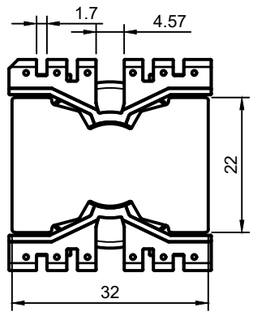
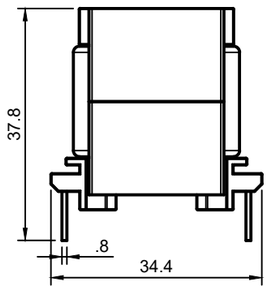
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## DIMENSSIONS & PROJECTION

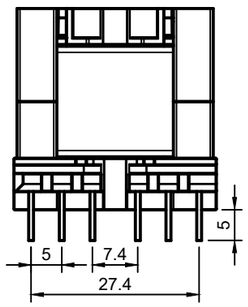
**Bottom View**



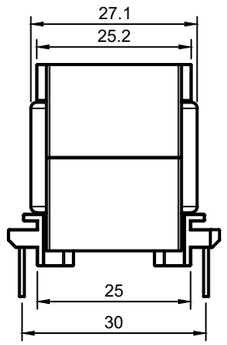

**Right View**



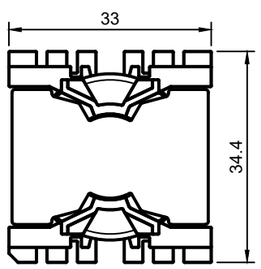

**Front View**




**Left View**



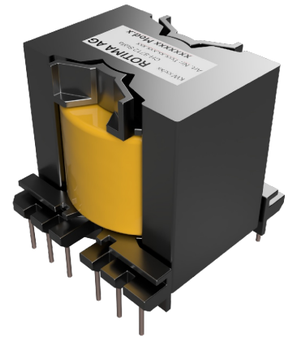

**Top View**




## SCHEMATIC




## DESCRIPTION




This power storage inductor from Rotima AG is designed for energy storage, current smoothing and filtering in power-electronic circuits.

The gapped PQ core is well suited for variable-bias and non-linear load conditions, while its compact magnetic geometry helps to minimize stray electromagnetic-field radiation.

With a nominal inductance of 10 mH and a continuous current rating of 5 A, the component is suitable for swinging filter chokes, active PFC circuits, differential-mode AC line filtering, energy-recovery circuits and inrush or soft-start applications.

## ELECTRICAL SPECIFICATIONS

| Parameter | Symbol | Value | Unit | Tolerance |
|---|---|---|---|---|
| Core type | - | PQ32/30 Core | | 0.33 mm air-gap |
| Winding | $N$ | 130 turns | | |
| Inductance | $L$ | 10.0 ±10% | mH | typ. |
| Saturation flux density | $B_{sat}$ | 530 | mT | max. |
| RMS saturation current @20 % | $I_{sat,\ RMS}$ | 1.06 | A | max. |
| Rated current | $I_r$ | 5 | A | typ. |
| DC resistance | $R_{DC}$ | 276 | mΩ | max. |
| Total loss (maximum) | | 6.9 | W | max. |
| Stored energy (@ 5 A) | $E$ | 125 | mJ | typ. |
| Rated temperature | $T_r$ | +60 | °C | typ. |
| Operating temperature range | $T$ | –20 … +125 | °C | typ. |

## TEST RESULTS

| Parameter | Symbol | Test Conditions | Value | Unit | Tolerance |
|---|---|---|---|---|---|
| Inductance | $L$ | 1 kHz, 250 mV | 9.12 | mH | typ. |
| RMS saturation current @20 % | $I_{sat}$ | \|ΔL/L\| < 20 % | 0.87 | A | typ. |
| DC resistance | $R_{DC}$ | | 299.4 | mΩ | typ. |
| Dielectric strength (N - Core) | - | 1.5 kV AC, 50 Hz, 10s | <0.1 | mA | typ. |

## AREAS OF APPLICATION

- Swinging filter chokes in variable-load supplies
- Light-load / critical conduction mode (CrCM) active PFC
- Differential-mode (DM) AC line filtering
- High-voltage snubber & energy recovery chokes
- Inrush / soft-start current limiting devices

| Rev. | Revision note | Date of issue | Name |
|---|---|---|---|
| 0.1 | First release | 23.09.2026 | OAK |

Standard | Cust. drawing no

Prepared 14.09.2026 Oyebola Akinboyewa

Approved 23.09.2026 Lukas Schmieden

Part No. T400.10.003.001

Title: Power Storage Inductor Based on PQ32/30 10 mH, 5 A

Dept.: Engineering

ROTIMA ALWAYS ON

DWG No. LQ-TLPQ32107

First angle projection

Customer ref No.

Rev ID | Language EN

Scale 1:1

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# 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 |
|---|---|---|---|
| 0.1 | First release | 23.09.2026 | OAK |

Standard | Cust. drawing no

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Sheet 2/2

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