

LOADLINE YA8 MCCB

Main Features

- Exceeds the requirements of EN 60947-2
- Electronic MCCBs have adjustable long time, short time and instantaneous trip functions
- Long time overload adjusts between 1 x In and 0.4 x In for electronic devices
- Electronic MCCBs are utilisation category B and are specifically intended for discrimination
- Ultimate breaking capacities available are 50kA and 85kA at 415V AC for electronic MCCBs
- Maximum cable termination is 300mm² with reduced palm width cable lugs
- Rated operational voltage is 690V AC (Ue)
- Rated insulation voltage is 800V AC (Ui)

CATALOGUE NUMBERS

CURRENT RATING		TERMINAL TYPE	Cat No (3 pole)	Cat No (4 pole)
MAX (A)	MIN (A)			
Switch Disconnector				
1250	FIXED	FRONT	YA8B3P1250D	YA8B4P1250D
1600	FIXED	FRONT	YA8B3P1600D	YA8B4P1600D
1600	FIXED	REAR	YA8B3P1600DR	YA8B4P1600DR

YA8 Frame MCCB Electronic - Icu 50kA

1250	500	FRONT	YA8H3P1250E	YA8H4P1250E
1600	640	FRONT	YA8H3P1600E	YA8H4P1600E
1600	640	REAR	YA8H3P1600ER	YA8H4P1600ER

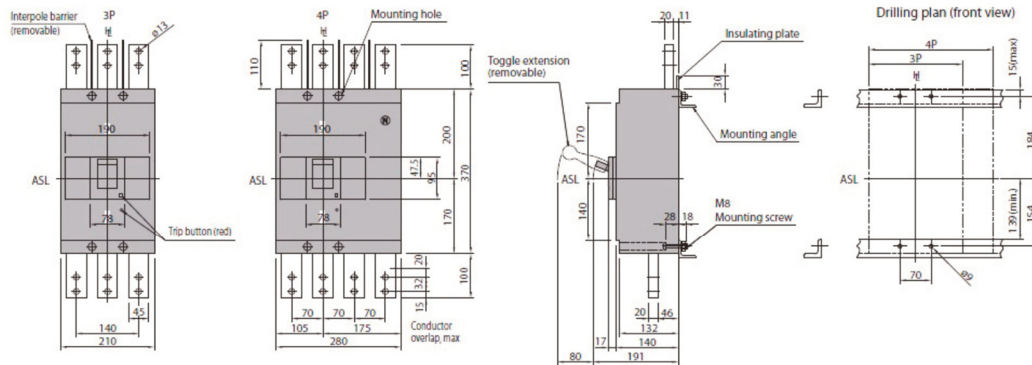
YA8 Frame MCCB Electronic - Icu 85kA

1600	640	FRONT	YA8K3P1600E	YA8K4P1600E
1600	640	REAR	YA8K3P1600ER	YA8K4P1600ER

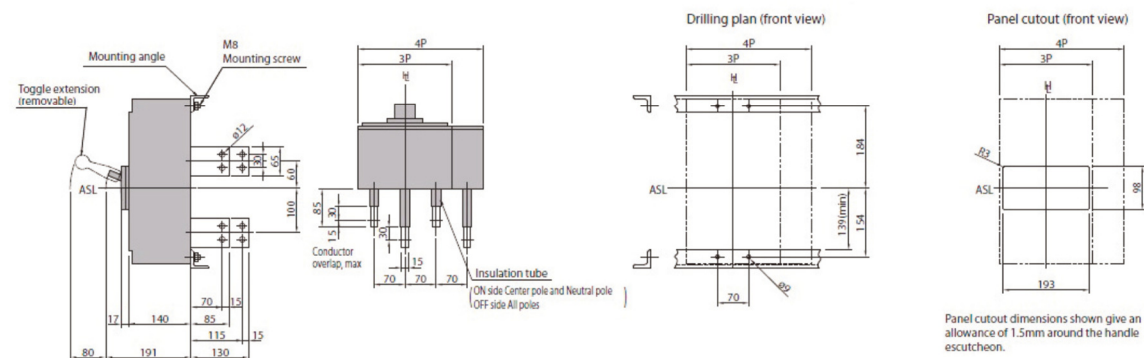


Ground fault protection is available on electronic YA8 frame MCCBs. To specify ground fault please add "G" after the letter "E" in the product code e.g. YA8H3P1600EG and YA8H3P1600EGR.

Front connected



Rear connected



Panel cutout dimensions shown give an allowance of 1.5mm around the handle escutcheon.

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YA8 MCCB ACCESSORIES

DESCRIPTION	Cat No (3 pole)	Cat No (4 pole)
Motors and Interlocks		
YA7 / YA8 Motor actuator 100-115V AC	YA7MA115	YA7MA115
YA7 / YA8 Motor actuator 200-230V AC	YA7MA230	YA7MA230
YA7 / YA8 Motor actuator 240V AC	YA7MA240	YA7MA240
YA7 / YA8 Slide type interlock (one between two MCCBs)	YA7MS3P	YA7MS4P
Rotary Handles		
YA8 Panel mounted rotary handle for 532mm panel depth	YA7RH513	YA7RH513
Castell* locking cam for panel mounted rotary handle	YABCLCAM	YABCLCAM
Terminal Protection		
YA7 Terminal shroud for cable lugs	YA7TS3P	YA7TS4P
YA7 / YA8 Interphase barrier (1 off)	YA5TB	YA5TB
YA7 / YA8 Handle lock	YA7DL	YA7DL
Auxiliary and Alarm Switches		
YA Auxiliary changeover switch (AC 240V/3A and DC 125V/0.4A)	YAAUX1	YAAUX1
YA Alarm trip indicator changeover switch (AC 240V/3A and DC 125V/0.4A)	YAAL	YAAL
Shunt Trips		
YA7 / YA8 Frame 100-120V AC	YA7ST120AC	YA7ST120AC
YA7 / YA8 Frame 200-240V AC	YA7ST240AC	YA7ST240AC
YA7 / YA8 Frame 24V DC	YA7ST24DC	YA7ST24DC
Under-voltage Release		
YA7 / YA8 Under-voltage release 100-110V AC	YA6UVR110AC	YA6UVR110AC
YA7 / YA8 Under-voltage release 230-240V AC	YA6UVR240AC	YA6UVR240AC
YA7 / YA8 Under-voltage release 380-415V AC	YA6UVR415AC	YA6UVR415AC
YA7 / YA8 Under-voltage release 24V DC	YA6UVR24DC	YA6UVR24DC
YA7 / YA8 Under-voltage release 100-120V DC	YA6UVR120DC	YA6UVR120DC
YA7 / YA8 Under-voltage release 200-240V DC	YA6UVR240DC	YA6UVR240DC
Accessories		
Neutral link	YA7NL	-----



Note: Please be advised that MCCBs can be fitted with either a shunt trip or an under-voltage release device; however the MCCB cannot house both of these together.

* Castell is a trademark of Castell Safety International limited.

LOADLINE YA8 MCCB

Dorman Smith Frame Size		YA8		
MCCB Type or Sw. Disconnecter		ADJUSTABLE MCCB's		SWITCH DISCONNECTOR
		Electronic Front/Rear	Electronic Front	Front
Terminal Type		YA8H----E	YA8K----E	YA8B----D
Product Code		3, 4	3, 4	3, 4
No of Poles		1250, 1600	1600	1250, 1600
Nominal Current Ratings (In) (A) (50°C)				
Electrical Characteristics				
Rated Operational Voltage (Ue) (V)	AC 50/60Hz	690	690	690
	DC	-	-	250
Rated Insulation Voltage (Ui) (V)		800	800	800
Rated Impulse Withstand Voltage (Uimp) (kV)		8	8	8
Ultimate breaking capacity (Icu) (kA) (IEC, JIS, AS/NZS)	690V AC	20	45	-
	525V AC	30	65	-
	440V AC	45	85	-
	400/415V AC	50	100/85*	-
	220/240V AC	85	125	-
	250V DC	-	-	-
Service breaking capacity (Ics) (kA)	690V AC	15	34	-
	525V AC	23	50	-
	440V AC	34	65	-
	400/415V AC	38	75/65**	-
	220/240V AC	65	94	-
	250V DC	-	-	-
Rated breaking Capacity (NEMA) (kA)	480V AC	30	65	-
	240V AC	85	125	-
Rated short-circuit making capacity (Icm) (kA)	Peak	-	-	45
Rated short-time withstand current (Icw) (kA)	0.3 seconds	20	20	20
Rated Frequency	Hz	50/60	50/60	50/60
Protection				
Adjustable Thermal		-	-	-
Adjustable Magnetic		-	-	-
Microprocessor		Yes	Yes	-
Utilisation Category		B	B	AC-23A
IP Rating	Terminals	-	-	-
	Toggle	IP30	IP30	IP30
Installation				
Front Connection		-	-	-
Straight Extension Terminals		Standard	Standard	Standard
Spread Extension Terminals		-	-	-
Cable Clamps		-	-	-
Rear Terminals		Optional	Optional	Optional
DIN-rail Mounting		Not available	Not available	Not available
Plug-in		-	-	-
Draw-out		Not available	Not available	Not available
Dimensions				
Height (mm)		370	370	370
1 Pole Width (mm)		-	-	-
3 Pole Width (mm)		210	210	210
4 Pole Width (mm)		280	280	280
Depth (mm)		140	140	140
1 Pole Weight (kg)		-	-	-
3 Pole Weight (kg)		27	27	24.9
4 Pole Weight (kg)		35	35	32.9
Operation				
Direct Opening Action		Yes	Yes	Yes
Trip Button		Yes	Yes	Yes
Suitable for Isolation		Yes	Yes	Yes
Panel mounted rotary handle		Optional	Optional	Optional
Direct mounted rotary handle		-	-	-
Slide Interlock		Optional	Optional	Optional
Link Interlock		Optional	Optional	Optional
Wire Interlock		Optional	Optional	Optional
Motor Actuator		Optional	Optional	Optional
Endurance at 690V AC	Electrical (cycles)	2,000	2,000	2,000
	Mechanical (cycles)	5,000	5,000	5,000
Environment				
Operating Ambient Temperature	°C	-5 to +50	-5 to +50	-5 to +50
Relative Humidity	%	85	85	85
Altitude above Sea Level	Metres	Up to 2000	Up to 2000	Up to 2000
Pollution Degree		3	3	3
Approval Marks				
CE, UKCA		Yes	Yes	Yes

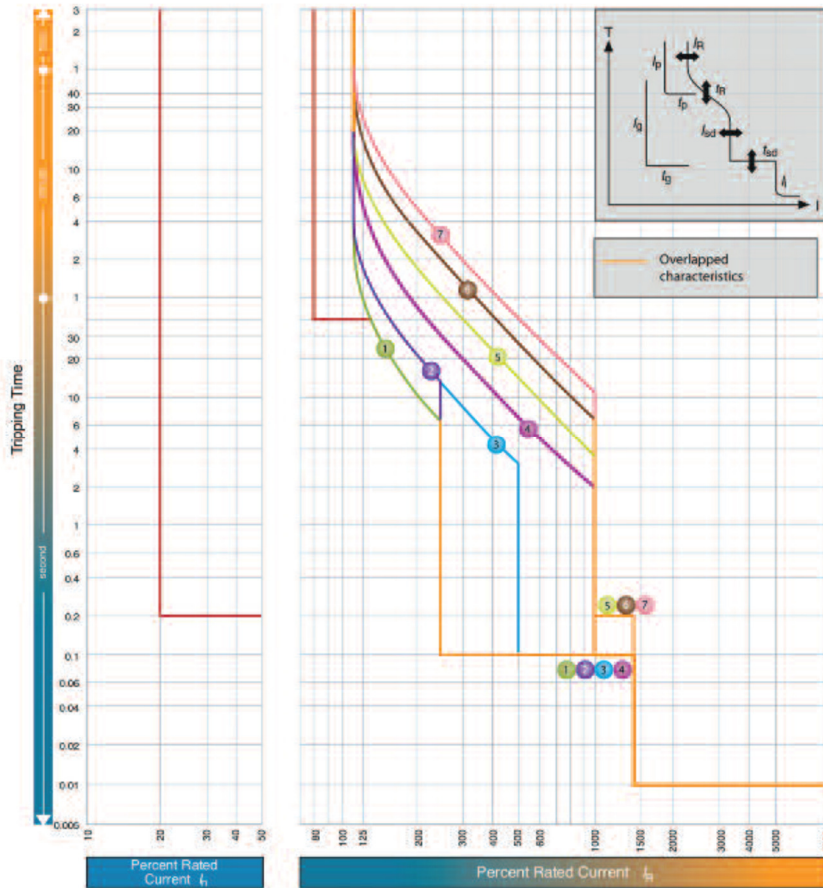
*100KA at 400V
 **75KA at 400V

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Zs VALUES

MCCB REFERENCE	Short time (I _{sd}) Protection Setting	Maximum Zs values @ 230Vac		
		In	0.4 sec	5 sec
YA8 3P & 4P (Electronic) YA8H-E - 50kA YA8K-E - 85kA	MIN	1600	0.048	0.048
	MAX		0.012	0.012

3 & 4 pole time/current characteristic For electronic protection.



$I_n=1600A$

		I_R (A)										
		LTD Pick-up current	I_R	x/I_n	0.4	0.5	0.63	0.8	0.9	0.95	1.0	
		Characteristics	No.		1	2	3	4	5	6	7	
Standard	LT	t_R	(s)		11	21	21	5	10	19	29	
	ST	I_{sd}	x/I_R		2.5			5			10	
		t_{sd}	(s)		0.1						0.2	
	INST	I_i	x/I_n		14(Max: 12 x I_n) Note (1)							
Option	PTA	I_p	x/I_R		0.8							
		t_p	(s)		40							
	GF Note(3)	I_g	x/I_n		0.2							
		t_g	(s)		0.2							
	NP	I_N	x/I_R		1.0/0.5 Note(2)							
	t_N	(s)		$t_N=t_R$								

Note

(1) I_i max. = 12 x I_n . (2) 1.0 x I_R or 0.5 x I_R can be selected. Characteristic of neutral protection (I_N vs. t_N) is identical to characteristic of phase protection (t_R vs. I_R). (3) When you specify GF on MCCBs with 3 poles the terminal block is automatically fitted to connect with the external neutral CT for 3 phases 4 wires system.

Ground fault: $I_g = 0.2 \times I_n$ and $t_g = 0.2$ seconds