Gladiator MCCB (Molded Case Circuit Breakers)

Gladiator MCCBs thermal-magnetic circuit breakers are designed to protect low voltage electrical systems from damage caused by overloads and short circuits.

Wide Range of Applications

- Branch and feeder circuits
- Industrial control panels
- Industrial machines
- Power distribution

High Performance

- Ultimate breaking capacity (kA rms)
- Max 65kA@480VAC and 50kA@600V
- DC ratings
- Reverse feed capable
- HACR (Heating, Air Conditioning and Refrigeration) rated

Simplified Product Range

- Seven frame sizes
- Three trip unit types
- Ampere range: 15A to 1200A
- Poles: 2P, 3P

Wide Range of Accessories

- Electrical auxiliaries (AUX, ALX, ALM, UVT, SHT)
- Extended rotary handle
- Flange handle with flexible cable and linkage
- Locking devices
- LUG for CU/AL cable with UL486

Variety of Trip Units

- AA: Adjustable thermal & magnetic unit
- FF: Fixed thermal & magnetic unit
- ES: Electronic self-powered

STANDARDS

- World class with UL489
  - UL489
  - CSA C22.2 No. 5
- IEC60947-2
- Class 1E for Nuclear power plant
  - EQ : Environment Qualification
  - SQ : Seismic Qualification

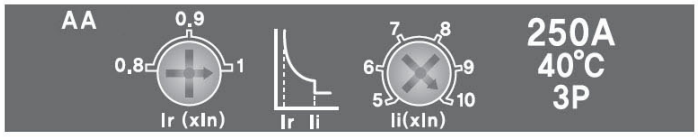
UL file E503708 MCCB
UL file E509077 Accessories

Seven Frame Sizes Up To 1200A

GCB100 Series 15-100 A
GCB150 Series 125-150 A
GCB250 Series 175-250 A
GCB400 Series 300-400 A
GCB600 Series 500-600 A
GCB800 Series 800 A
GCB1200 Series 1200 A

FF
Fixed Thermal:15A to 600A
Fixed Magnetic: 400A to 6000A

AA
Adjustable Thermal:100A to 600A
Adjustable Magnetic: 500A to 6000A



Gladiator MCCB Part Number Nomenclature

Gladiator MCCB

GCB 1200 S - 3 FF 75 LL

Series
GCB

Frame Size
100
150
250
400
600
800
1200

Interrupting Rating
S: Standard
H: High

Poles
2
3

Trip Unit	
AA	Adjustable Magnetic / Adjustable Thermal
FF	Fixed Magnetic / Fixed Thermal
ES	Electronic, Normal, Self-Powered

Amps
75

Lugs	
LL	Line & Load

Gladiator MCCB Accessories

GCBX 1 - AUX - LT - BK

Series
GCBX

Frame Size
1: 100
2: 150-250
3: 400-600
4: 150-800
5: 800-1200

Type	Product Description/Ratings		
ALX – Alarm/Auxiliary	LT (left), RT (right), or Blank (either side)		
AUX – Auxiliary	LT (left), RT (right), or Blank (either side)		
ALM – Alarm Contact	LT (left), RT (right), or Blank (either side)		
SHT – ShuntTrip	24VDC / 110VAC		
UVT – Trip	24VDC / 110VAC		
EHR – Exterior Handle Rotary	NEMA Rating: N12, N3R4, N1, N4X		Color: GY – Gray BK – Black
SFT – Shaft	Length (12, 16, 24 in)		
FHC – Flange Handle Cable	NEMA Rating (N12, N3R4, N1, N4X)		M – With operating mechanism
CBL – Cable	Length (36, 60, or 72 in)		
LCK – Locking Device	PL – Removable Padlocking		
PBR – Insulating Phase Barrier	STD – Standard		

Gladiator MCCB GCB800 (800A) 3-Pole

GCB800S-3ES800LL

GCB800H-3ES800LL

- HACR rated
- 40°C [104°F]
- Self-powered electronic trip unit
- Reverse feed capable
- Includes line and loadside lugs

Gladiator MCCB GCB800 3-Pole (800A) Selection Guide

Part Number	Price	Frequency	Ampere Rating	Voltage (AC)	Interrupt Capacity (kA)	Voltage (DC)	Interrupt Capacity (kA)	Dimensional Drawing
GCB800S-3ES800LL	$1,675.00	50/60 Hz	800	240 480 600	65 35 18	–	–	PDF
GCB800H-3ES800LL	$2,010.00		800	240 480 600	100 65 35	–	–	PDF

Gladiator MCCB GCB800 (800A) 3-Pole

Gladiator MCCB GCB800 3-Pole (800A) Specifications			
Maximum Rated Current		800A	800A
Number of Poles		3	3
Breaker Type		S	H
UL489/CSA C22.2		GCB800	GCB800
Interrupting capacity (kA rms) AC (50/60HZ) UL, CSA	*120/240 V*	–	–
	240VAC	65	100
	480VAC	35	65
	600VAC	18	35
	600Y/347 VAC	–	–
UL489 DC		GCB800	GCB800
Interrupting Capacity (kA) DC UL, CSA	*250V DC-2P*	–	–
	500V DC-3P	–	–
	600V DC-3P	–	–
IEC 60947-2		GCB800	GCB800
Ultimate Breaking Capacity, (kA rms) AC 50/60Hz, Icu	*220/240V*	65	100
	380/415V	35	65
	480/500V	18	35
Service Breaking Capacity, Ics (%Icu)		100%	100%
Insulation Voltage, Ui		1000VAC	1000VAC
Impulse Withstand Voltage, Uimp		8KVAC	8KVAC
Rated Short-Time Withstand Current (Icw)		18kA	–
Utilization Category		B	A
TRIP UNITS F : Fixed A : Adjustable T : Thermal E : Electronics	*Amperes*	800 A	800 A
	ATU	–	–
	FTU	–	–
	ETS	✓	✓
Trip Unit Mounted		✓	✓
Mechanical Lugs		✓	✓
Terminal Shields		✓	✓
Interphase Barriers		✓	✓
Shunt Trip		✓	✓
Undervoltage Trip		✓	✓
Auxiliary Switch		✓	✓
Alarm Switch		✓	✓
Flange Cable Handle		✓	✓
NEMA-Door-Mounted Operating Mechanisms		✓	✓
Handle Padlock Attachment		✓	✓
Weight (lb [kg])		31.35 [14.22]	31.35 [14.22]

Gladiator MCCB GCB800 (800A) 3-Pole – Accessories

Gladiator MCCB GCB800 3-Pole (800A) Accessories			
Part Number	**Price**	**Description**	**Dimensional Drawing**
GCBX5-ALM	$12.50	Gladiator field installable alarm contact, right side mount, (1) SPDT contact(s), 3A @ 250VAC/0.2A @ 250VDC, 20in 26AWG lead wires, Alarm contacts indicate when the MCCB is tripped.	NA
GCBX5-AUX	$12.50	Gladiator field installable auxiliary contact, right side mount, (1) SPDT contact(s), 3A @ 250VAC/0.2A @ 250VDC, screw terminals, Auxiliary contact indicates if the MCCB is closed or open/tripped.	NA
GCBX5-LCK-PL	$48.50	Gladiator lockout attachment, 5-8mm (3/16-5/16in) diameter. For use with Gladiator 800A and 1200A frame MCCBs. Accepts up to 3 locks.	PDF
GCBX5-PBR-STD	$29.50	Gladiator phase barrier, package of 2.	PDF
GCBX5-SHT-110VAC	$60.00	Gladiator field installable shunt trip, right side mount, 110-130 VAC/VDC coil voltage, screw terminals.	NA
GCBX5-SHT-24VDC	$60.00	Gladiator field installable shunt trip, right side mount, 24 VAC/VDC coil voltage, screw terminals.	NA
GCBX5-UVT-110VAC	$71.00	Gladiator field installable undervoltage trip, right side mount, 110-130 VAC/VDC sensing range, screw terminals.	NA
GCBX5-UVT-24VDC	$66.00	Gladiator field installable undervoltage trip, right side mount, 24 VAC/VDC sensing range, screw terminals.	NA

Gladiator MCCB GCB800 3-Pole (800A) Flange Handles and Cables			
Part Number	**Price**	**Description**	**Dimensional Drawing**
GCBX5-FHC-N3R4-M	$397.00	Gladiator flange handle, lever, gray/chrome, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 3/3R/4. Operating mechanism included.	PDF
GCBX5-FHC-N4X-M	$420.00	Gladiator flange handle, lever, chrome, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 3/4/4X. Operating mechanism included.	PDF
GCBX5-CBL-60	$88.00	Gladiator cable assembly, 60in [1.52 m]	PDF

Gladiator MCCB GCB800 3-Pole (800 A) Rotary Handles and Shafts			
Part Number	**Price**	**Description**	**Dimensional Drawing**
GCBX5-EHR-N12-GY	$181.00	Gladiator rotary handle, tee, gray, external front mount, 2-position, lockable in ON-OFF, defeatable, NEMA 1/12. Operating mechanism included.	PDF
GCBX5-EHR-N3R4-BK	$195.00	Gladiator rotary handle, tee, black, external front mount, 2-position, lockable in ON-OFF, defeatable, NEMA 3/3R/4. Operating mechanism included.	PDF
GCBX5-EHR-N4X-BK	$214.00	Gladiator rotary handle, tee, black, external front mount, 2-position, lockable in ON-OFF, defeatable, NEMA 3/4/4X. Operating mechanism included.	PDF
GCBX5-SFT-12	$28.50	Gladiator shaft, 12in [0.30 m] length.	PDF
GCBX5-SFT-16	$30.50	Gladiator shaft, 16in [0.41 m] length.	PDF
GCBX5-SFT-24	$45.00	Gladiator shaft, 24in [0.61 m] length.	PDF

GCBX5-ALM

GCBX5-SHT-24VDC

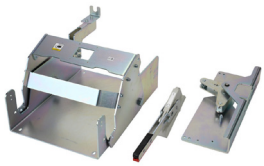
GCBX5-UVT-24VDC

GCBX5-EHR-N12-GY

GCBX5-SFT-12

GCBX5-PBR-STD

GCBX5-LCK-PL



GCBX5-FHC-N3R4-M

Trip Unit Replacement Battery

Gladiator Trip Unit Replacement Battery			
Part Number	**Price**	**Description**	**Drawing**
GCBX5-BATT	$19.00	Gladiator trip unit replacement battery, for use with GCB800 and GCB1200 molded case circuit breakers.	NA

GCBX5-BATT

GCBX5-CBL-60

Gladiator MCCB Derating Tables (80% Rating)

Gladiator MCCB GCB100 (15-100 A)

Temperature	50°F [10°C]	68°F [20°C]	77°F [25°C]	86°F [30°C]	104°F [40°C]	122°F [50°C]	140°F [60°C]	158°F [70°C]
Rating (A)	Modification of Current (A)							
15	13.1	12.7	12.5	12.4	12.0	11.2	10.3	9.5
20	17.4	17.0	16.7	16.5	16.0	14.9	13.8	12.6
25	21.8	21.2	20.9	20.6	20.0	18.6	17.2	15.8
30	26.2	25.4	25.1	24.7	24.0	22.3	20.6	19.0
35	30.5	29.7	29.3	28.8	28.0	26.0	24.1	22.1
40	34.9	33.9	33.4	33.0	32.0	29.8	27.5	25.3
45	39.2	38.2	37.6	37.1	36.0	33.5	31.0	28.4
50	43.6	42.4	41.8	41.2	40.0	37.2	34.4	31.6
60	52.3	50.9	50.2	49.4	48.0	44.6	41.3	37.9
70	61.0	59.4	58.5	57.7	56.0	52.1	48.2	44.2
80	69.8	67.8	66.9	65.9	64.0	59.5	55.0	50.6
90	78.5	76.3	75.2	74.2	72.0	67.0	61.9	56.9
100	87.2	84.8	83.6	82.4	80.0	74.4	68.8	63.2

Gladiator MCCB GCB150 (40-150 A)

Temperature	50°F [10°C]	68°F [20°C]	77°F [25°C]	86°F [30°C]	104°F [40°C]	122°F [50°C]	140°F [60°C]	158°F [70°C]
Rating (A)	Modification of Current (A)							
40	36.8	35.2	34.4	33.6	32.0	30.1	28.2	26.2
50	46.0	44.0	43.0	42.0	40.0	37.6	35.2	32.8
60	55.2	52.8	51.6	50.4	48.0	45.1	42.2	39.4
70	64.4	61.6	60.2	58.8	56.0	52.6	49.3	45.9
80	73.6	70.4	68.8	67.2	64.0	60.2	56.3	52.5
90	82.8	79.2	77.4	75.6	72.0	67.7	63.4	59.0
100	92.0	88.0	86.0	84.0	80.0	75.2	70.4	65.6
110	101.2	96.8	94.6	92.4	88.0	82.7	77.4	72.2
125	115.0	110.0	107.5	105.0	100.0	94.0	88.0	82.0
150	138.0	132.0	129.0	126.0	120.0	112.8	105.6	98.4

Gladiator MCCB GCB250 (150-250 A)

Temperature	50°F [10°C]	68°F [20°C]	77°F [25°C]	86°F [30°C]	104°F [40°C]	122°F [50°C]	140°F [60°C]	158°F [70°C]
Rating (A)	Modification of Current (A)							
150	138.0	132.0	129.0	126.0	120.0	106.8	93.6	80.4
160	147.2	140.8	137.6	134.4	128.0	113.9	99.8	85.8
175	161.0	154.0	150.5	147.0	140.0	124.6	109.2	93.8
200	184.0	176.0	172.0	168.0	160.0	142.4	124.8	107.2
225	207.0	198.0	193.5	189.0	180.0	160.2	140.4	120.6
250	230.0	220.0	215.0	210.0	200.0	178.0	156.0	134.0

Gladiator MCCB GCB400 (250-400 A)

Temperature	50°F [10°C]	68°F [20°C]	77°F [25°C]	86°F [30°C]	104°F [40°C]	122°F [50°C]	140°F [60°C]	158°F [70°C]
Rating (A)	Modification of Current (A)							
250	218.0	212.0	209.0	206.0	200.0	172.0	144.0	116.0
300	261.6	254.4	250.8	247.2	240.0	206.4	172.8	139.2
350	305.2	296.8	292.6	288.4	280.0	240.8	201.6	162.4
400	348.8	339.2	334.4	329.6	320.0	275.2	230.4	185.6

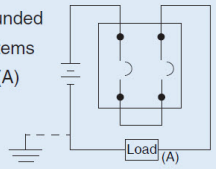
Gladiator MCCB GCB600 (500-600 A)

Temperature	50°F [10°C]	68°F [20°C]	77°F [25°C]	86°F [30°C]	104°F [40°C]	122°F [50°C]	140°F [60°C]	158°F [70°C]
Rating (A)	Modification of Current (A)							
500	436.0	424.0	418.0	412.0	400.0	344.0	288.0	232.0
600	523.2	508.8	501.6	494.4	480.0	412.8	345.6	278.4

Circuit Diagrams For DC Applications

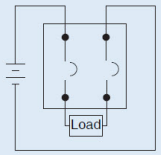
250VDC, 2P in Series

Suitable for use on ungrounded systems, or grounded systems that have one end of load(A) connected to grounded terminal,opposite poles in series connection.



A. Grounded System

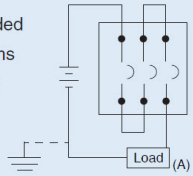
Suitable for use on ungrounded systems only



B. Ungrounded System

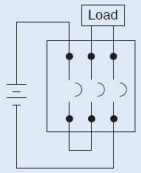
500VDC or 600VDC, 3P in Series

Suitable for use on ungrounded systems, or grounded systems that have one end of load(A) connected to grounded terminal, opposite poles in series connection.



A. Grounded System

Suitable for use on ungrounded systems only



B. Ungrounded System

Ambient Air Temperature Considerations

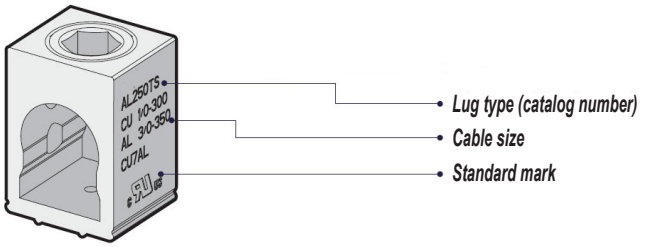
Operation	-20 to 70°C [-4 to 158°F]
Storage	-40 to 70°C [-40 to 158°F]

NOTE: MCCB can be used without derating up to -20°C [-4°F]. However, if the ambient temperature exceeds 40°C [104°F], then the rated current must be derated.

NOTE: GCB800 and GCB1200 models have an electronic trip unit, so derating is not necessary.

Gladiator MCCB Mechanical Lugs

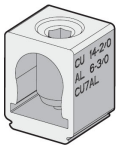
Gladiator MCCB circuit breakers come standard with mechanical line and load side lugs. All lugs are UL/cUL Listed Certified for their proper application and marked for use with aluminum and copper (Al/Cu) or copper only (Cu) conductors. Lugs suitable for copper and aluminum conductors are made of tin-plated aluminum. Mechanical lugs are sold factory-installed only. Lugs are rated for 60/75°C [140/167°F] wire.



Mechanical Lug Kits For GCB100 Circuit Breakers

Lug Type	Terminal Body Material	Wire Type	Breaker Amp Range (A)	Wire (AWG)	Torque (N•m [lb•in])
100TE	Aluminum	Cu 60°C [140°F]	15-30	14-10	3.6 [31.9]
			40	8	4.5 [39.8]
			50-80	6-3	5.4 [47.8]
			90-100	2-1	6.3 [55.8]
		Cu 75°C [167°F]	15-30	14-10	3.6 [31.9]
			40-50	8	4.5 [39.8]
			60-100	6-3	5.4 [47.8]
		Al 60°C [140°F]	40-60	6-3	5.4 [47.8]
			70-80	2-1	6.3 [55.8]
		Al 75°C [167°F]	50-70	6-3	5.4 [47.8]
			80-100	2-1/0	6.3 [55.8]

Mechanical Lug Kits For GCB150 Circuit Breakers

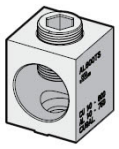


Lug Type	Terminal Body Material	Wire Type	Breaker Amp Range (A)	Wire (AWG)	Torque (N•m [lb•in])
150TS	Aluminum	Cu	1.6-15	14	4.1 [36.2]
			20-30	12-10	5.4 [47.8]
			40-175	8-2/0	15.1 [133.6]
		Al	50-70	6-3	5.4 [47.8]
			90-150	2-3/0	15.7 [138.6]

Mechanical Lug Kits For GCB250 Circuit Breakers

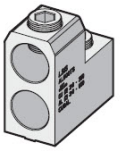
Lug Type	Terminal Body Material	Wire Type	Breaker Amp Range (A)	Wire (AWG)	Torque (N•m [lb•in])
250TS	Aluminum	Cu	150-175	1/0-2/0	32 [283.2]
		Cu/Al Cu/Al	150-175	3/0-4/0	
			200-225		
		Cu/Al	200-225	250-300 kcmil	44 [389.4]
			250 (Cu)		
		Al	250	350 kcmil	

Mechanical Lug Kits For GCB400 Circuit Breakers



Lug Type	Terminal Body Material	Wire Type	Breaker Amp Range (A)	Wire (AWG)	Torque (N•m [lb•in])
400TS	Aluminum	Cu/Al	250 300 350 400	1/0 AWG - 300kcmil	40.5 [358.5]
				350-600 kcmil	
		Al		700-750 kcmil	54 [478]

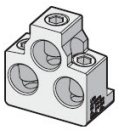
Mechanical Lug Kits For GCB600 Circuit Breakers



Lug Type	Terminal Body Material	Wire Type	Breaker Amp Range (A)	Wire (AWG)	Torque (N•m [lb•in])
600TS	Aluminum	Cu	500 600	2/0 - 350kcmil	40.5 [358.5]
		Al*		3/0 - 500kcmil	40.5 [358.5]

*** Compact wire only (400-500 kcmil)**

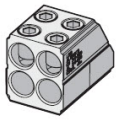
Mechanical Lug Kits For GCB800 Circuit Breakers



Lug Type	Terminal Body Material	Wire Type	Breaker Amp Range (A)	Wire (AWG)	Torque (N•m [lb•in])
800TS	Aluminum	Cu	400 600 630 800	3/0 - 300kcmil	45 [398.3]
		Al*		3/0 - 400kcmil	45 [398.3]

*** Compact wire only (350-400 kcmil)**

Mechanical Lug Kits For GCB1200 Circuit Breakers

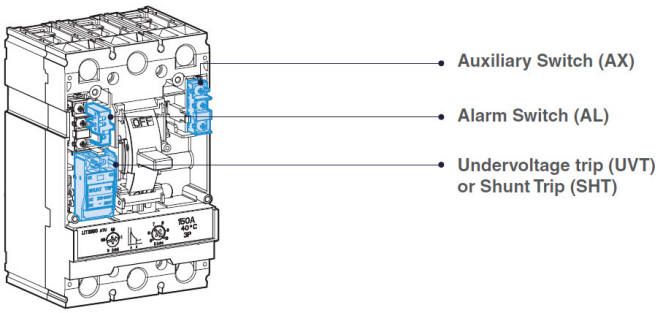


Lug Type	Terminal Body Material	Wire Type	Breaker Amp Range (A)	Wire (AWG)	Torque (N•m [lb•in])
1200TS	Aluminum	Cu	800 1000 1200	3/0 - 350kcmil	45 [398.3]
		Al*		3/0 - 500kcmil	45 [398.3]

*** Compact wire only (400-500 kcmil)**

Gladiator MCCB Internal Accessories

Field-installable accessories provide flexibility for installation at the point of use. Auxiliary switches, alarm switches, shunt trip, and undervoltage release accessories are easy to install, reliable, and common to all Gladiator molded case circuit breakers. The internal accessories comply with requirements of Underwriters Laboratories® Inc. UL 489 Standards.



Gladiator MCCB Internal Accessories

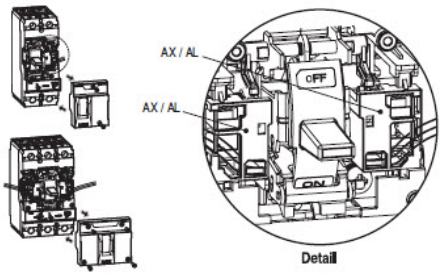
Frame	Internal Accessories Locations	Type	Left (R)	Right (T)
GCB100	* 2P : Right only AX or AL or AX+AL UVT or SHT or AX or AL or AX+AL	AX	1*	1*
		AL	1*	1*
		AX+AL	1*	1*
		SHT	–	1*
		UVT	–	1*
GCB150 GCB250	AX AX AL UVT or SHT	AX	1	1
		AL	1	–
		SHT	1*	–
		UVT	1*	–
GCB400 GCB600	AX AL UVT or SHT	AX	3	–
		AL	–	1
		SHT	1*	–
		UVT	1*	–
GCB800 GCB1200	AX AL UVT or SHT	AX	–	3
		AL	–	1
		SHT	–	1*
		UVT	–	1*

*** Only one part can be installed in a designated place.**

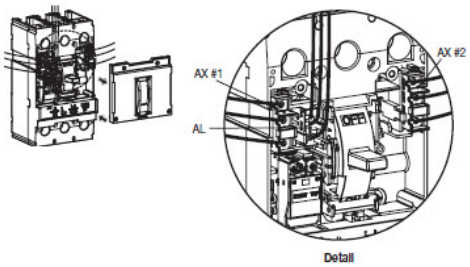
Gladiator MCCB Internal Accessories

Electrical accessories are fitted with numbered terminal blocks for wires. Auxiliary circuit wiring exits fixed mounted devices through a knock-out in the front cover. The internal accessories comply with requirements of Underwriters Laboratories® Inc.

UL 489 Standards



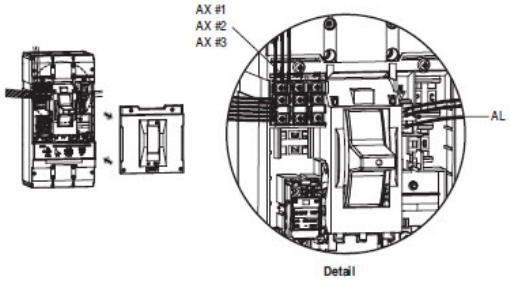
GCB100



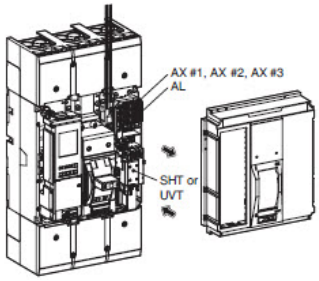
GCB150 / 250

GCBX1-AUX-LT

GCBX4-AUX



GCB400 / 600



GCB800 / 1200

GCBX4-ALM

GCBX5-ALM

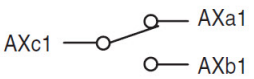
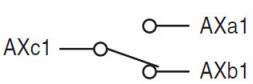
Auxiliary Switch (AX) and Alarm Switch (AL)

Auxiliary switches provide remote information of the circuit breaker status and can be used for indications, electrical locking, relays, etc. Includes both an Auxiliary switch (AX) and an Alarm Switch (AL). See definitions of each below.

Auxiliary Switch (AX)

Indicates the position of the circuit breaker contacts (Open/Closed Auxiliary switch is for applications requiring remote "ON" and "OFF" indication). Each switch contains two contacts having a common connection. One is open and the other closed when the circuit breaker is open, and vice-versa.

Gladiator MCCB Auxiliary Switch AX Connections

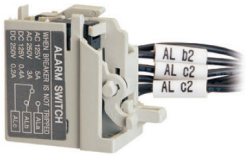
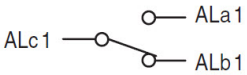
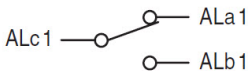
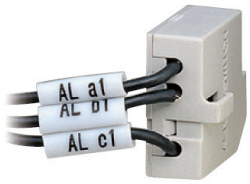
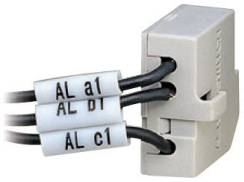
AX	*Frame*	*Wire Size*	*On*	*Off / Trip*
	GCB100	24 AWG (0.2 mm^2)		
	GCB150 GCB250 GCB400 GCB600	20 AWG (0.52 mm^2)		
	GCB800 GCB1200	19-16 AWG (0.65 - 1.31 mm^2)		

Gladiator MCCB Internal Accessories

Alarm Switch (AL)

Alarm switches indicate that the circuit breaker has tripped due to an overload, short circuit, shunt trip, undervoltage trip, or the "push-to-trip" button. They are particularly useful in automated plants where operators must be signaled about changes in the electrical distribution system. This switch features a closed contact when the circuit breaker is tripped automatically. In other words, this switch does not function when the breaker is operated manually. Its contact is open when the circuit breaker is reset.

Gladiator MCCB Alarm Switch (AL) Connections

AL	Frame	Wire Size	On / Off	Trip
	GCB100	24 AWG (0.2 mm^2) 75°C [167°F]		
	GCB150 GCB250 GCB400 GCB600	26 AWG (0.13 mm^2) 75°C [167°F]		
	GCB800 GCB1200	19-16 AWG (0.65 - 1.31 mm^2) 90°C [194°F]		

UL Technical Specs

Part Number	UL Max. Voltage	Frequency (Hz)	UL Max Current (DC)	UL Max Current (AC)
GCBX1-AUX-LT	250V	60	0.2 A	3A (resistive load) / 2A (inductive load)
GCBX1-AUX-RT				
GCBX1-ALX-LT				
GCBX1-ALX-RT				
GCBX4-AUX				
GCBX4-ALM				
GCBX5-AUX				
GCBX5-ALM				

Trip Unit Replacement Battery

Gladiator Trip Unit Replacement Battery

Part Number	Price	Description	Drawing
GCBX5-BATT	$19.00	Gladiator trip unit replacement battery, for use with GCB800 and GCB1200 molded case circuit breakers.	NA

GCBX5-BATT

Note: Maximum Pulse Capability reading over 3.0 V at 60mA: 0.1 sec every 2 min at 20°C [68°F], 10uA/cm^2 base current with fresh batteries. The pulse capability can be different depending on the cell status and environment. For maximum pulse coverage, capacitor support is recommended.

Gladiator Trip Unit Replacement Battery

Nominal Capacity (at 1mA, 20°C [68°F], 2.0 V cut-off)	1.2 Ah
Nominal Voltage	3.6 V
Maximum Recommended Continuous Current	30mA
Maximum Pulse Current Capability	60mA
Operating Temperature Range	-55 to +85°C [-67 to 185°F]
Lithium Metal Content	Approx. 0.3 g
Weight	9g [0.32 oz]
Volume	4.3 cm^3

Gladiator MCCB Internal Accessories

Shunt Trip (SHT) and Undervoltage Trip (UVT) Switches
A voltage release can be used to trip the circuit breaker via a control signal.

Shunt Trip (SHT)
The shunt trip opens the mechanism in response to an externally applied voltage signal. The releases include coil clearing contacts that automatically clear the signal circuit when the mechanism has tripped.

Gladiator MCCB GCB100 SHT Technical Specifications

Control Voltage U_e		Power Consumption		
		AC (VA)	DC (W)	mA
Voltage	AC/DC 12V	0.35	0.36	30
	AC/DC 24V	0.64	0.65	27
	AC/DC 48V	1.09	1.1	23
	AC/DC 60V	1.2	1.22	20
	AC/DC 100-130V	0.73	0.75	5.8
	AC/DC 200-250V	1.21	1.35	5.4
	AC 380-450V	1.67	–	3.8
	AC 440~500V	1.68	–	3.5
Maximum Opening Time		50ms maximum		
Terminal Screw Tightening Torque		7.12 lb•in [0.8 N•m]		
Operating Voltage Range		AC : 0.7-1.1 (rated voltage), DC : 0.8-1.1 (rated voltage)		
Frequency		45Hz - 65 Hz (AC only)		
Wire Size		20 AWG (0.52 mm^2)		

Gladiator MCCB GCB150/250/400/600 SHT Technical Specifications

Control Voltage U_e		Power Consumption		
		AC (VA)	DC (W)	mA
Voltage	DC 12V	–	0.36	30
	AC/DC 24V	0.58	0.58	24
	AC/DC 48V	1.22	1.23	25
	AC/DC 100-130V	1.36	1.37	10.5
	AC 220-240 V DC 250V	1.8	1.88	7.5
	AC 380-500 V	1.15	–	2.3
Maximum Opening Time		50ms maximum		
Terminal Screw Tightening Torque		7.12 lb•in [0.8 N•m]		
Operating Voltage Range		AC : 0.7-1.1 (rated voltage), DC : 0.8-1.1 (rated voltage)		
Frequency		45Hz - 65 Hz (AC only)		
Wire Size		20 AWG (0.52 mm^2)		

Gladiator MCCB GCB800/1200 SHT Technical Specifications

Control Voltage U_e		Operating Voltage Range	Power Consumption (VA or W)	
			Inrush	Steady-State
Voltage	DC 24-30 V	0.6 - 1.1 V_n	200	5
	AC 48V DC 48-60 V	0.6 - 1.1 V_n		
	AC/DC 100-130 V	0.56 - 1.1 V_n		
	AC/DC 200-250 V	0.56 - 1.1 V_n		
	AC 380-480V	0.56 - 1.1 V_n		
Maximum Opening Time		40ms maximum		
Frequency		45Hz - 65 Hz (AC only)		
Wire Size		16 AWG (1.31mm^2) – 14 AWG (2.08mm^2)		

Gladiator MCCB Internal Accessories

Undervoltage Trip (UVT)

The undervoltage release automatically opens a circuit breaker when voltage drops to a value less than the line voltage. The operation is instantaneous, and after tripping, the circuit breaker cannot be re-closed again until the voltage returns to a recover value of line voltage. Continuously energized, the undervoltage release must be operating before the circuit breaker can be closed.

Gladiator MCCB GCB100 UVT Technical Specifications

Control Voltage U_e		Power Consumption		
		AC (VA)	DC (W)	mA
Voltage	AC/DC 24V	0.64	0.65	27
	AC/DC 48V	1.09	1.1	23
	AC/DC 100-110 V	0.73	0.75	5.8
	AC/DC 200-220 V	1.21	1.35	5.4
	AC 380-440 V	1.67	–	3.8
	AC 440~480 V	1.68	–	3.5
Maximum Opening Time		50ms maximum		
Terminal Screw Tightening Torque		7.12 lb•in [0.8 N•m]		
Operating Voltage Range	Trip	0.2 - 0.7 (rated voltage)		
	Reset/Closing	≥ 0.85 (rated voltage)		
Frequency		45Hz - 65 Hz (AC only)		
Wire Size		20 AWG (0.52 mm^2)		

Gladiator MCCB GCB150/250/400/600 UVT Technical Specifications

Control Voltage U_e		Power Consumption		
		AC (VA)	DC (W)	mA
Voltage	AC/DC 24V	0.64	0.65	27
	AC/DC 48V	1.09	1.1	23
	AC/DC 110-130 V	0.73	0.75	5.8
	AC 220-240 V DC 250V	1.21	1.35	5.4
	AC 380-440 V	1.67	–	3.8
	AC 440~480 V	1.68	–	3.5
Maximum Opening Time		50ms maximum		
Terminal Screw Tightening Torque		7.12 lb•in [0.8 N•m]		
Operating Voltage Range	Trip	0.35 - 0.7 (rated voltage)		
	Reset/Closing	≥ 0.85 (rated voltage)		
Frequency		45Hz - 65 Hz (AC only)		
Wire Size		20 AWG (0.52 mm^2)		

Gladiator MCCB GCB800/1200 UVT Technical Specifications

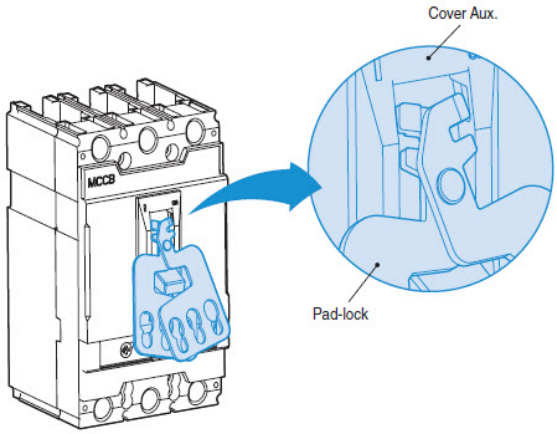
Control Voltage U_e		Power Consumption (VA or W)		
		Inrush	Steady-State	Maximum Opening Time
Voltage	DC 24-30 V	200	5	50ms
	AC 48V DC 48-60 V			
	AC/DC 100-130 V			
	AC/DC 200-250 V			
	AC 380-480 V			
Operating Voltage Range	Trip	0.44-0.6 (rated voltage)		
	Reset/Closing	0.65-0.85 (rated voltage)		
Frequency		45Hz - 65 Hz (AC only)		
Wire Size		16 AWG (1.31 mm^2) - 14 AWG (2.08 mm^2)		

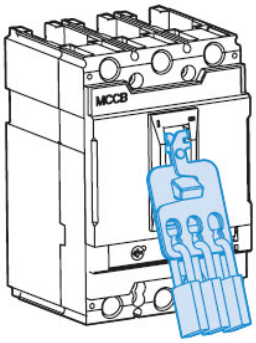
Gladiator MCCB Locking Systems Overview

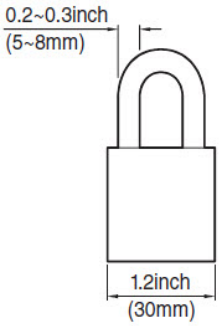
Padlocking Device

A padlocking device is available for GCB100 to GCB1200 circuit breakers. The locking device is designed to be easily attached to the circuit breaker. This device allows the handle to be locked in the "OFF" position. A maximum of three (3) padlocks with shackle diameters of 0.19 to 0.31 in (5 to 8mm) may be used. Padlocks are not included.

Gladiator MCCB Padlocking Device Technical Specifications		
Description	***Use With***	***Function***
GCBX1-LCK-PL	GCB100	Lock in "OFF" position
GCBX2-LCK-PL	GCB150/250	
GCBX3-LCK-PL	GCB400/600	
GCBX5-LCK-PL	GCB800/1200	



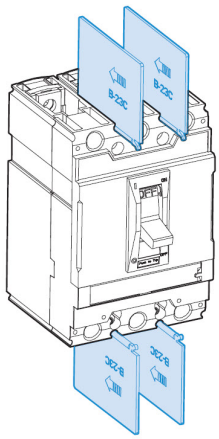




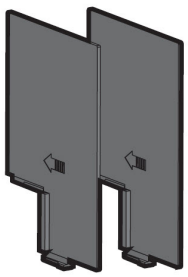
Insulation Barrier

These barriers are insulated between the phases for an increased insulation level. The barriers can be easily installed, even on breakers that are already mounted, by inserting them into the corresponding slots. They are incompatible with the insulating terminal covers. It is possible to mount the phase separating partitions between two side-by-side circuit breakers.

Gladiator MCCB Insulation Barrier Technical Specifications		
Description	***Use With***	***Poles***
GCBX2-PBR-STD	GCB150/250	3P
GCBX3-PBR-STD	GCB400/600	3P
GCBX5-PBR-STD	GCB800/1200	3P



Standard Type



Standard Type GCBX5-PBR-STD

Gladiator MCCB Door-Mounted Rotary Handles

NEMA Door-Mounted Rotary Handles

The extended rotary operating handle consists of the following:

- A mounting plate that provides a rotary actuator for a standard toggle circuit breaker
- Handle assemblies available for NEMA Type 1, 12, 3, 3R, 4, 4X
- Available in standard or long (12-24 in) handle assemblies

The door mounted operating handle makes it possible to operate circuit breakers installed in enclosure from the front.

- Indication of three positions: I (ON), Tripped and O (OFF): NEMA Type 1, 12
- Provides ON (I) and OFF (O) indication : NEMA Type 3, 3R, 4, 4X
- The circuit breaker may be locked in either the ON or OFF position

Models

- Standard with dark gray handle (NEMA Type 1, 12)
- Outdoor with black handle (NEMA Type 3, 3R, 4, 4X)
- Field-installable (secured by screws)

GCB100	GCB150/250	GCB400/600	GCB800/1200
GCBX1-EHR-N12-GY GCBX1-EHR-N3R4-BK GCBX1-EHR-N4X-BK	GCBX2-EHR-N12-GY GCBX2-EHR-N3R4-BK GCBX2-EHR-N4X-BK	GCBX3-EHR-N12-GY GCBX3-EHR-N3R4-BK GCBX3-EHR-N4X-BK	GCBX5-EHR-N12-GY GCBX5-EHR-N3R4-BK GCBX5-EHR-N4X-BK

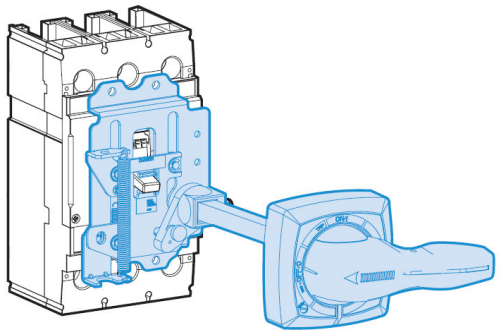
The shaft length is the distance between the back of the circuit breaker and door:

- Minimum mounting depth is 5.51 in [140mm] in GCB100
- Minimum shaft length is 12 in. [305mm] with long shaft
- Minimum shaft length is 24 in. [600mm] with long shaft
- Extended shaft length must be adjusted

Note: Rotary handles (EHR) include external operating handle and internal operating mechanism. Shafts (SFT) are sold separately.

Standards

- The door-mounted rotary operating handle is UL Listed under file E509077
- Degree of protection NEMA Type 1, 12, 3, 3R, 4, 4X

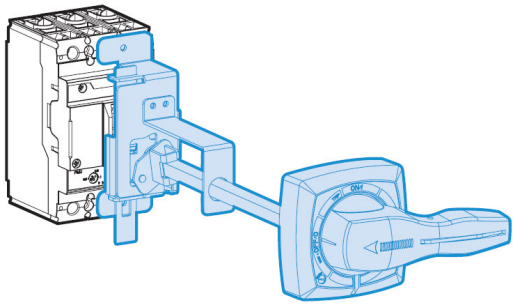


Door-Mounted Rotary Operating Handle

GCBX2-EHR-N12-GY
GCBX2-EHR-N3R4-BK
GCBX2-EHR-N4X-BK

GCBX3-EHR-N12-GY
GCBX3-EHR-N3R4-BK
GCBX3-EHR-N4X-BK

GCBX5-EHR-N12-GY
GCBX5-EHR-N3R4-BK
GCBX5-EHR-N4X-BK



Door-Mounted Rotary Operating Handle

GCBX1-EHR-N12-GY
GCBX1-EHR-N3R4-BK
GCBX1-EHR-N4X-BK

Gladiator MCCB Flange Handles With Sliding Operating Mechanism

Flange Handle With Sliding Operating Mechanism

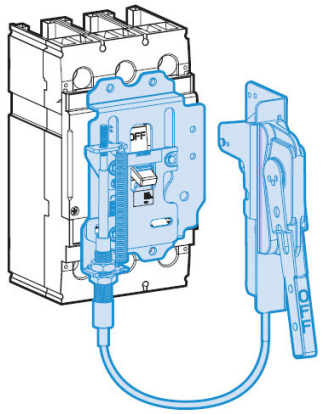
Flange handle with sliding operating mechanism is for use with a cable assembly.

The cable operator maintains:

- Suitability for isolation
- Indication of two positions: O (OFF) and I (ON)
- The circuit breaker can be locked in the off position by one to three padlocks
- Door can be locked closed due to interlocking features of the handle operator

Handle is mounted on flange of enclosure using specified mounting dimensions while circuit breaker and operating mechanism are mounted to inside of enclosure using screws.

- Handles are available in NEMA Type 1,12, 3, 3R, 4 and NEMA Type 4, 4x
- All circuit breaker operating mechanisms are suitable for right-hand flange mounting on the job



Flange Handle
With Sliding Operating Mechanism

GCBX2-FHC-N3R4-M
GCBX2-FHC-N4X-M

Models

- Standard with painted handle (NEMA Type 1,12, 3, 3R, 4)
- Outdoor with nickel-plated handle (NEMA Type 4, 4X)
- Field installable (secured by screws)

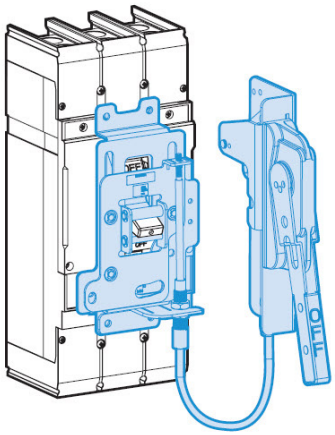
GCB100	*GCB150/250*	*GCB400/600*	*GCB800/1200*
-	GCBX2-FHC-N3R4-M GCBX2-FHC-N4X-M	GCBX3-FHC-N3R4-M GCBX3-FHC-N4X-M	-

Standard type handle (NEMA Type1, 12, 3, 3R, 4) with sliding mechanism and without cable

Outdoor type handle (NEMA Type 4, 4X) with sliding mechanism and without cable

- Cable lengths available in 36in to 60in

Note: Flange handles (FHC) include external operating handle and internal operating mechanism. Cables (CBL) are sold separately.



Flange Handle
With Sliding Operating Mechanism

GCBX3-FHC-N3R4-M
GCBX3-FHC-N4X-M

Standards

- Flange cable operating handle is UL Listed under file E509077
- Degree of protection NEMA Type 1, 12, 3, 3R, 4, 4X

Gladiator MCCB Flange Handles With Flange-Mounted Cable Operating Mechanism

Flange-Mounted Cable Operating Mechanism

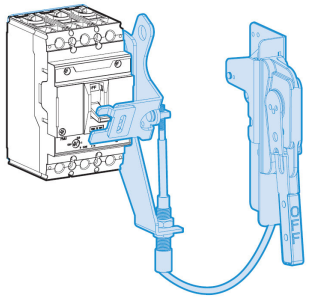
Flange-mounted handle cable operating mechanism is for use with FH or COM Type handle operators especially designed for tall, deep enclosures where placement flexibility is required.

The cable operator maintains:

- Suitability for isolation
- Indication of two positions: O (OFF) and I (ON)
- The circuit breaker may be locked in the off position by one to three padlocks
- Door can be locked closed due to interlocking features of the handle operator

Handle is mounted on flange of enclosure using specified mounting dimensions while circuit breaker and operating mechanism are mounted to inside of enclosure using screws.

- Handles are available in COM and FHU NEMA Type 1,12, 3, 3R, 4 and FHX NEMA Type 4, 4x
- All circuit breaker operating mechanisms are suitable for right-hand flange mounting on the job.



Flange Handle With Cable Operating Mechanism

GCBX1-FHC-N3R4-M
GCBX1-FHC-N4X-M

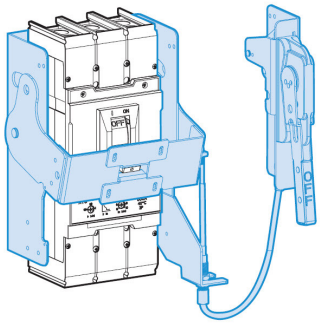
Models

- Standard with painted handle (NEMA Type 1,12, 3, 3R, 4): FHU
- Outdoor with nickel-plated handle (NEMA Type 4, 4X): FHX
- Field installable (secured by screws)

GCB100	*GCB150/250*	*GCB400/600*	*GCB800/1200*
GCBX1-FHC-N3R4-M GCBX1-FHC-N4X-M	GCBX1-FHC-N3R4-M GCBX1-FHC-N4X-M	GCBX5-FHC-N3R4-M GCBX5-FHC-N4X-M	GCBX5-FHC-N3R4-M GCBX5-FHC-N4X-M

Cable Length (in [m])	*GCB100/150/250*	*GCB400/600*	*GCB800/1200*
36 [0.91]	GCBX2-CBL-36	GCBX3-CBL-36	–
60 [1.52]	GCBX2-CBL-60	GCBX3-CBL-60	GCBX5-CBL-60

Note: Flange handles (FHC) include external operating handle and internal operating mechanism. Cables (CBL) are sold separately.



Handle With Cable and Cable Operating Mechanism

GCBX5-FHC-N3R4-M
GCBX5-FHC-N4X-M

Standards

- Flange cable operating handle is UL Listed under file E509077
- NEMA Type 1, 12, 3, 3R, 4, 4X

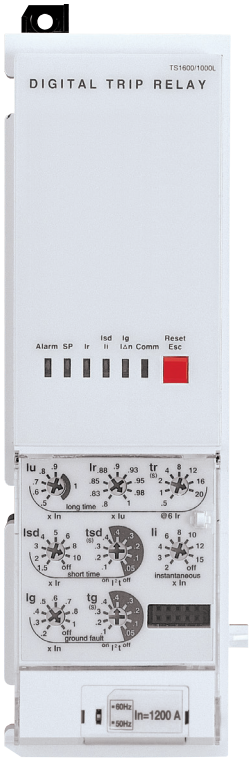
Cable

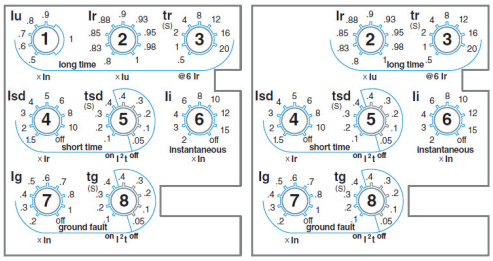
GCBX2-CBL-36
GCBX2-CBL-60
GCBX3-CBL-36
GCBX3-CBL-60
GCBX5-CBL-60

Gladiator MCCB Characteristic Curves

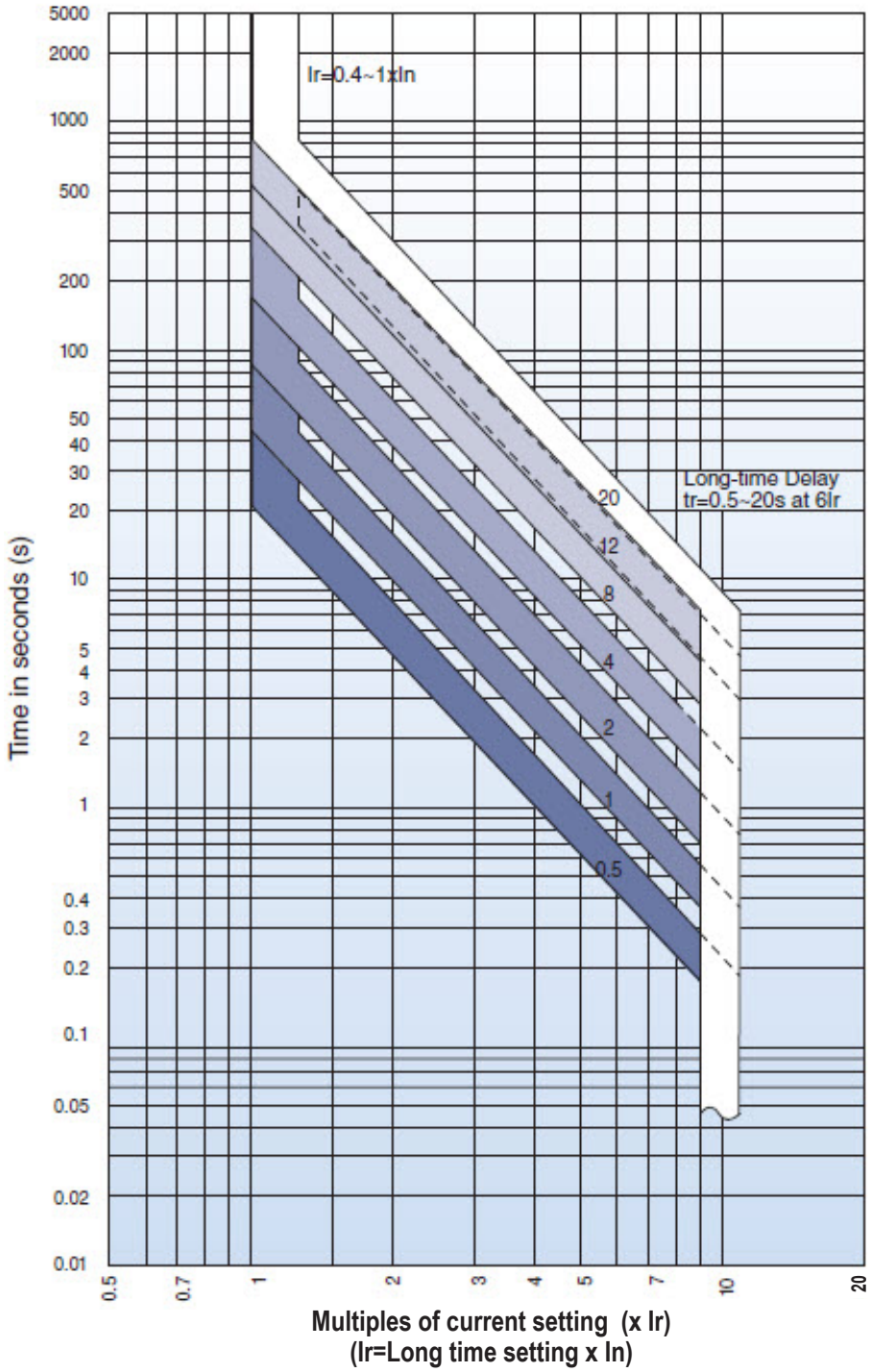
GCB800/1200

Long-Time Delay (800-1200 A)
Long-time pickup 0.4-1 x I_r and delay 0.5-20 s





①, ②, ③ – Long-time setting



Notes :

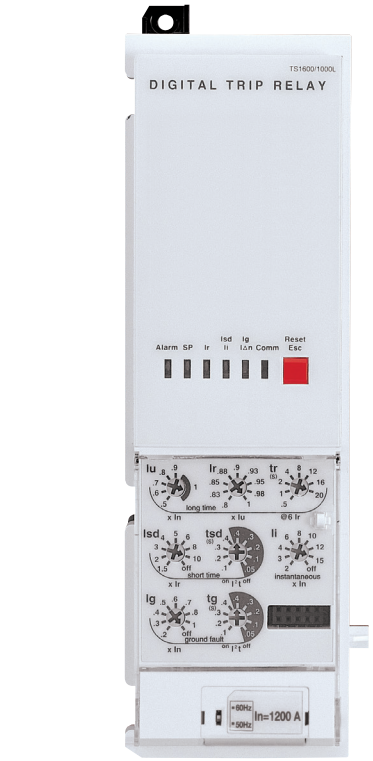
1. There is a thermal-imaging effect that can act to shorten the long-time delay. The thermal imaging effect comes into play if a current above the long-time delay pickup value exists for a time and then is cleared by the tripping of a downstream device or the circuit breaker itself. A subsequent overload will cause the circuit breaker to trip in a shorter time than normal. The amount of time delay reduction is inverse to the amount of time that has elapsed since the previous overload.

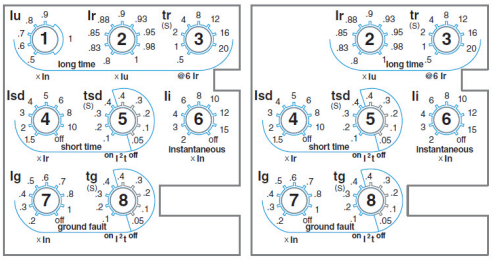
2. Total clearing times shown include the response times of the trip unit, the circuit breaker opening, and the extinction of the current.

Gladiator MCCB Characteristic Curves

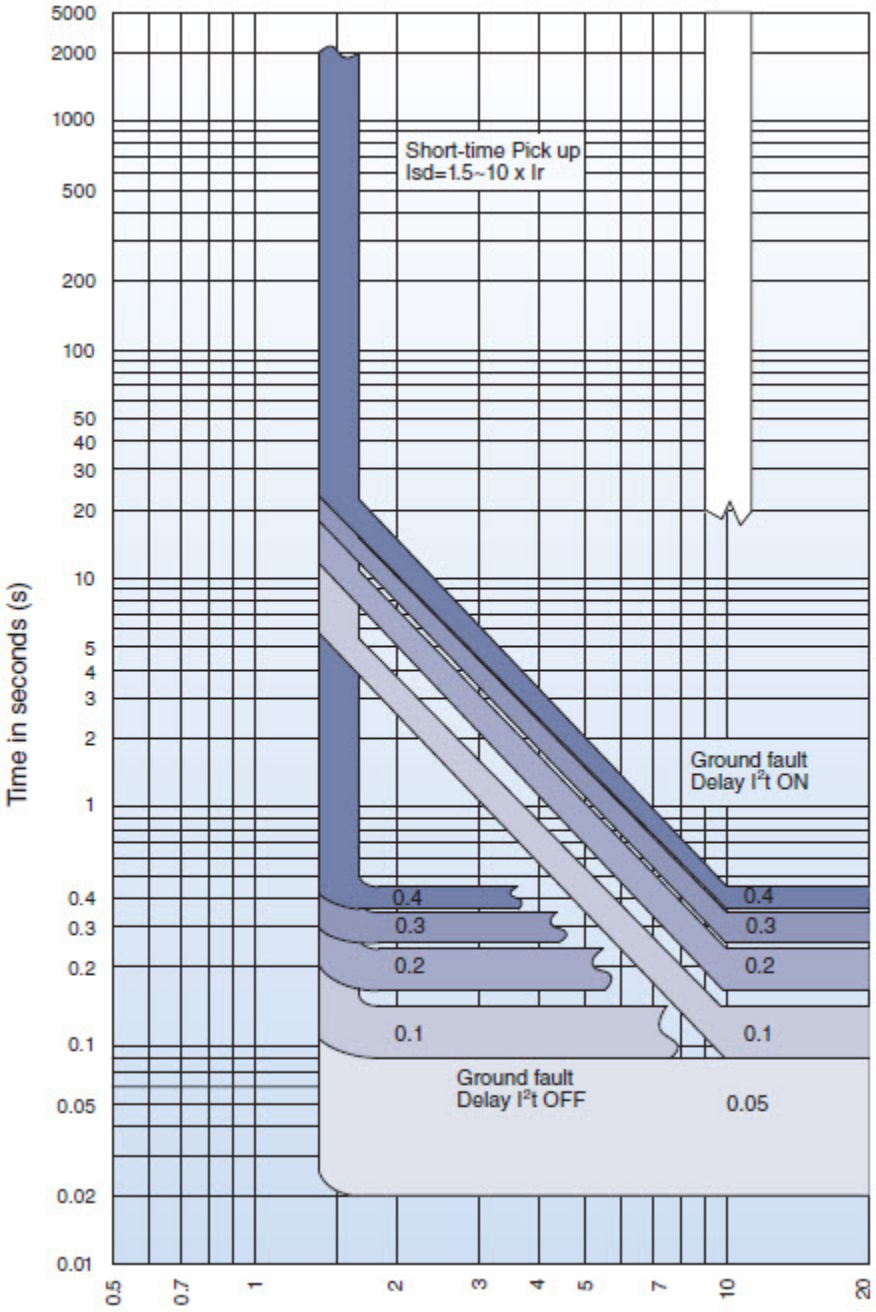
GCB800/1200

Short-Time Delay (800-1200 A)
Short-time pickup 1.5-10 x I_r and delay 0.1-0.4 s





④, ⑤ – Short-time setting

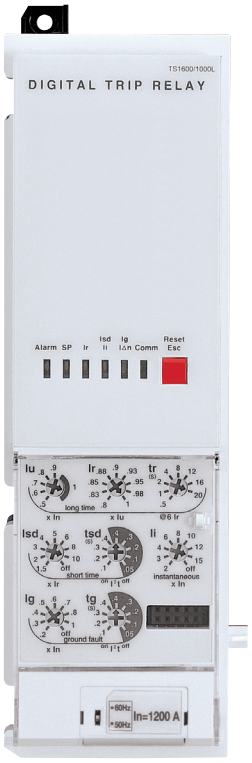


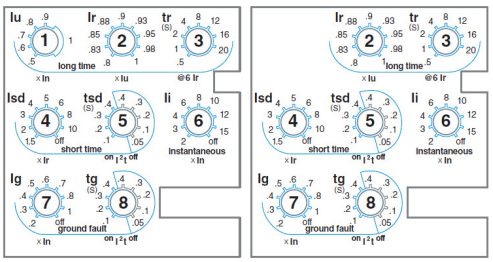
Multiples of current setting (x Ir)
(Ir=Short time setting x In)

Gladiator MCCB Characteristic Curves

GCB800/1200

Instantaneous and Ground Fault (800-1200 A)
Instantaneous pickup 2-15 x I_n and Ground Fault pickup 0.2-1 x I_n and delay 0.1-0.4 s





⑥, ⑦, ⑧ - Instantaneous and Ground fault setting