HeatNova

HEATERS FOR WAREHOUSES

Electric air heater
180 kW

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Illustrative image of the product range

Simulated heating stages

45 / 90 / 135 / 180 kW

Calculation based on four stages of equal power.
Actual configuration to be confirmed by the manufacturer.

Heating calculations — 180 kW

180 kWh over 1 hour	**1,440 kWh over 8 hours**	**≈ 260 A in three-phase 400 V**

Energy calculated at full continuous power

Estimated heating current for a balanced resistive load in three-phase 400 V, excluding fan and auxiliaries.

Energy : 180 kW × 8 h = 1,440 kWh

Current : 180,000 W ÷ (√3 × 400 V)

Equipment data: see the documentation for the model delivered.

HeatNova 180 kW

Calculation note

Heating energy at constant power

E = P × t · Over 1 h: 180 × 1 = 180 kWh.

Over 8 h: 180 × 8 = 1,440 kWh.

Theoretical heating current

I = 180,000 ÷ (√3 × 400) = 259.8 A.

Balanced resistive load, three-phase 400 V, cos φ = 1.

Fan and auxiliaries excluded.

Stage simulation

Assumption: four resistive stages of equal power.

Cumulative stages: 45 / 90 / 135 / 180 kW.

Airflow and temperature rise

$P = \rho \times C_p \times Q \times \Delta T$, with P in W and Q in m^3/s.

The calculation depends on fan airflow or temperature rise.

Model-specific information

Dimensions, base and mountings: dimensioned drawing for the model.

Weight: mass of the components and enclosure.

IP rating and class: conformity documentation.

Starting current: electrical data and start-up sequence.

Controller and thermostat: control diagram and selected components.