

C60

UL 489 / CSA C22.2 No. 5-02
IEC 60947-2 / GB 14048-2 ⁽¹⁾

Main functions of C60 UL 489 circuit breaker:

- protection of circuits against:
 - . short circuit currents
 - . overload currents
- control
- isolation

Various applications:

- semi-conductors
- electronic machinery
- control panel
- metal working
- telecommunication
- food, beverage
- packaging
- crane
- conveyors
- pumps and compressors
- HACR (Heating, Air conditioning, Refrigeration), HVAC
- engine generators.

Circuit breakers for branch circuit protection



Compliance with standards products

- UL 489 circuit breakers File #E215117.
- CSA C22.2 No. 5-02 circuit breakers File #179014.
- IEC 60947-2, VDE 0660.

Standard features

- CE Marked.
- Power circuit: voltage rating: 120 up to 240 V ~, 480Y / 277 V ~, 60 V ≡ and 125 V ≡
- ampere interrupting ratings:

Rating (A) 77°F/ 25°C	Number of poles 0.71 in. (0,71 in.)	Voltage	Interrupting rating (kA rms)	
			AIR UL 489/CSA	Icu IEC 60947-2
0.5 to 20	1P	277 V ~	10	10
	2P/3P	480Y/277 V ~	10	10
0.5 to 35	1P	120 V ~	10	-
		240 V ~	5	10
	2P/3P	240 V ~	10	20
		415 V ~	-	10
	1P	440 V ~	-	6
		60 V ≡	10*	10*
2P	125 V ≡	10*	10*	
	60 V ≡	10*	10*	

* C curve only available

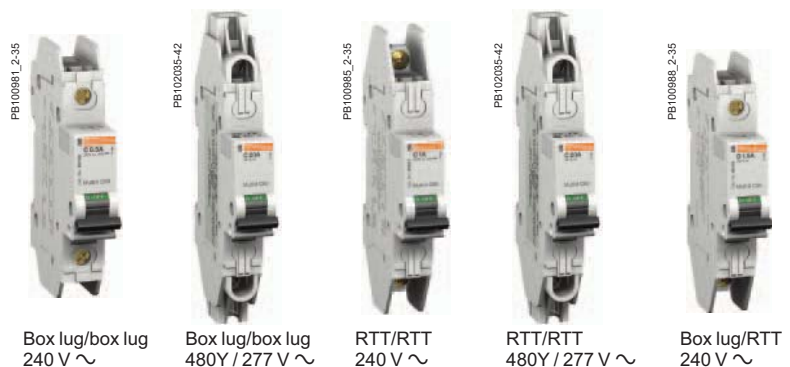
- fast closing: allows increased withstand to the high inrush currents of some loads
- fault current limiting
- trip-free mechanism: contacts cannot be held in the ON position when the circuit breaker is tripped automatically
- isolation with positive break indication-Green strip on the circuit breaker operating handle indicates that all poles open
- number of operating cycles (O-C):
 - electrical: 10,000
 - mechanical: 20,000.
- Environment:
 - tropicalization: treatment 2 (relative humidity: 95 % at 131°F/55°C)
 - degree of protection as per IEC 60529:
 - on front panel: IP40 / IPXXB
 - box lug connection: IP20 / IPXXB
 - ring tongue terminal connection: IP10 / IPXXA
 - temperature:
 - operation: -22 to 158°F (-30 to 70°C)
 - storage: -40 to 176°F (-40 to 80°C).
- Weight (oz./g):

Type	1P	2P	3P
C60	3.88/110	7.75/220	11.64/330

Connection

The C60 UL 489 is available in 3 different types of connection:

- box lug/box lug
- ring tongue terminal/ring tongue terminal (RTT/RTT)
- box lug/ring tongue terminal.



Box lug/box lug
240 V ~

Box lug/box lug
480Y / 277 V ~

RTT/RTT
240 V ~

RTT/RTT
480Y / 277 V ~

Box lug/RTT
240 V ~

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Connection characteristics

- Box lug for copper cables UL 486A File #E216919:
 - 0.5 to 25 A: (#14-#4 AWG) 2.5 to 25 mm² cables, torque 22 lb.in
 - 30 to 63 A: (#14-#2 AWG) 2.5 to 35 mm² cables, torque 31 lb.in.
- Box lug C60 UL 480Y / 277 V ~ for copper cables UL 486A, File #E216919 :
 - 0.5 to 10 A : 1 to 1.5 mm² (#18-#16 AWG), 1 or 2 cables, torque (7 lb.in.)
 - 15 to 25 A : 2.5 to 6 mm² (#14-#10 AWG), 1 or 2 cables, torque (14 lb.in.).
- Ring terminal:
 - use single UL listed or CSA certified and insulated ring only
 - screw diameter 0.2 in (5 mm) torque 18 lb.in.



Box lug 240 V ~



Box lug 480Y / 277 V ~



Ring terminal 240 V ~



Ring terminal 480Y / 277 V ~

Time-current curves

C curve-Overcurrent protection for all application types:

- ratings: 0.5 to 63 A set at 77°F (25°C)
- tripping threshold:
 - alternative current: between 7 and 10 I_n (ratings 0.5 to 35 A)
 - direct current: between 7 and 14 I_n (ratings 0.5 to 63 A).

D curve-Overcurrent protection for loads with high inrush currents (motors, transformers etc.):

- ratings: 0.5 to 35 A set at 77°F (25°C)
- tripping threshold: The magnetic releases operates between 10 and 14 times ampere rating.

Adaptable electrical auxiliaries

- Remote tripping:
 - shunt trip (MX + OF)
 - undervoltage release (MN).
- Remote indication:
 - auxiliary switch (OF)
 - alarm switch (SD).

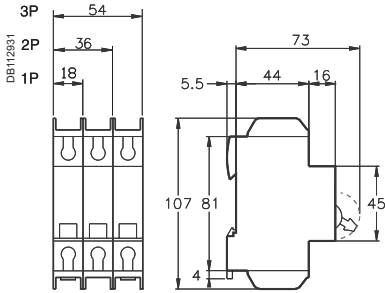
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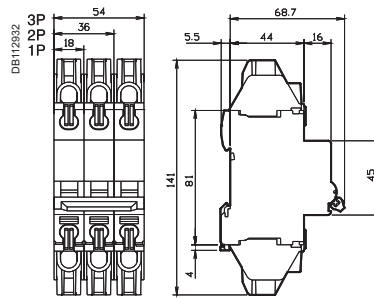
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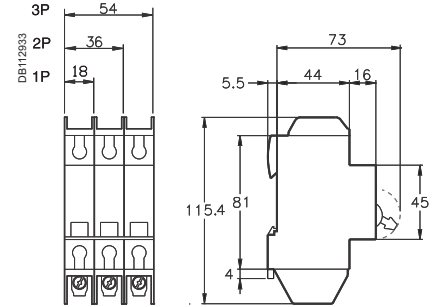
Dimensions



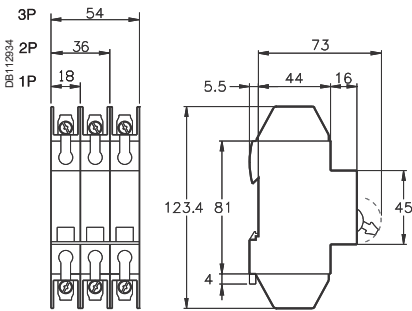
Box lug / box lug 240 V ~



Box lug / box lug 480Y / 277 V ~
RTT/RTT 480Y / 277 V ~



Box lug / RTT 240 V ~



RTT / RTT 240 V ~

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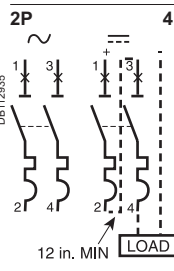

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IEC 60947-2 / GB 14048-2 ⁽¹⁾

120 to 240 V ~, 60 V --- and 125 V ---

Box lug/box lug connection (upstream/downstream)

Type	Width in modules 0.354 in. (9 mm)	Rating (A)	Cat. no. curve	
			C	D
1P 	2	0.5	60100	60117
		1	60101	60118
		1.5	60102	60119
		2	60103	60120
		3	60104	60121
		4	60105	60122
		5	60106	60123
		6	60107	60124
		7	60108	60125
		8	60109	60126
		10	60110	60127
		13	60111	60128
		15	60112	60129
		20	60113	60130
		25	60114	60131
		30	60115	60132
35	60116	60133		
2P 	4	0.5	60134	60151
		1	60135	60152
		1.5	60136	60153
		2	60137	60154
		3	60138	60155
		4	60139	60156
		5	60140	60157
		6	60141	60158
		7	60142	60159
		8	60143	60160
		10	60144	60161
		13	60145	60162
		15	60146	60163
		20	60147	60164
		25	60148	60165
		30	60149	60166
35	60150	60167		
3P 	6	1	60168	60184
		1.5	60169	60185
		2	60170	60186
		3	60171	60187
		4	60172	60188
		5	60173	60189
		6	60174	60190
		7	60175	60191
		8	60176	60192
		10	60177	60193
		13	60178	60194
		15	60179	60195
		20	60180	60196
		25	60181	60197
		30	60182	60198
		35	60183	60199

PB100881_2,35



PB100883_2,35





PB100882_2,35



PB100884_2,35






 Utilization in alternative current and direct current.
 Utilization in alternative current only.

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480Y / 277 V ~

Box lug/box lug connection (upstream/downstream)

Type	Width in modules 0.354 in. (9 mm)	Rating (A)	Cat. no. curve					
			C	D				
1P 	2	0.5	MGN61300	MGN61333				
			1	MGN61301	MGN61334			
			2	MGN61302	MGN61335			
			3	MGN61303	MGN61336			
			4	MGN61304	MGN61337			
			5	MGN61305	MGN61338			
			6	MGN61306	MGN61339			
			8	MGN61307	MGN61340			
			10	MGN61308	MGN61341			
			15	MGN61309	MGN61342			
			20	MGN61310	MGN61343			
			2P 	4	0.5	MGN61311	MGN61344	
						1	MGN61312	MGN61345
						2	MGN61313	MGN61346
						3	MGN61314	MGN61347
4	MGN61315	MGN61348						
5	MGN61316	MGN61349						
6	MGN61317	MGN61350						
8	MGN61318	MGN61351						
10	MGN61319	MGN61352						
15	MGN61320	MGN61353						
20	MGN61321	MGN61354						
3P 	6	0.5				MGN61322	MGN61355	
						1	MGN61323	MGN61356
						2	MGN61324	MGN61357
						3	MGN61325	MGN61358
			4	MGN61326	MGN61359			
			5	MGN61327	MGN61360			
			6	MGN61328	MGN61361			
			8	MGN61329	MGN61362			
			10	MGN61330	MGN61363			
			15	MGN61331	MGN61364			
			20	MGN61332	MGN61365			

Utilization in alternative current only.



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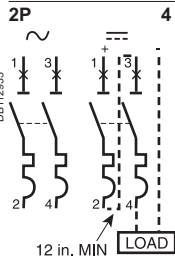
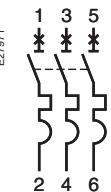
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IEC 60947-2 / GB 14048-2 (1)

120 to 240 V ~, 60 V --- and 125 V ---

Ring tongue/ring tongue terminal connection (upstream/downstream)



Type	Width in modules 0.354 in. (9 mm)	Rating (A)	Cat. no.	
			curve	curve
1P 	2	0.5	60200	60217
		1	60201	60218
		1.5	60202	60219
		2	60203	60220
		3	60204	60221
		4	60205	60222
		5	60206	60223
		6	60207	60224
		7	60208	60225
		8	60209	60226
		10	60210	60227
		13	60211	60228
		15	60212	60229
		20	60213	60230
		25	60214	60231
		30	60215	60232
		35	60216	60233
2P 	4	0.5	60234	60251
		1	60235	60252
		1.5	60236	60253
		2	60237	60254
		3	60238	60255
		4	60239	60256
		5	60240	60257
		6	60241	60258
		7	60242	60259
		8	60243	60260
		10	60244	60261
		13	60245	60262
		15	60246	60263
		20	60247	60264
		25	60248	60265
		30	60249	60266
		35	60250	60267
3P 	6	1	60268	60284
		1.5	60269	60285
		2	60270	60286
		3	60271	60287
		4	60272	60288
		5	60273	60289
		6	60274	60290
		7	60275	60291
		8	60276	60292
		10	60277	60293
		13	60278	60294
		15	60279	60295
		20	60280	60296
		25	60281	60297
		30	60282	60298
		35	60283	60299

Utilization in alternative current and direct current.
Utilization in alternative current only.

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IEC 60947-2 / GB 14048-2 ⁽¹⁾

480Y / 277 V ~

Ring tongue/ring tongue terminal connection (upstream/downstream)

PE102035-35






PE102036-35



PE102037-35



Type	Width in modules 0.354 in. (9 mm)	Rating (A)	Cat. no. curve				
			C	D			
1P 	2	0.5	MGN61366	MGN61399			
			1	MGN61367	MGN61400		
			2	MGN61368	MGN61401		
			3	MGN61369	MGN61402		
			4	MGN61370	MGN61403		
			5	MGN61371	MGN61404		
			6	MGN61372	MGN61405		
			8	MGN61373	MGN61406		
			10	MGN61374	MGN61407		
			15	MGN61375	MGN61408		
			20	MGN61376	MGN61409		
			2P 	4	0.5	MGN61377	MGN61410
						1	MGN61378
2	MGN61379	MGN61412					
3	MGN61380	MGN61413					
4	MGN61381	MGN61414					
5	MGN61382	MGN61415					
6	MGN61383	MGN61416					
8	MGN61384	MGN61417					
10	MGN61385	MGN61418					
15	MGN61386	MGN61419					
20	MGN61387	MGN61420					
3P 	6	0.5				MGN61388	MGN61421
						1	MGN61389
			2	MGN61390	MGN61423		
			3	MGN61391	MGN61424		
			4	MGN61392	MGN61425		
			5	MGN61393	MGN61426		
			6	MGN61394	MGN61427		
			8	MGN61395	MGN61428		
			10	MGN61396	MGN61429		
			15	MGN61397	MGN61430		
			20	MGN61398	MGN61431		

Utilization in alternative current only.

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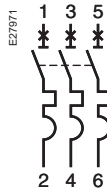
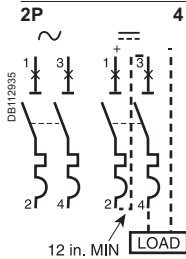
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120 to 240 V ~, 60 V --- and 125 V ---

Box lug/ring tongue terminal connection (upstream/downstream)

Type	Width in modules 0.354 in. (9 mm)	Rating (A)	Cat. no.	
			curve C	curve D
1P 2		0.5	60300	60317
			60301	60318
			60302	60319
			60303	60320
			60304	60321
			60305	60322
			60306	60323
			60307	60324
			60308	60325
			60309	60326
			60310	60327
			60311	60328
			60312	60329
			60313	60330
			60314	60331
			60315	60332
			60316	60333
2P 4		0.5	60334	60351
			60335	60352
			60336	60353
			60337	60354
			60338	60355
			60339	60356
			60340	60357
			60341	60358
			60342	60359
			60343	60360
			60344	60361
			60345	60362
			60346	60363
			60347	60364
			60348	60365
			60349	60366
			60350	60367
3P 6		1	60368	60384
			60369	60385
			60370	60386
			60371	60387
			60372	60388
			60373	60389
			60374	60390
			60375	60391
			60376	60392
			60377	60393
			60378	60394
			60379	60395
			60380	60396
			60381	60397
			60382	60398
			60383	60399



Utilization in alternative current and direct current.
Utilization in alternative current only.