E82CV402K4C

Lenze · 8200 vector

8200 vector frequency inverter in "cold plate" technology special design; the heatsink is replaced by a bare metal cooling plate connected to a separate customer-side cooler.

Hardware

Rated motor power: 4.0 kW typical (4-pole three-phase asynchronous motor)
Control: V/f characteristic control (linear/quadratic) and sensorless vector control; output frequency range -650 … +650 Hz
Rated output current: 9.5 A nominal at 8 kHz switching frequency
Max. output current: 14.2 A for 60 s (periodic load cycle: 1 min overload at Imax / 2 min base load at 75% Ir)
Integrated brake transistor
Built-in I/O: 1 analog input, 1 analog output, 4 digital inputs, 1 digital output, 1 relay output (changeover contact, 250 V AC / 3 A)
Cold-plate thermal data: dissipated power loss 140 W; thermal resistance Rth ≤ 0.23 K/W between cooler and cooling medium; max. permissible cooling-plate temperature 75 °C

Communication

Built-in ports: X3 control terminal strip (analog/digital I/O)
Protocols: None built-in (fieldbus requires plug-in function module)
Communication expansion: FIF slot for plug-in function modules (E82ZAF* family)

Electrical

Supply voltage: 3/PE AC 320 V -0% … 550 V +0%; 45 … 65 Hz
Power loss (at Ir, 8 kHz): per corresponding E82EV base rating table

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Environmental

Operating temperature: -10 … +55 °C (derated by 2.5%/°C above +40 °C)
Storage temperature: -25 … +60 °C
Relative humidity: average 85 % RH, without condensation (climatic class 3K3 per EN 50178)
Protection rating: IP20

Physical

Dimensions (H×W×D): Not published as numerical table (cold-plate special-design mounting instructions publish Maßbild dimension drawings per size, no numerical envelope table for the E82CV variant; per 8200 vector TD v3-0 ch.5.2.3/5.3.3/5.4.3 cold-plate technique)
Weight: Not published by manufacturer (cold-plate mounting-dimension tables list no weight for 3.0 … 22 kW frames; base E82EV weight includes the standard heatsink)

Lifecycle

Legacy: official Lenze "previous products" page active; cold-plate special design available on request; official migration path to i950 exists - Lenze confirms the i950 emulates 8200 vector behaviour via i950 PROFIBUS module / L_ICIP library (per Lenze AKB articles 321231/316137, covering 8200vector/9300/8400/9400); no drop-in **same-order-code replacement (Last verified:** 2026-10)

Negative Findings

Operating-temperature lower bound: official 8200 vector catalogue 11/02 p.38 lists -10 … +55 °C (0.25-11 kW) / -10 … +50 °C (15-90 kW), value adopted here; the E82EV datasheet TD v3-0 UL/UR section lists 0 … +55 °C — dual official source, catalogue value used. Dimensions earlier copied from the corresponding E82EV standard-body technical data (heatsink unit) are not published for this cold-plate variant; corrected to Not published as numerical table (official cold-plate Maßbild dimension drawings publish no numerical table for this variant).

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