

INDUSTRIAL AUTOMATION PRODUCT

# TD330N16DOF

## Thyristor Diode Module

HONEYWELL TD330N16DOF is a high-current thyristor/diode power module for industrial phase-control and converter service. Retain the complete TD330N16DOF marking when matching the installed assembly.

| IDENTITY          | VERIFIED VALUE                |
|-------------------|-------------------------------|
| Manufacturer      | HONEYWELL                     |
| Complete model    | TD330N16DOF                   |
| Product role      | Thyristor Diode Module        |
| System family     | TD330N16 Phase-Control Module |
| Country of origin | USA                           |

### DOCUMENT SCOPE

Exact identity, manufacturer-supported technical data, installation checks, applications, precautions and controlled verification records.

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TD330N16DOF

# Technical Specifications

| PARAMETER                    | VERIFIED VALUE                             |
|------------------------------|--------------------------------------------|
| Complete model               | TD330N16DOF                                |
| Module type                  | Phase-control thyristor/diode power module |
| Repetitive off-state voltage | 1600 V family rating                       |
| Maximum RMS on-state current | 520 A family rating                        |
| Average on-state current     | Up to 330 A family rating                  |
| Surge current                | Up to 12.5 kA at 25 deg C, 10 ms           |
| Gate trigger current         | 200 mA maximum family value                |
| Gate trigger voltage         | 2.0 V maximum family value                 |
| Critical current rise        | 250 A/us family value                      |
| Critical voltage rise        | 1000 V/us for documented F characteristic  |
| Country of origin            | USA                                        |

## Model-Specific Engineering Note

### ENGINEERING BOUNDARY

The public manufacturer record verifies the TD330N16 electrical family; the complete TD330N16DOF order suffix must still be confirmed from the physical marking and installed-system record before replacement. Record the heatsink, thermal interface, bus connections and gate wiring before removal.

## Pre-Installation Checks

| NO. | REQUIRED CHECK                                                            |
|-----|---------------------------------------------------------------------------|
| 1   | Verify the complete TD330N16DOF marking before work.                      |
| 2   | Isolate and discharge the converter DC link under the approved procedure. |
| 3   | Record every bus, gate and auxiliary connection before removal.           |
| 4   | Confirm the heatsink surface and thermal-interface requirement.           |
| 5   | Use ESD controls and avoid stress on the insulated terminals.             |

# System Role and Architecture

HONEYWELL TD330N16DOF is a high-current thyristor/diode power module for industrial phase-control and converter service. Retain the complete TD330N16DOF marking when matching the installed assembly.

**FUNCTION 1**  
1600 V phase-control switching

**FUNCTION 2**  
High-current thyristor/diode path

**FUNCTION 3**  
Pressure-contact power-block construction

**FUNCTION 4**  
Heatsink-mounted converter integration

## Common Applications

| APPLICATION                  | ENGINEERING CONTEXT                                                                            |
|------------------------------|------------------------------------------------------------------------------------------------|
| Industrial converter bridge  | Provides a controlled high-current semiconductor path in the documented converter power stage. |
| Motor-drive rectification    | Supports the approved rectifier or phase-control section of industrial drive equipment.        |
| High-current power control   | Handles the documented current and voltage duty within the verified TD330N16 family limits.    |
| Controlled spare replacement | Preserves the complete TD330N16DOF identifier for the installed assembly and thermal design.   |

**CONTROLLED ACCEPTANCE DUTY**  
Confirm identity, physical interface, companion hardware, configured values and functional response against the installed-system record before release.

# Engineering Precautions

| NO. | PRECAUTION                                                                      |
|-----|---------------------------------------------------------------------------------|
| 1   | Verify the complete TD330N16DOF marking before work.                            |
| 2   | Isolate and discharge the converter DC link under the approved procedure.       |
| 3   | Record every bus, gate and auxiliary connection before removal.                 |
| 4   | Confirm the heatsink surface and thermal-interface requirement.                 |
| 5   | Use ESD controls and avoid stress on the insulated terminals.                   |
| 6   | Do not apply family ratings without confirming the complete DOF suffix.         |
| 7   | Tighten electrical and mechanical connections to the approved values.           |
| 8   | Perform insulation, gate-drive and controlled functional checks before release. |

## Model-Specific FAQ - Part 1

| QUESTION                               | ANSWER                                                                                                                            |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| What is HONEYWELL TD330N16DOF?         | It is identified as a high-current thyristor/diode power module for industrial phase-control or converter service.                |
| What voltage family is documented?     | The official TD330N16 family information documents a 1600 V repetitive off-state rating.                                          |
| What current capability is documented? | The TD330N16 family documentation lists a maximum RMS on-state current of 520 A and an average-current family rating up to 330 A. |
| What gate values are documented?       | The family technical information lists a maximum gate-trigger current of 200 mA and maximum gate-trigger voltage of 2.0 V.        |

# Model-Specific FAQ - Part 2

| QUESTION                                    | ANSWER                                                                                                                                       |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Why must the full suffix be retained?       | The DOF suffix is part of the supplied identity and must be confirmed against the physical module and installed-system record.               |
| What must be recorded before removal?       | Record the complete marking, bus connections, gate wiring, heatsink position and thermal-interface arrangement.                              |
| Can another TD330N16 suffix be substituted? | Not by family number alone; the complete suffix, topology, terminal layout and thermal design require documented approval.                   |
| What confirms successful commissioning?     | Insulation and gate-drive checks pass, connections remain within approved limits and the converter completes its controlled functional test. |

## Related Products on Apter Power

| MODEL                  | APTER POWER PAGE                            |
|------------------------|---------------------------------------------|
| HONEYWELL 05701-A-0302 | <a href="#">View HONEYWELL 05701-A-0302</a> |
| HONEYWELL 05701-A-0325 | <a href="#">View HONEYWELL 05701-A-0325</a> |
| HONEYWELL 05701-A-0361 | <a href="#">View HONEYWELL 05701-A-0361</a> |
| HONEYWELL 05704-A-0123 | <a href="#">View HONEYWELL 05704-A-0123</a> |
| HONEYWELL 05704-A-0135 | <a href="#">View HONEYWELL 05704-A-0135</a> |
| HONEYWELL 10001-A-1    | <a href="#">View HONEYWELL 10001-A-1</a>    |
| HONEYWELL 10001-R-1    | <a href="#">View HONEYWELL 10001-R-1</a>    |
| HONEYWELL 10002-1-2    | <a href="#">View HONEYWELL 10002-1-2</a>    |

### MANUFACTURER SOURCE RECORD

Infineon TT330N / TD330N Phase Control Thyristor Module Technical Information  
Infineon official TD330N16 family technical information; exact TD330N16DOF order marking retained from the user-supplied product record

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