

# Racks and cubicles for capacitor banks

## COMPOSITION

Possible components of medium voltage capacitor banks:

- Capacitors
- Additional accessories (discharge reactors, damping reactors and detuned reactors)
- Built-in electrical protection devices (HRC fuses, unbalance protection devices, etc.)
- Operating devices (circuit breakers, switches, contactors, etc.)
- Power factor controllers for automatic capacitor banks

They can be fitted and wired:

- On open racks (IP 00)
- In cubicles (IP 21 or IP 23 - IK 05)  
(other degrees of protection on request).

These assemblies are designed for:

- **Indoor type** installation
- **Outdoor type** installation

ALPES TECHNOLOGIES offers various standard or specific equipment to meet your requirements.

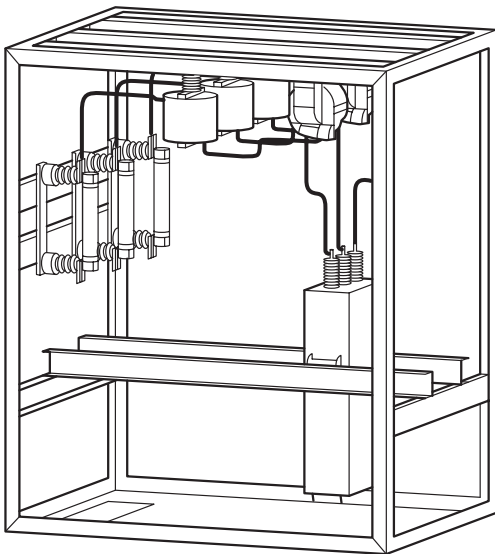


## INSTALLATION EXAMPLES

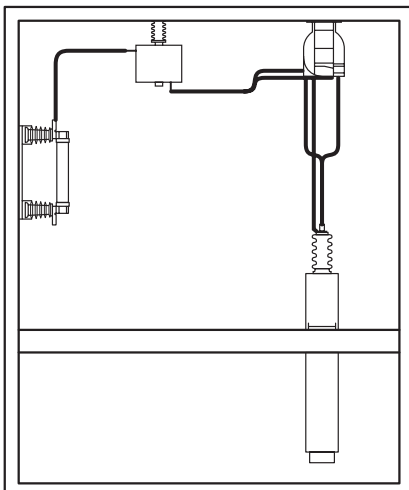
### > Fixed type - Delta configuration

- Max. voltage: 12 kV
- Max. power: 2500 kVAr
- Installation: indoor or outdoor

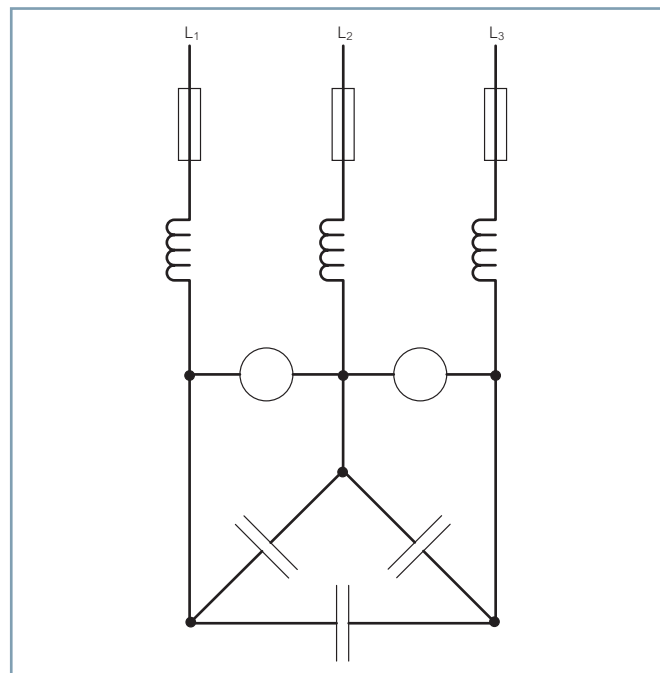
- Possible components: damping reactors, discharge reactors, HRC fuses, earthing switch, detuned reactor, etc.
- Max. dimensions (mm): 2000 x 2000 H = 2200



Example of assembly



Example of electrical diagram



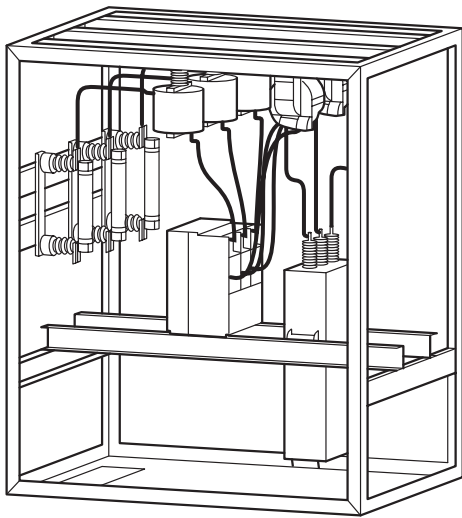
# Racks and cubicles for capacitor banks (continued)

## INSTALLATION EXAMPLES

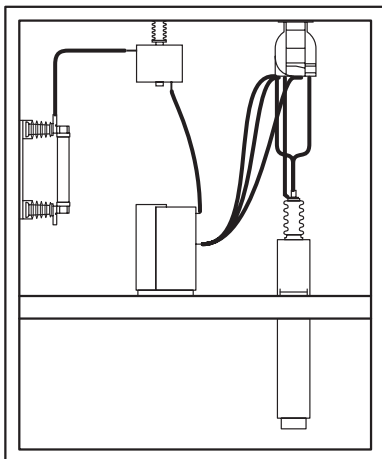
### > Fixed type with contactors – Delta configuration

- Max. voltage: 12 kV
- Max. power: 2500 kVAr
- Installation: indoor or outdoor

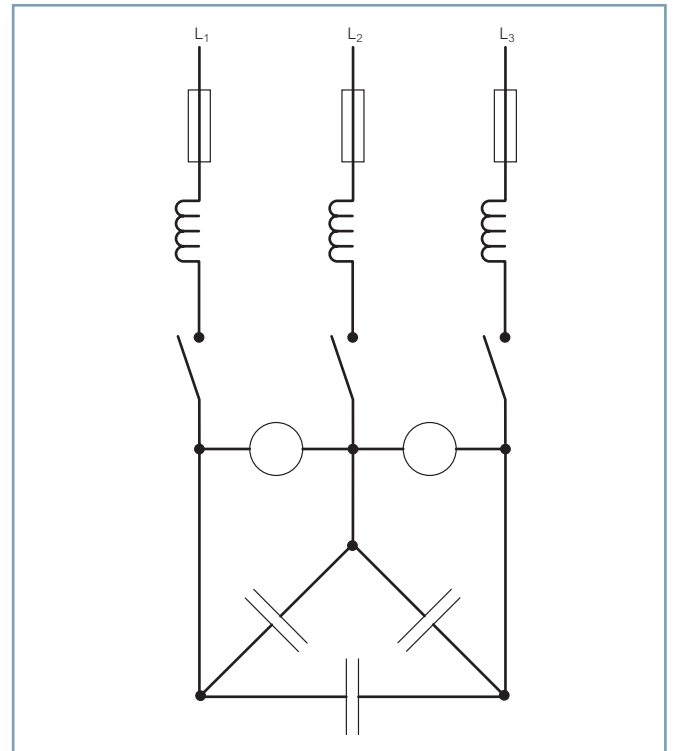
- Possible components: damping reactors, discharge reactors, contactors, HRC fuses, power factor relays, detuned reactor, etc.
- Max. dimensions (mm): 2000 x 2000 H = 2200



Example of assembly



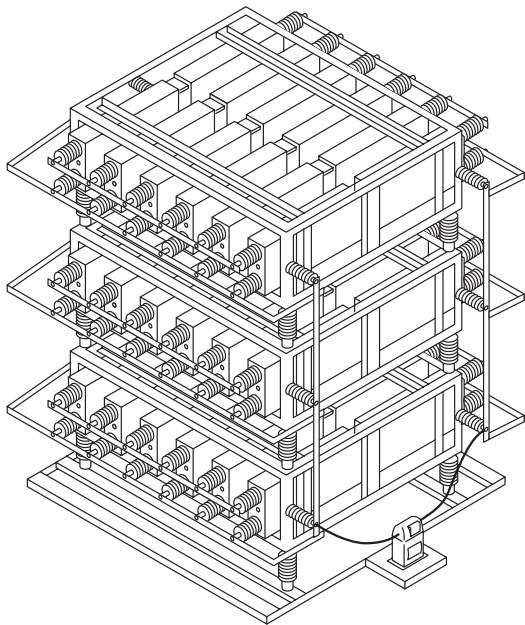
Example of electrical diagram



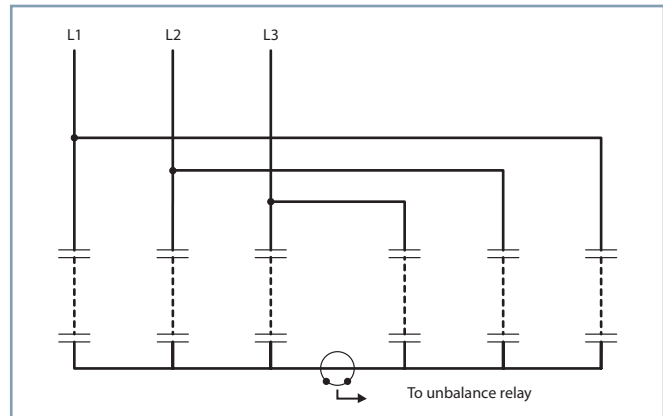
## > Fixed type - Double star configuration

- Max. voltage: 36 kV
- Max. power: 20,000 kVAr
- Installation: indoor or outdoor
- With or without serial group per branch

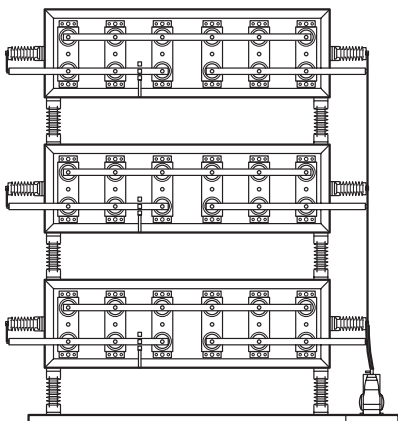
- Possible components: damping reactors, discharge reactors, unbalance relays, unbalance current transformers, etc.
- Max. dimensions (mm): 3500 x 2000 H = 4000



Example of electrical diagram



Example of assembly



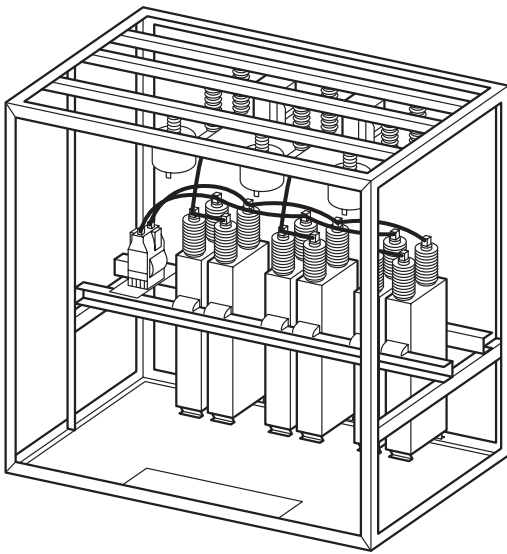
# Racks and cubicles for capacitor banks (continued)

## INSTALLATION EXAMPLES

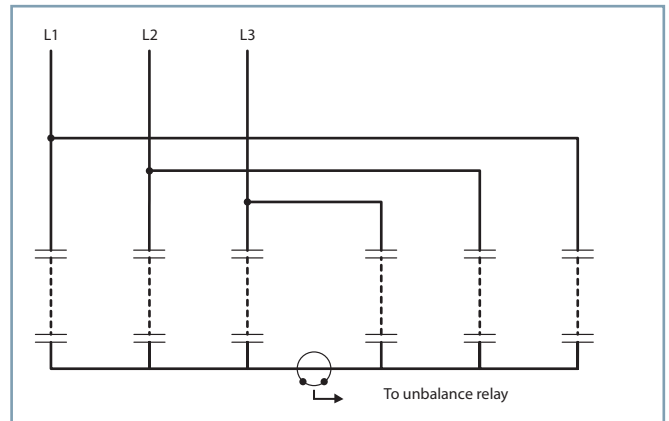
### > Fixed type - Double star configuration

- Max. voltage: 24 kV
- Max. power: 5000 kVAr
- Installation: indoor or outdoor

- Possible components: damping reactors, discharge reactors, unbalance current transformers, unbalance relays, etc.
- Max. dimensions (mm): 2500 x 2000 H = 2200



Example of electrical diagram



Example of assembly

