# Compact 6

## GENERAL CHARACTERISTICS

Compact 6 is a small, +12VDC powered industrial PC, with internal PC 104 bus and Windows CE 6.0 operating system, designed to be installed in an electric cabinet with DIN rail (omega rail) or wall mounting. By means of a touch-screen monitor or a mouse and a keyboard.
The Compact 6 is 100% suitable to replace the Compact 5.
The PLC system takes advantage of the PC architecture for:
•Control functions of the motion
•Machine cycles
•User interface
As an alternative to the touch screen, you can connect a Supervisor PC. This system is particularly suitable for machines with max. 6 digital or analog axes. The debug and development environment for the automation functions is Albatros (minimum v3.1 - see catalogue software section), that is hosted on the development PC; the user interface software is installed on the Compact 6 and must be designed for Windows CE or hosted on a supervisor PC.

## Compact 6 SYSTEM

•Small industrial PC with TMSBus card in PC104 format.
•CE certificate and EMC Directive compatibility


## ECAT FUNCTION

•The ECAT function is carried out through the Tpa implementation of the fieldbus master EtherCAT®.
•The protocol implemented is the official standard CoE (CANopen over EtherCAT®).
•The EtherCAT bus® uses a standard Ethernet cable 100BASE-TX (CAT-5 or higher) that allows a distance of up to 100 m between the individual devices.
•Communication format implemented: standard Ethernet packet (size 1518 bytes).
•Axis position check by sending instantaneous speed data and immediate detection of the position in real time.
•Transmission cycle time: 1 ms up to 32 nodes.
•Ability to write and read the parameters of the drives.
•Diagnostics of communication and of the drives in real time.

## Compact 6 COMPOSITION

- MPU Board: CPU 1 GHz, RAM DDR2 SoDimm da 1 GB (2GB max).
- Connections for control functions: 2 serial Sub-D 9 poles (1xRS485; 1xRS232), 1 Ethernet LAN 100BaseT, 1 USB 2.0n socket, PS/2 connector, CRT video socket.
- Memory Unit Storage, made of a Compact Flash device.
- Windows CE Operating System, on which the TPA CN firmware is installed.
- Mechanical, rectangular, metal box, small in size
- Connections replicated on the front side.
- Wall or DIN Rail fixing elements

## TMSBus BOARD

- GreenBus 4.0 field Bus connection. The remote devices are powered by the same GreenBus line
- CAN transmitter compatible to the 2.0b version
- Connector for the Feed-Rate function. By connecting a potentiometer externally, the execution speed of the trajectories can be changed in real time in a linear way.
- Non-volatile Memory (NVRAM), necessary to save the information and the CNC variables in real time; size 128Kbyte, 10 years data retention.

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| **Processor** | AMD G series 1GHz |
| **Memory** | DDR3 SoDimm 1GB |
| **SSD** | Compact Flash, Socket Type II, da 512 MB |
| **Operating System** | Windows CE 6.0 con .NET CF 3.5 |
| **Software** | Albatros v3.1 (or relative) |
| **Operating temperature** | 5 – 45°C |
| **Moisture** | 10 – 95% relative moisture, without condensation |
| **Power supplier** | +12V DC ± 10% |
| **Dimension** | 62.8 x 118.5 x 162 mm |
| **Weight** | 800 g max |
| **Assembly** | Omega guide DIN EN50022 and EN50035 or wall-mounted |
| **Usable connections** | RS232, RS485 half duplex (optional duplex) |
| **Service connections** | PS/2 for mouse + keyboard, USB 2.0, CRT (monitor) |
| **Link to supervisor** | 1 x Ethernet LAN 100BaseT |
| **Max.Axes number** | 6 |
| **Real Time Period** | min. 1 ms |
| **Interpolated Axes** | up to 3 axes |
| **Chained axis** | up to 3 Slave axes in 1 Master axis |
| **NVRAM** | Save sensitive data in NVRAM 128KB |
| **CAN bus** | Cia CAN 2.0b |
| **GreenBus v4.0** | 4 Mbit/s for remoted I/Os, 1 ms 8 slave devices, 4 ms over 8 devices max 32 I/O devices or max 6 axes and 16 I/O devices |
| **Certificazions** | CE certificate and EMC Directive compatibility |

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