Infineon TD330N16KOF

01 Power-stage identity

1 Identify the power-circuit position

Record the exact module identity, circuit topology and terminal arrangement before removal. Distinguish the thyristor/diode execution from a different semiconductor arrangement even if the package appears similar.

2 Isolate stored electrical energy

Follow the converter isolation procedure, including stored-energy discharge and verification. Identify all supply and control paths before touching the module; a stopped converter can still contain hazardous DC-link energy.

Repetitive blocking-voltage class	1600 V
Average on-state current	330 A at case temperature 85 °C

02 Isolation and cooling

1 Inspect the cooling interface

Check the heatsink surface, flatness and thermal-interface arrangement according to the mounting instructions. Determine whether the supplied part is a base or TIM execution before selecting or applying interface material.

2 Review the actual duty

Compare current waveform, case temperature and expected losses with the module ratings. Do not size cooling from the 330 A figure alone or treat a short surge value as an allowable continuous load.

Maximum RMS on-state current	520 A
10 ms surge current at 25 °C	12500 A

03 Duty and gate drive

1 Apply the correct mounting torque

Use the specified mounting procedure and the 5 N·m mounting value with its tolerance. Keep the mounting operation distinct from tightening the electrical terminals so the package and contact system are not overstressed.

2 Restore the gate circuit

Check gate and cathode connections against the converter diagram. Inspect the drive components and lead routing, and verify that the circuit provides the intended trigger behavior without unintended noise-triggering paths.

10 ms surge current at maximum junction temperature	10000 A
Maximum junction temperature	130 °C

04 Connections and protection

1 Check power-terminal connections

Restore the power conductors to the correct terminals and use the specified 12 N·m connection torque. Inspect contact surfaces and mechanical support so busbar stress is not transferred into the module.

2 Review protective coordination

Compare the fuse and protective-device characteristics with the appropriate surge and I^2t conditions. Confirm that the design accounts for hot-junction operation and the actual prospective fault current.

Gate trigger current	200 mA maximum at 25 °C, VD = 12 V
Gate trigger voltage	2 V maximum at 25 °C, VD = 12 V

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05 Controlled commissioning

1 Commission under controlled load

Use the equipment's approved energization procedure and observe gate behavior, current sharing where applicable and thermal response. Investigate abnormal heating or conduction before increasing load.

2 Record the completed assembly

Retain the module identity, interface material, torque checks and test results. Return the converter to normal duty only after the power circuit, gate drive and cooling arrangement have been accepted together.

Technical basis: Infineon TT330N / TD330N Technical Information, revision 3.5.

Related product navigation

Siemens 6EP1334-3BA10

Siemens 6SL3000-0KH14-0AA0

These are related references, not confirmed substitutes or an automatically approved assembly.