



## MED ECO-line 4 kVA

- Transformers with reduced operational losses, composite core and vertical mounting are intended for the supply of equipment in medical locations.
- Thanks to the higher efficiency of operation, transformers help to significantly save electrical energy and thereby reduce the impact on the economy and ecology of operation.
- Produced with a voltage transfer of 230 / 230 V or 400 / 230 V, frequency 50 / 60 Hz, protection IP00, terminals IP20, insulation class F (155 °C) and maximum ambient temperature of 55 °C.
- Transformers have reinforced insulation and protective shielding between the primary and secondary winding.
- Equipped with two temperature sensors PT100, thanks to these sensors, the transformers work better with HAKEL ISOLGUARD insulation monitoring devices and provide the best possible basis for measuring the insulation status and transformer heating.
- Transformers can be supplied in a steel case with IP23.

| Type   |                 | MED ECO-line 4 kVA             |
|--|-----------------|--------------------------------|
| Primary supply voltage AC  |                 | 230 V                          |
| Secondary voltage AC   |                 | 230 V                          |
| Power  | P               | 4 000 W                        |
| Transformer construction   |                 | Less operating losses          |
| Frequency  | f               | 50 ÷ 60 Hz                     |
| In-built temperature sensor  |                 | 2 x PT100                      |
| In a steel cover   |                 | Yes                            |
| Protection class according to IEC 61140  |                 | I                              |
| Insulation class   |                 | F                              |
| Operating temperature  | θ               | -25 ÷ 55 °C                    |
| Degree of protection   |                 | IP23                           |
| Short-circuit resistance of the secondary  |                 | Non resistant                  |
| Trigger current  |                 | Max. 8 times the rated current |
| Clamp fastening range (solid conductor)  |                 | 2.5 ÷ 16 mm <sup>2</sup>       |
| Clamp fastening range (stranded conductor)   |                 | 2.5 ÷ 16 mm <sup>2</sup>       |
| Recommended cross-section of connected conductors  | S               | 4 mm <sup>2</sup>              |
| Short-circuit voltage  | U <sub>k</sub>  | 2.1 %                          |
| No-load losses   | ΔP <sub>0</sub> | 16 W                           |
| Total losses   | ΔP              | 110 W                          |
| Efficiency   | η               | 97.3 %                         |
| Noise level  |                 | < 35 dBA                       |
| Recommended back-up fuse   |                 | 32 A/gG                        |
| <b>Designed according to standards</b>   |                 |                                |
| Particular requirements and tests for isolating transformers for the supply of medical locations |                 | IEC 61558-2-15:2011            |
| Safety of power transformers, power supplies, reactors and similar                               |                 | IEC 61558-1:2005               |

### Application standards

|  |  |                          |
|--|--|--------------------------|
| Low-voltage electrical installations – Medical locations |  | HD 60364-7-710:2012      |
| Electric installations in rooms for medical use          |  | ČSN 33 2140, TNI 33 2140 |

### Ordering, packaging and additional data

|                    |   |                  |
|--------------------|---|------------------|
| Mass               | m | 58.5 kg          |
| Customs tariff no. |   | 85043200         |
| EAN code           |   | 8590681174296    |
| <b>Art. number</b> |   | <b>72 233/23</b> |



The link in the QR code leads to the online presentation of the **MED ECO-line 4 kVA**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit [www.hakel.com](http://www.hakel.com)



### Internal diagram

