



## DCB-72 Aac-20R

DCB-72 Aac-20R, digital ammeter, 72 x 72, 2 output relays

Code: M22252.

- > Scale: 1 A / 5 A
- > N° relays: 2
- > System: AC
- > Mounting: Pannel
- > Modules: 72 x 72

### Description

Panel-mounted digital instruments that display the value of an electrical variable measured or proportional value of a process signal on its screen (depending on the model). Designed to supervise, regulate and control units with the use of relay outputs that are built in the unit.

The **DCB** series displays the value of an electrical variable measured or proportional value of a process signal on its screen (depending on the model). The unit displays the electrical parameters of a single-phase installation, depending on the model, such as the voltage, current, etc. In DC systems, the unit can measure the voltage, current, frequency and other variables associated with industrial processes. The AC models take the measurements in true RMS (TRMS).

All models in this range have the following features:

- Universal power supply at 80 ... 270 V<sub>ac/dc</sub> and optional power supply at 24 V<sub>dc</sub>
- IP 54 protection degree on the front panel
- High measurement accuracy
- Programmable measuring input
- Alarm delays and interlockings
- Galvanic insulation between external circuits
- Self-configurable decimal point
- Can be installed on 48 x 48 or 72 x 72 mm panels, depending on the model

### Application

These digital instruments have many different applications and can be used in:

- Industrial applications
- Air conditioning units
- Solar photovoltaic energy installations
- Industrial process control systems



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### Specifications

#### AC power supply

|                       |               |
|-----------------------|---------------|
| Installation category | CAT III 300 V |
| Consumption           | 1.8 ... 4 VA  |
| Frequency             | 50/60 Hz      |
| Nominal voltage       | 80...270 V ~  |

#### DC power supply

|                       |               |
|-----------------------|---------------|
| Installation category | CAT III 300 V |
| Consumption           | 1.1 ... 1.2 W |
| Nominal voltage       | 80...270 Vdc  |

#### Environmental characteristics

|  |                         |
|--|-------------------------|
| Protection class                         | Front: IP54, Rear: IP20 |
| Relative humidity (without condensation) | ≤ 95 %                  |
| Storage temperature                      | -40 ... +85 °C          |
| Working temperature                      | -40 ... +70 °C          |

#### Mechanical characteristics

|             |                     |
|-------------|---------------------|
| Envelope    | Polycarbonate + ABS |
| Weight (kg) | 0,19                |

#### Current measurement circuit

|                                   |  |
|-----------------------------------|--|
| Installation category             | CAT III 300 V  |
| Consumption                       | < 0.2 VA   |
| Nominal current (I <sub>n</sub> ) | 1 A / 5 A ~  |
| Allowable overload                | 1.2 I <sub>n</sub> continuous, 10 I <sub>n</sub> instantaneous(5s) |

#### Voltage measurement circuit

|                         |            |
|-------------------------|------------|
| Sampling frequency      | 45...65 Hz |
| Voltage measuring range | 45...65 Hz |

#### Standards

|  |   |
|--|---|
| Electrical safety, Maximum height (m)        | 2000  |
| Electrical safety, Installation category     | CAT III 300 V   |
| Electrical safety, Contamination level/class | Pollution resistance 2  |
| Standards                                    | IEC 61010-1, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11 |

#### User interface



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|              |              |
|--------------|--------------|
| Keyboard     | 4 keys       |
| Display type | LED 5 digits |

### Digital relay outputs

|                              |                                     |
|------------------------------|-------------------------------------|
| Quantity                     | 2                                   |
| Maximum current              | 5 A ~                               |
| Maximum open contact voltage | 277 V ~                             |
| Electrical life              | (250 V ~ / 5 A) 1 x 10 <sup>5</sup> |
| Mechanical life              | 5 x 10 <sup>6</sup>                 |
| Maximum switching capacity   | 1250 VA                             |

### Measurement accuracy

|                           |       |
|---------------------------|-------|
| Phase current measurement | 0.5 % |
|---------------------------|-------|

### DCB

Digital instrument

| CODE                      | TYPE            | Scale  | N° relays | System | Modules |
|---------------------------|-----------------|--|-----------|--------|---------|
| <b>Voltmeters</b>         |                 |  |           |        |         |
| M22110.                   | DCB-48 Vac      | 63,5 V / 100 V / 110 V / 230 V / 380 V / 480 V | -         | AC     | 48 x 48 |
| M22210.                   | DCB-72 Vac      | 63,5 V / 100 V / 110 V / 230 V / 380 V / 480 V | -         | AC     | 72 x 72 |
| M22212.                   | DCB-72 Vac-20R  | 63,5 V / 100 V / 110 V / 230 V / 380 V / 480 V | 2         | AC     | 72 x 72 |
| M22120.                   | DCB-48 LVdc     | ± 10 V   | -         | DC     | 48 x 48 |
| M22220.                   | DCB-72 LVdc     | ± 10 V   | -         | DC     | 72 x 72 |
| M22222.                   | DCB-72 LVdc-20R | ± 10 V   | 2         | DC     | 72 x 72 |
| M22130.                   | DCB-48 HVdc     | ± 500 V  | -         | DC     | 48 x 48 |
| M22230.                   | DCB-72 HVdc     | ± 1500 V                                       | -         | DC     | 72 x 72 |
| M22232.                   | DCB-72 HVdc-20R | ± 1500 V                                       | 2         | DC     | 72 x 72 |
| <b>Ammeters</b>           |                 |  |           |        |         |
| M22150.                   | DCB-48 Aac      | 1 A / 5 A                                      | -         | AC     | 48 x 48 |
| M22250.                   | DCB-72 Aac      | 1 A / 5 A                                      | -         | AC     | 72 x 72 |
| M22252.                   | DCB-72 Aac-20R  | 1 A / 5 A                                      | 2         | AC     | 72 x 72 |
| M22170.                   | DCB-48 Adc      | 1 A / 5 A                                      | -         | DC     | 48 x 48 |
| M22270.                   | DCB-72 Adc      | 1 A / 5 A                                      | -         | DC     | 72 x 72 |
| M22272.                   | DCB-72 Adc-20R  | 1 A / 5 A                                      | 2         | DC     | 72 x 72 |
| <b>Process indicators</b> |                 |  |           |        |         |
| M22140.                   | DCB-48 mVdc     | 60 mV / 75 mV / 100 mV / 150 mV / 200 mV       | -         | DC     | 48 x 48 |
| M22240.                   | DCB-72 mVdc     | 60 mV / 75 mV / 100 mV / 150 mV / 200 mV       | -         | DC     | 72 x 72 |
| M22242.                   | DCB-72 mVdc-20R | 60 mV / 75 mV / 100 mV / 150 mV / 200 mV       | 2         | DC     | 72 x 72 |



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|---------|-----------------|--|-----------|--------|---------|
| M22160. | DCB-48 mAdc     | -20 ... +20 mA / 0...20 mA / 4...20 mA | -         | DC     | 48 x 48 |
| M22260. | DCB-72 mAdc     | -20 ... +20 mA / 0...20 mA / 4...20 mA | -         | DC     | 72 x 72 |
| M22262. | DCB-72 mAdc-20R | -20 ... +20 mA / 0...20 mA / 4...20 mA | 2         | DC     | 72 x 72 |

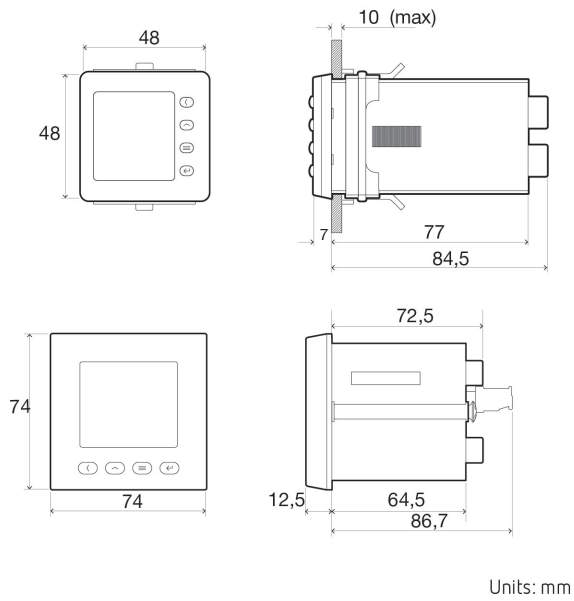
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## Dimensions



## Connections

