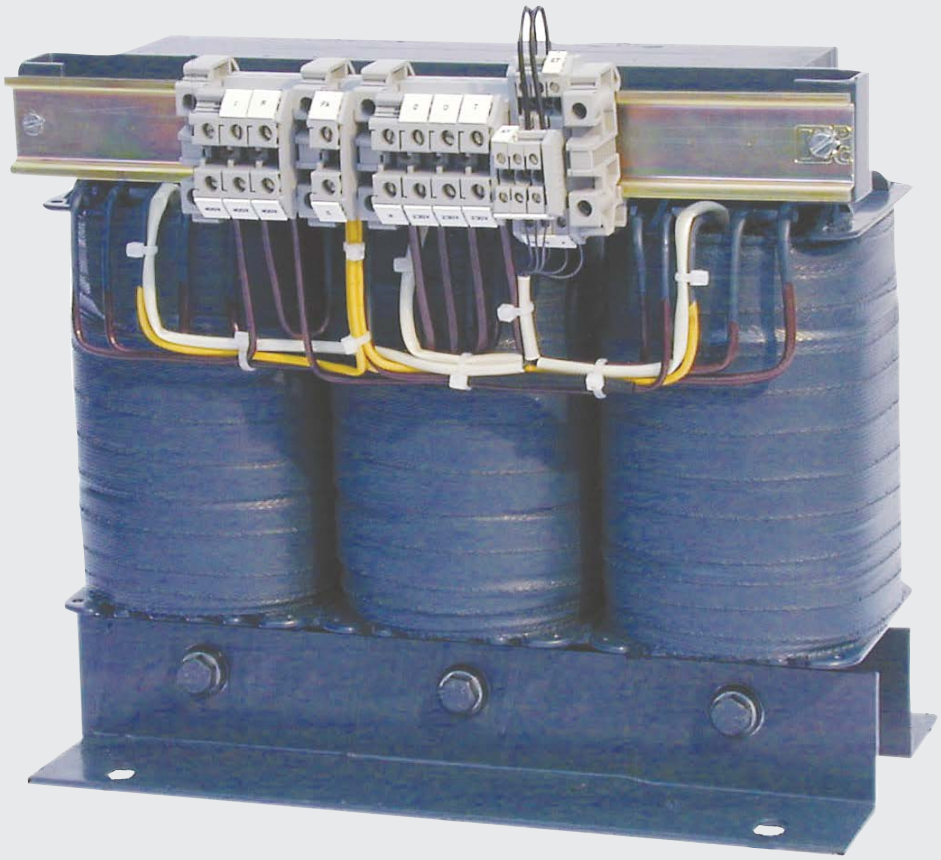
BENDER
The Power in Electrical Safety©

Isolating transformer DS10000

Three-phase isolating transformers

for the supply of three-phase loads



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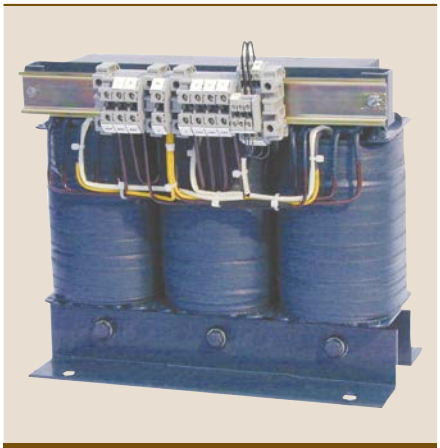


DS10000

Device features

- Built-in temperature sensors acc. to DIN 44081 (120 °C)
- Screen winding with brought-out insulated connection terminal
- Insulated mounting angles
- Degree of protection, IP00 (open design)
- Protection class I
- Reinforced insulation
- Connections: screw terminals
- Vector group: YNd11

Approvals

CE

Application and description

The transformers of the DS10000 series have reinforced insulation and comply with the requirements of IEC 61558-1/DIN EN 61558-1 (VDE 0570-1) and IEC 61558-2-15/DIN EN 61558-2-15 (VDE 0570-2-15).

The windings are galvanically isolated. In order to minimize electrical interferences, an electrostatic screen is installed between the primary and secondary winding the lead out of which is connected to an insulated terminal for connection to the equipotential bonding.

The fixing angles are isolated from the transformer core.

The transformers are designed for use in dry locations.

Frequency/ratings

The transformers are designed for rated frequencies of 50…60 Hz. The values specified in the chapter "Technical data" refer to a maximum ambient temperature of 40 °C and a rated frequency of 50 Hz.

Temperature rise

Free air circulation must be ensured. An ambient temperature exceeding 40 °C will reduce the rated power. For temperature monitoring, a PTC thermistor is placed on each transformer leg and the leads are connected to the terminals.

Standards

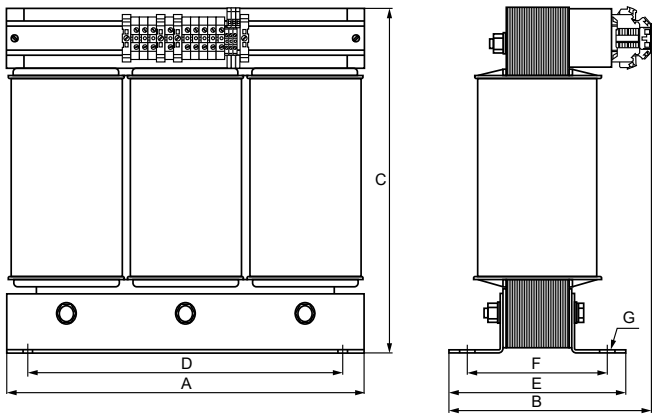
DS10000 isolating transformers comply with the device standards and the regulations for installation:

- DIN EN 61558-1 (VDE 570-1),
- IEC 61558-1,
- DIN EN 61558-2-15 (VDE 0570-2-15),
- IEC 61558-2-15.

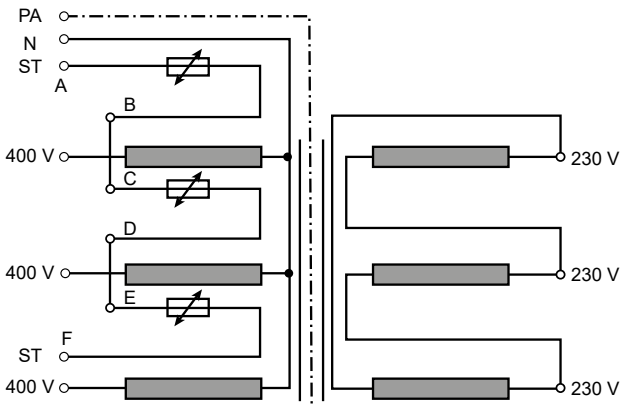
Ordering information

Dimensions (mm)							Cu weight (kg)	Weight (kg)	Type	Art. No.
A	B	C	D	E	F	G				
420	260	370	370	230	190	11x16	59	130	DS10000	B924745

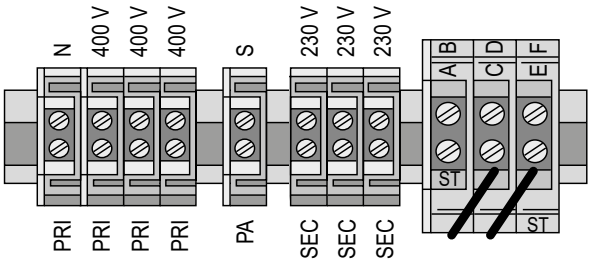
Dimension diagram



Wiring diagram



Terminal diagram



Connection properties

Type	Input terminals flexible/rigid	Screen winding flexible/rigid	Control terminals flexible/rigid	Output terminals flexible/rigid
DS10000	10/16 mm²	10/16 mm²	2.5/4 mm²	10/16 mm²

Technical data

Insulation classification	T 40/H
Degree of protection	IP00
Protection class	I

Power/voltages/currents

Rated power	10000 VA
Rated frequency	50…60 Hz
Rated input voltage	3NAC 400 V
Rated input current	14.9 A
Rated output voltage	3AC 230 V
Rated output current	25.1 A
Inrush current I_E	< 12 x $\hat{I}n$
Leakage current	≤ 0.5 mA
No-load input current i_0	≤ 3.0 %
No-load output voltage u_0	≤ 236 V
Short-circuit voltage u_k	≤ 3 %

Environmental conditions

Ambient temperature	≤ 40 °C
No-load temperature rise	≤ 31 °C
Full-load temperature rise	≤ 75 °C
Noise level (no load and full load)	≤ 35 dB(A)

Other

Recommended fuse when used in accordance with DIN VDE 0100-710	35 A gL/gG
Induction	0.83 T
$R_{primary}$	0.19 Ω
$R_{secondary}$	0.15 Ω
FE loss (iron loss)	≤ 145 W
Cu loss (copper loss)	≤ 280 W
Efficiency	96 %

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Bender GmbH & Co. KG
Londorfer Straße 65 • 35305 Grünberg • Germany
Tel.: +49 6401 807-0 • info@bender.de • www.bender.de

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