

Power circuit breakers

Molded case circuit breakers VA88

VA88 circuit breakers are intended for conducting current in normal mode and switching it off at short circuits, overload, inadmissible bucking as well as operational actuation and tripping of electric circuit parts. They are designed for use in electric units having the operative voltage limited to 400 V per rated current from 12,5 to 1600 A. Correspond to the requirements of EN 60947-1, EN 60947-2

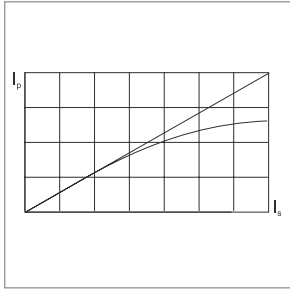


This circuit breaker was awarded silver medal of the 16th International Exhibition “Electro-2007” in nomination “Best electrical equipment”.

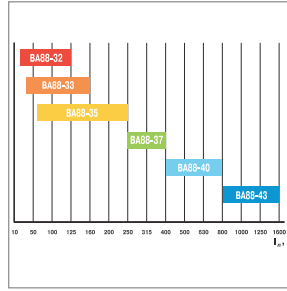
Advantages

- Easy independent installation of auxiliary devices:
 - signal contact;
 - auxiliary contact;
 - undervoltage trip;
 - shunt trip;
 - rotary handle;
 - motor control;
 - plug-in panel;
 - pull-out panel.
- Standard set of each circuit breaker consists of connecting busbars or cable lugs, phase separators, a set of screws and nuts for its mounting onto an installation panel.
- With the help of special buckles VA88-32 and VA88-33 units can be installed onto a DIN-rail.
- Weight and dimensions of these circuit breakers are by 10-20% less than that suggested by other home manufacturers. This fact provides for mounting smaller boxes and panels. Besides, small dimensions make it possible to change old circuit breakers to VA88.

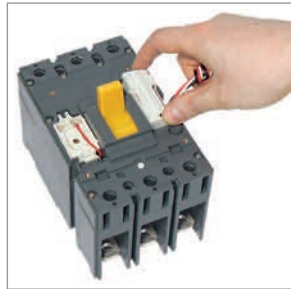
Design Features



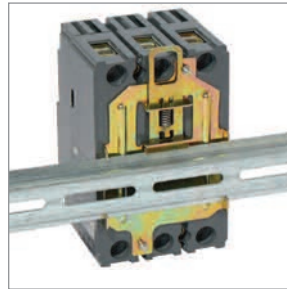
Current limit, in other words – actual short circuit current, is lower than the rated one. This is realized at the expense of boosted contacts separation speed. Dynamic effect of magnetic field and the arc extinguishing chamber structure provide for extinguishing the arc within the shortest possible time.



Full range of thermal releases gives opportunity to ensure selectiveness based on the multi-level protection system.



VA88 construction provide for independent installation of auxiliary devices.



With the help of a special RCS buckle VA88-32, VA88-33 circuit breakers can be installed onto a DIN-rail.



Plastic details of the body are made of glass-nylon composite ensuring yield strength at short circuits.



VA88 can be mounted in any position without affecting their rated characteristics. They can be powered from the upper or lower clamps without violating their operation.



Double insulation provides for full separation of power and auxiliary circuits. The body of each auxiliary device is placed to a separate bay that totally excludes any contacts with conducting parts and ensures servicing and testing safety.



High values of ultimate short-circuit breaking capacity extend up to 50 kA.

Configuration



Connecting busbars



Phase separators



Set of screws for panel mounting



Set for connecting external conductors

VA88 Range

	Name	Rated current, A	Number of poles	Ultimate short-circuit breaking capacity I_{cu}	Package amount, pcs		Product ID
					individual	multiple	
	VA88-32 3P 12,5 A 25 kA	12,5	3	25	1	20	SVA10-3-0012
	VA88-32 3P 16 A 25 kA	16	3	25	1	20	SVA10-3-0016
	VA88-32 3P 25 A 25 kA	25	3	25	1	20	SVA10-3-0025
	VA88-32 3P 32 A 25 kA	32	3	25	1	20	SVA10-3-0032
	VA88-32 3P 40 A 25 kA	40	3	25	1	20	SVA10-3-0040
	VA88-32 3P 50 A 25 kA	50	3	25	1	20	SVA10-3-0050
	VA88-32 3P 63 A 25 kA	63	3	25	1	20	SVA10-3-0063
	VA88-32 3P 80 A 25 kA	80	3	25	1	20	SVA10-3-0080
	VA88-32 3P 100 A 25 kA	100	3	25	1	20	SVA10-3-0100
	VA88-32 3P 125 A 25 kA	125	3	25	1	20	SVA10-3-0125
	VA88-33 3P 16 A 35 kA	16	3	35	1	16	SVA20-3-0016
	VA88-33 3P 25 A 35 kA	32	3	35	1	16	SVA20-3-0032
	VA88-33 3P 32 A 35 kA	40	3	35	1	16	SVA20-3-0040
	VA88-33 3P 40 A 35 kA	50	3	35	1	16	SVA20-3-0050
	VA88-33 3P 50 A 35 kA	63	3	35	1	16	SVA20-3-0063
	VA88-33 3P 63 A 35 kA	80	3	35	1	16	SVA20-3-0080
	VA88-33 3P 80 A 35 kA	100	3	35	1	16	SVA20-3-0100
	VA88-33 3P 100 A 35 kA	125	3	35	1	16	SVA20-3-0125
		VA88-33 3P 125 A 35 kA	160	3	35	1	16
	VA88-35 3P 63 A 35 kA	63	3	35	1	6	SVA30-3-0063
	VA88-35 3P 80 A 35 kA	80	3	35	1	6	SVA30-3-0080
	VA88-35 3P 100 A 35 kA	100	3	35	1	6	SVA30-3-0100
	VA88-35 3P 125 A 35 kA	125	3	35	1	6	SVA30-3-0125
	VA88-35 3P 160 A 35 kA	160	3	35	1	6	SVA30-3-0160
	VA88-35 3P 200 A 35 kA	200	3	35	1	6	SVA30-3-0200
	VA88-35 3P 250 A 35 kA	250	3	35	1	6	SVA30-3-0250
	VA88-35 3P 250 A 35 kA with MR 211 electronic trip unit	250	3	35	1	6	SVA31-3-0250
	VA88-37 3P 250 A 35 kA	250	3	35	1	4	SVA40-3-0250
	VA88-37 3P 315 A 35 kA	315	3	35	1	4	SVA40-3-0315
	VA88-37 3P 400 A 35 kA	400	3	35	1	4	SVA40-3-0400
	VA88-37 3P 400 A 35 kA with MR 211 electronic trip unit	400	3	35	1	4	SVA41-3-0400



Technical Features

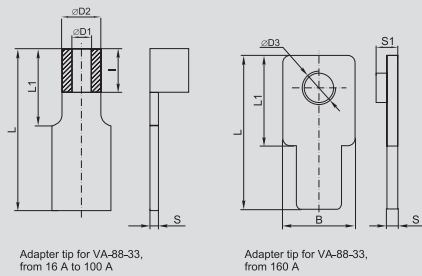
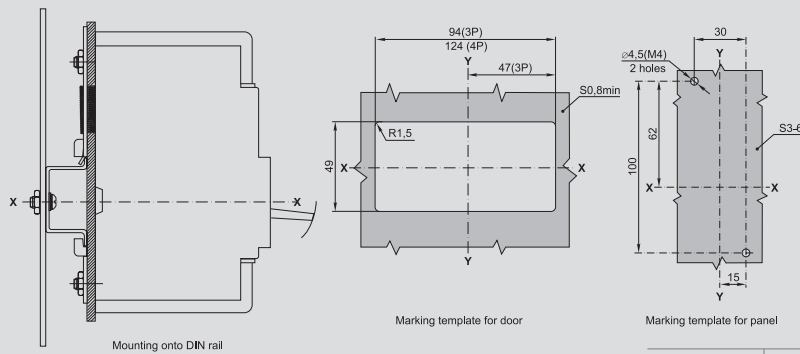
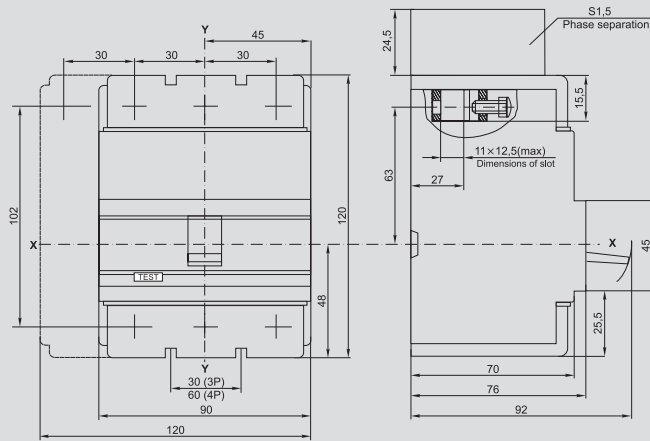
Name	VA88-32	VA88-33	VA88-35	VA88-35*	VA88-37	VA88-37*	VA88-40	VA88-40*	VA88-43**		
Peak rated current (base value), I_{nm} , A	125	160	250	250	400	400	800	800	1600		
Rated current (thermal trip setting), I_n , A	12,5, 16, 25, 32, 40	50, 63, 80, 100, 125	16, 25, 32, 100, 125, 160	50, 63, 100, 125, 160, 200, 250	250 (0,4÷1)	250, 315, 400	400 (0,4÷1), 500, 630, 800	800 (0,4÷1)	1000, 1250, 1600		
Electromagnetic trip setting I_m , A	500	10 I_n	500	10 I_n	10 I_n	Adjust. (1,5÷12) I_n	10 I_n	Adjust. (1,5÷12) I_n	10 I_n	Adjust. (1,5÷12) I_n	Adjust. (1,5÷12) I_n
Overcurrent trip	thermal & electro-magnetic	thermal & electro-magnetic	thermal & electro-magnetic	electronic	thermal & electro-magnetic	electronic	thermal & electro-magnetic	electronic	electronic		
MR 110									•		
MR 211				•		•		•	•		
Service short-circuit breaking capacity I_{cs} , kA	12,5	17,5	25	25	35	35	35	35	50		
Ultimate short-circuit breaking capacity I_{cu} , kA (220 V)	25	35	35	35	35	35	35	35	50		
Ultimate short-circuit breaking capacity I_{cu} , kA (690 V)	4	6	14	14	18	18	20	20	20		
Mechanical durability, not less than, power cycles	8500	7000	7000	7000	4000	4000	4000	4000	2500		
Electrical durability, not less than, power cycles	2500	2000	2000	2000	2000	2000	2000	2000	1500		
Type	plug-in	•	•	•	•	•					
	pull-out			•	•	•	•	•	•		
External conductor connection	front	•	•	•	•	•	•	•	•		
	rear	•	•	•	•	•	•	•	•		
Control type	motor	•	•	•	•	•	•	•	•		
	rotary handle	•	•	•	•	•	•	•	•		
Overall dimensions, mm	width	76	90	105	105	140	140	210	210	210	
	height	120	120	170	218	254	254	268	268	422	
	depth	70	70	101,5	101,5	101,5	101,5	101,5	101,5	141	
Operating temperature range, °C	-40÷+60	-40÷+60	-40÷+60	-25÷+60	-40÷+60	-25÷+60	-40÷+60	-25÷+60	-25÷+60	-25÷+60	
Weight max., kg	0,92	1,2	4,1	4,1	5,1	5,1	9,6	9,6	17,2		
Service life, not less than, years	15	15	15	15	15	15	15	15	15		

* Shipped with MR211 electronic trip unit.

** Depending on set, shipped with MR110 and MR211 electronic trip units.

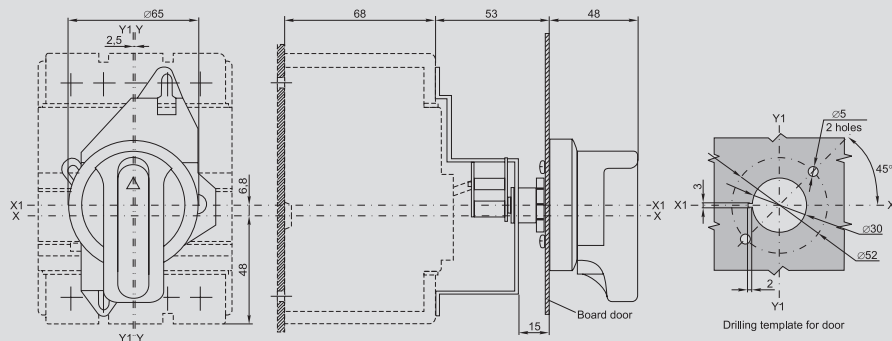


VA88-33



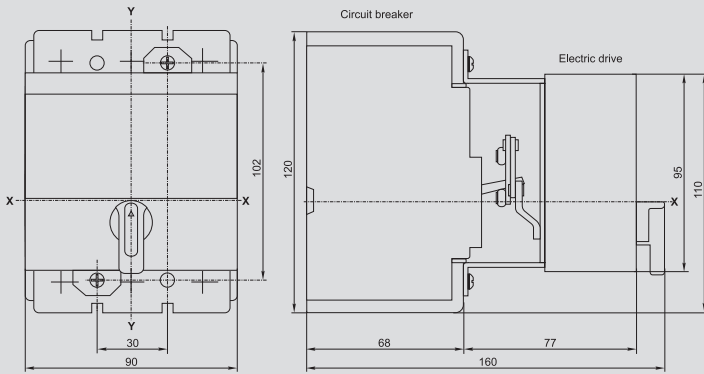
Rated current I_n , A	Dimensions, mm								
	B	∅D1	∅D2	∅D3	l	L	L1	S	S1
16	3	5		6	26	12	1		
25	3	5		6	26	12	1		
32	4	6		8	26	12	1		
40	6	10		10	30	15	2		
50	6	10		10	30	15	2		
63	6	10		10	30	15	2		
80	6	10		10	30	15	2		
100	8	12		11	30	15	2		
125	16			M8	35	20	2,4	4,5	
160	18			M8	35	20	2,4	4,5	

VA88-33 with PRP-33

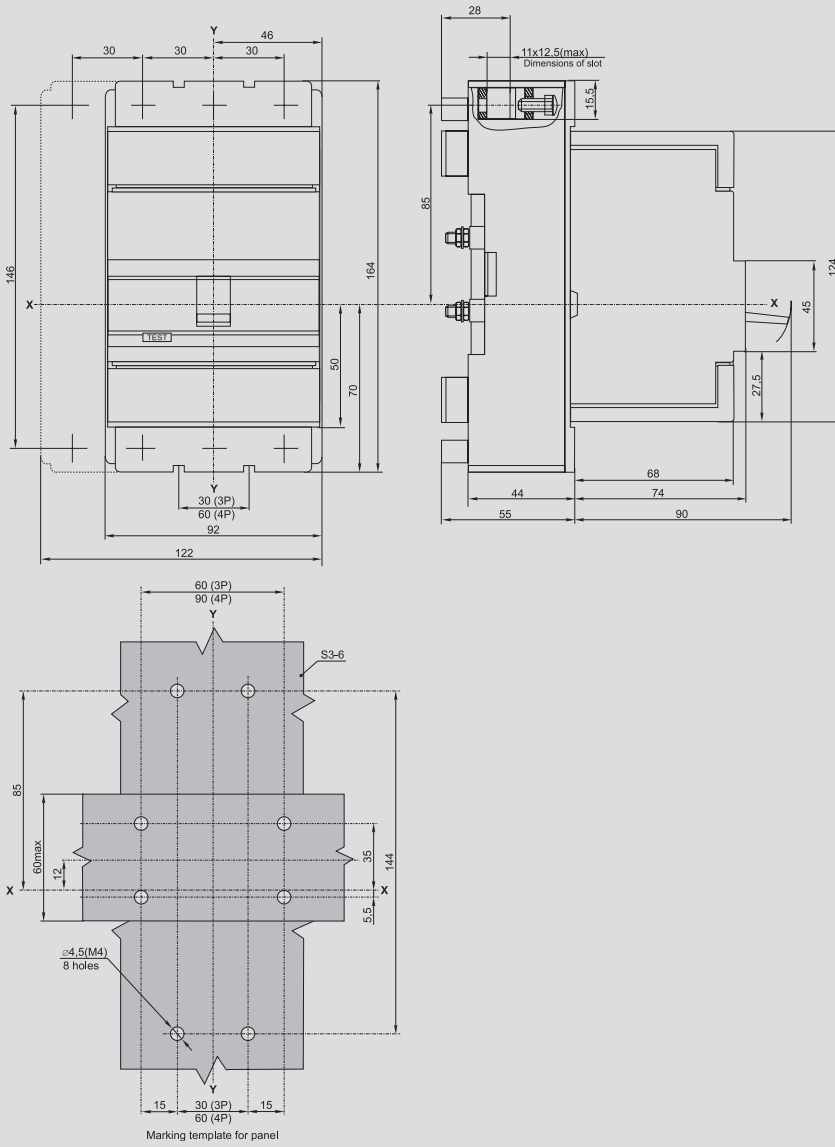




VA88-33 with motor control EP-32/33



VA88-33 with front plug-in panels PM1/P-33





VA88-33 with rear plug-in panels PM1/R-33

