



TPD500

AC / DC Converters

THE FUTURE OF DC DRIVES STARTS HERE!



DC APPLICATION



VERSATILITY



HIGH PERFORMANCES



RELIABILITY



REVAMPING



CONNECTIVITY

Discover the new **TPD500**:
the next generation in **DC motor control**

VERSATILITY, HIGH PERFORMANCE FOR INTEGRATED SYSTEM

WEG introduces the new **TPD500**, an AC/DC converter designed to breathe new life into **existing DC motors** and integrate seamlessly into **modern industrial plants**.

The **TPD500** is the ideal solution for **revamping projects**, allowing you to preserve the original layout of your installation while minimizing both time and installation costs. At the same time, its advanced features make it perfect for **new installations** that demand high performance, advanced connectivity, and maximum reliability.

Designed for high-demand applications such as hoisting, metal processing, plastics and rubber, pulp and paper, and amusement parks, the TPD500 lets you modernize only what's needed - or build future-ready systems from the ground up.

An advanced solution engineered to meet the latest demands for **performance**, **connectivity** and **reliability** in DC motor control.



SCAN
TPD500
QR CODE

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Driving efficiency and sustainability



General characteristics

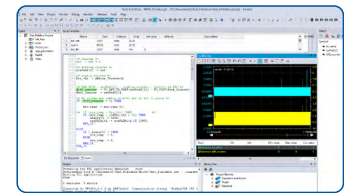
WEG_DriveLabs CONFIGURATION TOOL



WEG_DriveLabs is a PC-based configurator tool designed to connect to one or more drives, allowing status monitoring, information retrieval, and parameters reading and writing.

WEG_DriveLogic DEVELOPMENT ENVIRONMENT

The TPD500 features the WEG_DriveLogic programming environment, built on the IEC 61131-1 standard, allowing users to develop customized applications for machine control. User-created menus and parameters are accessible both via the keypad and through the WEG_DriveLabs configuration software.



Wi-Fi DRIVELINK (optional)

Access point module for local Wi-Fi connection with the converter.

USB PORT

- Upload and download drive parameters
- FW download
- Data logger

ETHERNET PORT

RJ-45 port for configuration via PC with Modbus TCP protocol.

STANDARD I/O

- 4 control inputs, 0/15 ... 30 Vdc opto-isolated (Enable, Start, Fast Stop, External Fault)
- 4 programmable digital inputs 0/15 ... 30 Vdc opto-isolated
- 4 programmable digital outputs 0/15 ... 30 Vdc opto-isolated
- 2 relay outputs 230 Vac (Drive OK and the second one programmable)
- 3 differential analogue inputs (± 10 Vdc, 0 ... 20 mA, 4 ... 20 mA)
- 2 analogue outputs (± 10 Vdc)

I/O EXPANSION (optional)

- 4 programmable digital inputs 0/15 ... 30 Vdc opto-isolated
- 4 programmable digital outputs 0/15 ... 30 Vdc opto-isolated
- 2 analogue outputs (± 10 Vdc)

PROGRAMMING KEYPAD

The integrated programming keypad, equipped with an LCD display and clear text descriptions, offers comprehensive information on parameters and variables, enhancing the TPD500's intuitiveness and versatility. Thanks to its practical mounting system, the keypad can be conveniently installed either directly on the drive (as default) or remotely on the cabinet door (with optional kit).

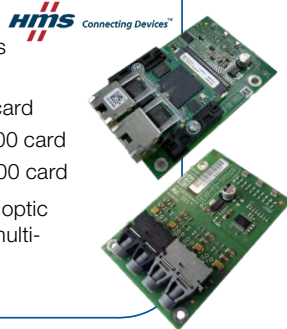
CONNECTIVITY (optional)

Interface cards to the main fieldbus communication protocols:

- PROFIBUS: EXP-PDP-TPD500 card
- PROFINET: EXP-ETH-PN-TPD500 card
- EtherNet/IP: EXP-ETH-IP-TPD500 card

Interface card for high-speed fiber optic communication for synchronized multi-drives systems:

- EXP-FO-TPD500 card



Current rating	From 20 A to 3,300 A ^[1]
Rated AC voltage input	3 x 230 ... 500 Vac $\pm 10\%$, 50/60 Hz $\pm 5\%$ 3 x 350 ... 690 Vac $\pm 10\%$, 50/60 Hz $\pm 5\%$ ^[2]
Operating quadrants	2B models = two quadrants 4B models = four quadrants
Bridge configuration	6 pulses ^[3]
Field circuit supply (U1/V1) - 1ph	2 x 230 ... 500 Vac $\pm 10\%$, 50/60 Hz $\pm 5\%$
Regulation supply (U2/V2) - 1ph	115 Vac $\pm 10\%$, 50/60 Hz $\pm 5\%$ 230 Vac $\pm 10\%$, 50/60 Hz $\pm 5\%$
Encoder input	<ul style="list-style-type: none"> No. 2 Digital Incremental TTL 5 Vdc / HTL 15 ... 24 Vdc, channels A-B-Z, opto-isolated Encoder power supply 5.2 ... 6.5 Vdc (TTL) - 24 Vdc (HTL)
Tachogenerator input	No. 1 (from ± 22.7 Vdc to 302.9 Vdc)
Motor thermistor input	No. 1 (PTC according to DIN 44081 or 44082)
Overload	Programmable I ² t algorithm
EMI filter	External optional
Input choke	External optional

Functions	<ul style="list-style-type: none"> Self-calibration of current loop ("Predictive") No. 5 independent and programmable ramps No. 7 programmable multi-speed Min/Max speed limits with independent settings for each speed direction Armature current limitation as a function of speed Adaptive speed controller gains Jog function Motor potentiometer function I2t drive and motor protection Applications available as default: PID control and torque winder "Speed Draw" function "Autocapture" function (hang-up on the fly) "Droop" function External brake control Test generator Recipe configurator Programmable alarm management
Protection degree	IP20 frames A-B-C and CU - IP00 frame E
Marks	
Standards	<p>General standards: EN 61800-1, EN 60146-1-1</p> <p>Electrical safety: EN 61800-5-1, UL 61800-5-1</p> <p>EMC compatibility: EN 61800-3</p> <p>Degree of protection: EN 60529</p>

NOTES

- [1] Higher size on request. [2] Special version on request. [3] 12-pulses configuration available soon. [4] EAC certification in progress; for more details please refer to the product manual.

