

NOARK

EMPOWERING SUSTAINABILITY

WPB BATTERY BREAKER

160/250A Rated (Adjustable)

IP65 Enclosure

Designed for Australian Battery System

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
1. General

WPB waterproof installation box, are suitable for the protection housing of 2P plastic shell circuit breaker, the protection degree is IP65.

2. Type designation

Product code	Frame size code	Breaking capacity code	Release code	Rated current (A)	Pole number code
Ex9MD: DC circuit breaker	1: 160 2: 250	B: 25kA S: 36kA N: 50kA Q: 70kA H: 100kA	TM: thermomagnetic power distribution protection	16,20,25,32 40,50,63,80 100,125,160 125,160,180 200,225,250	2P

3. Technical Data Sheet

Ex9MD series DC moulded case circuit breaker		Ex9MD1					Ex9MD2											
Frame size rated current I_{nm} (A)		160					250											
Rated insulation voltage U_i (V)		1000					1000											
Rated impulse withstand voltage U_{imp} (kV)		8					8											
Rated operating voltage U_e (V)		250/500/750/1000					250/500/750/1000											
Rated operating current I_n (A), 40° C		Thermo-magnetic					16-20-25-32-40-50-63-80-100-125-160					125-160-180-200-225-250						
Breaking capacity code Pole number							B	S	N	Q	H	B	S	N	Q	H		
		2P					■	■	■	■	■	■	■	■	■	■		
		DC500V 2P in series					25	36	50	70	100	25	36	50	70	100		
Application category		A					A											
Isolating function		■					■											
Flashover distance (mm)		0					0											
Applicable standards		IEC/EN 60947-2																
Operating ambient temperature		-40° C~70° C																
Mechanical life (times)		Maintenance free					15000					15000						
Electrical life (times)		DC1000V, I_n					2000					1500						
Outline dimensions (mm) Width (W) × Height (H) × Depth (D)				Width (2P)					62					75				
				Height					140					157				
				Depth					81.6					96.5				
				2P					0.9					1.3				

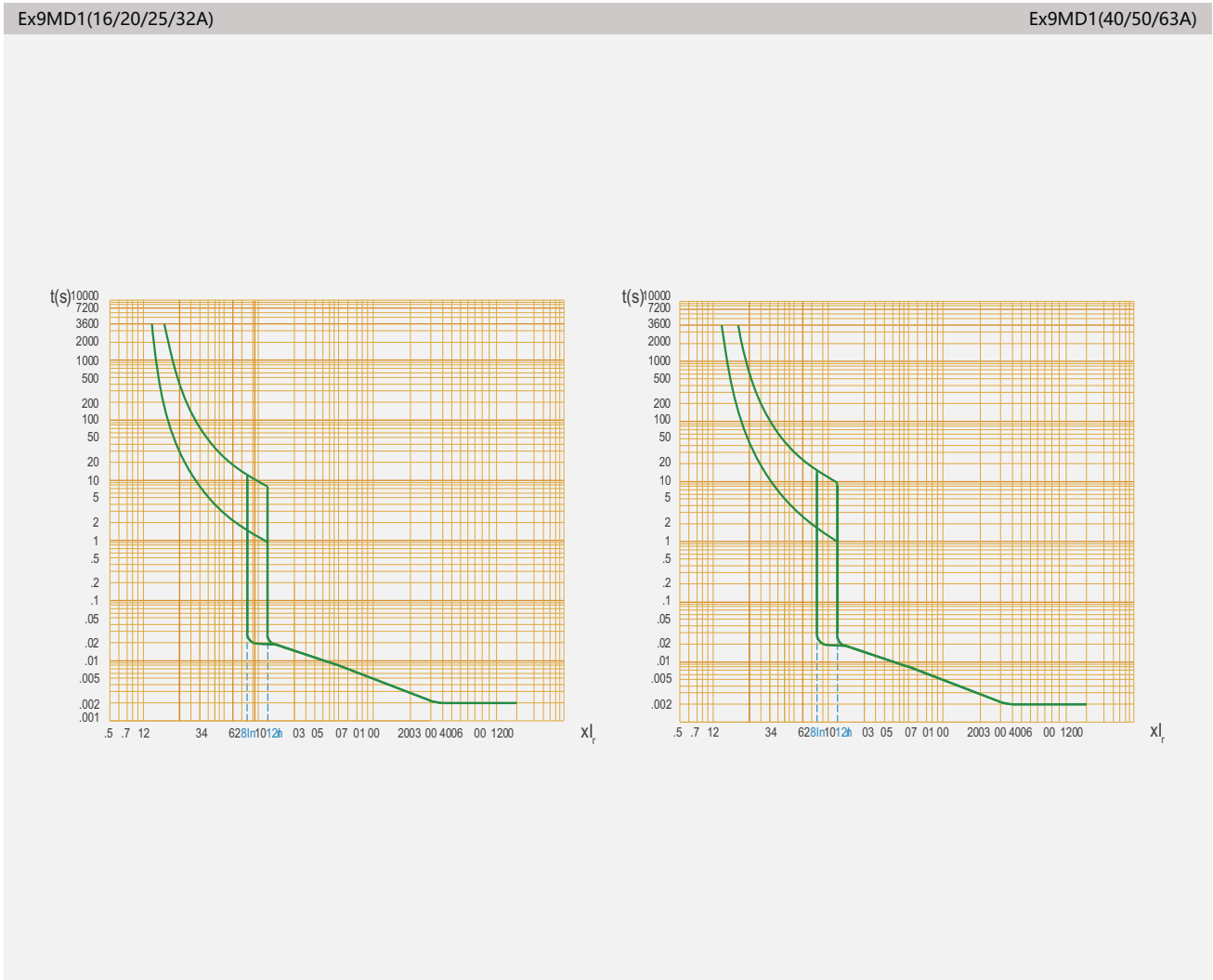
4. Release

Distribution protection		
Thermomagnetic release TM	Ex9MD1	Ex9MD2
Pole number	2P	
Current specification	16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160	125, 160, 180, 200, 225, 250
Overload protection		
Current setting (A) $I_r = I_n \times$	0.7-0.8-0.9-1.0	
Precision	±20%	
Instantaneous short circuit protection		
Current setting (A) $I_i = I_n \times$	10	125~160A: 7-8-9-10-11-12 180~250A: 5-6-7-8-9-10
Precision	±20%	

5. Tripping Curves

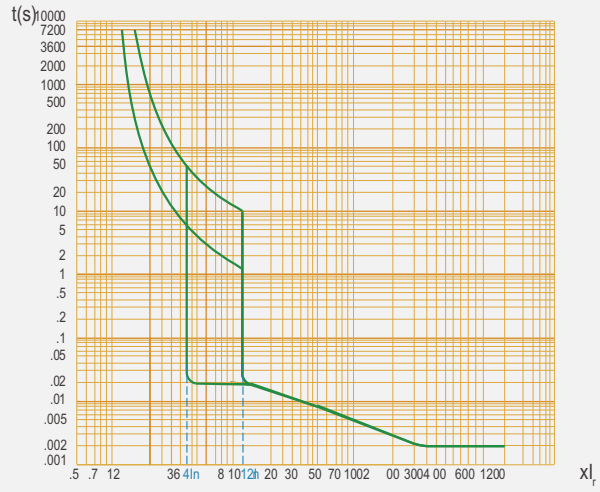
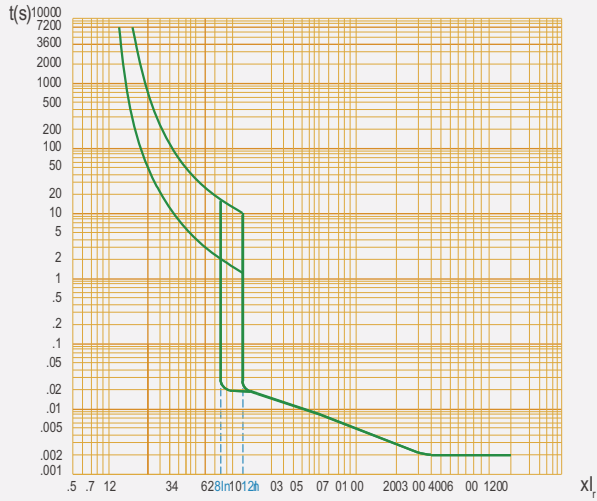
Curves and Parameters

Characteristic curve of thermal magnetic type release



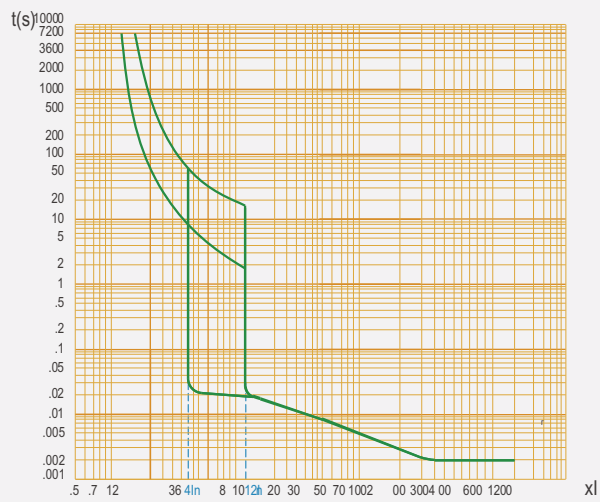
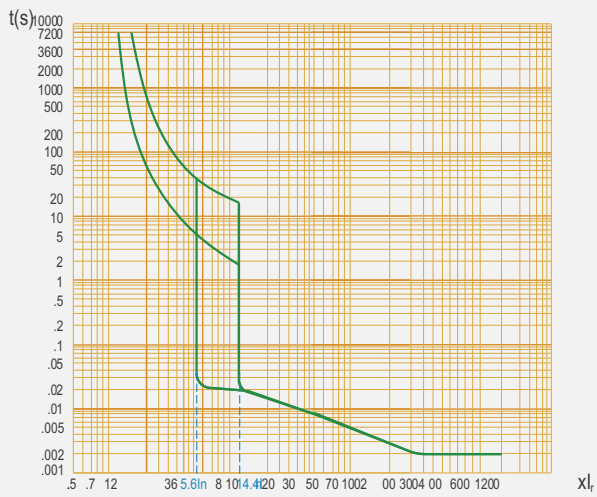
Ex9MD1(80/100A)

Ex9MD1(125/160A)



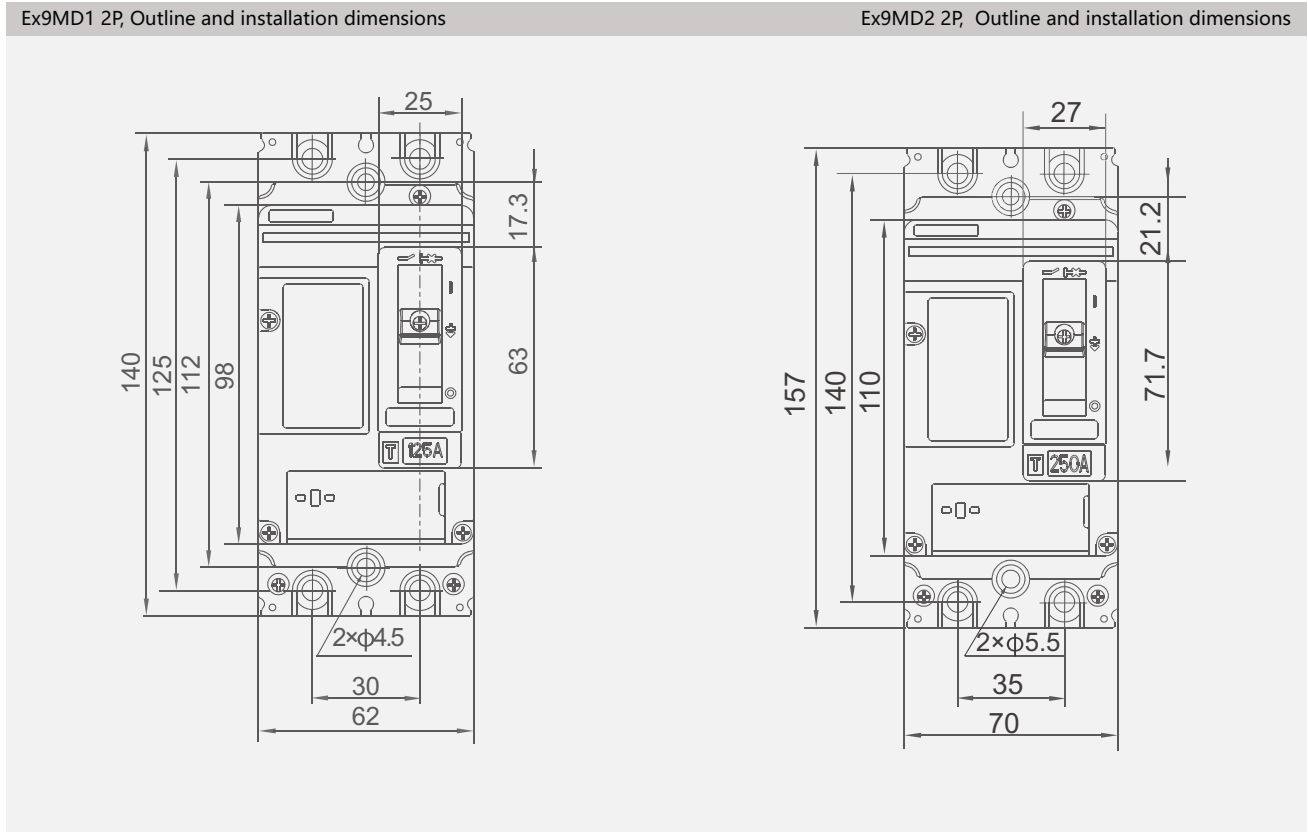
Ex9MD2(125/160A)

Ex9MD2(180/200/225/250A)

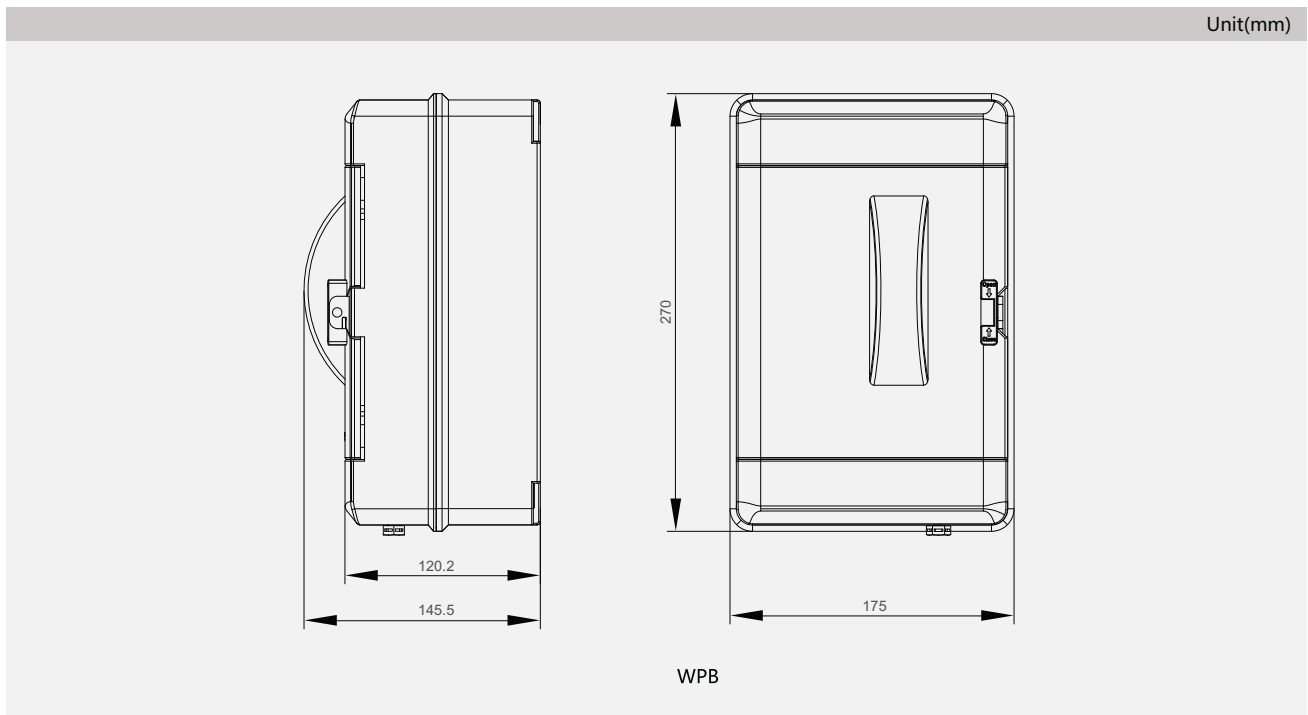


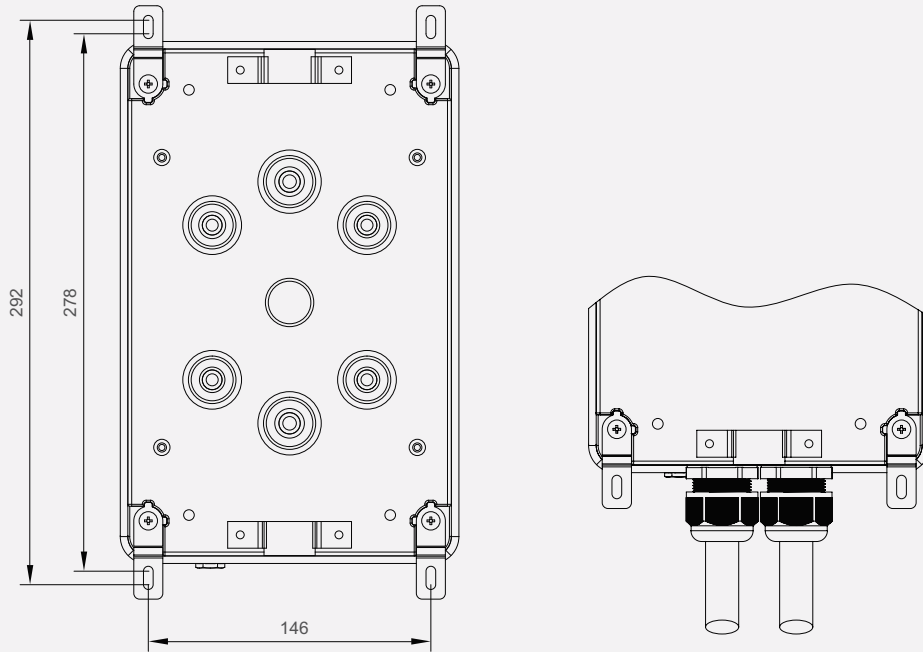
6. Dimensions and Installation

Outline dimensions of fixed type



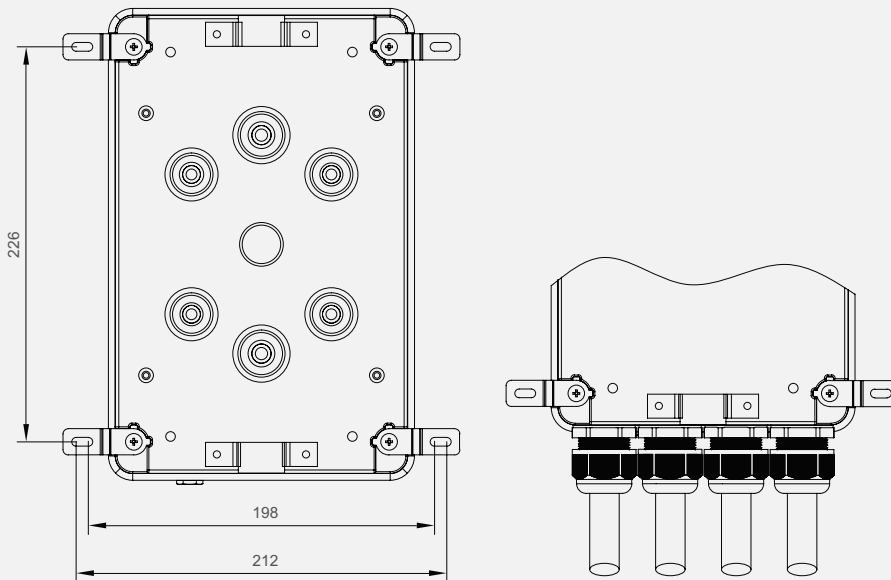
Outline Drawings





Screw Torque	
Screw Model	N·m
M5	1.8

Fig 2 2-in 2-out mounting sizes drawings



Screw Torque	
Screw Model	N·m
M5	1.8

Fig 3 2-in 4-out mounting sizes drawings

7. Wiring Methods

Grounding type	Single pole grounding system		Un-grounded system	
Circuit diagram				
Fault influence	Fault A	maximum short circuit current I_{sc}	Fault A	no influence
	Fault B	maximum short circuit current I_{sc}	Fault B	maximum short circuit current I_{sc}
	Fault C	no influence	Fault C	no influence
$\leq DC500V$	<p>Note: 1. Both top and bottom cable entry are available, here is bottom entry.</p>		<p>Note: 1. Both top and bottom cable entry are available, here is bottom entry; 2. Make sure the installation method will not cause secondary grounding fault.</p>	



Battery Breaker

Poles	Frame	Rated current In	Part no.	Model	Packing
2	1	80A	852894	Ex9MD1B TM 80 2P IEC	1/12
2	1	100A	852895	Ex9MD1B TM 100 2P IEC	1/12
2	1	125A	852896	Ex9MD1B TM 125 2P IEC	1/12
2	1	160A	850906	Ex9MD1B TM 160 2P IEC	1/12
2	2	160A	852899	Ex9MD2B TM 160 2P IEC	1/8
2	2	180A	852900	Ex9MD2B TM 180 2P IEC	1/8
2	2	200A	852901	Ex9MD2B TM 200 2P IEC	1/8
2	2	250A	852902	Ex9MD2B TM 250 2P IEC	1/8

Enclosure

Poles	Frame	Rated current In	Part no.	Model	Packing
2	1&2	250A	850771	WPB	1/8