

# Network analyzers

## ADR-D 400 D90

### DIMENSIONS (mm)

### CONNECTION DIAGRAM

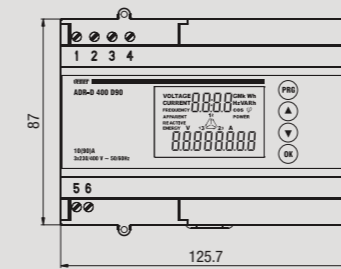
The ADR-D 400 D90 instrument is a three-phase systems analyzer for direct connection up to 90 A for true r.m.s. measurements (TRMS). The RS-485 serial output shows the data on a PC via the optional dedicated software ADR view.



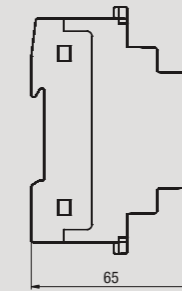
- 1 Through holes for direct connection
- 2 Instrument programming keys
- 3 Backlit display to view the electric measurements

- Measured sizes:
  - Voltages (TRMS) (concatenated and phase)
  - Currents (TRMS)
  - Active power, reactive power, apparent
  - Active and reactive energy
  - Frequency
  - Power factor (cos φ)
  - Phase angle

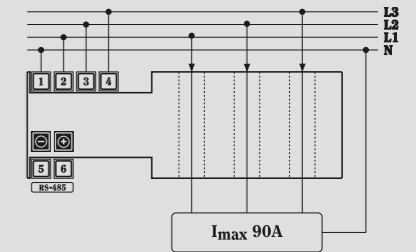
#### Front view



#### Side view



#### Diagram



## MEASUREMENT AND CONTROL

### ADR THREE-PHASE DIRECT CONNECTION

- Measurement and display of the measurements on a three-phase system: voltage, current, active, reactive and apparent power, power factor, frequency, active and reactive energy
- Separate power supply independent from the measurement
- Direct connection of the voltage cable
- Direct connection of the current cable (diam. 12.5 mm - max section of the cable 25 mm<sup>2</sup>)
- LCD display
- Zeroable active and reactive energy meter
- Timed or disable backlighting
- RS-485 serial output with Modbus RTU communication protocol to display and file on PC (ADR-view)
- Usable in three-phase systems with neutral (with balanced and unbalanced load)
- Usable in three-phase systems without neutral (with balanced and symmetrical load only)
- Over current and overvoltage indication
- Failure connection indication



### TECHNICAL INFORMATION

#### GENERAL CHARACTERISTICS

Power supply	V AC	400 (-15 ÷ +10%)
Frequency	Hz	50 / 60
Measurement power consumption	VA	- voltage circuits: <2.5 - current circuits: <2.5 - power supply: <4
Amperometric inputs	A	I <sub>n</sub> = 10 ; I <sub>max</sub> = 90
Voltmetric inputs		V <sub>max</sub> = 440 V (phase-phase) V <sub>max</sub> = 3x253 V (phase-neutral)
Voltage precision		± 0.5% f.s. ± 1 digit (f.s. 253 V)
Current precision		± 0.5% of f.s. ± 1 digit (f.s. 90 A)
Active power precision		± 1% of f.s. ± 1 digit (f.s. 100 W - 1 kW - 10 kW - 100 kW)

Reactive power precision		± 1% of f.s. ± 1 digit (f.s. 100 W - 1 kW - 10 kW - 100 kW)
Power factor precision		± 1%, ± 1 digit
Frequency precision		± 0.1 Hz ± 1 digit
Active energy precision		Class 1
Reactive energy precision		Class 3
Operating temperature	°C	-10 ÷ +45
Storage temperature	°C	-10 ÷ +60
Display		backlit LCD display
Container		7 DIN modules
Degree of protection		IP20 / 51 on the front
Voltmetric input terminal		2.5 mm <sup>2</sup>
Serial output RS-485 terminal		2.5 mm <sup>2</sup>
Humidity		10 ÷ 90% RH non condensing

Code	Model	Description
VE045100	ADR-D 400 D90	Three-phase network analyzer 90 A direct connection

#### REFERENCE STANDARDS

Compliance with Community Directives: 2006/95/EC (Low voltage) and 2004/108/EC (E.M.C.) is declared with reference to the following standards: • Safety: EN 61010-1 • E.M. Compatibility: EN 61000-6-2 / EN 61000-6-4