a) 1 Current rectifier, our type N (without polarity reversal), with the following features:

- **Supply:** 400 Vac, three phase, 50Hz
- **Output:** **0 ÷ 8 Vdc; 0 ÷ 300 Adc**
- **Duty:** continuous working (class I -IEC 60146-1-1) at full load
- **Power transformer:** dry type, insulation class H, Aluminium windings
  Manufactured according to IEC 60076-11 and IEC 61558 standards. No Taps.
- **Rectifying circuit**: 6 output pulses
- **Output ripple:** Provided with **smoothing filter** to get an output ripple value not higher than **5% (Rms)** at any output DC current value (and output voltage from 2,4 Vdc)
- **AC line input current:** 3 x 5 Aac (4 kVA) approx. at 300 Adc output
- **Line current harmonics:** according to IEC 60146-1-2
- **Control:** electronic control, 0÷100%, by means of thyristors on the secondary side. Constant voltage or constant current control (selectable).
- **Control Accuracy**: ≤ ±1% of full-scale value for load variations from 10 to 100%
- **DC current measuring system:** shunt 300A - 60 mV (Class 0,5)
- **Protections**:
  - Automatic main breaker
  - Electronic device for current limiting and pulse block against overloads and short circuits
  - Max temperature thermostats in the main transformer windings and on thyristors heat sinks.
  - RC snubber circuits against overvoltage parallel connected to line and to SCRs.
- **Cooling:** Forced air cooling, in open loop
- **Protection degree:** IP 20
- **Ambient conditions:** Indoor installation. Safe (non-hazardous) area
  Dry and clean place, without corrosive fumes
  Working ambient temperature: min 0°C; max. +40°C.

- **Cabinet dimensions:** mm 500 x 600 x 1100 (h)
- **Painting:** Main cabinet RAL 7035 (Elca standard painting, epoxy powder, min. thickness: 80 micron)
- **Control panel:** on the front of the rectifier, including:
  - One DC voltmeter and one DC ammeter
  - Alarm and indication lamps
- **Working way:**
  remote:
  - start/stop according to external (voltage free) contact (the rectifier is working if the contact is closed and stops when it opens)
  - output DC Voltage (in constant voltage mode) adjustment according to 4÷20 mA signal through opto-insulated card.
- **Analogue signals available into rectifier** (with decoupling cards):
  - 4÷20 mA signal proportional to DC voltage
  - 4÷20 mA signal proportional to DC current
- **Contacts available into rectifier:**
  - Trip contact (Cumulative) (Open for trip)
  - Contact **Rectifier Working** (Closed during the working)
- **Noise level:** not exceeding 85 dBA (indicative value), at 1 m distance
- **Standard reference:** IEC 60146
- **Marking CE :** with declaration of conformity with 2006/42/EC (Machinery Safety) - 2014/35/EU (Low Voltage) - 2014/30/EU (EMC)