

YS-Frame - Miniature Switch Disconnecter



1 Pole
DIN mount



1 Pole
DIN mount



2 Pole
DIN mount

Product Category

- **POLARISED PRODUCT**
300 Vdc, 1 Pole & 2 Pole
600 Vdc, 2 Pole in series
600 Vdc, 4 Pole (2 Pole in series + 2 Pole in series)
- **UNPOLARISED PRODUCT**
150 Vdc, 1 Pole & 2 Pole
300 Vdc, 2 Pole in series

Applications

- Solar equipment
- DC circuit isolation
- UPS equipment
- Alternative energy equipment
- Battery & switching

Features

- High energy DC switch
- Ultra compact - 13 mm wide module
- DIN mount, 45 mm front escutcheon (Grey)
- DIN mount, 57 mm front escutcheon (Black)
- Dual (DIN & mini rail) mount, 57 mm front escutcheon (Black)
- ON and OFF indication
- Suitable for electrical isolation
- RoHS compliant
- Box type main terminals



(DIN / EN 60947-3 + ANNEX D)
Pending



(UL 489B)
Pending



(GB 14048.3 + ANNEX D)
Pending



Pending



Pending



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

YS-FRAME-DAT
REV. D
MAY 2022

2204001

Data Sheet
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YS-Frame - Miniature Switch Disconnecter

Technical Data: Approvals Pending

Product Type	Switch Disconnecter YS		
Approvals	UL 489 B, DIN / EN 60947-3: ANNEX D, GB 14048.3, CE, UKCA		
Number of Poles	1	2	4 (2 pole in series + 2 pole in series)
Operating Voltages & Withstand Capacity	150 Vdc @ 1 kA unpolarised 300 Vdc @ 1 kA polarised	150 Vdc @ 1 kA polarised 300 Vdc @ 1 kA unpolarised	600 Vdc @ 1 kA polarised
Current Rating	70 A	70 A	40 A

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

Product Type	Switch Disconnecter YS
Ambient Operating Temperature	-40°C to +85°C
Mounting Options	Dual (DIN & mini rail) mount, DIN mount
Endurance	10000 operations; 1500 with current, 8500 without current (IEC 60947-3 Clause 8.3.4.1)* 1000 operations with current, 1000 operations without current (UL 489B Clause 10)*
Dielectric Strength	1000 - 2000 Vac for one minute (IEC 60947-3 Clause 8.1.3.3)* 1000 Vac plus twice the rated voltage for one minute (UL 489B Clause 15)*
Rated Impulse Withstand Voltage	4 kV (IEC 60947-3 Clause D.7.2.3)*
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Flammability	I3 - Ignition does not persist at 850°C after glow wire is withdrawn with an oxygen index of ≥ 28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

Switch Disconnecter	Wire Size (IEC)	Wire Gauge (UL)	Torque (IEC)	Torque (UL)	Comments
Main Terminals	10 mm ² - 25 mm ²	8 – 4 AWG	3.5 Nm	30 in-lb	Pozidriv #2 Combi head

Note:
All information subject to testing and certification. For the latest information contact CBI.

YS-Frame - Miniature Switch Disconnecter

Long Code

Example Code: YSD- - -1 -(13)--70A- B03 - - - -

Group	1	2	3	4	5	6	7	8	9	10
Requirement	YSD frame	Auxiliary	Number of poles	Module width	N/A	Current rating	Polarity marking, voltage & construction	Shunt trip	Termination	Customer Specific
Long Code	YSD	-	1	(13)	-	70A	B03	-	-	-

Ordering Information

Group	Code	Description	Comments
Group 1: Frame Type	YSM	YS - Frame (13 mm switch isolator DIN mounting 57 mm front escutcheon)	Black shell
	YSD	YS - Frame (13 mm switch isolator DIN mounting 45 mm front escutcheon)	Grey shell
	YSK	YS - Frame (13 mm circuit breaker Dual (DIN & mini rail) mount 57 mm front escutcheon)	Black shell
Group 2: Auxiliary	-	Not applicable	
Group 3: Number of poles	1	One pole	
	2	Two pole	
	4	Four pole	
Group 4: Module Width	(13)	13 mm module	
Group 5: N/A	-	Not applicable	
Group 6: Current Rating	70 A		Four pole limited to 40 A
Group 7: Polarity Marking, Voltage & Construction	150	150 Vdc Unpolarised	
	300	300 Vdc Unpolarised, Series Connection	
	600	600 Vdc Unpolarised, Series Connection	
	B03	300 Vdc Polarised, Positive Bottom	
	BT3	300 Vdc Polarised, (1 + 1 = 2p) - Positive Bottom / Positive Top	
	BT6	600 Vdc Polarised, Series Connection, (2p) - Positive Bottom / Positive Top	
	BU6	600 Vdc Polarised, Series Connection, (2 + 2 = 4p) - Connection @ Bottom (Bottom Positive, Bottom Negative / Bottom Negative, Bottom Positive)	
Group 8: Shunt Trip	-	Not applicable	
Group 9: Termination	-	No Busbar supplied – if applicable the Busbar / Cable is to be provided & field fitted by the Customer	Standard
	S	Factory fitted Busbar – incoming circuit CONNECTION @ BOTTOM	
	U	Busbar to be supplied loose in a KIT FORM & to be field fitted by the customer	
Group 10: Customer Specific	-	Not applicable	

For options not listed, please contact CBI for assistance

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DIN mounting 45 mm front escutcheon			DIN mounting 57 mm front escutcheon	
AMP	BOM No.	Long Code	BOM No.	Long Code
One pole - (300 Vdc) - 13 mm total width				
70 A	YSD1070B03	YSD-1(13)-70A-B03	YSM1070B03	YSM-1(13)-70A-B03
Two pole - (300 Vdc) - 26 mm total width				
70 A	YSD2070BT3	YSD-2(13)-70A-BT3	YSM2070BT3	YSM-2(13)-70A-BT3
Two pole - Series connection - (600 Vdc) - 26 mm total width				
70 A	YSD2070BT6	YSD-2(13) -70A-BT6	YSM2070BT6	YSM-2(13)-70A-BT6
Four pole - (2pole series + 2pole series) connection - (600 Vdc) - 52 mm total width				
40 A	YSD4040BU6	YSD-4(13)-40A-BU6	YSM4040BU6	YSM-4(13)-40A-BU6

DIN mounting 45 mm front escutcheon			DIN mounting 57 mm front escutcheon	
AMP	BOM No.	Long Code	BOM No.	Long Code
One pole - (150 Vdc) - 13 mm total width				
70 A	YSD1070150	YSD-1(13)-70A-150	YSM1070150	YSM-1(13)-70A-150
Two pole - (150 Vdc) - 26 mm total width				
70 A	YSD2070150	YSD-2(13)-70A-150	YSM2070150	YSM-2(13)-70A-150
Two pole - Series connection - (300 Vdc) - 26 mm total width				
70 A	YSD2070300S	YSD-2(13) -70A-300S	YSM2070300S	YSM-2(13)-70A-300S

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YS-Frame - Miniature Switch Disconnecter

Possible used Connections Diagrams

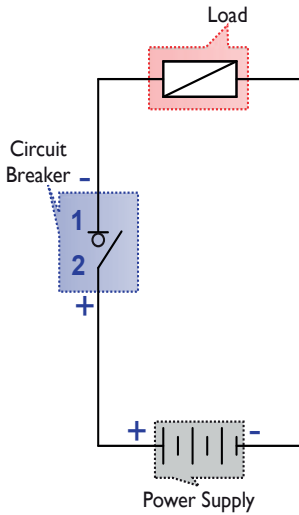


Figure 1:
Single Pole
(150 Vdc Unpolarised, 300 Vdc Polarised)

Figure 1: Single Pole, Single Break
(150 Vdc Unpolarised (150), 300 Vdc Polarised (B03))
This circuit makes use of a single pole switch connected in series with the load.

Figure 2: Double Pole, Single Break
(300 Vdc Unpolarised (300), 600 Vdc Polarised (BT6))
This circuit makes use of a double pole switch connected in series with the load.

Figure 3: Double Pole, Double Break, Isolates load
(150 Vdc Unpolarised (150), 300 Vdc Unpolarised (300), 300 Vdc Polarised (B03), 600 Vdc Polarised (B06))
This circuit makes use of a double pole switch where the load is between the contacts, providing full isolation to the load.

Figure 4: Four Pole, Double Break, Isolates load
(600 Vdc Polarised (BU6))
This circuit makes use of a four pole switch where the load is between the contacts, providing full isolation to the load.

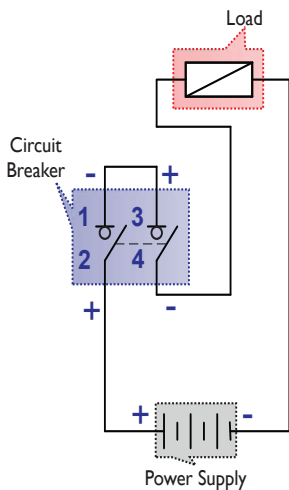


Figure 2:
Double Pole
(300 Vdc Unpolarised, 600 Vdc Polarised)

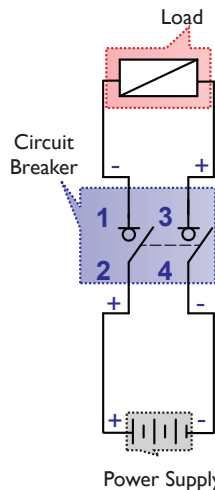


Figure 3:
Double Pole.
Isolates Load
(150 Vdc Unpolarised, 300 Vdc Polarised / Unpolarised, 600 Vdc Polarised)

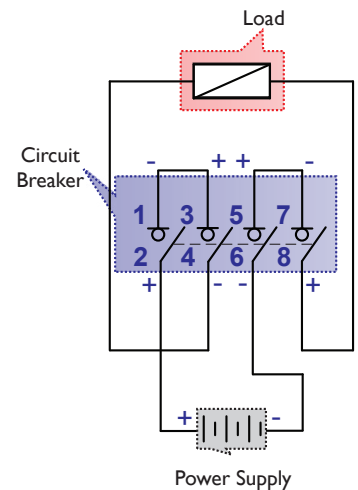


Figure 4:
Four Pole.
Isolates Load
(600 Vdc Polarised)

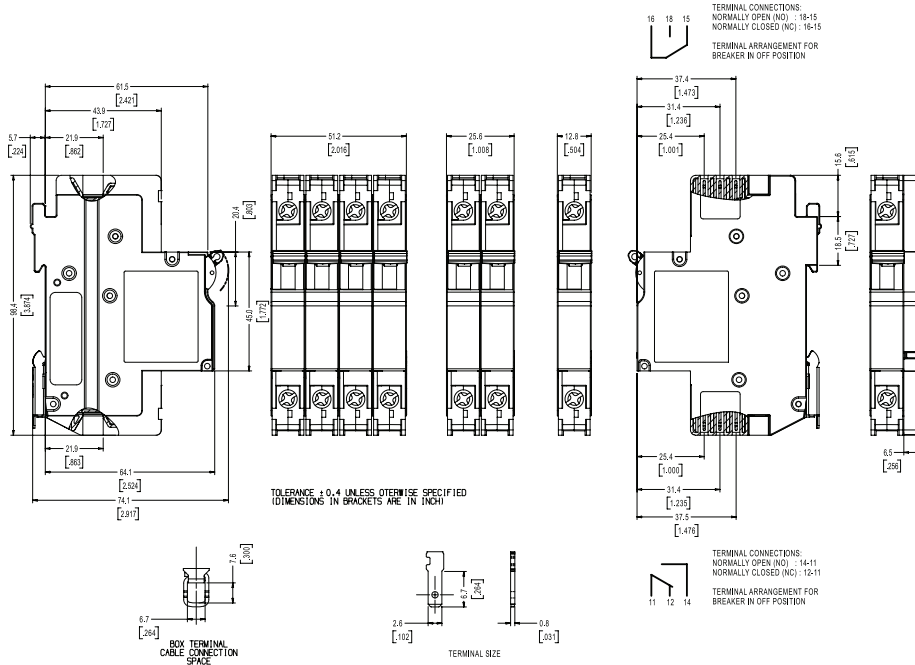
Notes:

1. Unpolarised: Products are rated at 150 Vdc per pole and will function at voltages below rated voltage
2. Polarised: Products are rated at 300 Vdc per pole and will function at voltages below rated voltage

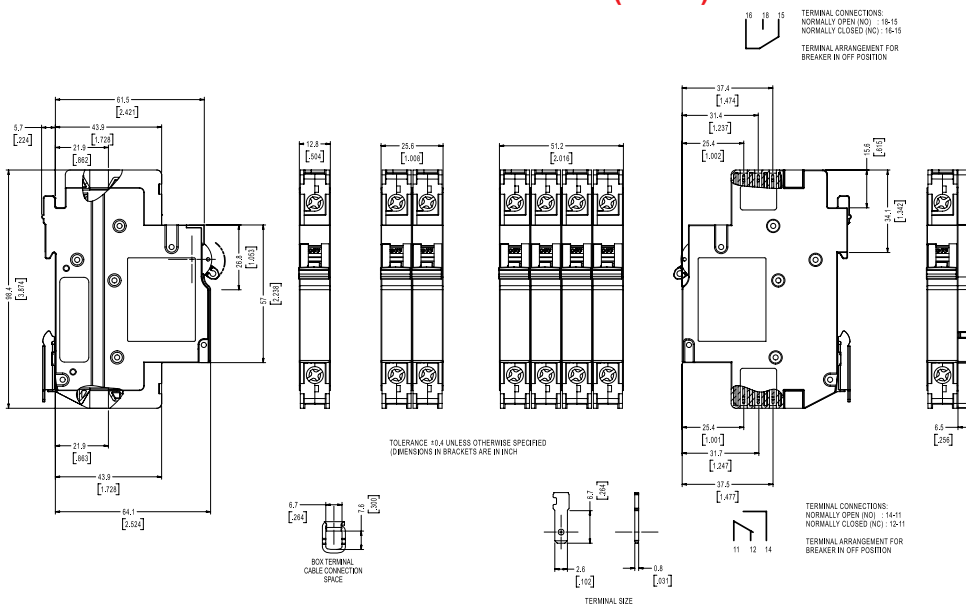
Note:
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YS-Frame - Miniature Switch Disconnecter

Outline Dimensions: DIN Mount 45 mm front Escutcheon (Grey)



Outline Dimensions: DIN Mount 57 mm front Escutcheon (Black)



Note:

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AUSTRALIA

CBI-electric: Australia
 27 Wedgewood Rd, Hallam
 Victoria 3803 Australia
 Tel: +61 3 8752 9300
 Fax: +61 3 9796 5407
 Email: sales@cbi-electric.com.au
 Website: www.cbi-electric.com.au

SOUTH AFRICA

CBI-electric: low voltage
 Tripswitch Drive Elandsfontein
 Gauteng South Africa
 Tel: +27 11 928 2000
 Fax: + 27 11 392 2354
 Email: internationalsales@cbi-electric.com
cbi@cbi-electric.com
 Website: www.cbi-lowvoltage.co.za

USA

CBI-electric: North America
 35 E. Uwchlan Ave Suite 328
 Exton PA 19341 USA
 Tel: +1 610 524 9949
 Fax: +1 610 524 9945
 E-mail: info@cbibreakers.com
 Website: www.cbibreakers.com