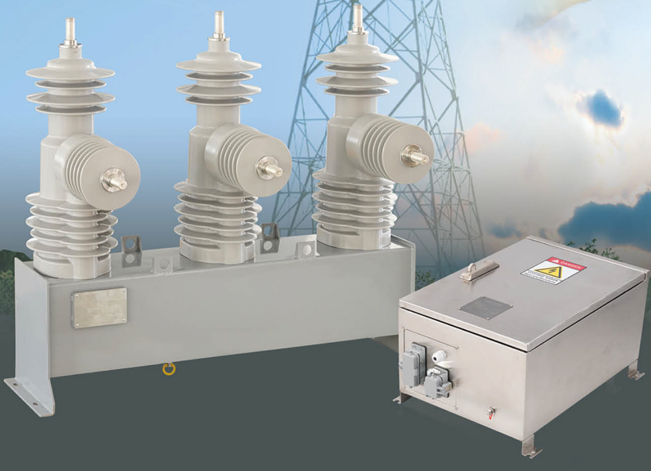
OUCO

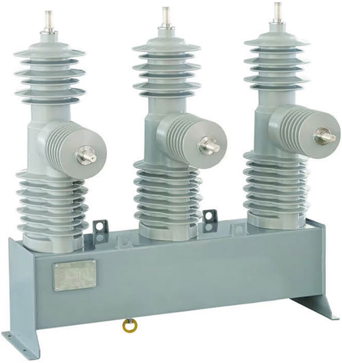
Automatic Circuit Recloser

15 - 38 kV | PRODUCT GUIDE



YUEQING CITY OUWEI ELECTRIC CO.,LTD.

Overview of Switchgear



- Ganged Operation of Magnetic Actuator The switchgear is operated by a single magnetic actuator ganged with the three vacuum interrupters for both tripping and closing.

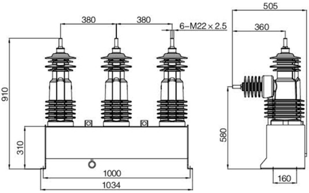
- **Robust Epoxy Resin Housing** The vacuum interrupters are encapsulated with robust hydrophobic epoxy resin housing of unibody casting, featuring thorough insulation to ensure paramount dielectric characteristic.

- Rugged Powder Coated Tank The magnetic actuator and associated mechanism is enclosed in the rugged powder coated tank. The strong base with special surface finishing ensures the capability of working under various environmental conditions.

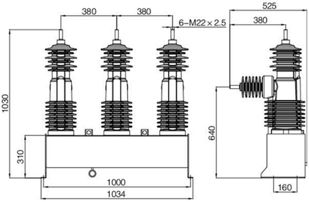
- The hydrophobic epoxy resin housings are firmly bolted to the lid.

- An external pointer, clearly visible on the base of tank, indicates the “open” or “closed” state of the switchgear. Red for “closed” and Green for “open”, pulling the yellow ring with hot stick to manually latch the switchgear to “open”.

OPEN
CLOSED



VZ27



VZ38

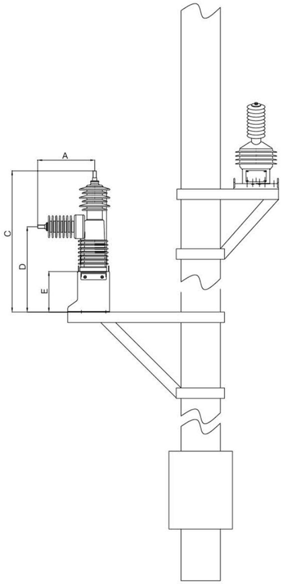
Technical Parameters

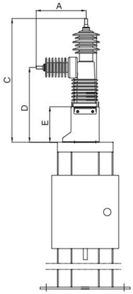
15.5kV 50/60Hz	Rated continuous current	Rated duration of short-circuit	Rated short-circuit making current	Rated short-circuit breaking current	Rated lightning impulse withstand voltage	Rated short-duration P.F. withstand voltage	Impedance μΩ between connections	Creepage distance phase-to-earth	Clearance phase-to-phase	Minimum clearance, phase-to-earth	Weight	Line charging current	Cable charging current	Max. interrupting time/max. closing time
	Ir /A	Tk/s	Isc/kA	Ima/kA	Up/kV	Ud/kV	μΩ	mm	mm	mm	kg	A	A	ms
HYVZ15-630-12-N	630	3	12.5	31.5	110	50	60	960	320	270	130	2	10	40/60
VZ15-800-12-N	800	3	12.5	31.5	110	50	60	960	320	270	130	2	10	40/60
VZ15-630-16-N	630	3	16	40	110	50	60	960	320	270	130	2	10	40/60
VZ15-800-16-N	800	3	16	40	110	50	60	960	320	270	130	2	10	40/60

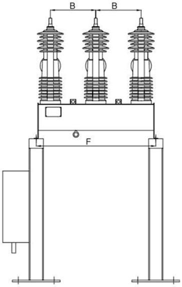
27kV 50/60Hz	Ir/A	Tk/s	Isc/kA	Ima/kA	Up/kV	Ud/kV	μΩ	mm	mm	mm	kg	A	A	ms
VZ27-630-12-N	630	3	12.5	31.5	130	60	60	1080	320	270	130	5	25	40/60
VZ27-800-12-N	800	3	12.5	31.5	130	60	60	1080	320	270	130	5	25	40/60
VZ27-630-16-N	630	3	16	40	130	60	60	1080	320	270	130	5	25	40/60
VZ27-800-16-N	800	3	16	40	130	60	60	1080	320	270	130	5	25	40/60
VZ27-630-16-H	630	3	16	40	170	70	60	1290	320	350	148	5	25	40/60
VZ27-800-16-H	800	3	16	40	170	70	60	1290	320	350	148	5	25	40/60

38kV 50/60Hz	Ir/A	Tk/s	Isc/kA	Ima/kA	Up/kV	Ud/kV	μΩ	mm	mm	mm	kg	A	A	ms
VZ38-630-12-N	630	3	12.5	31.5	170	70	60	1290	320	350	148	5	40	40/60
VZ38-800-12-N	800	3	12.5	31.5	170	70	60	1290	320	350	148	5	40	40/60
VZ38-630-16-N	630	3	16	40	170	70	60	1290	320	350	148	5	40	40/60
VZ38-800-16-N	800	3	16	40	170	70	60	1290	320	350	148	5	40	40/60

Dimensions for Mounting







		A	B	C	D	E	F
15.5kV	mm	360	380	910	580	310	1000
27kV	mm	360	380	910	580	310	1000
38kV	mm	380	380	1030	640	310	1000

Description of Controller

Controller

The Microprocessor based controller provides protection, control, monitoring, instrumentation and metering with integrated input and output logic, data logging & fault report.

Communication functionality of the controller is achieved via electrical RS485 port for remote connection. Additional rear ports including RS232 are available for selection.

The Feeder Terminal Unit(FTU) is the core of controller. To prevent any damage to FTU from emergency, the control cubicle contains auxiliary power supply of batteries for uninterruptible power supply, electronic boards and circuit breakers.

A series of protection functions can be set via screen display.

Protection

- Protective Functions
- Phase time overcurrent protection (51P)
- Phase instantaneous overcurrent protection (50P-1)
- Two definite time overcurrent settings (50P-2, 50P-3)
- Ground overcurrent protection (51N)
- Ground instantaneous overcurrent protection (50N-1)
- Two definite time ground overcurrent settings (50N-2, 50N-3)
- Negative sequence overcurrent protection (46)
- Phase and ground directional overcurrent protection (67P, 67N;)
- Over-frequency (81O, 81V)
- Undervoltage and overvoltage control and alarm (27, 59;)
- Up to four reclose cycles (define a recloser cycle 79-1 79-5;) close fourtimes / trip five
- Adaptive reclosing shots: each reclose sequence allows independent programming of protective functions Sensitive Earth Fault protection

Current input

Measuring range:	0 ~ 99A
Power consumption:	rated 5A, each phase is not greater than 0.5VA
	Rated 1A, each phase is not greater than 0.2VA
	Rated at 0.2A, not more than 0.1VA per phase
Overload capacity:	3 times the rated current, continuous work
	20 times the rated current for 4s
	50 times the rated current for 1s

Voltage input

Measuring range: 0 ~ 3V
Power consumption: each phase is not greater than 0.3VA
Overload capacity: 1.4 times the rated value, continuous work

Output

Continuous bearing: 5A
Breaking capacity: DC, inductive load, L / R = 40ms, 220V / 0.5A
Debounce time: 1 ~ 99ms, step 1ms

RS485 /RS232

Rate: 1200-38400bps
Default rate: 9600bps
Protocol: Modbus RTU, IEC60870-5-101,DNP3.0

Ethernet port (ONLY BC500)

Mode: 10 / 100M (adaptive)
Interface: RJ45
Protocol: Modbus TCP / IP,DNP3.0 IEC60870-5-104

Cubicle

The cubicle is integrated with a variety of electronic components, including protection relay and UPS system for device. Extra components and functions are optional.