

LOADLINE YA6 MCCB

Main Features

- Exceeds the requirements of EN 60947-2
- Thermal/Magnetic MCCB's have adjustable long time and instantaneous trip functions
- Long time overload adjusts to $1 \times I_n$, $0.8 \times I_n$ and $0.63 \times I_n$ for thermal/magnetic devices
- Electronic MCCBs have adjustable long time, short time and instantaneous trip functions
- Long time overload adjusts between $1 \times I_n$, and $0.4 \times I_n$ for electronic devices
- Electronic MCCBs are utilisation category B and are specifically intended for discrimination
- Ultimate breaking capacity available as 50kA and 70kA at 415VAC
- 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)
- Extension terminals should be ordered separately when not used with Dorman Smith enclosures

CATALOGUE NUMBERS

CURRENT RATING			
MAX (A)	MIN (A)	Cat No (3 pole)	Cat No (4 pole)
Switch Disconnect			
400	FIXED	YA6B3P400D	YA6B4P400D
800	FIXED	YA6B3P800D	YA6B4P800D

YA6 Frame MCCB Thermal / Magnetic - Icu 50kA

400	FIXED	YA6H3P400T	YA6H4P400T
630	400	YA6H3P630T	YA6H4P630T
800	500	YA6H3P800T	YA6H4P800T

YA6 Frame MCCB Thermal / Magnetic - Icu 70kA

630	400	YA6K3P630T	YA6K4P630T
800	500	YA6K3P800T	YA6K4P800T

YA6 Frame MCCB Electronic - Icu 50kA

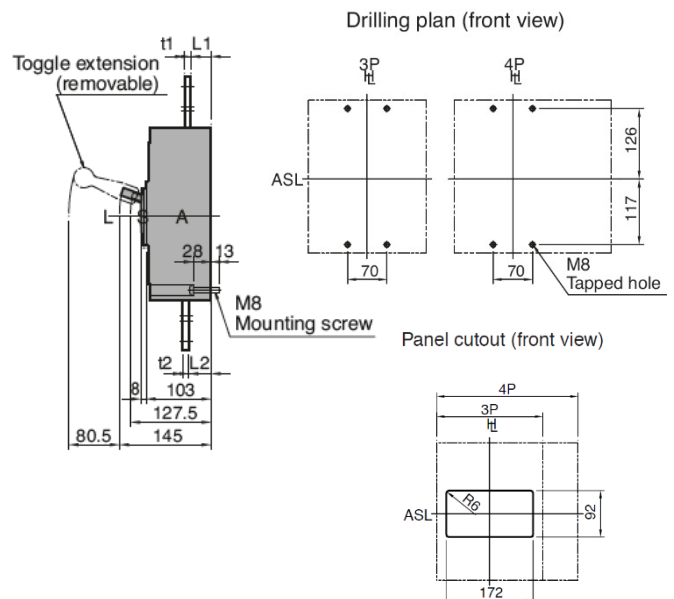
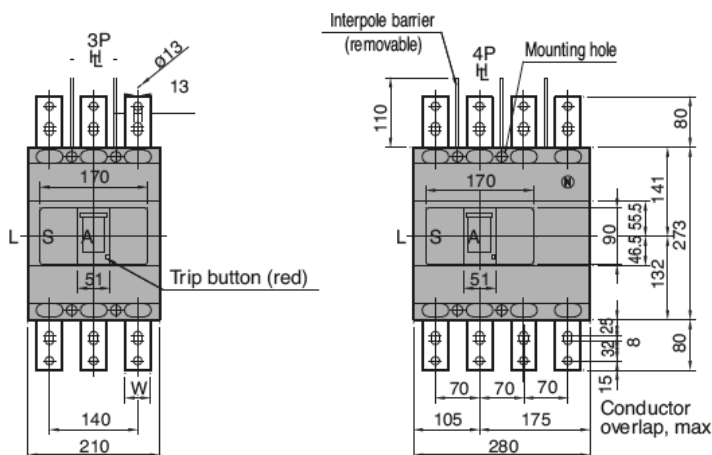
630	252	YA6H3P630E	YA6H4P630E
800	320	YA6H3P800E	YA6H4P800E

YA6 Frame MCCB Electronic - Icu 70kA

630	252	YA6K3P630E	YA6K4P630E
800	320	YA6K3P800E	YA6K4P800E



Ground fault protection is available on electronic MCCBs. To specify Ground Fault please add "G" to the end of the product code eg YA6H3P800EG



Breaker Type	Rated Current	t1	t2	L1	L2	W
Thermal / Magnetic	630A	8	8	32	34	40
	800A	10	10	32	35	40
Electronic	630A	8	8	32	36	40
	800A	10	10	32	36	40

LOADLINE YA6 MCCB

YA6 MCCB ACCESSORIES

DESCRIPTION

Cat No (3 pole)

Cat No (4 pole)

Extension Terminals

YA6 400/630A Flat extension terminals (Straight type)

(1 set required for each end of MCCB)

YA6 800A Flat extension terminals (Straight type)

(1 set required for each end of MCCB)

YA6XT3P630

YA6XT4P630

YA6XT3P800

YA6XT4P800

Rear Terminals

YA6 Rear terminals

YA6RT3P

YA6RT4P

Motors and Interlocks

YA6 Motor actuator 100-240V AC

YA6 Motor actuator 200-240V AC (with auto reset)

YA6 Mechanical interlock, link type for RHS MCCB

YA6 Mechanical interlock, link type for LHS MCCB

YA6 Mechanical interlock, manual slide type

YA6 Mechanical interlock, wire type mech (1 per MCCB)**

YA6 Wire interlock cable 1 metre long

YA6 Wire interlock cable 1.5 metre long

YA6MA240

YA6MA240

YA6MA240R

YA6MA240R

YA6MLR

YA6MLR

YA6ML3PL

YA6ML4PL

YA6MS3P

YA6MS4P

YA6MW

YA6MW

YAMWC1

YAMWC1

YAMWC2

YAMWC2

Rotary Handles

YA6 Panel mounted IP54 rotary handle for

456mm panel depth

Castell cam for panel mounted rotary handle

YA6RH456

YA6RH456

YABCLCAM

YABCLCAM

Terminal Protection

YA6 Terminal shroud for cable lugs

YA6 Interphase barrier (1 off)

YA6 Handle lock

YA6TS3P

YA6TS4P

YA5TB

YA5TB

YA5DL

YA5DL

Auxiliary and Alarm Switches

YA Auxiliary changeover switch

(AC 240V/3A and DC 125V/0.4A)

YA Alarm trip indicator changeover switch

(AC 240V/3A and DC 125V/0.4A)

YAAUX1

YAAUX1

YAAL

YAAL

Shunt Trips

YA Shunt trip 100-120V AC

YA Shunt trip 200-240V AC

YA Shunt trip 380-450V AC

YA Shunt trip 24V DC

YA Shunt trip 48V DC

YA Shunt trip 100-120V DC

YA Shunt trip 200-240V DC

YAST115AC

YAST115AC

YAST240AC

YAST240AC

YAST450AC

YAST450AC

YAST24DC

YAST24DC

YAST48DC

YAST48DC

YAST120DC

YAST120DC

YAST240DC

YAST240DC

Under-voltage Release

YA6 Under-voltage release 100-110V AC

YA6 Under-voltage release 230-240V AC

YA6 Under-voltage release 380-415V AC

YA6 Under-voltage release 24V DC

YA6UVR110AC

YA6UVR110AC

YA6UVR240AC

YA6UVR240AC

YA6UVR415AC

YA6UVR415AC

YA6UVR24DC

YA6UVR24DC

Accessories

YA6 Neutral link

YA6 Handle extension

YA6NL

YA6HE

YA6HE

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.

** YA6MW wire type interlock must be used with a YA6MA240 motor actuator



LOADLINE YA6 MCCB

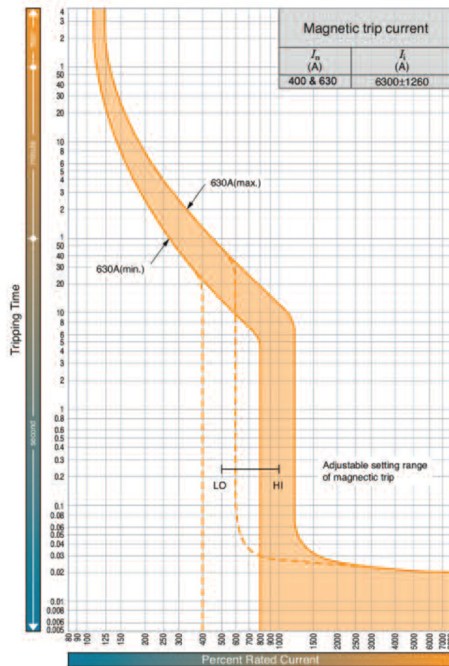
Dorman Smith Frame Size		YA6				
MCCB Type or Sw. Disconnecter		ADJUSTABLE MCCB's				SWITCH DISCONNECTOR
		Thermal/mag	Front	Electronic	Front	
Terminal Type		Front	Front	Front	Front	Front
Product Code		YA6H----T	YA6K----T	YA6H----E	YA6K----E	YA6B----D
No of Poles		3, 4	3, 4	3, 4	3, 4	3, 4
Nominal Current Ratings (In) (A) (50°C)		400, 630, 800	630, 800	630, 800	630, 800	400, 800
Electrical Characteristics						
Rated Operational Voltage (Ue) (V)	AC 50/60Hz	690	690	690	690	690
	DC	250	250	-	-	250
Rated Insulation Voltage (Ui) (V)		800	800	800	800	800
Rates Impulse Withstand Voltage (Uimp) (kV)		8	8	8	8	8
Ultimate breaking capacity (Icu) (kA) (IEC, JIS, AS/NZS)	690V AC	20	25	20	25	-
	525V AC	30	45	30	35	-
	440V AC	50	65	50	65	-
	400/415V AC	50	70	50	70	-
	220/240V AC	85	100	85	100	-
	250V DC	50	50	-	-	-
Service breaking capacity (Ics) (kA)	690V AC	20	20	20	20	-
	525V AC	30	34	30	30	-
	440V AC	50	50	50	50	-
	400/415V AC	50	50	50	50	-
	220/240V AC	85	75	85	75	-
	250V DC	50	50	-	-	-
Rated breaking Capacity (NEMA) (kA)	480V AC	30	45	30	35	-
	240V AC	85	100	85	100	-
Rated short-circuit making capacity (Icm) (kA)	Peak	-	-	-	-	17
Rated short-time withstand current (Icw) (kA)	rms	-	-	10	10	10
Rated Frequency	Hz	50/60	50/60	50/60	50/60	50/60
Protection						
Adjustable Thermal		Yes	Yes	-	-	-
Adjustable Magnetic		Yes	Yes	-	-	-
Microprocessor		-	-	Yes	Yes	-
Utilisation Category		A	A	B	B	AC-23A
IP Rating	Terminals	IP20	IP20	IP20	IP20	IP20
	Toggle	IP30	IP30	IP30	IP30	IP30
Installation						
Front Connection		Standard	Standard	Standard	Standard	Standard
Straight Extension Terminals		Optional	Optional	Optional	Optional	Optional
Spread Extension Terminals		-	-	-	-	-
Cable Clamps		-	-	-	-	-
Rear Terminals		Optional	Optional	Optional	Optional	Optional
DIN-rail Mounting		Not available	Not available	Not available	Not available	Not available
Plug-in		-	-	-	-	-
Draw-out		Not available	Not available	Not available	Not available	Not available
Dimensions						
Height (mm)		273	273	273	273	273
1 Pole Width (mm)		-	-	-	-	-
3 Pole Width (mm)		210	210	210	210	210
4 Pole Width (mm)		280	280	280	280	280
Depth (mm)		103	103	103	103	103
1 Pole Weight (kg)		-	-	-	-	-
3 Pole Weight (kg)		8.5	8.5	8.7 (630A) 9.1 (800A)	8.7 (630A) 9.1 (800A)	8.0 (400A) 8.5 (800A)
4 Pole Weight (kg)		11.5	11.5	11.9 (630A) 12.3 (800A)	11.9 (630A) 12.3 (800A)	11.0 (400A) 11.5 (800A)
Operation						
Direct Opening Action		Yes	Yes	Yes	Yes	Yes
Trip Button		Yes	Yes	Yes	Yes	Yes
Suitable for Isolation		Yes	Yes	Yes	Yes	Yes
Panel mounted rotary handle		Optional	Optional	Optional	Optional	Optional
Direct mounted rotary handle		-	-	-	-	-
Slide Interlock		Optional	Optional	Optional	Optional	-
Link Interlock		Optional	Optional	Optional	Optional	-
Wire Interlock		Optional	Optional	Optional	Optional	-
Motor Actuator		Optional	Optional	Optional	Optional	Optional
Endurance at 690V AC	Electrical (cycles)	4,000	4,000	4,000	4,000	4,000
	Mechanical (cycles)	10,000	10,000	10,000	10,000	10,000
Environment						
Operating Ambient Temperature	°C	-5 to +50	-5 to +50	-5 to +50	-5 to +50	-5 to +50
Relative Humidity	%	85	85	85	85	85
Altitude above Sea Level	Metres	Up to 2000	Up to 2000	Up to 2000	Up to 2000	Up to 2000
Pollution Degree		3	3	3	3	3
Approval Marks						
CE, UKCA		Yes	Yes	Yes	Yes	Yes

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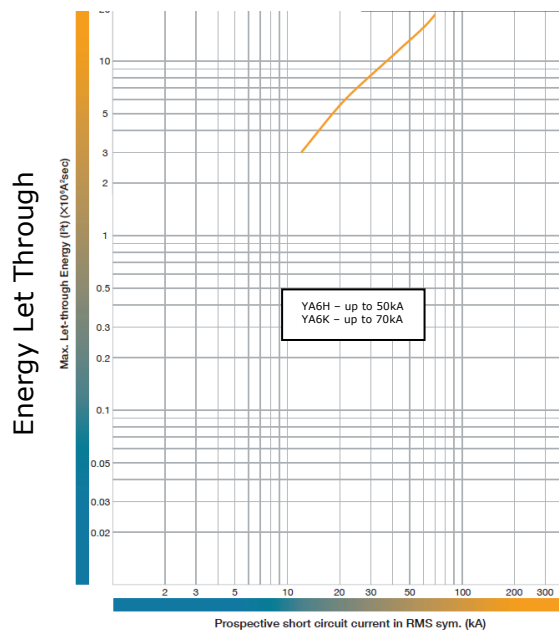
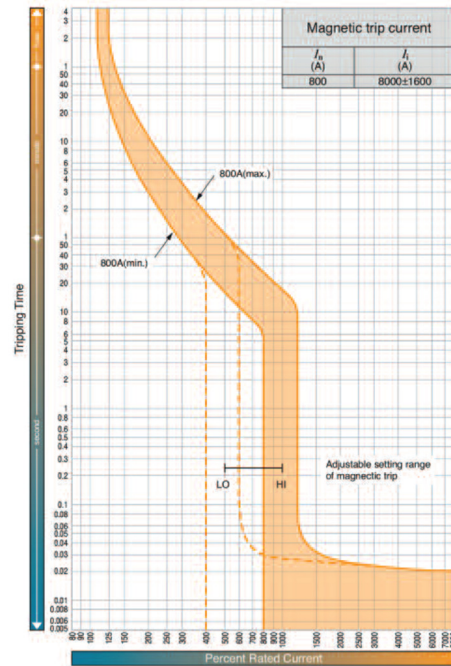
Zs VALUES

MCCB REFERENCE	Instantaneous (Ii) Protection Setting	Maximum Zs values @ 230Vac		
		In	0.4 sec	5 sec
YA6 3P & 4P (thermal/mag) YA6H - 50kA YA6K - 70kA	MIN (YA6H only)	400	0.058	0.058
	MAX (YA6H only)		0.029	0.029
	MIN	630	0.058	0.058
	MAX		0.029	0.029
	MIN	800	0.046	0.046
	MAX		0.023	0.023
MCCB REFERENCE	Short time (Isd) Protection Setting	Maximum Zs values @ 230Vac		
		In	0.4 sec	5 sec
YA6 3P & 4P (Electronic) YA6H-E - 50kA YA6K-E - 70kA	MIN	630	0.121	0.121
	MAX		0.030	0.030
	MIN	800	0.095	0.095
	MAX		0.024	0.024

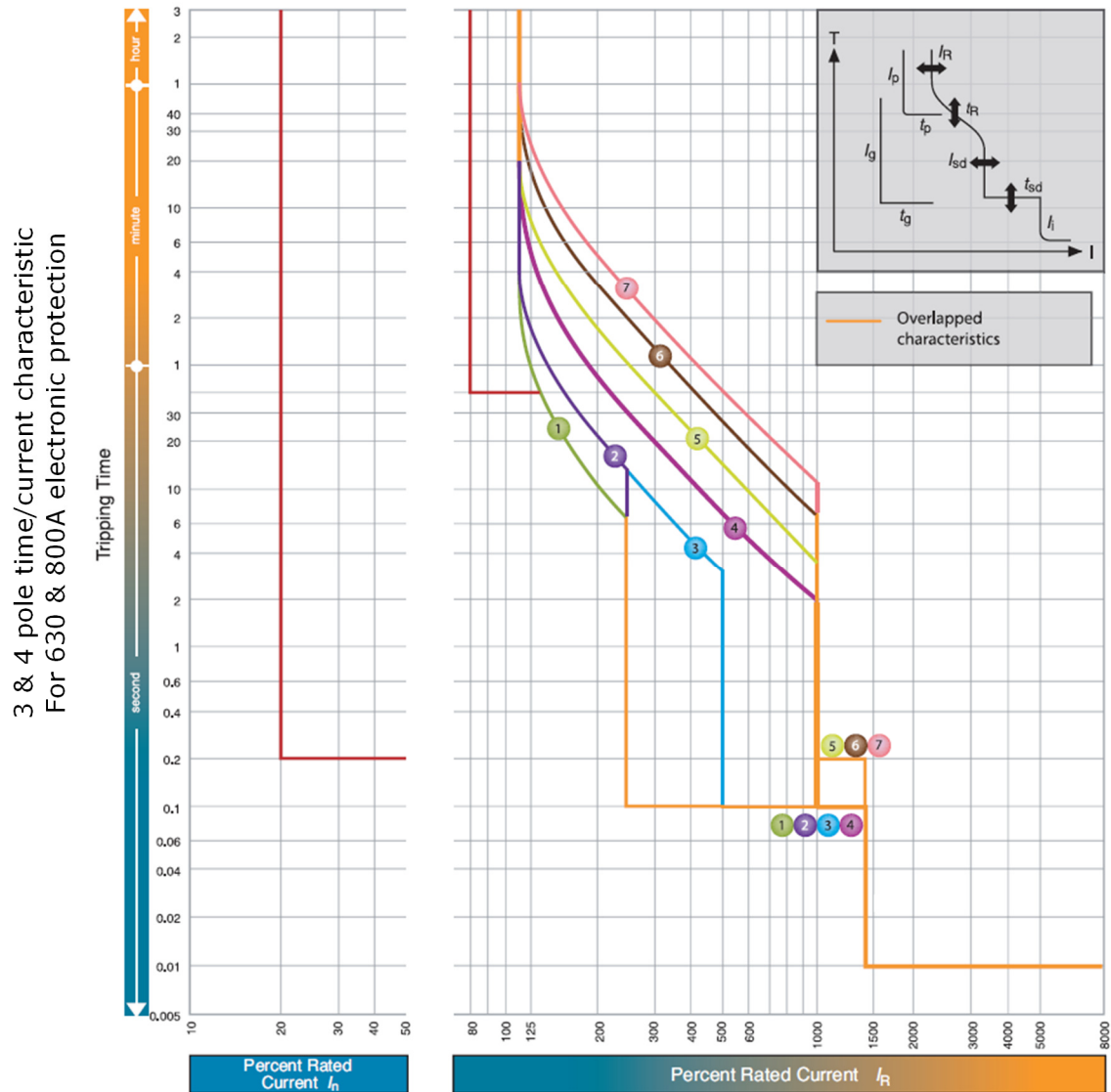
3 & 4 pole time/current characteristic
For 400 & 630A adjustable
thermal/adjustable magnetic



3 & 4 pole time/current characteristic
For 800A adjustable
thermal/adjustable magnetic



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$I_n = 800A; 630A$

		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
				at 200% x I_R				at 600% x I_R			
	ST	I_{sd}	x/I_R		2.5		5	10			
		t_{sd}	(s)		0.1				0.2		
Option	INST	I_i	x/I_R	14(Max: 12 x I_n) Note (1)							
	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 (t_N vs. I_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. See terminal blocks in section 4.