

1. General

WPB-1, WPB-2 waterproof installation box, are suitable for the protection housing of 2P plastic shell circuit breaker, Ex9MD160A and Ex9MD250A respectively, the protection degree is IP65.

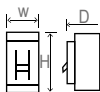
2. Type designation

Product code	Frame size code	Breaking capacity code	Release code	Rated current (A)	Pole number code ¹⁾
Ex9MD: DC circuit breaker	1: 160A 2: 250A	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

Note: WPB-1 is fit for Ex9MD1 and WPB-2 is fit for Ex9MD2.

3. Technical Data Sheet

Ex9MD series DC moulded case circuit breaker		Ex9MD1					Ex9MD2				
Frame size rated current Inm (A)		160					250				
Rated insulation voltage Ui (V)		1000					1000				
Rated impulse withstand voltage Uimp (kV)		8					8				
Rated operating voltage Ue (V)		250/500/750/1000					250/500/750/1000				
Rated operating current In(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		2P					2P				
		DC500V 2P in series					DC500V 2P in series				
Application category		A					A				
Isolating function		■					■				
Flashover distance (mm)		0					0				
Applicable standards		IEC/EN 60947-2					IEC/EN 60947-2				
Operating ambient temperature		-40° C~70° C					-40° C~70° C				
Mechanical life (times)		Maintenance free 15000					15000				
Electrical life (times)		DC1000V,In 2000					1500				
Outline dimensions (mm) Width (W) × Height (H) × Depth (D)		Width (2P)					75				
		Height					157				
		Depth					96.5				
		2P					1.3				



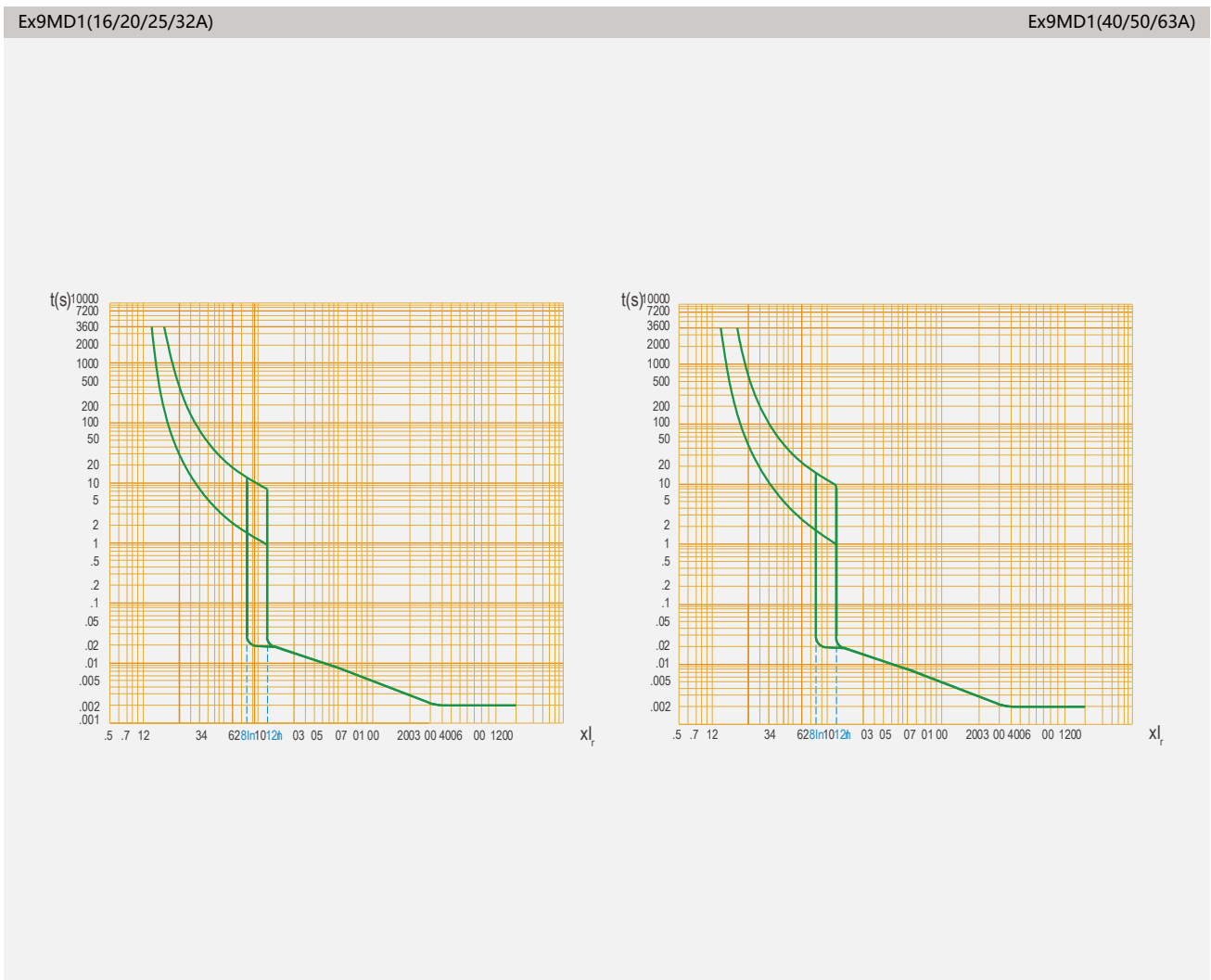
4. Release

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

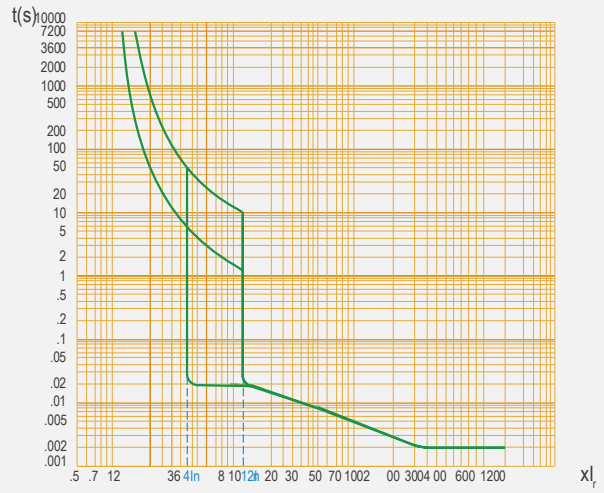
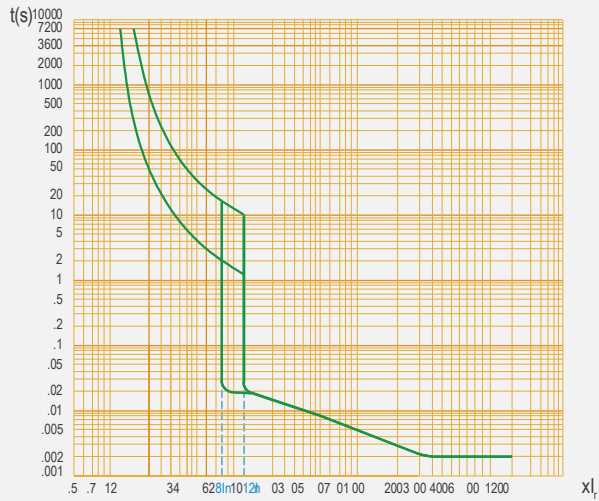
Curves and Parameters

Characteristic curve of thermal magnetic type release



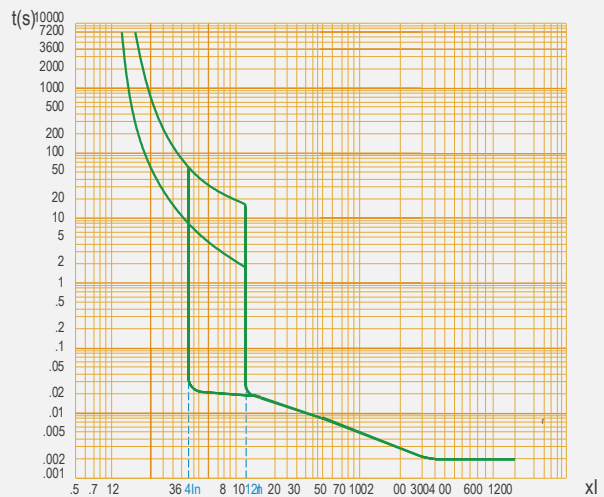
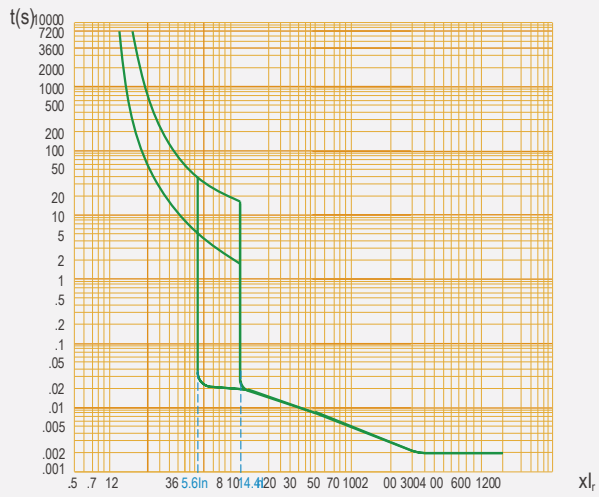
Ex9MD1(80/100A)

Ex9MD1(125/160A)



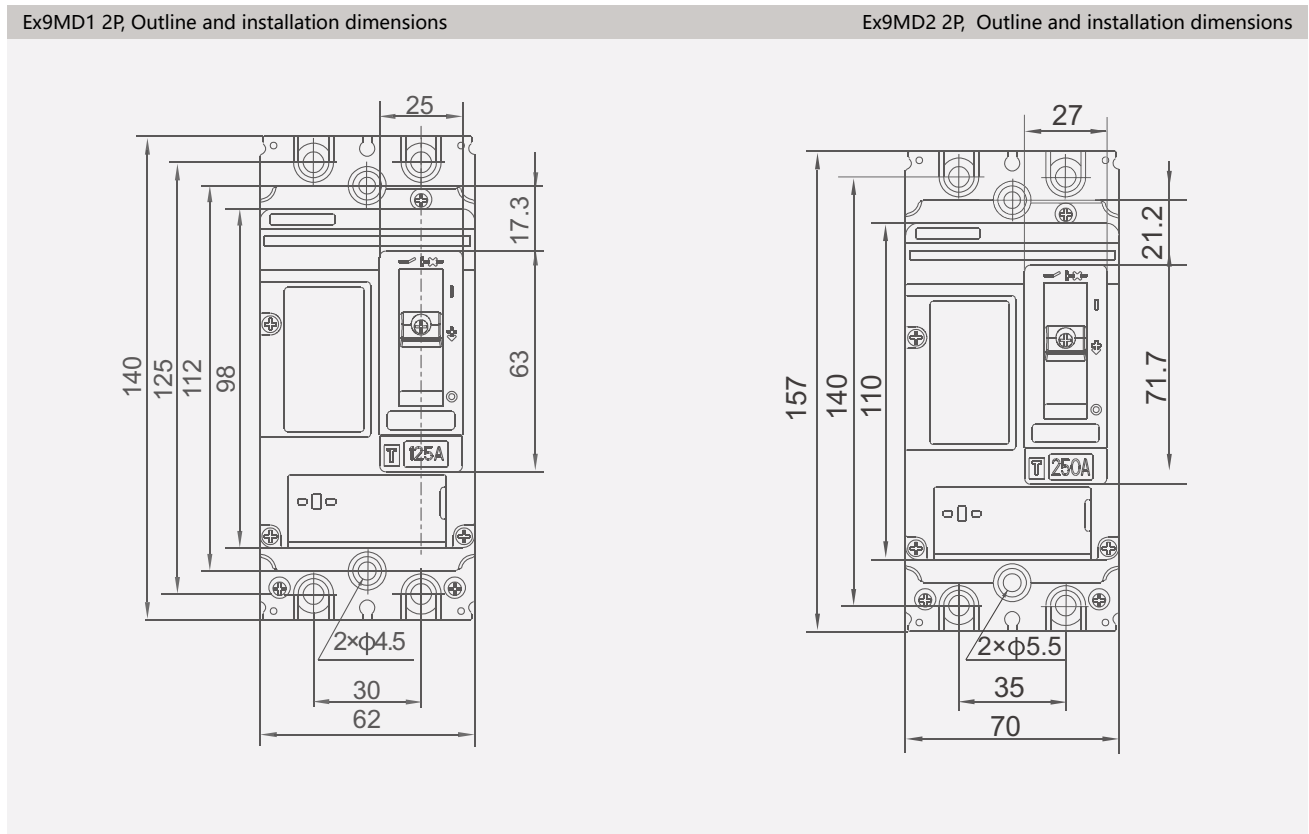
Ex9MD2(125/160A)

Ex9MD2(180/200/225/250A)

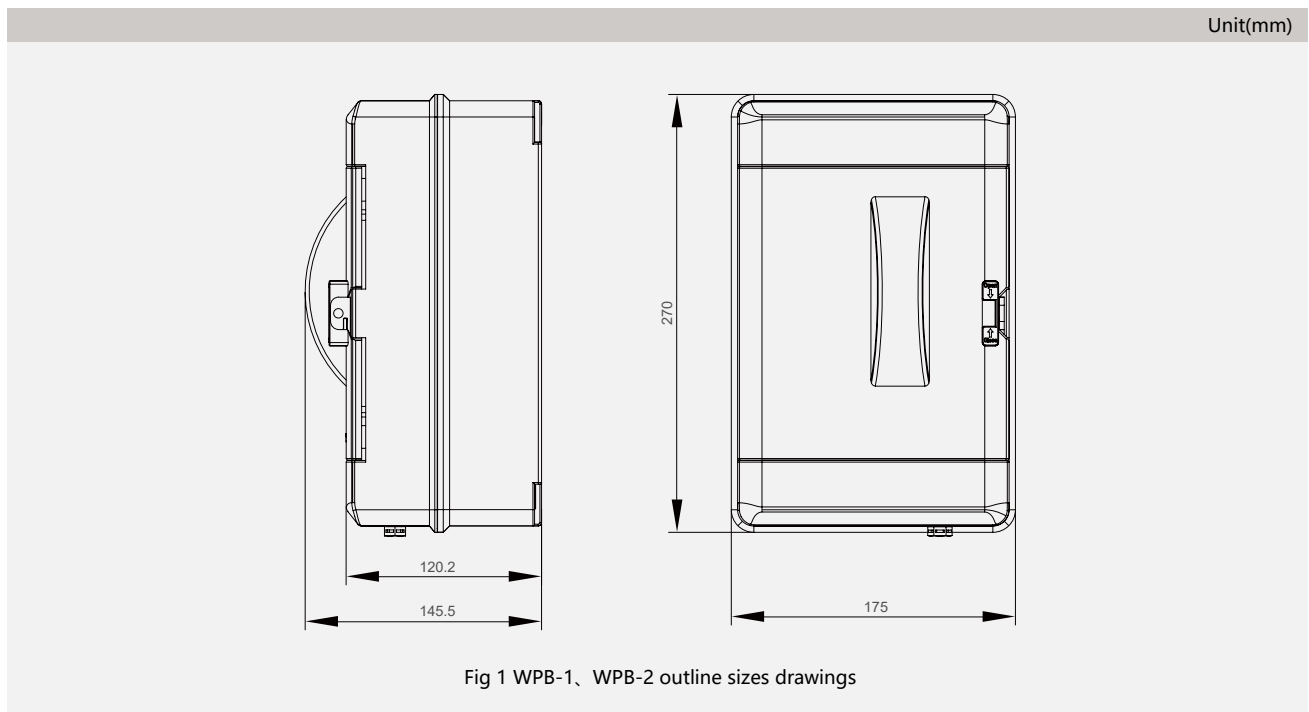


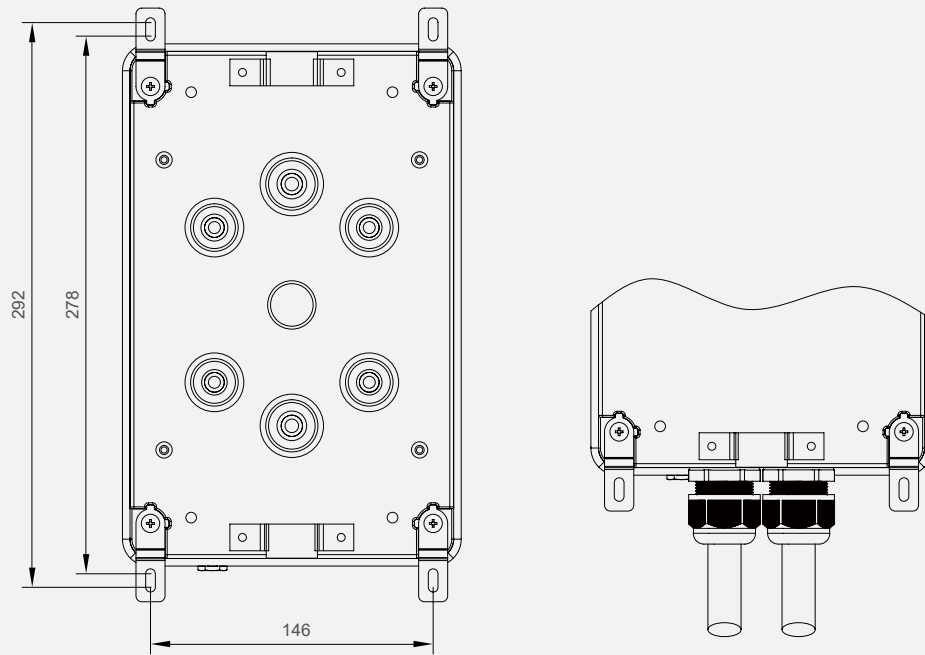
6. Dimensions and Installation

Outline dimensions of fixed type



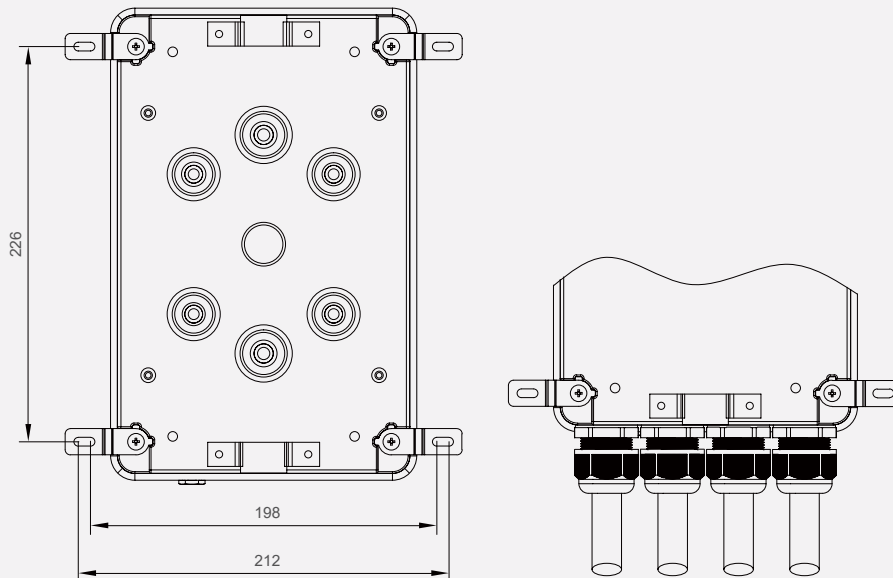
Outline Drawings





Screw Torque	
Screw Model	N-m
M5	1.8

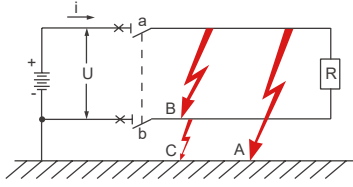
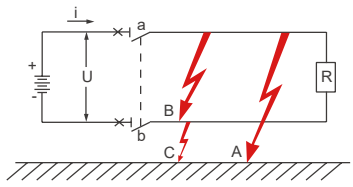
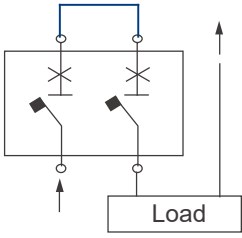
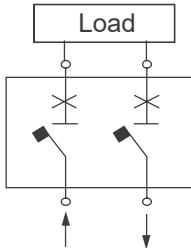
Fig 2 2-in 2-out mounting sizes drawings



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
≤ DC500V	 <p data-bbox="467 1009 893 1056">Note: 1. Both top and bottom cable entry are available, here is bottom entry.</p>		 <p data-bbox="991 937 1436 1056">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>	