

INDUSTRIAL AUTOMATION PRODUCT

TD330N16KOF

1600 V 330 A Thyristor/Diode Power Block

Infineon TD330N16KOF is a 1600 V, 330 A thyristor/diode phase-control power block in the BG-PB50AT-1 package for industrial power conversion and motor-control service.

CONTROLLED ENGINEERING COPY

IDENTITY	VERIFIED VALUE
Manufacturer	Infineon
System family	Infineon 50 mm Power Block
Part number	TD330N16KOF
Document status	Controlled product and system reference

DOCUMENT SCOPE

Exact article identity, official technical data, host matching, installation checks, applications, precautions and controlled acceptance evidence.

MODEL-SPECIFIC ENGINEERING NOTE

Verify TD330N16KOF, package, polarity, heat-sink interface, clamping arrangement, gate leads and semiconductor protection before replacement. The module uses pressure-contact construction; do not infer mounting or cooling details from a nearby power-block rating.

System Role and Architecture

Infineon TD330N16KOF is a 1600 V, 330 A thyristor/diode phase-control power block in the BG-PB50AT-1 package for industrial power conversion and motor-control service.

FUNCTION 1
1600 V blocking class

FUNCTION 2
330 A average on-state current at 85 C

FUNCTION 3
10 kA surge-current capability at 10 ms

FUNCTION 4
Pressure-contact isolated-base construction

MATCHED SYSTEM COMPONENTS

NO.	DOCUMENTED COMPONENT / ROLE
01	Infineon 50 mm Power Block
02	Matched extension cable and ClickLoc connector loop
03	3300 XL Proximity Sensor host channel
04	AISI 4140 steel target or approved equivalent

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	Infineon 50 mm Power Block
Interface role	1600 V 330 A Thyristor/Diode Power Block
Field / power context	The power block is matched to the installed converter, heat sink, gate-drive circuit and protection
Commissioning evidence	Identity, gap, polarity, response and alarm diagnostics recorded

INSTALLATION AND CONNECTION CHECKS

- 1

Confirm TD330N16KOF and ordering product number TD330N16KOFHPSA2.
- 2

Place the converter and driven process in the approved maintenance state.
- 3

Isolate incoming power and prove all stored energy discharged.
- 4

Record busbar polarity, gate leads, protection components and heat-sink position.

Technical Specifications

Technical values below are limited to the named product record and directly applicable manufacturer documentation.

PARAMETER	VALUE	PARAMETER	VALUE
Device configuration	SCR / diode phase control	Maximum junction temperature	130 C
Repetitive peak voltage	1600 V	Threshold voltage VT0	0.8 V
Average on-state current	330 A at 85 C	I2t	500 x 10^3 A2s
Surge current	10000 A at 10 ms	Package	BG-PB50AT-1
Critical di/dt	250 A/us	Ordering product number	TD330N16KOFHPSA2
Slope resistance rT	0.5 mOhm	Compliance	Lead-free and RoHS compliant
Thermal resistance RthJC	0.112 K/W		

RELATED GE PRODUCT PAGES

1ABB 3hac17484-8

2ABB dsqc332

3ABB 3hna006565-001

4ABB 3hna003882-001-02

5ABB 3hac029105-002

6ABB 3hac025466-001

7ABB 3hac058040-001

8ABB 3hac033388-001

9ABB dsqc323-3hab5956-1

ENGINEERING BOUNDARY

Confirm TD330N16KOF, 1600 V class, SCR/diode orientation, BG-PB50AT-1 package, heat sink, clamping, gate drive, protection and controlled load-test evidence before commissioning.

PRE-INSTALLATION CHECKS

- 1

Confirm TD330N16KOF and ordering product number TD330N16KOFHPSA2.
- 2

Place the converter and driven process in the approved maintenance state.
- 3

Isolate incoming power and prove all stored energy discharged.
- 4

Record busbar polarity, gate leads, protection components and heat-sink position.

Applications and Engineering Context

Industrial motor drive

Controls the documented phase-controlled power path.

HVAC power control

Supports the approved high-current switching stage.

Power-converter repair

Restores the exact SCR/diode module position.

Controlled rectifier maintenance

Preserves polarity, firing and thermal interfaces.

TECHNICAL NOTE

Verify TD330N16KOF, package, polarity, heat-sink interface, clamping arrangement, gate leads and semiconductor protection before replacement. The module uses pressure-contact construction; do not infer mounting or cooling details from a nearby power-block rating.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	TD330N16KOF recorded
Host / carrier	Infineon 50 mm Power Block
Physical interface	Exact identity, installed position and every connected interface matched
Configuration	Recorded hardware and software configuration restored
Functional proof	Diagnostics and controlled functional response recorded

IMPORTANT NOTICE

Confirm TD330N16KOF, 1600 V class, SCR/diode orientation, BG-PB50AT-1 package, heat sink, clamping, gate drive, protection and controlled load-test evidence before commissioning.

Related Products and Source Record

Brand-qualified Apter Power navigation links are provided for system planning only; manufacturer evidence remains the named source record.

RELATED PRODUCTS ON APTER POWER

1

ABB 3hac17484-8

View ABB 3hac17484-8 page

2

ABB dsqc332

View ABB dsqc332 page

3

ABB 3hna006565-001

View ABB 3hna006565-001 page

4

ABB 3hna003882-001-02

View ABB 3hna003882-001-02 page

5

ABB 3hac029105-002

View ABB 3hac029105-002 page

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ABB 3hac025466-001

View ABB 3hac025466-001 page

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ABB 3hac058040-001

View ABB 3hac058040-001 page

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ABB 3hac033388-001

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ABB dsqc323-3hab5956-1

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MANUFACTURER SOURCE RECORD

TD330N16KOF Thyristor/Diode Power Module | Infineon Technologies product record

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RECOMMENDATION SCOPE

These links support product navigation and comparison. Technical values in this document are sourced only from the manufacturer record above.