

L Frame - Series Moulded Case Circuit Breakers



Surface Mount
3 pole



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Features

- Hydraulic-magnetic technology
- 100 % rating capacity; independent of ambient temperature
- Three poles
- Ratings up to 600 A AC (1500 A DC)
- Trip button for mechanical confirmation of operation
- Precision tripping characteristics
- Reset immediately after overload

Applications

- AC and DC branch circuit installations
- Telecom / datacom equipment
- UPS equipment
- Alternative energy equipment
- Mobile power generation
- Battery protection and switching
- Municipal kiosks (feeder breaker)

Optional Accessories

- Shunt trip
- Auxiliary switch
- Trip alarm
- Cylindrical lock
- Daros rotary handle
- Inter-phase barriers
- G4B stub busbar
- G6 rear connecting studs

Approvals



(IEC / EN 60947-2 / 3)



LISTED (UL 489A)

SANS 60947-2 / 3



L Frame - Series Moulded Case Circuit Breakers

Technical Data

Product Type	Circuit Breaker L20B	Circuit Breaker L40B	Switch Disconnecter L20BN	Switch Disconnecter L20BN
Standard Ampere Ratings (A) – AC	100 - 600	100 - 600	-	-
Standard Ampere Ratings (A) - DC	800, 1500	-	1200	1200
Number of Poles	3 (AC); 2 or 3 parallel (DC)	3	3	3
Tripping Curve	L20 / L40	L20 / L4	-	-
Terminations	Standard	G1 lug terminal; bridge onto lug terminal (DC)		
	Optional	G4B stub busbar, 75 - 600 A; G6 rear connecting studs, up to 250 A		

Product Type	L20B
Approvals	SANS 60947-2, IEC / EN 60947-2
Number of Poles	3
Operating Voltages (AC)	415 V AC
Minimum Current Rating	100 A
Maximum Current Rating	600 A
Interrupting Capacity	20 kA

Product Type	L20BDC
Approvals	SANS 60947-2, IEC / EN 60947-2
Number of Poles	2 pole parallel 3 pole parallel
Operating Voltages (DC)	125 V DC
Current Rating	800 A 1500 A
Interrupting Capacity	20 kA

Product Type	L20BDC
Approvals	UL 489A
Number of Poles	2 pole parallel 3 pole parallel
Operating Voltages (DC)	125 V DC
Current Rating	800 A 1500 A
Interrupting Capacity	20 kA

Product Type	L20BN
Approvals	SANS 60947-3, IEC / EN 60947-3
Number of Poles	2 pole parallel 3 pole parallel
Operating Voltages (DC)	415 V AC
Current Rating	300 to 600 A
Interrupting Capacity	20 kA

Product Type	L20BDCN
Approvals	SANS 60947-3, IEC / EN 60947-3
Number of Poles	2 pole parallel 3 pole parallel
Operating Voltages (DC)	125 V DC
Current Rating	1200 A
Interrupting Capacity	20 kA (SCPD 1500 A)

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Technical Data

Product Type	L40B
Approvals	SANS 60947-2, IEC / EN 60947-2
Number of Poles	3
Operating Voltages (AC)	415 V AC 50 Hz
Minimum Current Rating	100 A
Maximum Current Rating	600 A
Interrupting Capacity	40 kA

Product Type	L40BN	
Approvals	SANS 60947-3, IEC / EN 60947-3	
Number of Poles	2 pole parallel	3 pole parallel
Operating Voltages (DC)	415 V AC	
Current Rating	300 to 600 A	
Interrupting Capacity	40 kA	

Product Type	L40BDCN	
Approvals	SANS 60947-3, IEC / EN 60947-3	
Number of Poles	2 pole parallel	3 pole parallel
Operating Voltages (DC)	125 V DC	
Current Rating	1200 A	
Interrupting Capacity	40 kA (SCPD 1500 A)	

Product Type	L Frame
Operating Temperature Range	-40 °C to +85 °C
Mounting Options	Surface mount
Time Delay Curves	L20 / L40
Endurance	10000 operations - 1500 electrical at rated current and voltage (IEC 60947-2) 1500 electrical operations (UL 489A)
Dielectric Strength	1480 V (single pole) / 1830 - 2100 V (multi pole), 50 Hz for one minute after testing
Weight	6,9 kg - L20B / L40B, 6,1 kg - L20BN / L40BN (unpacked)
Humidity	35 to 85% relative
Altitude	Tested at 1600 m above sea level
Shock	100 G to MIL-STD-202G, test method 213B, test condition 1
Vibration	10 G to MIL-STD-202G test method 204D, test condition A
Flammability	V0 rated
Toxicity	F1 - Smoke index of ≤ 20 which determines the fume class
Pollution Degree	PD2 - Normally only non-conductive pollution occurs. Temporary conductivity caused by condensation is to be expected.

Ordering Information

Example Code 1: L20B350

Group	1	2
Requirement	LB-Frame 20 kA	350 A
Long Code	L20B	350

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Ordering Information

Type	Barriers	Poles	Terminals	kA @ 415 V		Rating (A)	Order No.
				Icu	Ics		
Distribution Circuit Breakers (Mixed Load)							
L20B	4	3	G1	20	20	100, 125, 150	L20B ____
						175, 200, 225	L20B ____
						250	L20B250
						300	L20B300
						350, 400	L20B ____
						450, 500	L20B ____
						600	L20B600
L40B	4	3	G1	40	20	100, 125, 150	L40B ____
						175, 200, 225	L40B ____
						250	L40B250
						300	L40B300
						350, 400	L40B ____
						450, 500	L40B ____
						600	L40B600
Switch Disconnectors							
L20BN	4	3	G1	20++		300	L20BN0300
						400	L20BN0400
						500	L20BN0500
						600	L20BN0600
L40BN	4	3	G4B	40++		300	L40BN0300
						400	L40BN0400
						500	L40BN0500
						600	L40BN0600

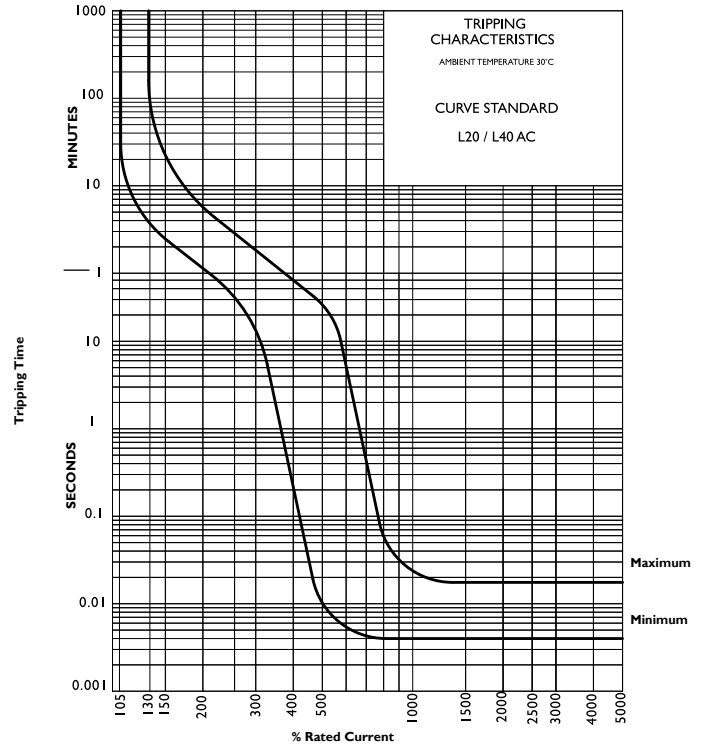
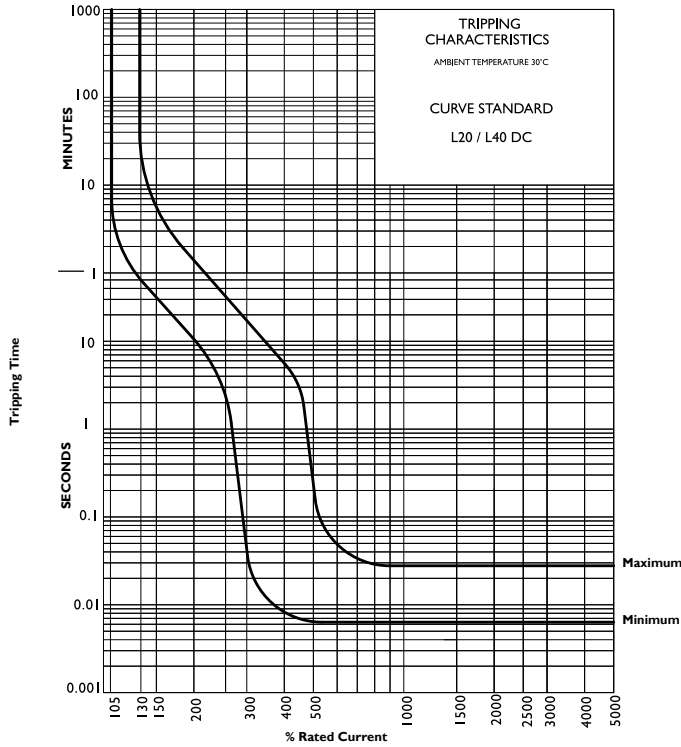
For options not listed, please contact CBI

LB Accessories Ordering Information

Description	Comments	Order Number
Shunt Trip	24V DC	LBSHT024
	110V AC	LBSHT110
	220 - 240V AC	LBSHT220
	380 - 415V AC	LBSHT380
Auxiliary Switch		LBAUX
Trip Alarm Switch		LBALARM
Cylindrical Lock		LBLOCK
G4B Stub Busbar (500 - 600 A)	3 per set for line or load side	4120166
G6 Rear Connecting Studs (250 A max.)	3 per set for line or load side	4670038
Daros Rotary Handle		12CBI.3745
Phase Barriers	Set of 4	LBKIT

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Time Delay Curves



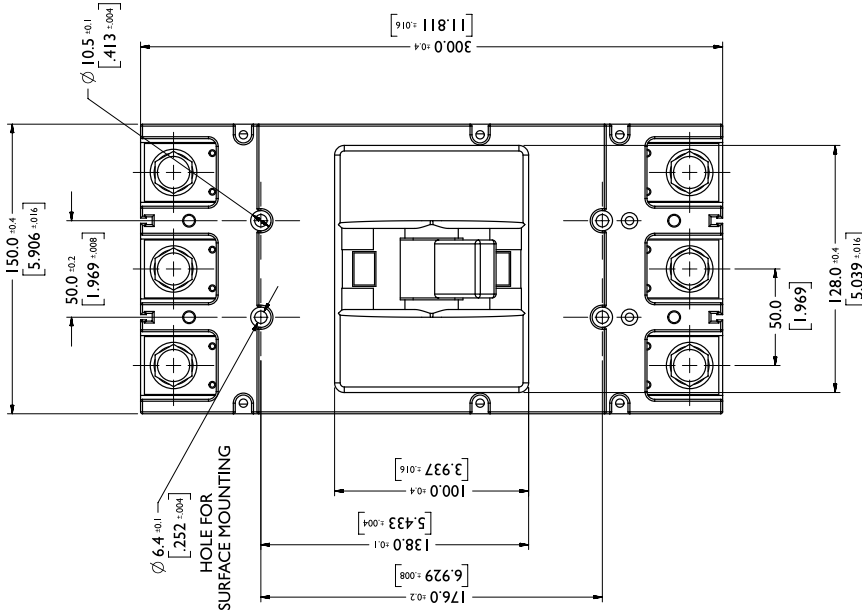
* The published time delay curves are generated at 30°C ambient temperature with the Circuit Breaker mounted in the up-right position. The “must hold”, “must trip” and “instantaneous trip” current values are not affected by temperature, although delay time for the other operating current values may have to be adjusted using the temperature compensation curve which is available on request.

Time Delay Data (Standard Delays)

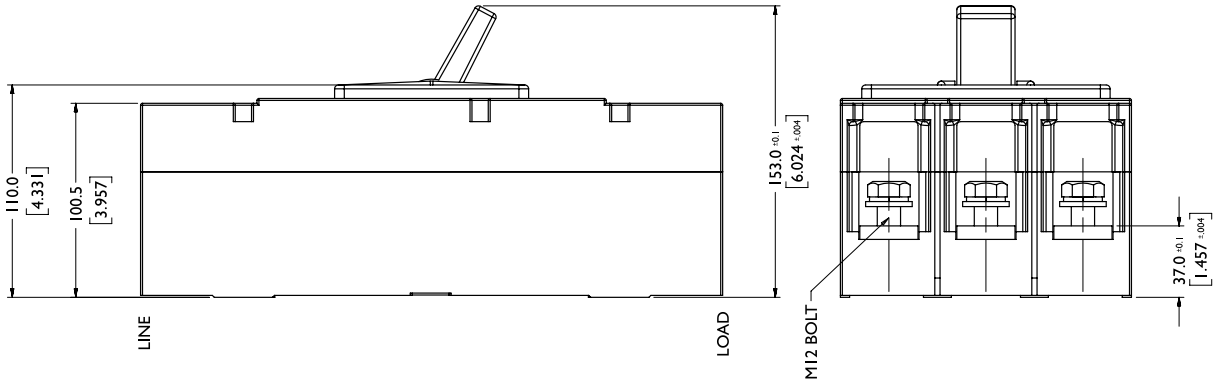
Curve Code	% Rated Current Trip times in seconds						
	Limits	130%	200%	300%	400%	600%	1000%
L20 / L40	Min	225	75	14	0.2	0.005	0.0045
	Max	6000	345	110	50	5	0.24
L20 / L40 DC	Min	50	11	0.04	0.008	0.006	0.006
	Max	1200	80	17	5.5	0.05	0.027

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L Frame Dimensional Drawings



TOLERANCE ± 0.4 UNLESS OTHERWISE SPECIFIED
(DIMENSION IN BRACKETS ARE IN INCH)



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