

YB-Frame - Miniature Circuit Breakers



1 Pole
DIN mount



1 Pole
DIN mount



2 Pole
DIN mount

Product Category

- **UNPOLARISED PRODUCT**
150 Vdc (1P & 2P), 300 Vdc (2P in series)
300 Vdc 4 (2P in series + 2P in series) and
600 Vdc (4P in series)
(Reverse feedable)
- * Verify approvals

Features

- High energy DC circuit breaker
- Ultra compact - 13 mm wide module
- Hydraulic-magnetic technology
- Can be switched on immediately after tripping
- **YBD** - DIN mount, **45 mm** front escutcheon (**Grey**)
- **YBM** - DIN mount, **57 mm** front escutcheon (**Black**)
- **YBK** - Dual (Din & Mini) mount, **57 mm** front escutcheon (**Black**)
- ON and OFF indication
- Suitable for electrical isolation
- 100% rating capability, independent of ambient temperature
- RoHS compliant
- Box type main terminals

Applications

- Solar equipment
- DC circuit protection
- Telecom / datacom equipment
- UPS equipment
- Alternative energy equipment
- Battery protection

Auxiliary Switch and Trip Alarm Features

- Auxiliary switch
- AC and DC voltages
- IEC 60947-5-1 (6 A 250 Vac, 0.5 A 110 Vdc)
- GB 14048.5 approved
- Factory fitted
- Attached to right hand side of circuit breaker
- Compact 6.5 mm width



Hydraulic-Magnetic Circuit Breakers 100% rated, unaffected by ambient temperature

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Technical Data: Approvals

Product Type	Circuit Breaker YB			
Approvals	IEC 60947-2, GB14048.2, CE, UKCA, AS/NZS 60947-2			
Number of Poles	1 Pole, 2 Pole	2P (Series)	4P (Series)	4 (2 Pole in series + 2 Pole in series)
Operating Voltages & Interrupting Capacity	150 Vdc @ 6 kA	300 Vdc @ 6 kA	600 Vdc @ 6 kA	300 Vdc @ 6 kA
Minimum Current Rating	0.5 A	0.5 A	0.5 A	0.5 A
Maximum Current Rating	50 A	50 A	50 A	50 A

Product Type	Circuit Breaker YB	
Approvals	UL 489B	
Number of Poles	1 Pole	2 Pole
Operating Voltages & Interrupting Capacity	150 Vdc @ 10 kA	150 Vdc @ 10 kA
Minimum Current Rating	0.5 A	0.5 A
Maximum Current Rating	50 A	50 A

Verify approvals for specific ratings in accordance with the relevant test certificates.

Product Type	Circuit Breaker YB
Ambient Operating Temperature	-40 °C to +85 °C
Mounting Options	Dual (DIN and Mini rail)
Time Delay Curves	Various
Endurance	10000 operations; 1500 with current, 8500 without current (IEC 60947-2 Clause 7.2.4.2)* 1000 operations with current, 1000 operations without current (UL 489B Clause 10)*
Dielectric Strength	1000 - 2000 Vac for one minute (IEC 60947-2 Clause 8.3.3.3)* 1000 Vac plus twice the rated voltage for one minute (UL 489B Clause 15)*
Rated Impulse Withstand Voltage	4 kV (IEC 60947-2 Clause 8.3.3.2)*
Weight	110 g per pole
Altitude	Certification tests conducted at altitude ≈ 2000 metres. Will operate at higher altitudes.
Shock	20 G (IEC 60068-2-27)
Vibration	3 G (IEC 60068-2-6) (sinusoidal wave)
Flammability	I3 - Ignition does not persist at 850°C after glow wire is withdrawn with an oxygen index of ≥ 28
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.

* Refer to the standard for details

Breaker YB	Wire Size (IEC)	Wire Gauge (UL)	Torque (IEC)	Torque (UL)	Comments
Main Terminals	2.5 mm ² to 16 mm ²	18 – 6 AWG	3.5 N.m	30 lbf.in	Pz #2 Combi head