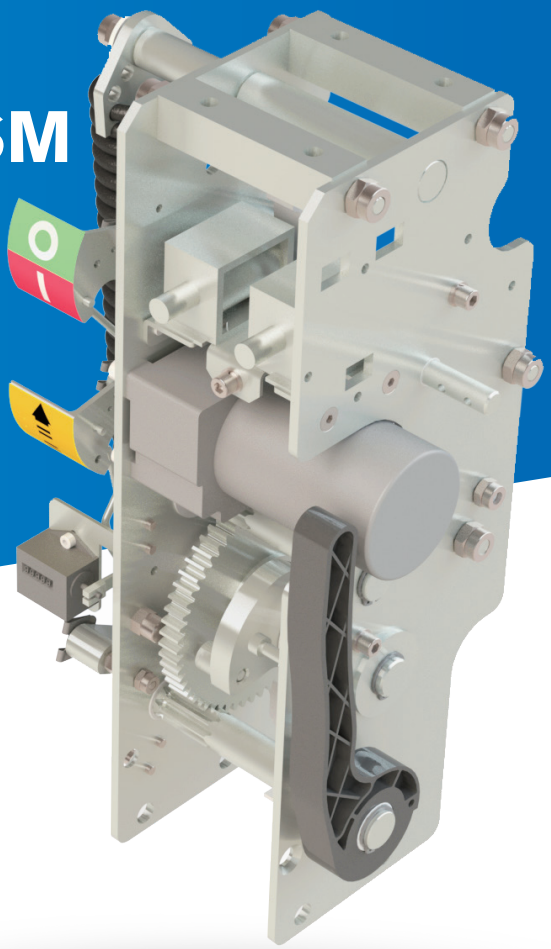
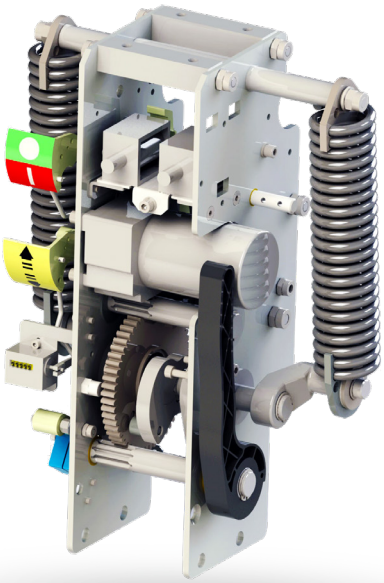
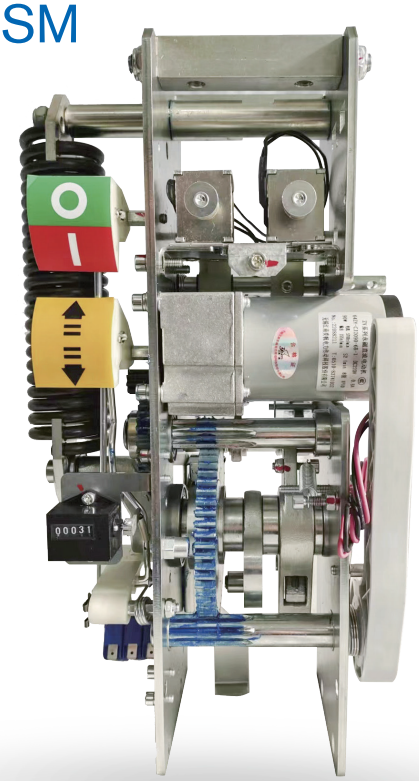
YAOZE SKM-12 MODULAR CIRCUIT BREAKER MECHANISM





SKM-12 CIRCUIT BREAKER SPRING OPERATING MECHANISM



Product Overview

The spring operating mechanism adopts an independent design from the frame. It can be used either as a fixed installation unit or assembled with a withdrawable truck to form a draw-out unit. It features long service life, simple maintenance, no pollution, no explosion risk, and low noise, and is suitable for harsh working conditions such as frequent operations.

Model Composition And Meaning

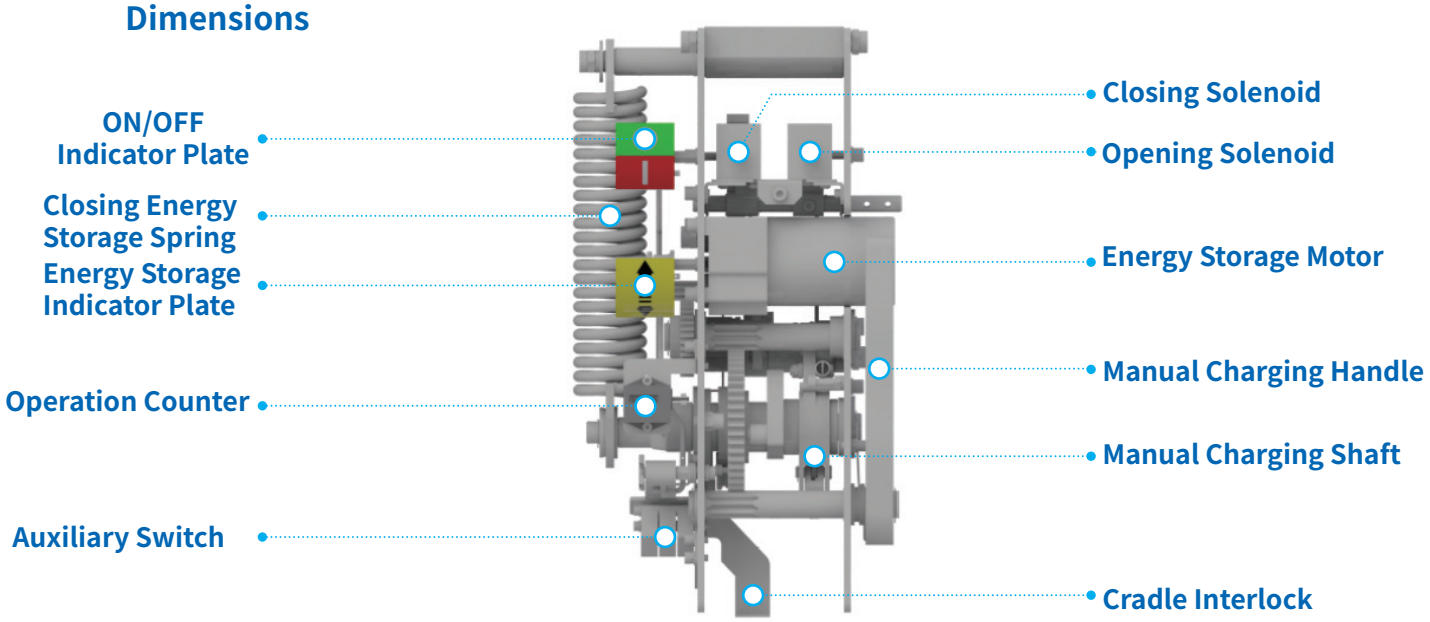
SKM 1 - 12 - □ / □

- Motor voltage
- Phase Spacing 150；210；275
- Rated Voltage
- Design serial number
- Modular Mechanism Code

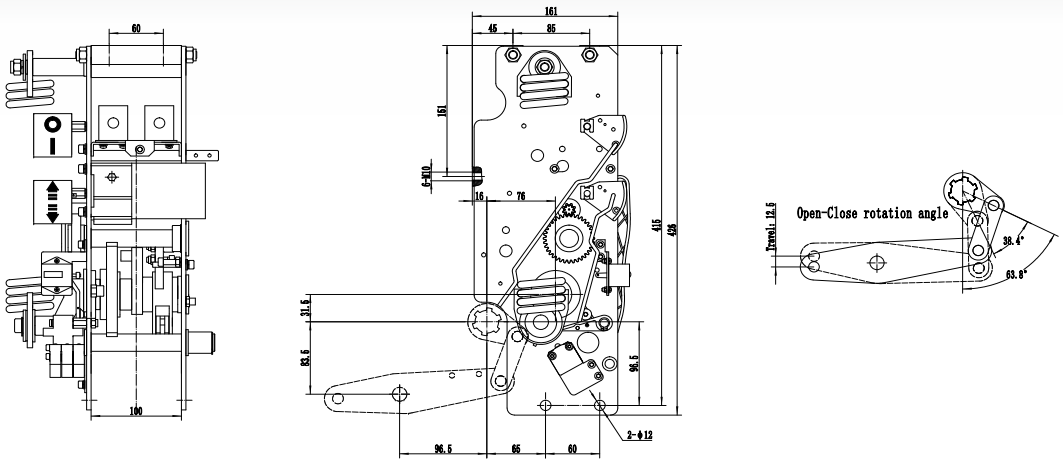
Product Features

- The spring operating mechanism adopts an innovative modular design.
- Optional phase spacing and pole spacing to meet various special requirements.
- Stable mechanical and electrical performance, high reliability, with a mechanical life ⩾ 30,000 operations.
- The operating mechanism can be equipped with an online monitoring system for mechanical characteristics.

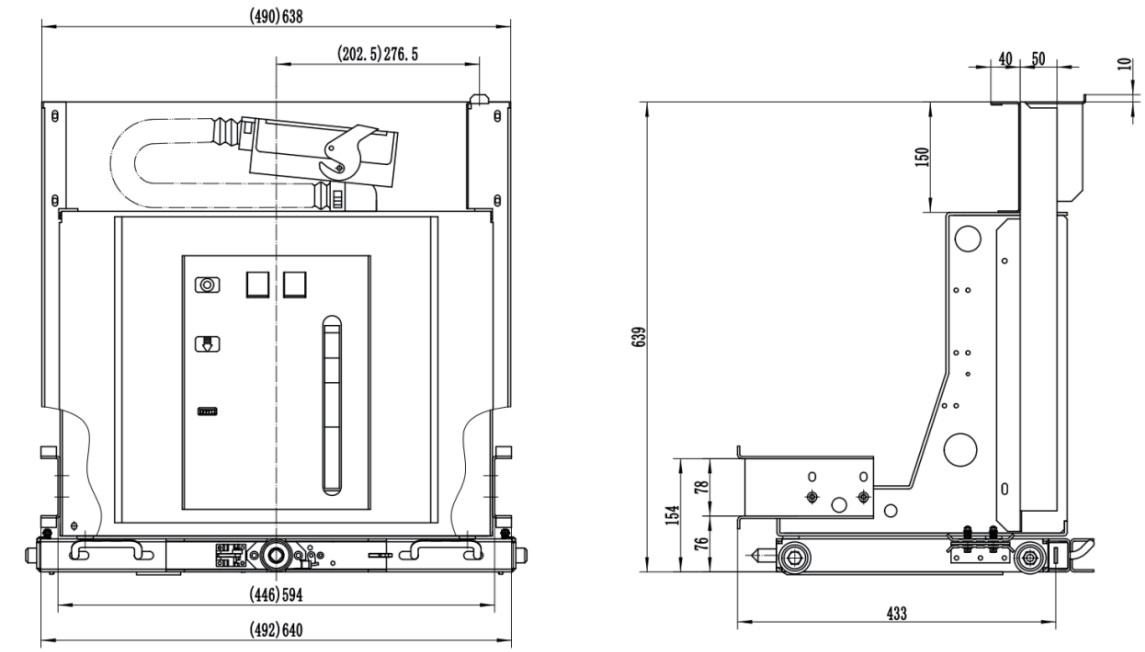
Dimensions



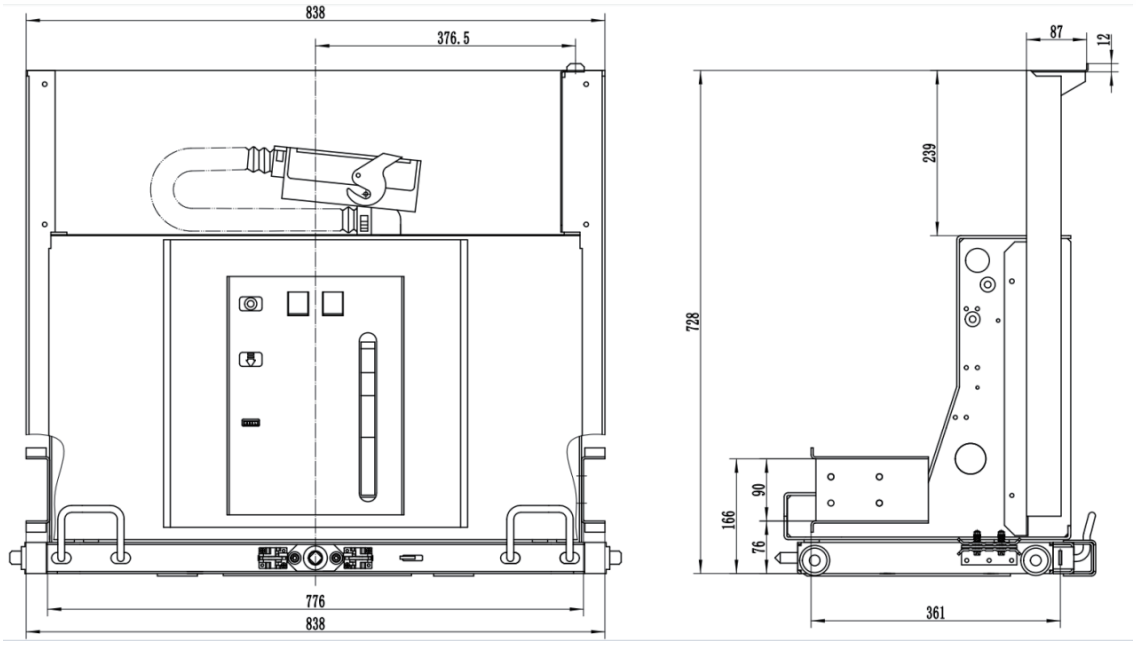
Outline of CB Mechanism (650/800/1000 mm)



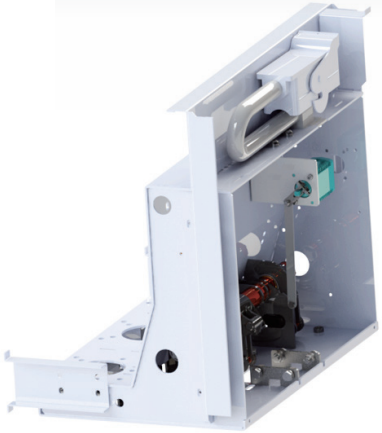
Mounting Outline for 650/800mm CB Frame



Mounting Outline for 1000mm CB Frame

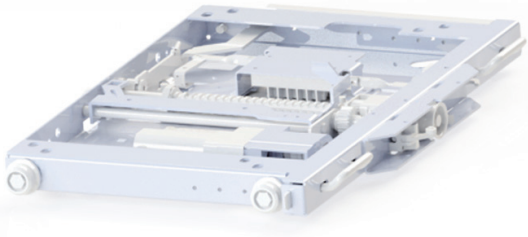


Selection Table

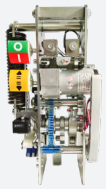


Circuit Breaker Frame

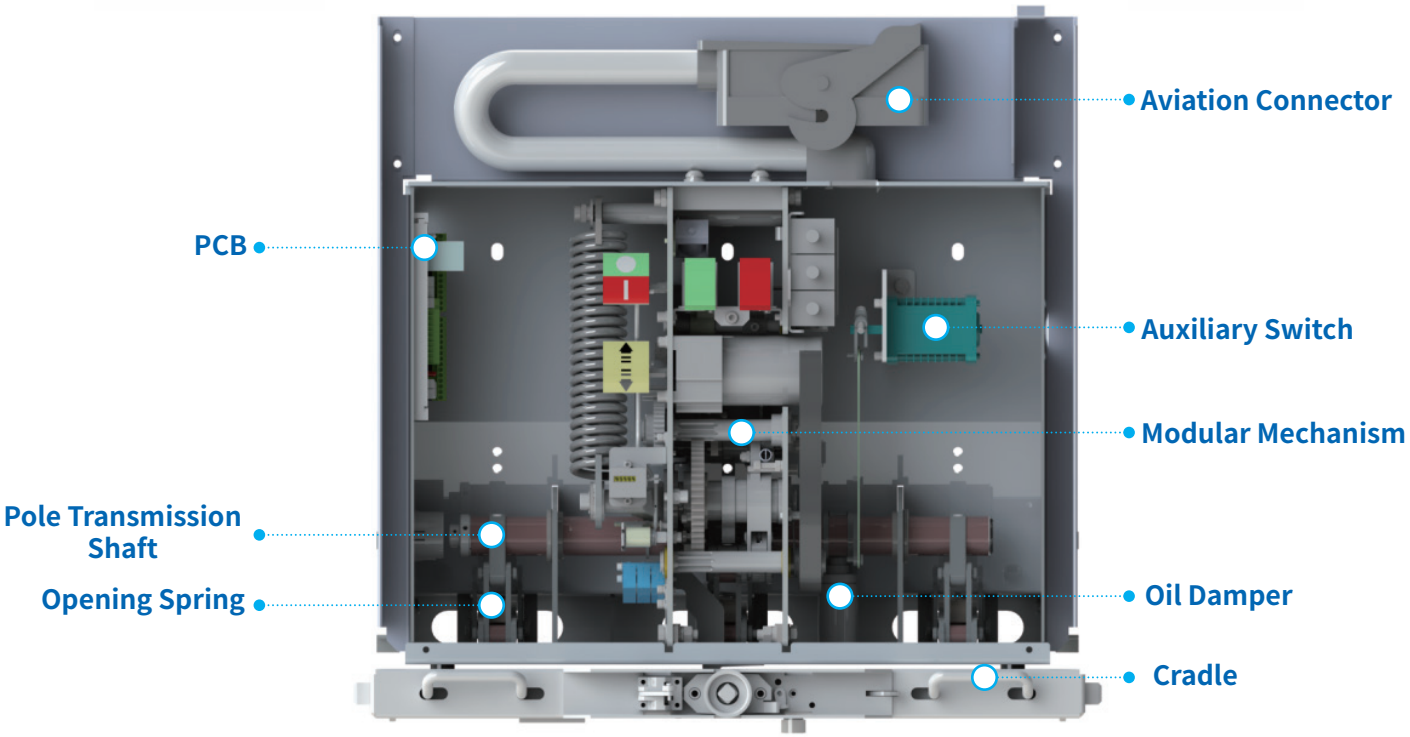
Modular Mechanism



Cradle

Model	Image	Cabinet Width	Model
Modular Mechanism		650mm 800mm	SKM1-JG-800
		1000mm	SKM1-JG-1000
Circuit Breaker Frame		650mm 800mm 1000mm	SKM1-KJ-650 SKM1-KJ-800 SKM1-KJ-1000
Cradle (Motorized or Manual)			800mm

Circuit Breaker Assembly (without Poles)



Main Parameters of Closing and Opening Electromagnets and Related Electrical Components

Item	Closing Solenoid		Opening Solenoid		Interlocking Solenoid		Anti-pumping Relay	
Rated Op. Voltage (V)	DC220	DC110	DC220	DC110	DC220	DC110	DC220	DC110
Rated Op. Current (A)	1.1	2.2	1.1	2.2	25mA		9.1mA	
Rated Power (W)	242	242	242	242	2.7		1	
Operating Voltage Range	85% -100% Rated Voltage		65%–120% Un open; <30% Un no open.					

Technical Parameters of the Energy Storage Motor

Model	Rated V.	Rated Power	Operating Voltage Range	Energy Storage Time
64ZY-CJ □ □ -6B-1	DC110V DC220V	90W	85% -110%	⩽ 10S

Main Technical Parameters

Item		Unit	Parameters			
Rated Voltage		kV	12			
Maximum Operating Voltage		kV	12			
Rated Current		A	630	630	1250	1600
			1250	1250	1600	2000
					2000	2500
					2500	3150
						4000
Rated Short-circuit Breaking Current		kA	20	25	31.5	40
Rated Short-circuit Making Current		kA	50	63	80	100
Rated Peak Withstand Current		kA	50	63	80	100
Rated Short-time Withstand Current (4 s)		kA	20	25	31.5	40
Rated Insulation Level	Power Frequency Withstand Voltage (Before/After Rated Breaking)	kA	42（Contact Gap48）			
	Impulse Withstand Voltage (Before/After Rated Breaking)		75（Contact Gap 85）			
Rated Operating Sequence			0-0.3s-CO-180s-CO			
Mechanical Life		Times	20000			
Number of Breaks at Rated Short-Circuit Current		Times	50			
Operating Mechanism Rated Closing Voltage (DC)		V	110，220			
Operating Mechanism Rated Opening Voltage (DC)		V	110，220			
Contact Gap		mm	9±1			
Contact Travel		mm	3.5±0.5			
Contact Bounce Time on Closing		ms	⩽ 2			
Phase-to-Phase Asynchronous Opening/Closing		mm	⩽ 2			
Opening Time		ms	⩽ 50			
Closing Time		ms	⩽ 100			
Average Opening Speed		m/s	1.1±0.2			
Average Closing Speed		m/s	0.6±0.2			
Contact Pressure		N	20kA	25kA	31.5kA	40kA
			2000	2400	3200	4750
Main Circuit Resistance per Phase		uΩ	60		50	

SKM-12 Electrical Schematic Diagram of Vacuum Circuit Breaker