

High Voltage Switch Company - High Voltage Electronic Components



MZZ61-12 Series Vacuum Circuit Breaker

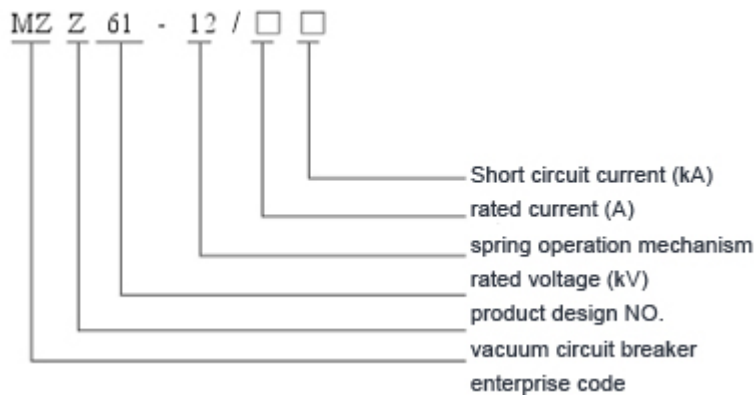
About the Product:

MZZ61-12 Series Vacuum Circuit Breaker is applied to the power system of 50Hz three-phase AC and 12kV rated voltage. This product meets the GB1984-89 standards. Its overall structures are the switch integrate or separate with the operation mechanism. The integrated structure is the basic structure of MZZ61-12 and the separated structure MZZ61A-12 can be used in various fixed switch cabinet such as: GG-1A (Z) , XGZ2A10 (Z) , etc. It can configure CD17、CD10A DC Electromagnetic actuator and CT17 ,CT19 spring energy-storage actuator.

Environmental Conditions

1. Environmental temperature: maximum temperature +40 , minimum temperature -15
2. Altitude: Lower than 1000m
3. Environmental humidity:
 - daily average relative humidity: $\leq 95\%$
 - monthly relative humidity: $\leq 90\%$
 - daily saturated evaporation pressure: $\leq 2.2 \times 10^{-3} \text{MPa}$
 - monthly saturated evaporation pressure: $\leq 1.8 \times 10^{-3} \text{MPa}$
4. earthquake intensity lower than 8 degree.
5. No dew, flammable, explosive, serious contamination, chemical corrosion or dramatic shock.

Model Meaning



Main technical parameters

name		unit	data			
			20KA	25KA	31.5KA	40KA
rated voltage		KV	12			
rated frequency		HZ	5			
rated current		A	630 ,1000 , 1250	1250 , 1600	1250 , 1600 2000 , 2500	1600 , 2000 2500 , 3150
rated short circuit breaking current (peak value)		KA	20	25	31.5	40
rated short circuit closed current (peak value)		KA	50	63	80	100
rated peak value dynamic stable current		KA	50	63	80	100
4S thermal stable current tolerance		KA	20	25	31.5	40
rated insulation level	1min working frequency voltage tolerance	KV	42			
	lightening impact voltage tolerance (peak value)		75			
rated operation order			0-T-CO.T"-CO			
mechanical life span		times	10000			
rated times of short circuit breaking current		times	30			20
rated actuator closing switch current (DC)		V	110 , 200		220	
rated actuator opening switch current (DC)		V	110 , 200			

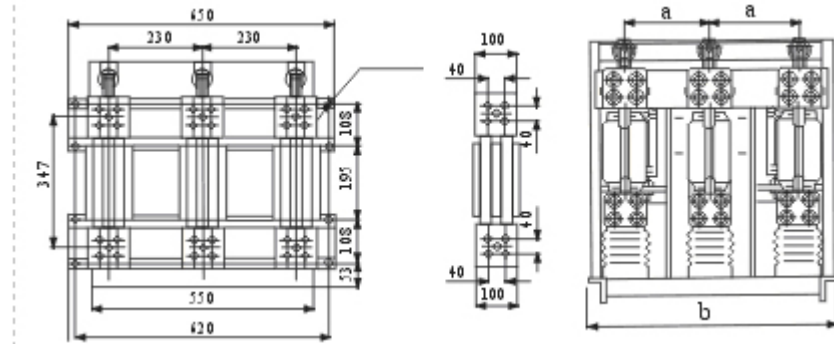
Circuit breaker mechanical parameters

name		unit	data	
contact open size		mm	11±1	
excess travel(compression length of contact spring)		Mm	4±1	
different periods of three-phase open/close the switch		ms	2	
contact bouncing time of closing switch		ms	2	
average switch opening speed (from 6MM)		m/s	1.1±0.2	
average switch closing speed		m/s	0.6±0.2	
Switch opening time	maximum operation voltage	s	0.06	
	minimum operation voltage		0.08	
switch closing time		s	0.2	
resistance of each phase main circuit		μΩ	40	30
allowed accumulated attrition thickness of dynamic and static contact		mm	3	

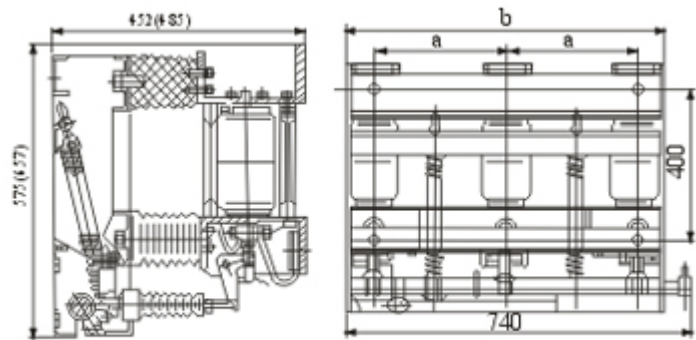
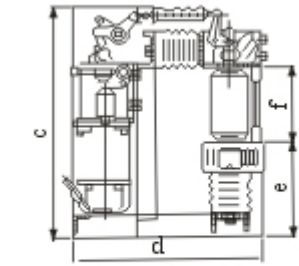
data model code	20KA 25KA 31.5KA	40KA
a	230	275±1
b	600	690
c	707	842
d	560	652
e	293	342
f	227±1	227±1

rated current	20KA 25KA 31.5KA		40KA	
code	a	b	A	b
data	250	610	275	690

Contour and Installation Dimensions



Picture 1 dimension diagram of MZZ61-12 vacuum circuit breaker



Picture 2 dimension diagram of MZZ61-12/T vacuum circuit breaker