



### Main

|                                       |   |
|---------------------------------------|---|
| Range of product                      | Phaseo Optimum  |
| Product or component type             | Safety and isolation transformer  |
| Rated power in VA                     | 160 VA  |
| Input voltage                         | 230 V AC single phase, terminal(s): N-L1<br>400 V AC phase to phase, terminal(s): L1-L2 |
| Output voltage                        | 115 V AC  |
| Secondary winding                     | Single  |
| Protective cover                      | Without   |
| Ambient air temperature for operation | -20...50 °C   |

### Complementary

|                              |  |
|------------------------------|--|
| Input voltage limits         | 207...253 V<br>360...440 V   |
| Network frequency limits     | 47...63 Hz   |
| Input voltage tolerance      | +/- 15 V   |
| Efficiency                   | 88 %   |
| Power dissipation in W       | 21.8 W   |
| Output sustained overvoltage | 6 % (no load, hot state)   |
| Voltage drop at rated load   | 0.7 %  |
| No load losses               | 9.1 W  |
| Short-circuit voltage        | 0,0665   |
| Output protection type       | Against overload, protection technology: external<br>Against overvoltage, protection technology: external<br>Against short-circuits, protection technology: external   |
| Connections - terminals      | Screw type terminals for input connection, connection capacity: 5 x 4 mm <sup>2</sup> AWG 11<br>Screw type terminals for input ground connection, connection capacity: 1 x 4 mm <sup>2</sup> AWG 11<br>Screw type terminals for output connection, connection capacity: 2 x 4 mm <sup>2</sup> AWG 11 |
| Marking                      | CE   |
| Fixing mode                  | By 4 screws, screw(s) Ø = 5.8 mm on horizontal panel with derating to 90 %   |

By 4 screws, screw(s) Ø = 5.8 mm on vertical panel, operating position: horizontal  
By 4 screws, screw(s) Ø = 5.8 mm on vertical panel, operating position: vertical

|                             |         |
|-----------------------------|---------|
| Operating altitude          | 3000 m  |
| Electrical insulation class | Class B |
| Product weight              | 3.2 kg  |

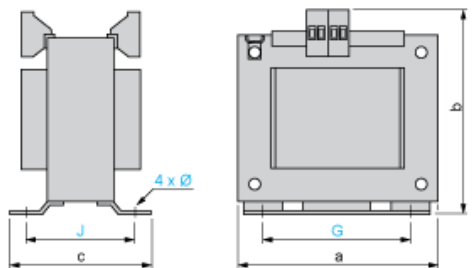
## Environment

|                                     |  |
|-------------------------------------|--|
| Product certifications              | UR<br>EAC  |
| Standards                           | UL 506   |
| IP degree of protection             | IP20   |
| Environmental characteristic        | EMC conforming to EN 62041<br>Safety conforming to EN 61558-1<br>Safety conforming to EN 61558-2-6 |
| Protective treatment                | TC   |
| Ambient air temperature for storage | -40...80 °C  |
| Overvoltage category                | Class I conforming to VDE 0106-1   |
| Dielectric strength                 | 2000 V between winding and ground<br>4000 V between primary and secondary                          |

## Contractual warranty

|                 |           |
|-----------------|-----------|
| Warranty period | 18 months |
|-----------------|-----------|

Dimensions



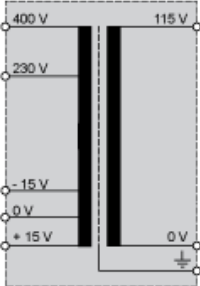
Dimensions in mm

| a   | b   | c  | G    | J  | Ø   |
|-----|-----|----|------|----|-----|
| 105 | 112 | 80 | 80.5 | 63 | 5.8 |

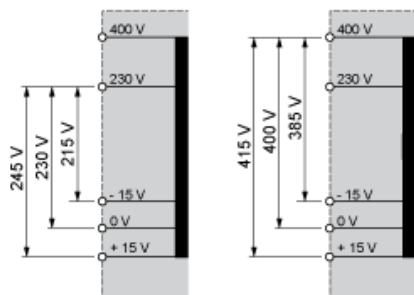
Dimensions in in.

| a    | b    | c    | G    | J    | Ø    |
|------|------|------|------|------|------|
| 4.13 | 4.41 | 3.15 | 3.17 | 2.48 | 0.23 |

Internal Scheme



## Primary Voltage Wiring



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Secondary Voltage Wiring

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