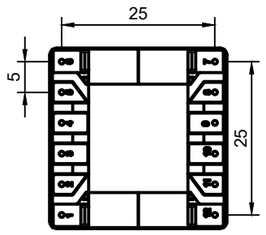
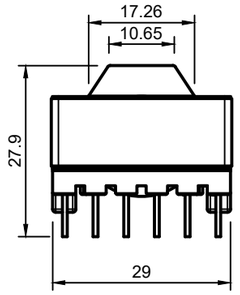
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DIMENSSIONS & PROJECTION

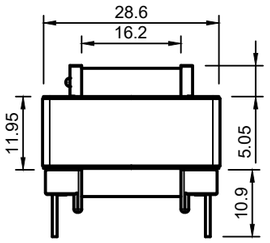
Bottom View



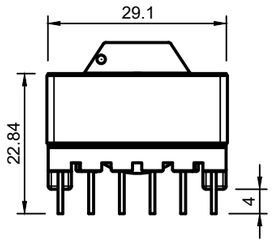
Right View



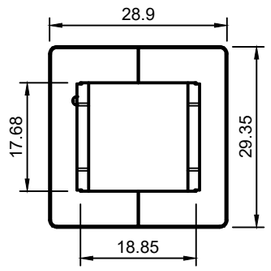
Front View



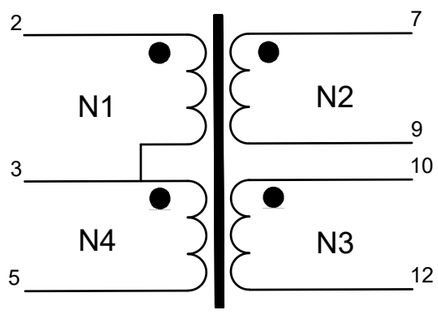
Left View



Top View



SCHEMATIC

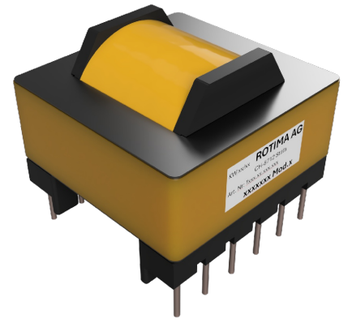


DESCRIPTION

This high-frequency transformer from Rotima AG is designed for isolated power conversion and auxiliary power supplies in power-electronic circuits.

The gapped ER core provides a controlled magnetizing inductance and improved tolerance to DC magnetizing bias, making the component well suited for compact high-frequency converter applications.

With a primary inductance of 1.2 mH, a rated output power of up to 30 W and an operating frequency of up to 100 kHz, the component is suitable for flyback converters, gate-driver power supplies, auxiliary power supplies and isolated bias applications.



ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Value	Unit	Tolerance
Core type	-	ER28-Core, 1.5mm airgap		
Winding	$N_1/N_2/N_3/N_4$	60/9/9/65 turns		
Inductance (N_1&N_4)	L_p	1.2 ±20%	mH	typ.
Leakage inductance (N_1&N_4)	L_δ	45.1	µH	typ.
Rated ptimary current	I_{rp}	0.16	A	typ.
Rated secondary current	I_{rs}	2.0	A	typ.
Rated output power	P_r	30	W	max.
DC resistance (primary)	R_{DC}	4.09	Ω	max.
Total loss (maximum)		1.25	W	max.
Maximum stored energy	E	23.7	µJ	max.
Rated temperature	T_r	+60	°C	typ.
Operating frequency	f	≤100	kHz	typ.
Operating temperature range	T	–40 … +125	°C	typ.
Efficiency	η	97	%	typ.

TEST RESULTS

Parameter	Symbol	Test Conditions	Value	Unit	Tolerance
Inductance (N_1&N_4)	L	1 kHz, 250 mV	1.21	mH	typ.
Leakage inductance (N_1&N_4)	L_δ	10 kHz, 250 mV	43.79	µH	typ.
DC resistance (N_1&N_4)	R_{DC}		3.49	Ω	typ.
Dielectric strength (N_1&N_4 - N_2&N_3)	-	3.0 kV AC, 60s	<0.5	mA	typ.
Dielectric strength (N_1&N_4 - Core)	-	1.5 kV AC, 60s	<0.5	mA	typ.
Dielectric strength (N_2&N_3 - Core)	-	1.5 kV AC, 60s	<0.5	mA	typ.

AREAS OF APPLICATION

- Gate-driver power supplies and IGBT/MOSFET isolated gate-drive supplies
- Isolated DC-DC and Push-pull converters. Forward, half-bridge and full-bridge converters
- Test & laboratory equipment, including machnie tool safety circuits
- Telecommunication power supplies, and solar inverter auxiliary supplies
- Power-over-isolation and isolated bias supplies

Rev.	Revision note	Date of issue	Name
0.1	First release	24.09.2026	OAK

Standard | Cust. drawing no

Prepared 16.09.2026 Oyebola Akinboyewa

Approved 24.09.2026 Lukas Schmieden

Part No. T400.10.004.001

Title: Flyback Transformer ER28 6+6 Horzontal 1.2 mH

Dept.: Engineering

ROTIMA ALWAYS ON

DWG No. LQ-TRER28052

Customer ref No.

Rev ID | Language EN

Scale 1:1

First angle projection

Sheet 1/2

PRECAUTIONS AND WARNINGS

General:

- This electronic component has been designed and manufactured for use in general electronic equipment.
- The component has been designed and manufactured for use within the values specified in the data sheet. Failure to comply with the application and operating conditions specified in the data sheet may result in damage to or dissolution of the wire insulation.
- Do not drop the components or subject them to impact, as this may damage them.
- Rotima AG products are qualified in accordance with international standards, which are listed in each product reliability report. Rotima AG does not guarantee the validity and sustainability of product features that exceed Rotima's specifications.

Storage conditions:

- Storing Rotima AG products for more than 12 months is not recommended. Among other things, this can lead to deterioration of the connections, resulting in poor solderability. Therefore, all products should be used within 12 months of the date of shipment.
- Do not expose the components to direct sunlight.
- The storage conditions in the original packaging are defined in accordance with DIN EN 61760-2.
- The storage conditions specified in the original packaging apply to the storage period and not to the transport time of the components.

Rev.	Revision note	Date of issue	Name
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Scale | First angle projection

Sheet 2/2

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