TDM3.2-030-300-W1 Guide

Forced-cooled servo module / controlled replacement

System boundary

The exact TDM3.2-030-300-W1 technical table specifies 30 A type and peak current, 25 A continuous current, a 300 V DC link with ±15% tolerance and 9 kW continuous power. These are module figures under the manual conditions, not a claim that every motor or machine axis can use the maximum values. Cabinet thermal planning must also account for the listed 175 W loss at continuous current.

The four identities to collect

Drive

Full TDM3.2-030-300-W1 plate, serial number and cabinet mounting position.

Motor

Complete MAC motor marking, feedback cable and approved axis record.

Programming

MOD 13 or MOD 14 label and its controller/motor pairing, plus saved command weighting.

Cooling

Fan unit code, supply voltage and airflow path for this W1 drive.

Core source ratings

Parameter	Exact W1 table value
DC link	300 V DC ±15%
Current	30 A type/peak; 25 A continuous
Cooling	Forced ventilation with one fan unit

Apter Power installation reference. Final electrical protection and motion acceptance follow the original Indramat manual and approved machine design.

Prepare the cabinet

01 / energy, airflow and pairing

Isolation and inspection

Stored energy

Isolate the supply module and motor circuit, wait for DC-link discharge and measure safe state before handling connectors.

Enclosure

Confirm mounting, protective earth, IP 10 cabinet protection and service access for trained personnel.

Thermal path

Fit the specified fan and preserve clearance; the W1 module may be operated only with one fan unit.

Parameter identity

Read the actual MOD plate and check its drive/motor pair before inserting or energizing it.

Environmental check

Condition	Source boundary
Rated cabinet ambient	+5 to +45 °C
Reduced-rating ceiling	Up to +55 °C with engineering derating
Altitude without reduction	Maximum 1000 m

The manual also specifies 175 W module loss at continuous current. Include the fan and enclosure heat path in the cabinet calculation.

Connect and commission

02 / controlled sequence before machine load

Five-stage sequence

1 Match

Compare drive, supply, MAC motor, feedback, MOD module and fan labels with the approved axis file.

2 Connect

With all power isolated, check DC-link, protective earth, motor, feedback, command and fan wiring against the original drawings.

3 Inspect

Review cable shielding, connector retention, cabinet clearance and the installed fan direction/supply.

4 Power

Energize under the site procedure with the axis restrained; record power, controller-voltage and diagnostic indicators.

5 Prove

Confirm enable, command polarity, feedback and low-risk direction/current behavior before restoring production load.

Stop point

Do not release the axis if the fan does not run, the MOD marking disagrees with the motor/drive, the DC link is out of design range or diagnostics indicate feedback or thermal trouble.

Diagnose by serial range

03 / fault evidence before resetting

Diagnostic starting points

Indication group	Engineering comparison
+24 V / ±15 V	Controller-voltage supply and wiring
BLC 1–3 / Tacho	Motor feedback cable, rotor-position signals and overspeed
PWR / RF / Bb	Power path, controller enable and ready state
TS / BS	Temperature and fault-shutdown path

Which chart applies?

The original manual separates TDM 3 diagnostic charts at serial number SN 240060. Read the offered unit serial label first; apply the corresponding older or newer chart, then document the actual LED pattern before reset.

Failure isolation order

• Confirm fan operation and cabinet temperature before repeated enable attempts.

• Compare MOD, MAC motor and feedback labels; investigate a cable or tacho fault with motion inhibited.

• Check DC-link supply, controller voltage and RF enable separately; do not infer a healthy power path from one indicator.

Handover record

Capture all full labels, fan unit, DC-link and control checks, serial-dependent LED chart, MOD settings, restrained test results and corrective actions.

Record the diagnostic comparison

Observed state	Action before reset
Fan stopped / high temperature	Inspect fan supply, direction and cabinet airflow
Feedback or tacho alarm	Inspect motor and feedback cable with motion inhibited
Enable absent / unit locked	Compare RF, controller voltage and upstream interlocks

Product enquiry

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Reference and selection

04 / source scope, variants and related items

Original manufacturer document

Indramat MAC Servo Drives with Servo Drive Modules Applications Manual, DOK-ANAX**-TDM+KDS+MAC-AW02-EN-P / 9.552.268.4-01. The technical excerpt in Downloads contains original Indramat pages, including the exact W1 rating table and fan requirement.

Engineering boundaries

Current classes

30 A type/peak and 25 A continuous are distinct figures; confirm motor duty and enclosure heat.

Cooling suffix

The W1 forced-cooled reference cannot be treated as a natural-convection W0 unit.

MOD pair

MOD 13/14 identifies a class and potentiometer option; the individual programmed module must match motor and controller.

Related Rexroth / Indramat references

These complete references are adjacent system items, not confirmed substitutes for the offered module.

TDM3.2-020-300-W0 Natural-cooled TDM 3.2	**MOD 13** TDM 3.2 programming
MOD 14 Potentiometer variant	**LE5-024** 24 V DC fan unit
LE5-220 220 V AC fan unit	**MAC 112B** Motor-family reference

Quotation handoff

Send the full drive, motor, MOD and fan markings and the needed quantity. Confirm accessory scope and dispatch date in the quotation.

Product enquiry

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