

# Selection Chart



## Features of the Hydraulic-Magnetic Principle

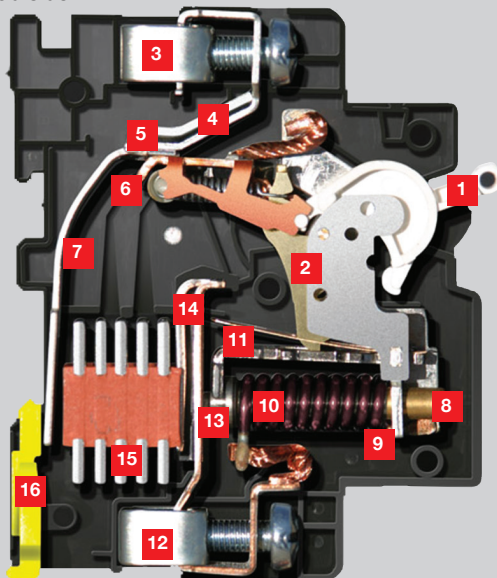
- Circuit breakers can carry 100% of rated current independent of ambient temperature
- Do not require de-rating for temperature
- Always trip at 125% of rated current independent of ambient temperature
- Immediate resetting after trip
- Any current rating possible, even fractions of amperes
- Large range of time delays available
- Can mount a large number of circuit breakers side by side

## Features of the Construction Common to all CBI Circuit Breakers

- **Trip free operation:** Even if the handle is locked in the ON position, the breaker will trip if an overload occurs
- **Positive ON and positive OFF:** The handle always indicates the status of the breaker contacts
- **Silver alloy contacts:** The contact tips ensure a long, trouble-free life, even in harsh environments, ensuring a low impedance connection throughout the life of the breaker
- **Superior quality polymer materials:** Materials meet or exceed the requirements laid down by international specifications for polymer materials to be used in circuit breaker applications, such as IEC 60947-2 and UL 489
- **Environmental Safety:** Ensures better safety properties for flammability, toxicity and isolation, ensure safety for users and the installation
- **Hermetically sealed sensing / time delay mechanism:** These ensure no aging or deterioration and thereby a longer service life, with precise time-delay and tripping characteristics throughout the life of the breaker
- **Multi-pole Circuit Breakers are fitted with common trips:** All CBI multi-pole circuit breakers are externally coupled with a handle tie-bar and internally with a common trip linkage, ensuring that all poles switch and trip simultaneously

## Circuit Breaker Components

1. Handle
2. Mechanism assembly
3. Line terminal
4. Fixed contact
5. Contact tips
6. Moving contact
7. Arc runner line side
8. Hermetically sealed tube
9. Magnetic frame
10. Solenoid coil
11. Armature
12. Load terminal
13. Pole piece
14. Arc runner load side
15. Arc grids
16. Clip-in springs



## Principle of Operation

### Hydraulic-Magnetic Technology

Hydraulic-magnetic circuit breakers operate on the magnetic force produced by a load current flowing through a series-connected solenoid coil that is wound around a hermetically sealed tube containing an iron core, a spring and dampening fluid, as shown in Figure 1.

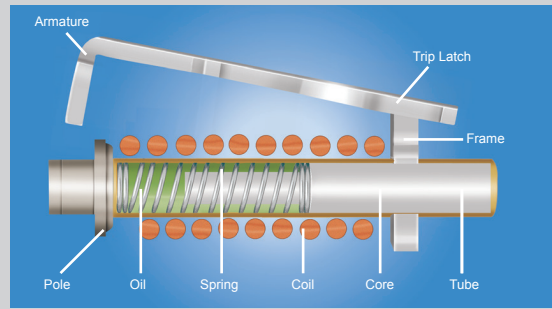


Figure 1: Series Connected Coil

### Normal Operation

At the circuit breaker's rated current or below, the magnetic flux in the solenoid is insufficient to attract the core towards the pole piece, due to the spring force shown in Figure 2. Therefore the circuit breaker remains loaded and the circuit is energised.

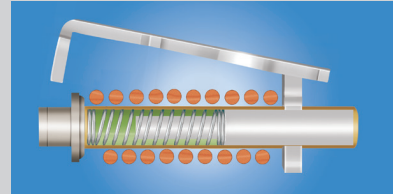


Figure 2: Rated Current or Less

### Overload

When an overload occurs, i.e. current  $I_s$  is greater than the circuit breaker's rating, the magnetic flux in the solenoid produces sufficient pull on the core to start its movement towards the pole piece. During this movement, the hydraulic fluid regulates the core's speed of travel, creating a controlled time delay inversely proportional to the magnitude of the current. This time delay is useful in that if the overload is of short duration, e.g. start-up of motors etc., the core returns to its rest position when the overload disappears (Figure 3).

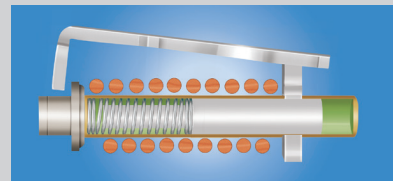


Figure 3: Overload Current (Time Delay)

If the overload persists, the core reaches the pole piece. As a result the reluctance of the magnetic circuit is reduced, so that the armature is attracted to the pole piece with sufficient force to collapse the latch mechanism (toggle), and trips the breaker (Figure 4). The contacts separate, the current ceases to flow and the core will then return to its rest position.

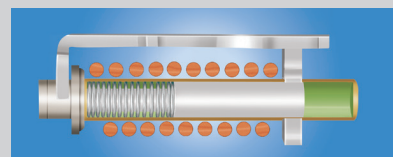


Figure 4: Overload Current (Trip)

### Short Circuit

With high values of overloads or short circuit, the magnetic flux produced by the coil is sufficient to attract the armature to the pole face and trip the breaker even though the core has not moved. This is called the instantaneous trip region of the circuit breaker characteristic (Figure 5). Unlike thermal circuit breakers, the hydraulic-magnetic circuit breaker's trip point is unaffected by ambient temperature. After tripping, the breaker may be re-closed immediately since there is no cooling-down time necessary. By the nature of the principle of operation, it is possible to obtain any variation of time / current characteristic.

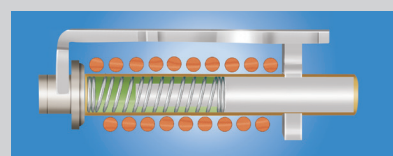


Figure 5: Instantaneous Trip

# Selection Chart:

## Rail Mounted Circuit Breakers - AC Applications

Type(width)	QF(13)	QF(18)	QF(19)	QF(26)HR	QL(13)	QZ(13)	SFM(26)
Appearance							
DIN Mount Grey							
Dual Mount (CBI Mini Rail and DIN Rail) / Mini Rail Black							
Current Amps (Min to max)	0.1 to 25 A	1 to 63 A	1 to 63 A	60 to 125 A	0.5 to 25 A	0.1 to 60 A	1 to 100 A (AC) 1 to 100 A (DC)
Poles	1, 2, 2 (1 + N), 3, 4 (3 + N)	1, 2, 2 (1 + N), 3, 4 (3 + N)	1, 2, 2 (1 + N), 3, 4 (3 + N)	1, 2, 2 (1 + N), 3, 4 (3 + N)	1, 2, 2 (1 + N), 3, 4 (3 + N)	1, 2, 2 (1 + N), 3, 4 (3 + N)	1, 2, 2 (1 + N), 3, 4 (3 + N)
Voltage AC	240 / 415 Vac	240 / 415 Vac	240 / 415 Vac	240 / 415 Vac	120, 120 / 240, 240, 415 Vac	120, 240, 277, 415, 480 Vac	240 / 415 Vac 125 Vdc (250 Vdc 2 pole in series)
Interrupting Capacity kA	6 kA @ 240 / 415 V	6 kA @ 240 / 415 V	6 kA @ 240 / 415 V	6 kA @ 240 / 415 Vac	5 kA @ 240 Vac	3 kA @ 240 / 415 Vac	6 kA @ 240 / 415 Vac 6 kA @ 125 Vdc (250 Vdc 2 pole in series)
	-	-	-	-	6 kA @ 240 / 415 Vac	5 kA @ 277 / 480 Vac	-
	-	-	-	10 kA @ 120, 120 / 240 Vac	10 kA @ 120 / 240 Vac	5 kA @ 277 / 480 Vac	-
Internal Circuit	Circuit breaker (series trip current sensing)	Circuit breaker (series trip current sensing)	Circuit breaker (series trip current sensing)	Circuit breaker (current sensing)	Circuit breaker (current sensing)	Circuit breaker (current sensing)	Circuit breaker (current sensing)
	Switch	-	-	Switch	-	-	Switch
	Neutral	Neutral	-	-	-	-	-
Mounting / Colour	DIN – Grey	DIN – Grey	-	DIN – Grey	DIN – Grey	DIN – Grey	-
	Dual – Black	-	Dual – Black	Dual (DIN & mini rail) mount – black	Dual (DIN & mini rail) mount – black	Dual (DIN & mini rail) mount – black	-
	-	-	-	-	-	-	Surface mount
Curve	1, 2	1, 2, 9	1, 2, 9	1, 2	1, 3, 9, KM, OP	1, 2, 3, 9, OP	1, 2, 3
Termination	Box Pozidriv #2 Combi head	Box Pozidriv #2 Combi head	Box Pozidriv #2 Combi head	Pozidriv #2, Combi head	Pozidriv #2, Combi head	Pozidriv #2, Combi head	Box Type Lug & Rear studs type
Handle Type	Toggle	Toggle	Toggle	Toggle	Toggle	Toggle	Toggle
Aux Switch, Trip Alarm, Combo	Auxiliary Switch	Auxiliary Switch	Auxiliary Switch	-	Auxiliary Switch	Auxiliary Switch	Auxiliary Switch
Operating Temperature	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Wire Size	0.75 - 25 mm <sup>2</sup> (IEC) 18 - 3 AWG (UL)	0.75 - 35 mm <sup>2</sup> (IEC) 14 - 4 AWG (UL)	0.75 - 35 mm <sup>2</sup> (IEC) 14 - 4 AWG (UL)	1 - 50 mm <sup>2</sup> (IEC)	0.75 - 25 mm <sup>2</sup> (IEC) 18 - 3 AWG (UL)	0.75 - 25 mm <sup>2</sup> (IEC) 14 - 4 AWG (UL)	1 - 50 mm <sup>2</sup> (IEC)
Torque	2.5 Nm (IEC)	2.5 Nm (IEC) 20 in-lb (UL)	4 Nm (IEC)	4 Nm (IEC) 35.4 in-lb (UL)	2.5 Nm (IEC) 20 in-lb (UL)	2.5 Nm (IEC) 20 in-lb (UL)	4 Nm (IEC)
Approvals and Markings	VC 8036 (SANS 556-1) △ (DIN / EN 60947-2) SANS 60947-3 DIN / EN 60947-3 AS/NZS 3111 CE CCC (GB14048.2) EAC UK CA	VC 8036 (SANS 556-1) UL 1077 AS / NZS 3111 △ (DIN / EN 60947-2) CE CCC (GB14048.2) EAC UK CA	VC 8036 (SANS 556-1) △ (DIN / EN 60947-2) AS / NZS 3111 CE CCC (GB14048.2) EAC UK CA	UL 508 (switch only) UL 489 △ (DIN / EN 60947-2 / 3) (SANS / IEC 60947-2 / 3) CE CCC (GB 14048.2) EAC UK CA	UL 489 △ (DIN / EN 60947-2) CCC (GB 14048.2) CE EAC UK CA	UL 1077 / CSA) (UL 60947-4-1A) △ (DIN / EN 60947-2) CE EAC UK CA	△ (DIN / EN 60947-3) - (AC only) △ AS/NZS 3111 - (AC only)

### Notes:

\* Trip Alarm available only in dual mount, black products, Q-range

Dual Mount: Fits DIN rail and CBI's Mini Rail, front escutcheon 57 mm  
DIN Mount: Fits DIN rail, front escutcheon 45 mm

# Rail Mounted Circuit Breakers - DC Applications

Type(width)	QY(13)	QT(26)	YA-Frame (13)	YB-Frame (13)	YF-Frame (13)	YR-Frame (13)	YS-Frame (13)
<b>Appearance</b>							
<b>DIN Mount Grey</b>							
<b>Dual Mount (CBI Mini Rail and DIN Rail) Black</b>							
<b>Current Amps (Min to max)</b>	0.1 to 200 A	70 to 250 A	0.5 A to 50 A	0.5 A to 50 A	0.5 A to 32 A	0.5 A to 50 A	40 A & 70 A
<b>Poles</b>	1, 2, 2 (parallel), 3 (parallel), 4 (parallel), 2 (series)	1, 2, 2+2 (parallel)**	1(parallel), 2 (parallel) & 4 (2+2) (series)	1(parallel), 2 (parallel)(series), 2 3 (parallel) & 4 (series)	1(parallel), 2 (parallel), 3(parallel), 1+N, 3+N	1, 2 & 2 (series)	1, 2 & 4 (series)
<b>Voltage DC</b>	80 Vdc 125 V & 250 V	80 Vdc	150 Vdc Unpolarised (1P & 2P) 300 Vdc (1P), 400 Vdc / 600 Vdc (2P) & 400 Vdc / 600 Vdc (4P)	150 Vdc (1P), 300 Vdc (2P) & 600 Vdc (4P) (Reverse feedable)	80 Vdc (1P, 2P & 3P), 120/240 Vac (2P) & 240 Vac (1P, 2P & 3P)	80 Vdc, 150 Vdc, 220 Vdc & 300 Vdc	300 Vdc & 600 Vdc
<b>Interrupting Capacity kA</b>	10 kA @ 80 Vdc (IEC 60947-2, UL 489) 10 kA @ 125 / 250 Vdc (UL 489 A)	10 kA @ 80 Vdc (IEC 60947-2, UL 489A)	6 kA 10 kA	6 kA 10 kA	6 kA 10 kA	6 kA 10 kA	-
<b>Internal Circuit</b>	Series trip	Series trip	Series trip	Series trip	Series trip	Series trip	Series trip
<b>Mounting / Colour</b>	DIN – Grey Dual (DIN & mini rail) mount – black	- Dual (DIN & mini rail) mount – black	DIN - Grey 45 mm front escutcheon Dual - Black 57 mm front escutcheon	DIN - Grey 45 mm front escutcheon Dual - Black 57 mm front escutcheon	DIN - Grey 45 mm front escutcheon Dual - Black 57 mm front escutcheon	DIN - Grey 45 mm front escutcheon Dual - Grey 57 mm front escutcheon	DIN - Grey 45 mm front escutcheon Dual - Black 57 mm front escutcheon
<b>Curve</b>	1, 9, U2, U3, OP	U2	I, S, M, L	I, S, M, L	I, S, M, L	I, S, M, L	-
<b>Termination</b>	Box, Pozidriv #2, Combi head Bridge terminal (2 pole parallel) Bridge Terminal (3 & 4 pole parallel)	Box, Pozidriv #2, Combi head Bridge terminal 4 pole (2 pole + 2 pole) parallel bridged	Box type / Pozidriv	Box type / Pozidriv	Box type / Pozidriv	Box type / Pozidriv	Box type / Pozidriv
<b>Handle Type</b>	Toggle	Toggle	Toggle	Toggle	Toggle	Toggle	Toggle
<b>Aux Switch, Trip Alarm, Combo</b>	Auxiliary switch, trip alarm	-	Aux, Trip alarm & Aux + Trip alarm	Aux, Trip alarm & Aux + Trip alarm	Aux, Trip alarm & Aux + Trip alarm	Aux, Trip alarm & Aux + Trip alarm	-
<b>Operating Temperature</b>	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
<b>Wire Size</b>	95 mm <sup>2</sup> (IEC) (3 & 4 pole parallel) 18 - 2 AWG (UL) (1 & 2 pole) 14 - 1/0 AWG (UL) (2 pole parallel) 14 - 5/0 AWG (UL) (3 & 4 pole parallel)	1 - 50 mm <sup>2</sup> (IEC) 14-1/0 AWG (UL)	2.5 - 16 mm <sup>2</sup> (IEC) 14 - 6 AWG (UL)	2.5 - 16 mm <sup>2</sup> (IEC) 14 - 6 AWG (UL)	2.5 - 10 mm <sup>2</sup> (IEC) 14 - 8 AWG (UL)	2.5 - 16 mm <sup>2</sup> (IEC) 14 - 6 AWG (UL)	10 - 25 mm <sup>2</sup> (IEC) 8 - 4 AWG (UL)
<b>Torque</b>	20 in-lb (UL) (1 & 2 pole) 28 in-lb (UL) (2 pole parallel) 50 in-lb (UL) (3 & 4 pole parallel)	4 Nm (IEC) 35 in-lb (UL)	3.5 Nm (IEC) 30 in-lb (UL)	3.5 Nm (IEC) 30 in-lb (UL)	3.5 Nm (IEC) 30 in-lb (UL)	3.5 Nm (IEC) 30 in-lb (UL)	3.5 Nm (IEC) 30 in-lb (UL)
<b>Approvals and Markings</b>	UL <sub>500</sub> (UL 489A) DIN / EN 60947-2 AS / NZS 60947-2 CE ERIC UK CA	UL <sub>500</sub> (UL 489A) DIN / EN 60947-2 AS / NZS 60947-2 CE (GB 14048.2) UK CA	UL <sub>500</sub> (UL 489A) DIN / EN 60947-2 CE (GB 14048.2)	UL <sub>500</sub> (UL 489B) DIN / EN 60947-2 CE (GB 14048.2) UK CA	UL <sub>500</sub> (UL 489) DIN / EN 60947-2 CE (GB 14048.2) UK CA	UL <sub>500</sub> (UL 489A) DIN / EN 60947-2 CE (GB 14048.2) UK CA	UL <sub>500</sub> (UL 489A) DIN / EN 60947-2 CE (GB 14048.2) UK CA
<b>1 Note: Check certification for specific requirements</b>							

## Notes:

\* Trip Alarm available only in dual mount, black products

\*\* Auxiliary module not available on QT

Dual Mount: Fits DIN rail and CBI's Mini Rail, front escutcheon 57 mm (black, available on special request)

DIN Mount: Fits DIN rail, front escutcheon 45 mm

# Residual Current Devices

Type(width)	QF17	QA36	SM15	SM36	SF15	SF36
Appearance						
Width	26 mm	78 mm	65 mm	117 mm	65 mm	117 mm
Voltage AC	240 V	415 V	110 V, 240 Vac	415 Vac	240 Vac	415 Vac
Phases	Single phase (1+N)	Three phase (3 + N)	Single phase	Three phase	Single phase, (1+N)	Three phase, (3+N)
	-	(3+N)	(1+N)	(3+N)	Type A	Type A
Type	Type A	Type A	Type A	Type A	10 to 100 A	10 to 80 A
Current Amps (Min to max)	1 to 63 A	6 to 63 A	10 to 100 A	15 to 80 A	6 kA	6 kA
Interrupting Capacity kA	5 / 6 kA	2.5 / 3 kA	6 kA	6 kA		
Switch	Available	Available	-	-	Available	Available
Sensitivity	30 mA / 22 mA	30 mA	100, 250, 500, 1000 mA	100, 250, 500, 1000 mA	30 mA	30 mA
Mounting / Colour	Dual (DIN & mini rail) mount – black	Dual (DIN & mini rail) mount – black	CBI mini rail, surface mount – Black	CBI mini rail, surface mount – Black	CBI Mini Rail, surface mount – Black	CBI Mini Rail, Surface mount – Black
Front Es-cutcheon	57 mm	57 mm	57 mm	57 mm	57 mm	57 mm
Curve	2	2	2	2	2	2
Termination	Box Pozidriv #2 Combi head	Box Pozidriv #2 Combi head	Box Pozidriv #2 Combi head	Box Pozidriv #2 Combi head	Pozidriv #2 Combi head	Pozidriv #2 Combi head
Handle Type	Toggle, mid trip	Toggle, mid trip	Toggle	Toggle	Toggle	Toggle
Aux Switch, Trip Alarm	Optional	-	-	-	-	-
Operating Temperature	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Wire Size	0.75 - 35 mm <sup>2</sup> (IEC)	0.75 - 35 mm <sup>2</sup> (IEC)	0.75 - 35 mm <sup>2</sup> (IEC)	0.75 - 35 mm <sup>2</sup> (IEC)	0.75 - 35 mm <sup>2</sup> (IEC)	0.75 - 35 mm <sup>2</sup> (IEC)
Torque	2.5 Nm (IEC) 22 in-lb (UL)	2.5 Nm (IEC)	2.5 Nm	2.5 Nm	2.5 Nm (IEC)	2.5 Nm (IEC)
Approvals and Markings	VC 8035 UL 1053 AS / NZS 60947-2 (DIN / EN 60947-2)  CE (GB 14048.2)  UK CA	VC 8035	VC 8035 AS/NZS 3190	AS/NZS 3190	AS/NZS 3190 VC 8035	AS/NZS 3190 VC 8035
<sup>1</sup> Note: Check certification for specific requirements						

# Front Mounted Circuit Breakers



Type	B Frame	C Frame MKIV	C Frame MKV	DD Frame	RAU for DD Frame (D7)	T Frame
Appearance						
Current @ Voltage and kA Rating	0.1 to 30 A @ 240 Vac, 1 kA	0.05 to 20 A @ 120 Vac, 120 / 240 Vac, 5 kA 0.05 to 20 A @ 240 Vac	1 to 20 A @ 240 Vac, 5 kA	0.1 to 80 A @ 120 / 240 Vac, AIC 10 kA	0.1 to 80 A @ 120 / 240 Vac, AIC 10 kA	0.1 to 30 A @ 120 / 240 Vac, 10 kA
	0.1 to 25 A @ 65 Vdc, 0.5 kA	0.05 to 50 A @ 80 Vdc, 5 kA	1 to 20 A @ 240 Vac, 10 kA	0.1 to 100 A @ 80 Vdc, AIC 10 kA	0.1 to 100 A @ 80 Vdc, AIC 10 kA	0.1 to 30 A @ 80 Vdc, 10 kA
	0.1 to 30 A @ 80 Vdc, 0.6 kA Polarized	0.05 to 50 A @ 240 / 277 Vac, 2 kA	-	0.1 to 60 A @ 240 / 415 Vac, 5 kA	0.1 to 60 A @ 240 / 415 Vac, 5 kA	0.1 to 30 A @ 240 Vac, 5 kA
	0.1 to 30 A @ 65 Vdc, 1.5 kA Polarized	0.05 to 50 A @ 80 Vdc, 7.5 kA	-	0.1 to 100 A @ 80 Vdc, 10 kA	0.1 to 100 A @ 80 Vdc, 10 kA	0.1 to 30 A @ 80 Vdc, 5 kA
	15 A @ 300 Vdc switch	50 A @ 240 Vac, 2 kA	-	125 A, 250 A, 300 A @ 60 Vdc @ 5 kA	125 A, 250 A, 300 A @ 60 Vdc @ 5 kA	-
	-	50 A @ 80 Vdc, 4 kA	-	110 to 400 A @ 80 Vdc, AIC 10 kA, Parallel	110 to 400 A @ 80 Vdc, 5 kA AIC 10 kA, Parallel	-
	-	50 A @ 120 / 240 Vac, 1.5 kA	-	0.1 to 100 A @ 240 Vac, 3 kA	0.1 to 100 A @ 240 / 415 Vac, 3 kA	-
	-	50 A @ 65 Vdc, 1.5 kA	-	0.1 to 70 A @ 415 Vac, 3 kA	0.1 to 70 A @ 277 / 480 Vac, 2 kA	-
	-	50 A @ 240 / 277 Vac (switch)	-	0.1 to 70 A @ 277 / 480 Vac, 2 kA	0.1 to 80 A @ 80 Vdc, 5 kA	-
-	50 A @ 80 Vdc (switch)	-	0.1 to 80 A @ 100 Vdc, 5 kA	-	-	
-	-	-	50 A @ 120 / 240 Vac, 240 Vac, 0.6 kA (for 1 switch)	50 A @ 120 / 240 Vac, 240 Vac, 0.6 kA (for 1 switch)	-	
Poles	1, 2	1, 2, 3, 4	1, 2	1, 2, 3, 4, 5, 6	RAU + 1, RAU + 2, RAU + 3 Pole	1, 2
Internal Circuit	Circuit breaker (Series trip, current coil in series)	Circuit breaker (Series trip, current coil in series)	Circuit breaker (Series trip, current coil in series)	Circuit breaker ( current sensing series trip)	Circuit breaker (series trip current sensing)	Circuit breaker (series trip, current coil in series)
	Switch - Relay trip (voltage sensing) 4 terminal	Switch - Relay trip (voltage sensing) 4 terminal	-	Switch with relay trip (current / voltage sensing) 4 terminal	Circuit breaker with trip alarm	-
	-	Switch	-	Circuit breaker with dual control (shunt trip construction) 4 terminal	Mid-trip not available	-
	-	-	-	Circuit breaker with dual control (relay trip construction) 3 terminal	-	-
	-	-	-	Circuit breaker with auxiliary switch	Circuit breaker with auxiliary switch	-
-	-	-	Circuit breaker with mid trip handle	-	-	
Mounting	Centre lock (thread neck)	Front mount	Front mount, Rectangular aperture	Front mount rectangular aperture	Front mount rectangular aperture	Front mount
	Snap-in vertical / horizontal mounting	Snap-in (Bevelled)	-	Rail and surface mount	-	Rectangular aperture
	Clip-in mounting	Snap-in (Flush)	-	Front mount, rectangular aperture, flush rocker handle type	Toggle (standard) handle	-
Curve	AD, BD, CD, AI, BI, CI, AS, BS, CS, AW, BW, CW, OX, OP	AD, BD, CD, AE, BE, CE, AI, BI, CI, AH, BH, CH, AS, BS, CS, AW, BW, CW, H3, OP, OX	AS, BS, CS, OP	AD, BD, CD, AE, BE, CE, AI, BI, CI, AH, BH, CH, AS, BS, CS, AW, BW, CW, H3, OP, OX	AD, BD, CD, AE, BE, CE, AI, BI, CI, AH, BH, CH, AS, BS, CS, AW, BW, CW, H3, OP, OX	AD, BD, CD, AH, BH, CH, AS, BS, CS, H3, OP
Termination	-	-	-	Stud terminal	Stud terminal	-
	Quick connect terminal	Quick connect terminal	-	Double quick connect terminal	Double quick connect terminal	Double quick connect terminal
	Screw terminal	Screw terminal	Screw terminal	Flush rear screw terminal	Screw terminal	Screw terminal
	-	-	-	Plug-in (Bullet) terminal	Plug-in (Bullet) terminal	-
-	-	-	Clamp terminal	-	-	
Handle Type	-	Standard Handle	-	Standard handle	Standard handle	-
	Baton handle	-	-	-	-	-
	Paddle handle	Cut-off handle single pole	-	Cut-off handle	-	-
	Rocker handle	Flush Rocker handle two tone	Flush Rocker handle	Flush rocker handle	-	Flush rocker handle
	Square handle	Reduced Handle	Reduced Handle-	Blank pole - no handle	-	Blank front plate - no handle
	Illuminated rocker handle	-	-	-	-	-
	Push-Pull handle	-	-	-	-	-
Push-to-Reset handle	-	-	-	-	-	
Aux Switch, Trip Alarm, Combo	Auxiliary switch	Auxiliary Switch	-	Auxiliary Switch, Trip Alarm	Auxiliary Switch, Trip Alarm	-
Operating Temperature	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 to +85 °C	-20 to +65 °C	-40 to +85 °C
Approvals and Markings	 (UL 489A)  (UL 1077) UL 508  (DIN / EN 60934)  (GB14048, GB17701)   	 (UL 489A)  (UL 1077 / UL 1500)  (UL 489) UL 508  (DIN / EN 60934)   (GB17701)  	 (UL 489)  (DIN / EN 60947-2)   (GB14048.2)  	 (UL 489A)  (UL 1077)  (UL 489) UL 508  (DIN / EN 60947-2, DIN / EN 60934)  (GB14048.2)	 (UL 489A)  (UL 1077)  (UL 489) UL 508  (DIN / EN 60947-2, DIN / EN 60934)	 (UL 489)  (DIN / EN 60947-2)  (GB14048.2)  

## Notes:

- 1 Check certification for specific requirements
- 2 Pending

# Selection Chart:

## Moulded Case Circuit Breakers

Type(width)	J Frame		L Frame	
	JS25	J25S	L20B	L40B
Appearance				
Poles	1 pole	3 pole	3 pole	3 pole
Current Amps (Min to Max)	AC	20 - 250 A	80 - 250 A	100 - 600 A
	DC	80 - 250 A	300 - 750 A	800, 1500 A 1200 A (Switch)
Interrupting Capacity	AC	25 kA @ 240 V	25 kA @ 415 V, 15 kA @ 525 V	20 kA @ 415 V
	DC	20 kA @ 80 V	20 kA @ 80 V	20 kA @ 125 V
Termination	G1 terminal (lug)	G1 terminal (lug)	G1 terminal (lug)	G1 terminal (lug)
	G4B terminal (stub busbar)	G4B terminal (stub busbar)	G4B terminal (stub busbar)	G4B terminal (stub busbar)
	G5 tandem box terminal	G5 tandem box terminal	G6 rear connecting studs	G6 rear connecting studs
	G7 rear connecting studs	G7 rear connecting studs	-	-
Accessories	Shunt Trip	Shunt Trip	Shunt Trip	Shunt Trip
	Undervoltage Release	Undervoltage Release	-	-
	Auxiliary Switch	Auxiliary Switch	Auxiliary Switch	Auxiliary Switch
	Trip Alarm	Trip Alarm	Trip Alarm	Trip Alarm
	Cylindrical Lock	Cylindrical Lock	Cylindrical Lock	Cylindrical Lock
	Daros Rotary Handle	Daros Rotary Handle	Daros Rotary Handle	Daros Rotary Handle
	Phase Barriers	Phase Barriers	Phase Barriers	Phase Barriers
Terminal Covers	Terminal Covers	-	-	
Approvals and Markings				
* Note: Check certification for specific requirements				

**Notes:**

Switch version available

1 Check certification for specific requirements

## Examples of MCB Accessories



As CBI-electric: low voltage continuously strives to improve product and certification, please verify approvals and certifications for the current status on the relevant product, particularly when looking at new designs.



**emcomp**  
CIRCUIT PROTECTION TO RELY ON



## **EUROPEAN HEADQUARTER**

### **Emcomp International AB**

Tomtagatan 17  
702 32 Örebro, Sweden

-

Tel: +46 (0)581 62 15 50

Fax: +46 (0)581 62 15 60

-

Email: [info@emcomp.se](mailto:info@emcomp.se)

Website: [www.emcomp-international.com](http://www.emcomp-international.com)

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