

## MOULDED CASE CIRCUIT BREAKER

*ADM7-100S/ADM7-250S*

*ADM7-400S/ADM7-630S*



### DESCRIPTION / APPLICATION

The ADM7 range moulded case circuit breaker will provide protection for the circuit and equipment in case of overload, short circuit and under voltage condition occurred in the power distribution circuit. Besides, it can also provide protection of overload, short circuit and under voltage for the non-frequent start of motor.

It is in conformity with IEC 60947-2 standard.

### Normal Working Condition

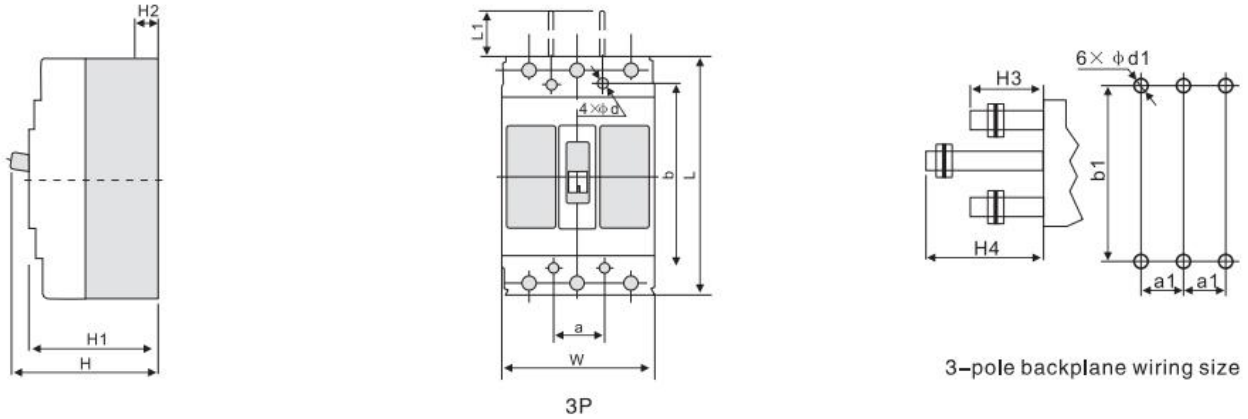
1. The ambient air temperature is  $-5^{\circ}\text{C}\sim+40^{\circ}\text{C}$ .
2. The altitude of the installation site does not exceed 2000m.
3. Tolerance to damp air.
4. Withstand the effects of nuclear radiation.
5. The maximum inclination is  $22.5^{\circ}$ .
6. It can work reliably under normal vibration of ship.
7. Under earthquake conditions (4G) can work reliably.
8. In non-explosive medium, and the medium is free of gases and conductive dust sufficient to corrode metal and destroy insulation.

## MAIN TECHNICAL DATA

		ADM7-100S	ADM7-250S	ADM7-400S	ADM7-630S
<b>Rated Operational Voltage (VAC)</b>		380/400/415V/550V			
<b>No. of poles (P)</b>		3P			
<b>Frame size Inm (A)</b>		100A	250A	400A	630A
<b>Rated current (A)</b>		16, 20, 25, 32, 40, 50, 63, 80, 100	100, 125, 160, 180, 200, 225, 250	225, 250, 315, 350, 400	400, 450, 500, 630
<b>Rated Frequency (Hz)</b>		50/60			
<b>Rated impulse withstand voltage Uimp</b>		8kV			
<b>Rated insulation voltage Ui (V)</b>		630V			
<b>Icu (kA)</b>	<b>AC380V/400V/415V</b>	35kA	35kA	50kA	50kA
	<b>AC550V</b>	20kA	20kA	35kA	35kA
<b>Ics (kA)</b>	<b>AC380V/400V/415V</b>	22kA	22kA	35kA	35kA
	<b>AC550V</b>	12kA	12kA	20kA	20kA
<b>Degree of Protection</b>		IP40 for front cover			
<b>Electrical Endurance Cycle (times)</b>		3000	2500	1500	1500
<b>Mechanical Endurance Cycle (times)</b>		7500	6500	4000	4000
<b>Pollution degree</b>		3			
<b>Utilization category</b>		A			
<b>Utilization category (°C)</b>		-5... +40			

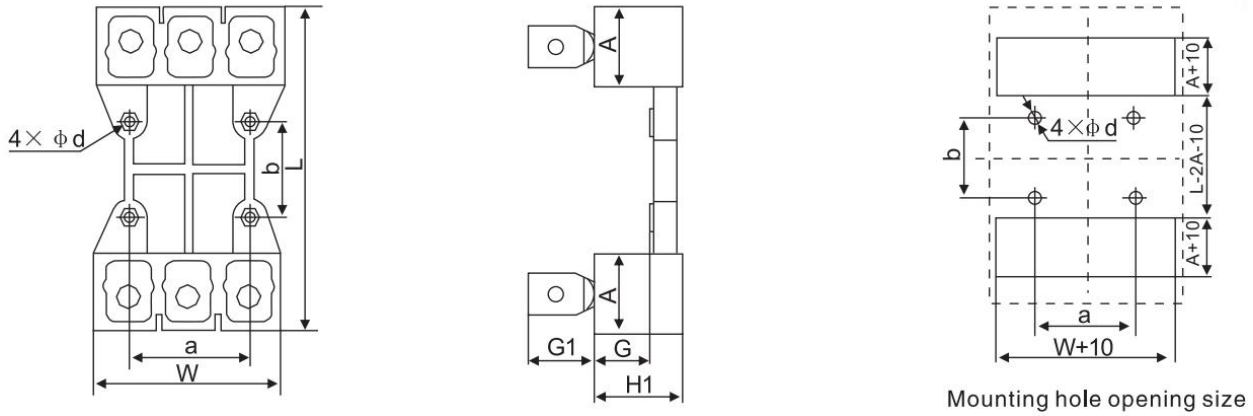
## DIMENSIONS AND MOUNTING

### Fix type - Front plane & Back plane's wiring and installation dimensions



Model	Pole	Dimensions mm						Installation size			Backplane wiring size				
		L	L1	W	H	H1	H2	a	b	$\phi d$	a1	b1	d1	H3	H4
ADM7-100S	3	150	51	92	87	68	23.4	30	129	4.5	30	132	22	65	100
ADM7-250S	3	164	64	105	111	85	22.4	35	126	5.5	35	144	24	70	110
ADM7-400S	3	257	105	149	150	102	36.5	44	194	7	48	224	32	48.5	108.5
ADM7-630S	3	270	105	181	157	109	41.3	58	200	7	58	234	40	70	120

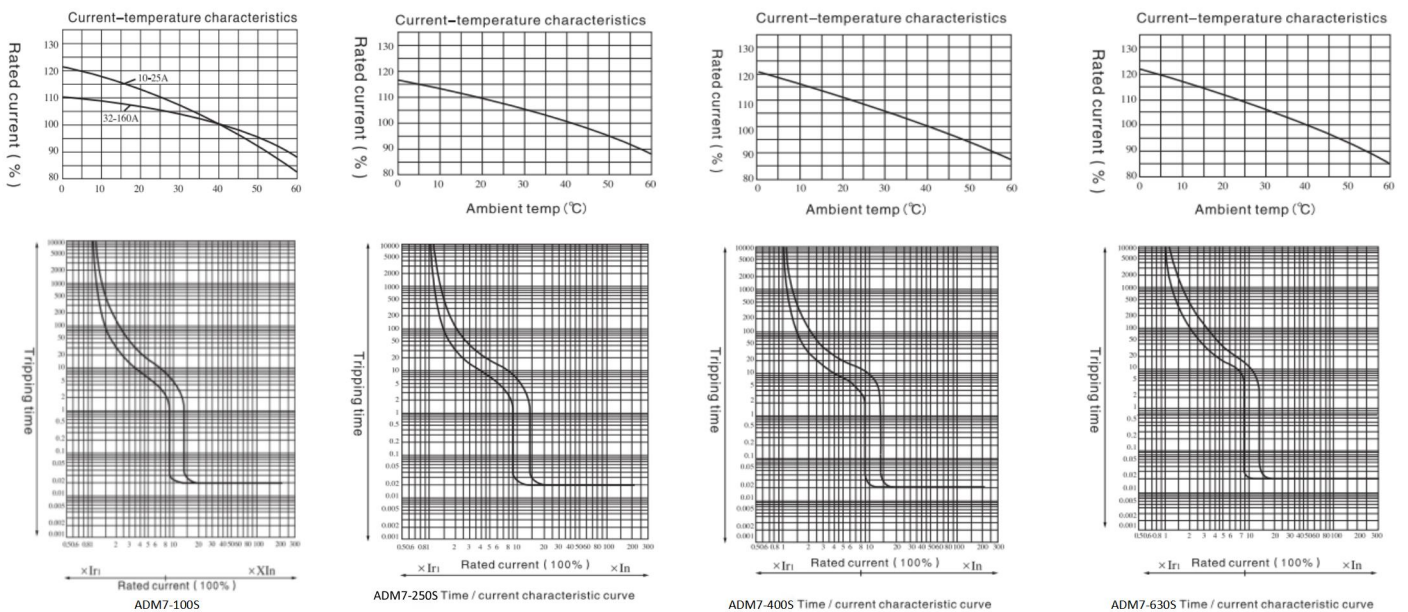
### Plug-in type - Back plane's wiring and installation dimensions



Unit (mm)

Model	W	L	A	H1	G	G1	a	b	d
ADM7-100S	92	170	38	50	33	28	60	56	6.5
ADM7-250S	107	186	46	50	33	40	70	56	6.5
ADM7-400S	152	280	58	60	40	46.5	60	130	8.5
ADM7-630S	182	300	65	60	40	53	100	123	8.5

### TRIPPING CURVE



## PROTECTION CHARACTERISTICS

### *Tripping performance for power distribution*

Rated operating current (A)	Thermal release (reference temperature 40°C)		Operating current of electromagnetic release (A)	Remark
	1.03In(cold state) not tripping (h)	1.3In(thermal state) not tripping (h)		
10<In≤63	≥ 1	< 1	10In±20%	Distribution protection type: 1600A is 7In±20%
63<In≤100	≥ 2	< 2	10In±20%	
100<In≤1600	≥ 2	< 2	5In±20% 7In±20% 10In±20%	

### *Tripping performance for motor protection*

Rated operating current (A)	Thermal release (reference temperature 40°C)				Operating current of electromagnetic release (A)
	1.0In(cold state) not tripping (h)	1.2In(thermal state) tripping (h)	1.5In(thermal state) tripping (h)	7.2In(cold state) not tripping (h)	
10≤In≤630	≥ 2	≤ 2	8min	6S<Tp≤20s	12In±20%

## POWER LOSS

Model	Electric current	Three pole total power loss(W)		
		Fix type Front/Back plane wiring	Plug in type Front plane wiring	Plug in type Bake plane wiring
ADM7-100S	100	35	37	40
ADM7-250S	250	62	66	70
ADM7-400S	400	115	120	125
ADM7-630S	630	187	193	200

## TEMPERATURE COMPENSATION CORRECTION

Model	Compensation coefficient				
	+40°C	+45°C	+50°C	+55°C	+60°C
<b>ADM7-100S</b>	<b>1</b>	<b>0.96</b>	<b>0.91</b>	<b>0.85</b>	<b>0.78</b>
<b>ADM7-250S</b>	<b>1</b>	<b>0.97</b>	<b>0.94</b>	<b>0.90</b>	<b>0.86</b>
<b>ADM7-400S</b>	<b>1</b>	<b>0.95</b>	<b>0.89</b>	<b>0.82</b>	<b>0.75</b>
<b>ADM7-630S</b>	<b>1</b>	<b>0.94</b>	<b>0.88</b>	<b>0.82</b>	<b>0.76</b>