

Technical Specification for LV / MV transformer room Electromechanical Equipment with 1250 kVA transformer power, energy exchanged bidirectional measuring system equipped with measurement transformers to rent from ENEL and in the absence of privileged load.

HV electric cabinet

The HV cabinet complies with standards: IEC 17-6, IEC 298, IEC 654, Presidential Decree 547 27/04/1955. It has the following electrical characteristics: Rated voltage 24kV, Rated impulse withstand voltage to frequency 50Hz / 1min value 50kV, Rated impulse withstand atmospheric 1.2 / 50 microS peak value of 125kV, 20kV Voltage, Nominal Frequency 50/60Hz, rated current 630A busbar, Rated current max of leads 630A, Rated short-time withstand 16kA, Nominal current peak 40kA, Breaking capacity of circuit breakers 16kA at rated voltage, rated life of short circuit 1s, rated voltage of 230Vac auxiliary and consists of the following modules:

1 Form LIFT CABLE with: cable-holder brackets and side panels. Sheet pressure-painted with epoxy enamel RAL 7035. **Dimensions 150x975x1950 (WxDxH).**

1 Form PROTECTION TRANSFORMER SWITCH satisfying the requirements of ENEL DK5600 V Ed June 2006 (**CAP 50 51 51N**) equipped with: 1 Unit Arrival / Departure with fixed circuit-breaker. A switch metal sheet panel of the instrument compartment from 750mm. Power Indicators on the side busbar and cables. A Vacuum Circuit Breaker Type VD4/Unimix-F p230 24kV 630A 12.5kA. Gear motor spring charging (VD4-F). Opening Shunt. Operation counter. Auxiliary contacts. Switch Key lock in open position - same key for all the switches. Opening Demagnetization shunt opening release (+ PR512). Additional auxiliary contacts. Under voltage release with electronic delay. PR521/DK 5600 Overload Relays ABB mounted on board switch with toroid for the ground fault. Nr. 2 CTs for protection relays ABB PR521DK 5600 on board switch with torus DK 5600 for ground failure. A SHS2/IB disconnecting switch 24.04.12. A removable key with IMS in closing position and one removable key with IMS in opening position. A removable key with ES in closing position and 1 ES with removable key in opening position. SF6 lid. **Dimensions 1200x750x1950 (WxDxH).**

No. 1 UNIT of MEASURAMENT Module equipped with: 1 unit measures. A LV 235mm deep and wide 500mm IP30 cell. Voltage indicators TV side. A disconnecting switch SHS2/IF 24.04.12. A removable key with IMS in closing position and 1 removable key with IMS in opening position. A removable key with ES in closing position and 1 removable key with ES in opening position.

Fuse holders. Lid for loading SF6. A voltage transformer fixed single-pole TJC6, Up = 20/V3kV DS-core 1: Us = 0.1/V3 kV, 10 VA; 0.5-core 2: Us = 0.1 / 3 kV, 50 VA; 3P. A Fixed voltage transformer single pole TJC6, Up = 20/V3kV DS-core 1: Us = 0.1/V3 kV, 10 VA; 0.5-core 2: Us = 0.1 / 3 kV, 50 VA; 3P. A fixed voltage transformer single pole TJC6, Up = 20/V3kV DS-core 1: Us = 0.1/V3 kV, 10 VA; 0.5-core 2: Us = 0.1 / 3 kV, 50 VA; 3P. Three Voltmeter Cl.1.5. **Dimensions 1210x500x1950 mm (WxDxH).**

1 transformer housing module in a protected cell. With a key lock on the door with key ringed to that of the protection located upstream. Grounding of all the metal racks. Bent sheet steel painted with epoxy enamel RAL 7035. **Dimensions 2200x1800x2250 mm (WxDxH).**

Low loss resin FORKLIFT TRANSFORMER

Three-phase TRANSFORMER MV / MV in resin with reduced losses from 1250 kVA.
Primary voltage 20kV \pm 2x2.5% Secondary voltage 400/230V FF / FN; Vcc (%) 6; delta / star connection with neutral - Dyn 11; classes E2, C2, F1. Complete with 4 sliding rolls, 4 eyebolts, tow hooks on the carriage, grounding terminal setup, plaque characteristics, terminal control HV side, *certificate of approval, control thermometer to show the temperature of the three phases with Pt100 Ω temperature sensors, set point alarm and trip determination.*

CONNECTION CABLES

- MV Tern Cable Kit between ENEL MV framework and General MV user device cable RG7H1R 12/20kV from 3x1x95 mm complete with lugs and MV terminals;
- Kit backhoe MV cables between QHV user and transformer in RG7H1R 12/20kV cable from 3x1x50 mm complete with lugs and terminals MT;
- Between LV and Cable Kit TRAFQ QBT in FG7R cable 0.6 / 1 kV 3FX (6x1x300mm) + Nx [3x1x300mm] + PEx [3x1x300mm] Complete with terminals LV;

INTERFACE PROTECTION DK5740

Thytronic Relay SVF5740 U3F200 to be included within LV framework according DK5740

ROOM ACCESSORIES

- Rescuer / UPS 1000VA continuous output at zero transfer time, input 230V 50Hz - 230V \pm 1% output sine wave, range 6 min at full load;
- Cabin Accessories: insulating mat 30 kV, warning signs, insulating gloves to 30 kV, portable emergency lamp, approved 6kg fire extinguisher, ground collector, interlocked socket 2P + T adapter EEC / bypass.
- Three-phase extractor fan from 4700m³/h equipped with gravity shutter and room thermostat capillary.
- First aid kit.

Excluded from the provision:

MV/LV/aux assembly cables will be supplied loose; grounding system against atmospheric discharges, outside the cabin, with relative certification; Calibrations equipment in relation to the system parameters; ENEL's cabin installation and anything else not expressly stated in this offer.

We look forward to hearing from you soon.

Best Regards

EUROSTRUTTURE SRL

Sales Management

ing. E. D'Andria