LOADLINE YA3 ELECTRONIC MCCB

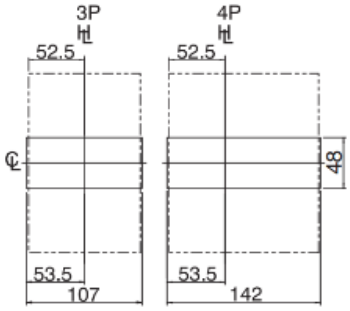
Main Features

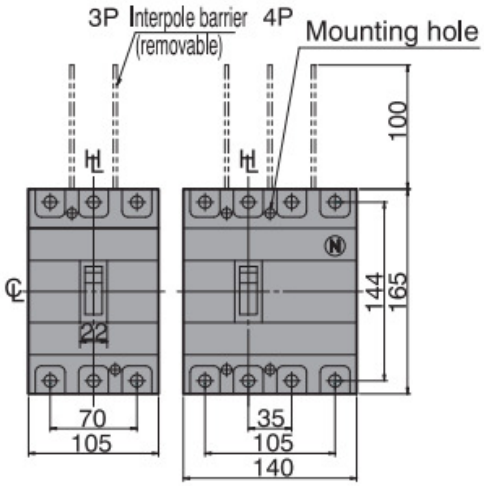
- Exceeds the requirements of EN 60947-2
- Three-pole and four-pole MCCBs have adjustable electronic overloads
- Electronicl overload adjusts to 1 to 0.4 x In.
- Ultimate breaking capacity available as 65kA at 415VAC
- Maximum cable termination is 120mm² with cable clamps (optional accessory)
- Maximum cable termination is 150mm² with M8 reduced palm width cable lugs
- Standard cable termination is 95mm$_2$ using M8 lugs
- Rated insulation voltage is 800V AC (Ui)

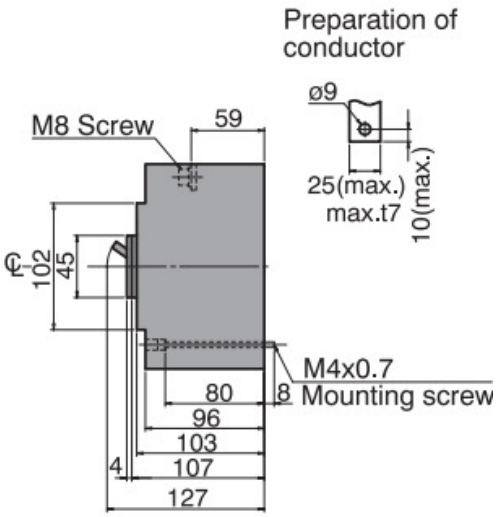
CATALOGUE NUMBERS

CURRENT RATING MAX (A)	MIN (A)	Cat No (3 pole)	Cat No (4 pole)
YA3 Frame MCCB Electronic - Icu 36kA			
40	16	YA3S3P40E	YA3S4P40E
125	50	YA3S3P125E	YA3S4P125E
160	64	YA3S3P160E	YA3S4P160E
250	100	YA3S3P250E	YA3S4P250E
YA3 Frame MCCB Electronic - Icu 65kA			
40	16	YA3J3P40E	YA3J4P40E
125	50	YA3J3P125E	YA3J4P125E
160	64	YA3J3P160E	YA3J4P160E
250	100	YA3J3P250E	YA3J4P250E

Panel cut-out (Front View)

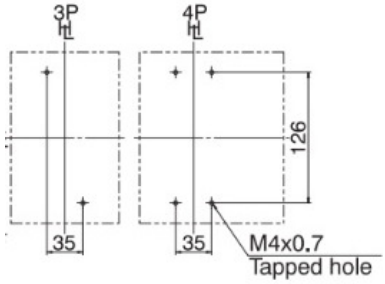






Panel cutout dimensions shown give an allowance of 1.0mm or more around the handle escutcheon.

Drilling plan (Front View)



LOADLINE YA3 ELECTRONIC MCCB

YA3 ELECTRONIC MCCB ACCESSORIES

DESCRIPTION	Cat No (3 pole)	Cat No (4 pole)
Cable Clamps		
YA3 Cable clamps set (120mm² cable)	YA3CC3P	YA3CC4P
Extension Terminals		
YA3 Flat extension terminals (Straight type)	YA3XT3P	YA3XT4P
Motors and Interlocks		
YA3 Motor actuator 100-110V AC	YA3MA110	----------
YA3 Motor actuator 200-240V AC	YA3MA240	----------
YA3 Mechanical interlock, link type for RHS MCCB	YA3MLR	----------
YA3 Mechanical interlock, link type for LHS MCCB	YA3ML3PL	YA3ML4P
YA3 Mechanical interlock, wire type mech (1 per MCCB)	YA3MW	----------
YA3 Wire interlock cable 1 metre long	YAMWC1	YAMWC1
YA3 Wire interlock cable 1.5 metre long	YAMWC2	YAMWC2
Rotary Handles		
YA3 Panel mounted IP54 rotary handle for 453mm panel depth	YA3RH453	YA3RH453
Castell cam for panel mounted rotary handle	YABCLCAM	YABCLCAM
Terminal Protection		
YA3 Terminal shroud for cable lugs	YA3TS3PE	YA3TS4PE
YA3 Terminal shroud for cable clamps	YA3TS3PS	YA3TS4PS
YA3 Handle lock	YADL1	YADL1
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		
YA Shunt trip 100-120V AC	YAST115AC	YAST115AC
YA Shunt trip 200-240V AC	YAST240AC	YAST240AC
YA Shunt trip 380-450V AC	YAST450AC	YAST450AC
YA Shunt trip 24V DC	YAST24DC	YAST24DC
Under-voltage Release		
YA Under-voltage release 100-120V AC	YAUVR120AC	YAUVR120AC
YA Under-voltage release 200-240V AC	YAUVR240AC	YAUVR240AC
YA Under-voltage release 380-450V AC	YAUVR450AC	YAUVR450AC
YA Under-voltage release 24V DC	YAUVR24DC	YAUVR24DC
Accessories		
YA3 Neutral link	YB3NL	YB3NL

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.

LOADLINE YA3 ELECTRONIC MCCB

Dorman Smith Frame Size		YA3 Electronic	
MCCB Type		ADJUSTABLE MCCB	
Terminal Type		Front	Front
Product Code		YA3S----E	YA3J----E
No of Poles		3, 4	3, 4
Nominal Current Ratings (In) (A) (50°C)		40, 125, 160, 250	40, 125, 160, 250
Electrical Characteristics			
Rated Operational Voltage (Ue) (V)	AC 50/60Hz	690	690
	DC	-	-
Rated Insulation Voltage (Ui) (V)		800	800
Rates Impulse Withstand Voltage (Uimp) (kV)		8	8
Ultimate breaking capacity (Icu) (kA) (IEC, JIS, AS/NZS)	690V AC	7.5	7.5
	525V AC	25	25
	440V AC	25	50
	400/415V AC	36	65
	220/240V AC	65	85
	250V DC	-	-
Service breaking capacity (Ics) (kA)	690V AC	7.5	7.5
	525V AC	25	25
	440V AC	25	25
	400/415V AC	36	36
	220/240V AC	65	85
	250V DC	-	-
Rated breaking Capacity (NEMA) (kA)	480V AC	25	25
	240V AC	65	85
Rated Frequency	Hz	50/60	50/60
Protection			
Microprocessor		Yes	Yes
Utilisation Category		A	A
IP Rating	Terminals	IP20	IP20
	Toggle	IP30	IP30
Installation			
Front Connection		Standard	Standard
Straight Extension Terminals		Optional	Optional
Spread Extension Terminals		Optional	Optional
Cable Clamps		Optional	Optional
Rear Terminals		Not available	Not available
DIN-rail Mounting		Not available	Not available
Plug-in		Optional (200A max)	Optional (200A max)
Draw-out		Not available	Not available
Dimensions			
Height (mm)		165	165
3 Pole Width (mm)		105	105
4 Pole Width (mm)		140	140
Depth (mm)		103	103
3 Pole Weight (kg)		2.3	2.3
4 Pole Weight (kg)		3.1	3.1
Operation			
Direct Opening Action		Yes	Yes
Trip Button		Yes	Yes
Suitable for Isolation		Yes	Yes
Panel mounted rotary handle		Optional	Optional
Direct mounted rotary handle		Optional	Optional
Slide Interlock		Not available	Not available
Link Interlock		Optional	Optional
Wire Interlock		Optional	Optional
Motor Actuator		Optional	Optional
Endurance at 415V AC	Electrical (cycles)	10,000	10,000
	Mechanical (cycles)	30,000	30,000
Environment			
Operating Ambient Temperature	°C	-5 to +50	-5 to +50
Relative Humidity	%	85	85
Altitude above Sea Level	Metres	Up to 2000	Up to 2000
Pollution Degree		3	3
Approval Marks			
CE, UKCA		Yes	Yes
Direct Opening Action		Yes	Yes

Zs VALUES

MCCB REFERENCE	Short time (Isd) Protection Setting	Maximum Zs values @ 230Vac		
		In	0.4 sec	5 sec
YB3 3P & 4P Electronic YA3S.E– 36kA YA3J.E – 65kA	MIN	40	1.900	1.900
	MAX		0.475	0.563
	MIN	125	0.680	0.608
	MAX		0.152	0.181
	MIN	160	0.475	0.475
	MAX		0.119	0.141
	MIN	250	0.304	0.304
	MAX		0.076	0.090

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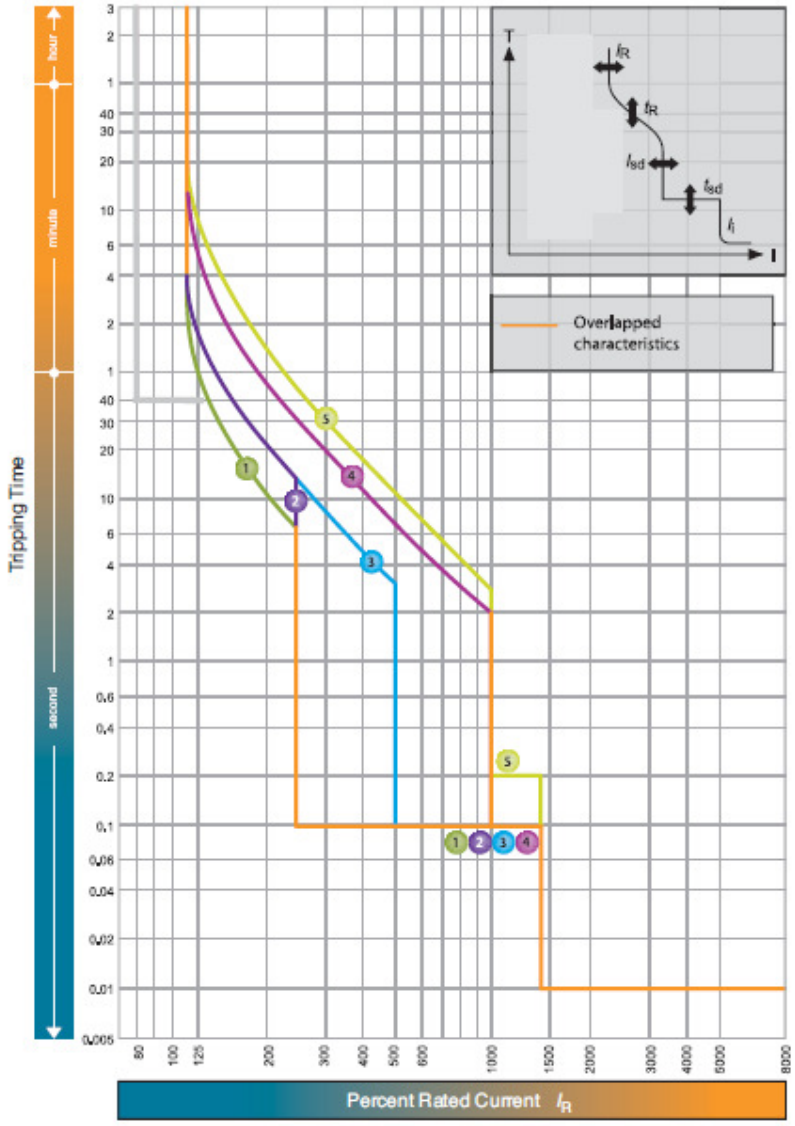
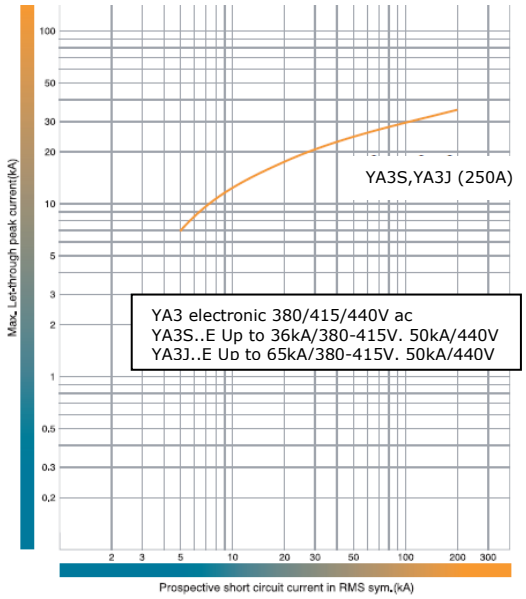
LOADLINE YA3 ELECTRONIC MCCB

Time/Current Characteristic Curves

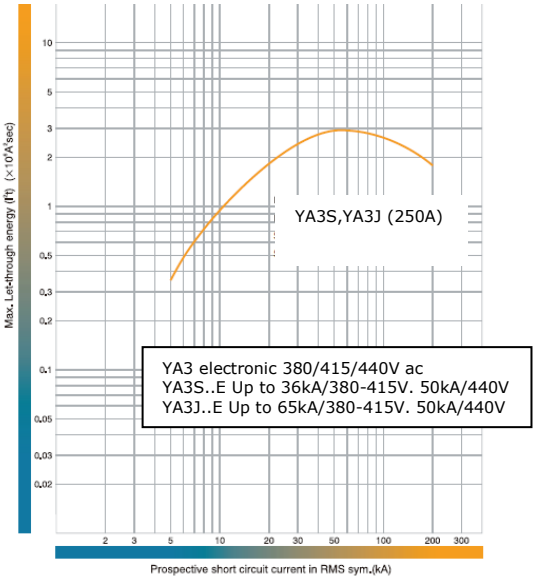
Loadline YA3S & YA3J Electronic MCCBs



Let through Peak Current Characteristics



Let through Energy Characteristics



I_n = 250A; 160A; 125A; 40A

I_R (A)								
LTD Pick-up current	I_R	xI_n	0.4	0.5	0.63	0.8	0.9	0.95	1.0

	Characteristics		No.	1	2	3	4	5
Standard	LT	t_R	(s)	11	21	21	5	7.5
				at 200% x I_R			at 600% x I_R	
	ST	I_{sd}	xI_R	2.5		5	10	
		t_{sd}	(s)	0.1				0.2
	INST	I_i	xI_R	14(Max: 13 x I_n)				