

NEPEAN
Power

Indoor HV Vacuum Circuit Breaker



AVAILABLE FROM
NEPEAN ELECTRONICS

NEPEAN Power is a proven leader in the supply and manufacture of quality engineered solutions, products and technologies. Established in 1994, through the commitment of our dedicated team we have become a supplier of choice.

Nepean Power's range of vacuum circuit breakers are designed for applications ranging from infrastructure, industrial plants, large commercial buildings to power grid substations and custom switchgear.

Our breakers are compact, highly reliable, easy to maintain and can be used as a fixed install unit or be equipped for withdrawable applications.

Nepean Power's range of vacuum circuit breakers can be incorporated in new installations as well as repair, retrofit and upgrade projects.

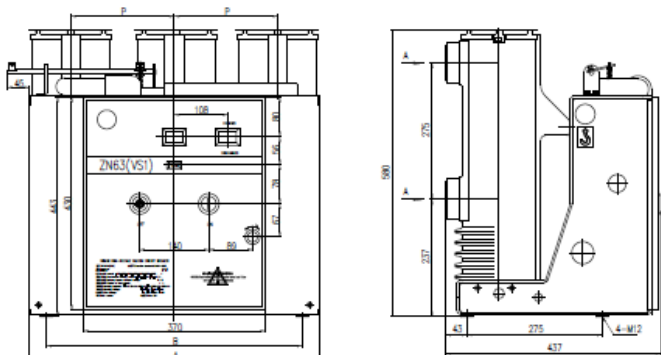
NEPEAN Advantage

- 630A and 1250A stocked locally
- Retrofit kits available for existing switchgear
- Full range available - to 5000A-50kA
- IEC type tested 25kA, 75kVB11
- Compact -150mm phase centre
- Mechanical interlock capability - external
- Easily maintained & cost competitive

Ordering Information

| Part Number | Description |
|-------------------|---|
| ZN63-12/T630-25* | 630A Fixed 650mm pole, distance 150mm, 48VDC shunt trip, 110VAC motor charge, 110VAC undervolt (non-capacitor type), 110VAC close coil |
| ZN63-12/T1250-25* | 1250A Fixed 800mm pole, distance 210mm, 48VDC shunt trip, 110VAC motor charge, 110VAC undervolt (non-capacitor type), 110VAC close coil |
| ZN63-ST24VDC* | 24V DC Shunt Trip |
| ZN63-ST48VDC* | 48VDC Shunt trip |
| ZN63-ST110VAC* | 110VAC Shunt Trip |
| ZN63-CC24VDC* | 24VDC Close coil |
| ZN63-CC110VAC* | 110VAC Close coil |
| ZN63-UV24VDC* | 24VDC Undervolt (Non Capacitor) |
| ZN63-UV48VDC* | 48VDC Undervolt (Non Capacitor) |
| ZN63-UV110VAC* | 110VAC Undervolt (Non Capacitor) |
| ZN63-MC110VAC* | 110VAC Motor charge |

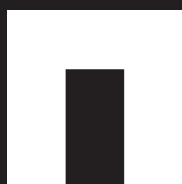
*Stocked



HV Vacuum Circuit Breaker

Specifications

| Product | Unit | Parameter | | | | |
|---|-------------|--|------------------------------|--|--------------|-----|
| Parameters of voltage, current, life | | | | | | |
| Rated voltage | kV | 12 | | | | |
| Rated short time power frequency withstand voltage (1min) | kV | 42 | | | | |
| Rated lightning impulse withstand voltage (peak) | kV | 75 | | | | |
| Rated frequency | Hz | 50 | | | | |
| Rated Current | A | 630 1250 | 1250 1600 2000 2500 | 1250 1600 2000 2500 3150 4000 | 4000 5000 | |
| Rated short-circuit breaking current | kA | 20 | 25 | 31.5 | 40 | 50 |
| Rated short-time withstand current (RMS) | kA | 20 | 25 | 31.5 | 40 | 50 |
| Rated peak withstand current | kA | 50 | 63 | 80 | 100 | 125 |
| Rated short-circuit closing current | kA | 50 | 63 | 80 | 100 | 125 |
| Rated single / back-to-back capacitor bank breaking current | A | 630/400 | | | | |
| Rated short-circuit current duration | S | 4 | | | | |
| Rated short-circuit current breaking times | times | 50 | | | 30 | |
| Rated operating sequence | | O-t-CO-180s-CO rated short-circuit breaking current less than 31.5kA, t=0.3s rated short-circuit breaking current 40kA, t=180s | | | | |
| The main galvanic circle resistance | $\mu\Omega$ | ≤ 50 (less than 1250A); ≤ 40 (less than 1600~2000A); ≤ 30 (more than 2500A); | | | | |
| Rated operation voltage | | UR 220/110 | | | | |
| Mechanical life | times | ≥ 10000 | | | | |
| Mechanical property parameters | | | | | | |
| Open clearance between contacts | mm | 11 \pm 1 | | | | |
| Overtravel | mm | 3.0 \pm 0.5 | | | | |
| Contact closing bounce time | ms | 2 | | | 3 | |
| Three-phase, switching in different period | ms | ≤ 2 | | | | |
| Average opening speed | m/s | 0.9~1.3 | | | | |
| Average closing speed | m/s | 0.5~0.8 | | | | |
| Opening time (rated voltage) | ms | ≤ 50 | | | | |
| Closing time (rated voltage) | ms | ≤ 70 | | | | |



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