

### POLE MOUNTED CAPACITOR BANK

- NOMINAL VOLTAGE: UP 36 kV, 50/60 Hz
- NOMINAL POWER: UP TO 1200 kvar
- INSTALLATION: 1000 m.a.s.l.
- TEMPERATURE CATEGORY: -25 °C ... +55 °C
- VERSION: NON SWITCHED
- APPLICABLE STANDARDS: IEC 60871



### LV AUTOMATIC CAPACITOR BANKS WITH OR WITHOUT DETUNED FILTER REACTORS

- NOMINAL VOLTAGE: UP TO 690 V, 50/60 Hz
- NOMINAL POWER: UP TO 1200 kvar
- LOAD BREAK SWITCH, MANUALLY OPERATED PFC CONTROLLER WITH RS485 MODBUS COMMUNICATION
- FIXED OR AUTOMATIC CAPACITOR BANK
- WALL MOUNTED OR SELF STANDING METAL ENCLOSURE
- NATURAL OR FORCED COOLING
- DETUNED FILTER REACTORS: 5,6%, 7%, 14%, ...
- METAL ENCLOSURE PROTECTION: IP32, Ip54, ...
- APPLICABLE STANDARDS: IEC 60831, IEC 60439, IEC 61921



### RACK ASSEMBLY LV CAPACITOR BANK

- NOMINAL VOLTAGE: UP TO 690 V, 50/60 Hz
- NOMINAL POWER: UP TO 100 kvar
- AUTOMATIC CAPACITOR BANK
- ONE OR MULTI STEP
- RACK MOUNTED
- NATURAL OR FORCED COOLING
- WITH OR WITHOUT FILTER REACTORS
- OPEN RACK PROTECTION: IP00
- APPLICABLE STANDARDS: IEC 60831, IEC 60439, IEC 61921



## LOW VOLTAGE AND MEDIUM VOLTAGE CAPACITOR BANKS

- **POWER FACTOR CORRECTION CAPACITOR BANKS** DECREASE ELECTRICAL ENERGY COSTS AND INCREASE SYSTEM VOLTAGE
- **USING POWER CAPACITORS** IS ONE OF THE MOST PRACTICAL SOLUTION TO INCREASE SYSTEM POWER QUALITY
- **POWER CAPACITORS** ARE A MAINTENANCE FREE AND INEXPENSIVE SOURCE OF REACTIVE ENERGY NEEDED IN EVERY INDUCTIVE ELECTRICAL SYSTEM



BASIC INFORMATIONS

- WITH CAPACITORS AND THEIR EQUIPMENT – POWER FACTOR CORRECTION SYSTEMS - **WE SAVE MONEY**
- WITH CAPACITORS AND THEIR EQUIPMENT – POWER FACTOR CORRECTION SYSTEMS - **WE RELIEVE ELECTRO DISTRIBUTION SYSTEM (CABLES, SWITCHGEAR LV, MV, HV...)**
- WITH CAPACITORS AND THEIR EQUIPMENT – POWER FACTOR CORRECTION SYSTEMS - **WE PROLONG LIFE TIME OF ALL SYSTEM ELEMENTS (CABLES, SWITCHGEAR LV, MV, HV, PROTECTION ELEMENTS...)**
- CAPACITORS GIVE US REACTIVE ENERGY FOR FREE. ALL INDUCTIVE LOADS NEED THIS ENERGY TO CREATE MAGNETIC FIELD TO WORK (COSTS ARE ONLY IN THE SYSTEM COMPONENT WHICH WE MUST BUY AND MOUNT)

ENGINEERING, TESTING AND START-UP

OUR TEAM OF EXPERTS IS ABLE TO DO SYSTEM PQM MEASUREMENTS, ANALYSES, DESIGN, FINAL ASSEMBLY AND INSPECTION ON TURNKEY SOLUTION BASE. WE RECOGNISE EVERY PROJECT AS UNIQUE SOLUTION FOR INDUSTRY OR UTILITY COMPANY PURPOSE OF USE, AND THAT IS THE BASE FOR SPECIFIC PROJECT DESIGN. CAPACITOR UNITS ARE TYPE TESTED, SAME VALID FOR ALL MAIN ASSEMBLY PARTS.

MAIN TECHNICAL DATA

- NOMINAL VOLTAGE UP TO 36 kV, 50/60 Hz
- NOMINAL POWER UP TO 500 Mvar
- ASSEMBLY INDOOR OR OUTDOOR
- FIXING OPEN RACK, KIOSKS
- STEP CONFIGURATION FIXED SINGLE STEP OR SWITCHED MULTI STEP SYSTEMS
- REACTORS AIR, IRON CORE, INRUSH CURRENT DAMPING OR DETUNED FILTERS
- INSTALLATION ALTITUDE UP TO 1000 m.a.s.l. STANDARD, UP TO 4000 m.a.s.l. ON DEMAND
- APPLICABLE STANDARDS IEC 60871-1,2,4, IEC60099-6, IEC60076-6, IEC 61869-2 IEC 60831, IEC 61921, IEC 60439

MAIN COMPONENTS

LV/HV  
CAPACITORS



MV CIRCUIT  
BREAKERS



AC6b  
CONTACTORS



CONTROLLERS,  
PROTECTION RELAYS



DAMPING  
REACTORS



DETUNED  
REACTORS



FUSES



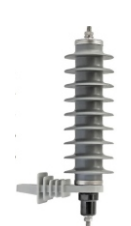
INSTRUMENT  
TRANSFORMERS



LOAD BREAK  
SWITCHES



SURGE  
ARRESTERS



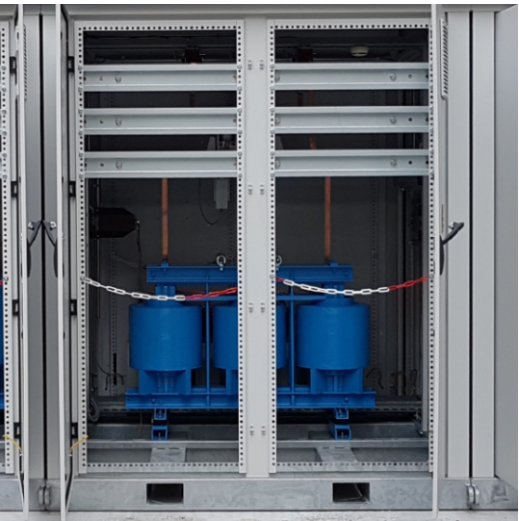
**SINGLE OR MULTI STEP AUTOMATIC  
MV CAPACITOR BANK - TURNKEY SOLUTIONS**

- NOMINAL VOLTAGE: 35 kV, 50 Hz
- NOMINAL POWER: 5 + 9 Mvar
- FILTER REACTORS: 7%
- SF6 FEEDER CEELS
- AUTOMATIC REGIME OF WORK
- DOUBLE STAR CONNECTION
- OUTDOOR VERSION



**MULTI STEPS AUTOMATIC  
MV CAPACITOR BANKS - INDOOR ASSEMBLY**

- NOMINAL VOLTAGE: 12 kV, 50 Hz
- NOMINAL POWER: 0.5 + 1 + 1.5 Mvar
- HRC FUSES
- INRUSH OR FILTER REACTORS
- VACUUM CONTACTORS
- DOUBLE STAR CONNECTION
- DOUBLE STAR PROTECTION RELAY
- CAPACITOR UNIT WITH TWO OUTPUTS
- INDOOR OR OUTDOOR VERSION



**MULTI-STEPS AUTOMATIC  
MV CAPACITOR BANK - OUTDOOR ASSEMBLY**

- NOMINAL VOLTAGE: 12 kV, 50 Hz
- NOMINAL POWER: 1 + 1 + 2 Mvar
- HRC FUSES
- DETUNED FILTER REACTORS
- VACCUM CONTACTORS
- DOUBLE STAR CONNECTION & PROTECTION RELAY & LINE CURRENT AND VOLTAGE TRANSFORMERS
- SINGLE PHASE CAPACITOR UNITS
- OUTDOOR VERSION: IP54
- AMBIENT CONDITIONS: -20 °C UP TO +55 °C