – 820
Max. Operating time	ms	50	50	50	50	50	50	50

① Consult Siemens for short circuit values.

② Review individual frame and type values.

# Technical Data

	DG	FG	JG	LG	MG	NG	PG	
<b>Undervoltage Trip</b>								
Drop voltage (percentage)	V	35% – 70%	35% – 70%	35% – 70%	35% – 70%	35% – 70%	35% – 70%	35% – 70%
Pick-up voltage (percentage)	V	70% – 85%	70% – 85%	70% – 85%	70% – 85%	70% – 85%	70% – 85%	70% – 85%
Power consumption (continuous) at:								
110 – 127 V AC VA	1	1	1	1	1.1	1.1	1.1	
220 – 250 V AC VA	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
208 V AC VA	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
277 V AC VA	1.4	1.4	1.4	1.4	1.4	1.4	1.4	
380 – 415 V AC VA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	
440 – 480 V AC VA	2.2	2.2	2.2	2.2	2.2	2.2	2.2	
500 – 525 V AC VA	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
600 V AC VA	2.8	2.8	2.8	2.8	2.8	2.8	2.8	
Max. opening time	ms	50	50	50	50	50	50	50
<b>Motorized Operating Mechanism</b>								
Motor with stored energy mechanism (synchronizable)		X	X	X	X	X	X	X
Motor Operator						X	X	
Max. switching rate (per hour)		120	120	120	60	60	30	30
Command duration	ms	20 – 50	20 – 50	20 – 50	20 – 50	20 – 50	—	—
Closing time	ms	<100	<100	<100	<100	<100	<5,000	<5,000
Charging time	s	<5	<5	<5	<5	<5	<5	<5
Break time	s	<5	<5	<5	<5	<5	<5	<5
Power consumption	VA/W	<500						
Inrush (A)								
Control Voltages								
		110 – 127 V AC						
		220 – 250 V AC						
		24 V DC						
		48 V DC						
		60 V DC						
Operating Range		85 – 110% of rated control voltage						

# Molded Case Circuit Breakers

## Unusual Operating Conditions

Reference

**Note:** The information provided on this and the next page is intended for reference and recommendation only. Because several variables can act on a circuit breaker's performance at the same time, the data below is based less on controlled testing, than on experience and engineering judgment. Contact Siemens for further information on special conditions and treatment.

### High Ambient Temperatures

Because thermal-magnetic trip breakers are temperature sensitive and calibrated for a specific ambient of 40° C (104° F) (average enclosure temperature), a higher ambient will cause the breaker to trip at lower current than its nameplate rating, in other words, causing the breaker to "derate" (see Table 1). Similarly, the current carrying capacity of a circuit conductor is based upon a certain ambient temperature, a higher ambient will reduce its current carrying capacity, causing it to "derate." Thus, with a fluctuating temperature, a thermal-magnetic breaker will derate nearly parallel with its connected circuit conductors and maintain close circuit protection. If the application temperature exceeds 40° C (104° F) and is known, either a breaker specially calibrated for the higher ambient or one oversized according to Table 1 may be selected. In a case such as this, the circuit conductors should be oversized as well. Siemens Electronic Trip Unit Breakers are insensitive to temperature changes. However, they do include circuitry to protect the components from abnormally high temperatures.

### Moisture — Corrosion

For atmospheres having high moisture content and / or where fungus growth is prevalent, a special preventive treatment may be required.

Where the air is heavily laden with corrosive elements, breakers made with special corrosion-resistant finishes may be required.

### Altitude

Reduced air density at altitudes greater than 6600 ft. (2000 meters) affects the ability of a molded case circuit breaker to transfer heat and interrupt faults. Therefore, circuit breakers applied at these altitudes should have interrupting, insulation and continuous currents derated as indicated in Figure 1.

**Table 1 — Temperature Derating Data for Thermal-Magnetic Breakers**

Reference Ampere Rating at 40° C (104° F)	Ampere Rating at:			
	25° C (77° F)	50° C (122° F)	60° C (140° F)	
15	17	13	11	
20	22	18	16	
25	28	23	21	
30	33	28	26	
35	39	30	25	
40	44	37	34	
50	55	46	42	
60	66	56	52	
70	77	65	60	
90	99	84	78	
100	110	94	87	
125	137	114	100	
150	165	136	120	
175	192	159	140	
200	220	182	160	
225	247	205	180	
250	275	235	220	
300	330	276	252	
350	385	325	301	
400	440	372	340	
500	550	468	435	
600	660	564	525	
700	770	658	613	
800	880	754	704	
900	990	828	749	
1000	1100	900	825	
1200	1320	1090	1000	
1400	1540	1304	1148	
1600	1760	1500	1320	
1800	1980	1690	1485	
2000	2200	1880	1650	

Siemens Breaker Frames	
BQ, BL, BQD, CQD, NGG, NGB, ED	DG
	FG
	JG
	LG
	MG
	NG
	PG

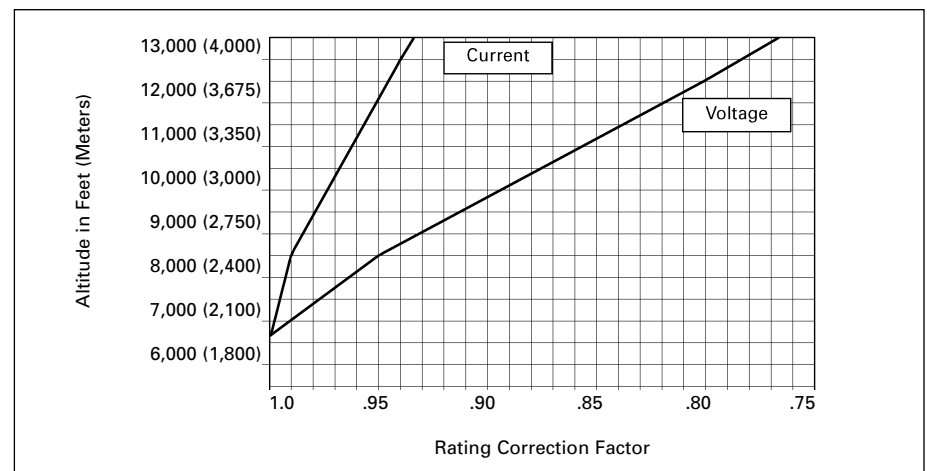


Figure 1 — Altitude Adjustment

# Molded Case Circuit Breakers

## Unusual Operating Conditions

Reference

### 400 Hz Systems<sup>①</sup>

Siemens molded case circuit breakers can be applied for overcurrent protection on 400Hz systems, commonly used to power computer installations, aircraft, military and other specialty equipment. Below are basic guidelines.

#### Circuit Breaker Derating Required

This table lists the maximum continuous current carrying capacity for Siemens breakers at 400Hz. Due to the increased resistance of the copper sections resulting from the skin effect produced by eddy currents at these frequencies, circuit breakers in many cases require derating. The thermal derating on these devices is based upon 100%, three phase application in open air in a maximum of 40° C (104° F) with 48 in. (1219 mm) of the specified cable or bus at the line and load side. Additional derating of not less than 20% will be required if the circuit breaker is to be utilized in an enclosure. Further derating may be required if the enclosure

ambient temperature exceeds 40° C (104° F).

#### Cable and Bus Sizing

The cable and bus sizes to be utilized at 400Hz are not based on standard National Electric Codes tables for 60Hz application. Larger cross sections are necessary at 400Hz. All bus bars specified are based upon mounting the bars in the vertical plane to allow maximum air flow. All bus bars are spaced at a minimum of 0.25 in. (6 mm) apart. Mounting of bus bars in the horizontal plane will necessitate additional drafting. Edgewise orientation of the bus may change the maximum ratings indicated. If additional information is required for other connections of cable or bus, contact Siemens for information.

#### Application Recommendations

It is recommended that temperatures be measured on the line and load terminals or T-connectors of the center pole. These

are usually the hottest terminals with a balanced load. A maximum temperature of 75° C (35° C over a maximum ambient of 40° C) would verify the particular application. Temperature profiles taken on these breakers can be correlated to ensure that the hottest points within the breaker are within the required temperature limits.

#### Factory Configuration

When required, molded case circuit breakers may be factory calibrated for 400Hz application. These breakers are specially labeled for 400Hz usage and their nameplate current rating will include the necessary derating factory. The highest "Maximum Continuous Amperes" rating at 400Hz, found in the table below approximates the highest specially calibrated 400Hz nameplate ampere rating available for a given frame size. Contact Siemens for ordering information on other breakers applied in 400Hz systems.

### 400Hz Breakers

Siemens Breaker Type	Maximum Continuous Ampere Rating At 40° C (104° F) <sup>②</sup>			75° C (167° F) Copper Cable per Pole	
	60HZ		400HZ	No of Pieces	Wire Size
	Open Air	Open Air <sup>③</sup>	Enclosed After Derating		
NGG, EG	15	15	12	1	#14
	20	20	16	1	#12
	15	15	12	1	#14
	20	20	16	1	#12
	25	25	20	1	#10
	30	30	24	1	#10
	35	35	28	1	#10
	40	40	32	1	#8
	45	43	34	1	#8
	50	48	38	1	#8
	60	57	46	1	#6
	70	67	54	1	#4
	80	76	61	1	#4
	90	86	69	1	#3
	100	95	76	1	#3
110	105	84	1	#2	
125	119	95	1	#1	
DG	50	48	38	1	#8
	60	57	46	1	#6
	70	63	50	1	#4
	80	72	58	1	#4
	90	80	64	1	#3
	100	90	72	1	#3
	110	95	75	1	#2
	125	105	84	1	#1
FG	100	90	72	1	#3
	110	95	75	1	#2
	125	105	84	1	#1
	150	125	100	1	#1/0
	175	140	112	1	#2/0
	200	160	128	1	#3/0
	225	180	144	1	#4/0
	250	200	160	1	250 kcmil

Siemens Breaker Type	Maximum Continuous Ampere Rating At 40° C (104° F) <sup>②</sup>			75° C (167° F) Copper Cable per Pole	
	60HZ		400HZ	No of Pieces	Wire Size
	Open Air	Open Air <sup>③</sup>	Enclosed After Derating		
JG	250	210	168	1	250 kcmil
	300	240	192	1	350 kcmil
	350	260	208	1	500 kcmil
	400	300	240	2	#2/0
JG 100% Rated	250	210	210	1	250 kcmil
	300	240	240	1	350 kcmil
	350	260	260	1	500 kcmil
LG	400	300	300	2	#3/0
	400	300	240	2	#3/0
	500	375	300	2	250 kcmil
MG	600	430	360	2	350 kcmil
	700	500	400	3	250 kcmil
	800	560	448	3	300 kcmil
MG 100% Rated	600	430	430	2	350 kcmil
	700	500	500	3	250 kcmil
	800	560	560	3	300 kcmil
NG	800	560	448	3	300 kcmil
	900	600	480	3	350 kcmil
	1000	650	520	3	400 kcmil
	1200	780	624	4	350 kcmil
NG 100% Rated	900	600	600	3	350 kcmil
	1000	650	650	3	400 kcmil
	1200	780	780	4	350 kcmil
PG	1200	780	624	4	400 kcmil
	1400	850	680	4	500 kcmil
	1600	960	768	5	500 kcmil
PG 100% Rated	1200	780	780	4	400 kcmil
	1400	850	850	4	500 kcmil
	1600	960	960	5	500 kcmil

<sup>①</sup>The information provided on this page is intended for reference and recommendation only. Because several variables can act on a circuit breaker's performance at the same time, the data above is based less on controlled testing, than on experience and engineering

judgment. Contact Siemens for further information on special conditions and treatment.

<sup>②</sup>Additional derating may be required if the ambient temperature is greater than 40° C (104° F).

<sup>③</sup>Calculated after derating to compensate for the heating of the copper conductor, caused by the skin effect generated by eddy currents produced at 400/415Hz.