



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 400 V AC phase to phase, terminal(s): L1-L2
Output voltage	230 V AC
Secondary winding	Single
Protective cover	Without
Ambient air temperature for operation	-20...50 °C

Complementary

Input voltage limits	360...440 V 207...253 V
Network frequency limits	47...63 Hz
Input voltage tolerance	+/- 15 V
Efficiency	88 %
Power dissipation in W	21.8 W
Output sustained overvoltage	7 % (no load, hot state)
Voltage drop at rated load	0.9 %
No load losses	9.1 W
Output protection type	Against overload, protection technology: external Against overvoltage, protection technology: external Against short-circuits, protection technology: external
Connections - terminals	Screw type terminals for input connection, connection capacity: 5 x 4 mm ² AWG 11 Screw type terminals for input ground connection, connection capacity: 1 x 4 mm ² AWG 11 Screw type terminals for output connection, connection capacity: 2 x 4 mm ² 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

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

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

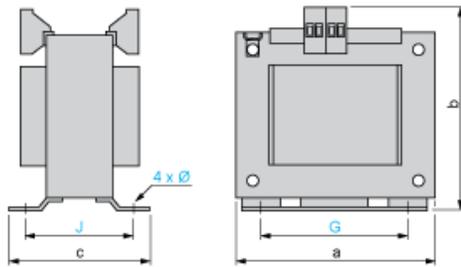
Environment

Product certifications	UR EAC
Standards	UL 506
IP degree of protection	IP20
Environmental characteristic	EMC conforming to EN 62041 Safety conforming to EN 61558-1 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 4000 V between primary and secondary

Contractual warranty

Warranty period	18 months
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Dimensions



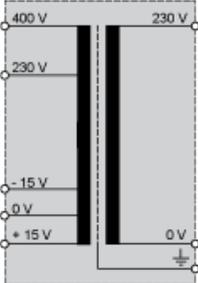
Dimensions in mm

a	b	c	G	J	Ø
105	112	80	80.5	63	5.8

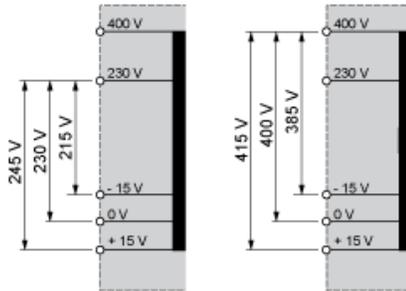
Dimensions in in.

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

Internal Scheme



Primary Voltage Wiring



Secondary Voltage Wiring

