

### PROFILE

**G-Mation P6** is the modular CPU of the G-Mation family, compliant with the EN61131-2 standard.

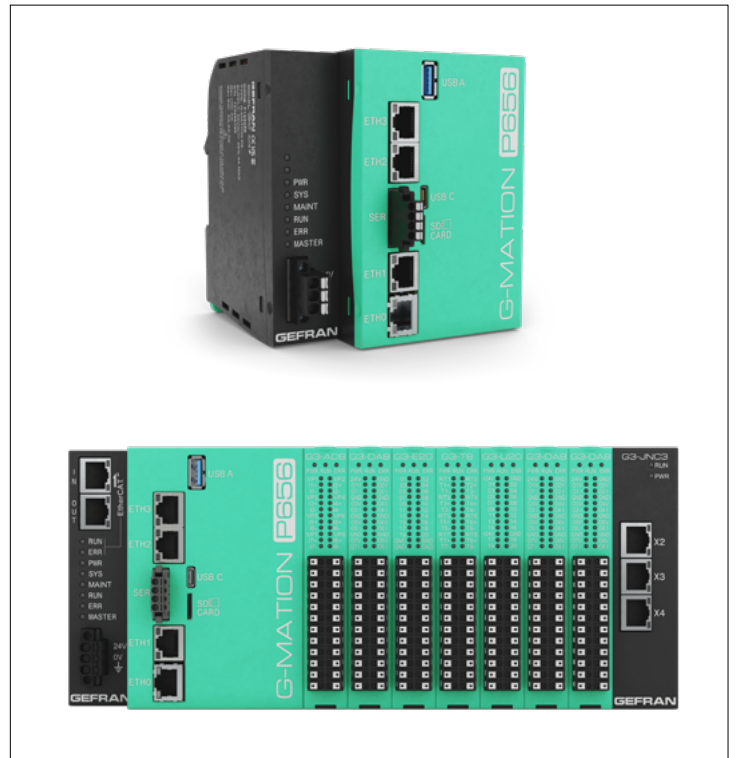
Based on x86 architecture, it is a PLC with high real-time performance that can integrate G-Mation G3 I/O modules.

It has multiple EtherCAT master with Distributed Clock and redundancy capability.

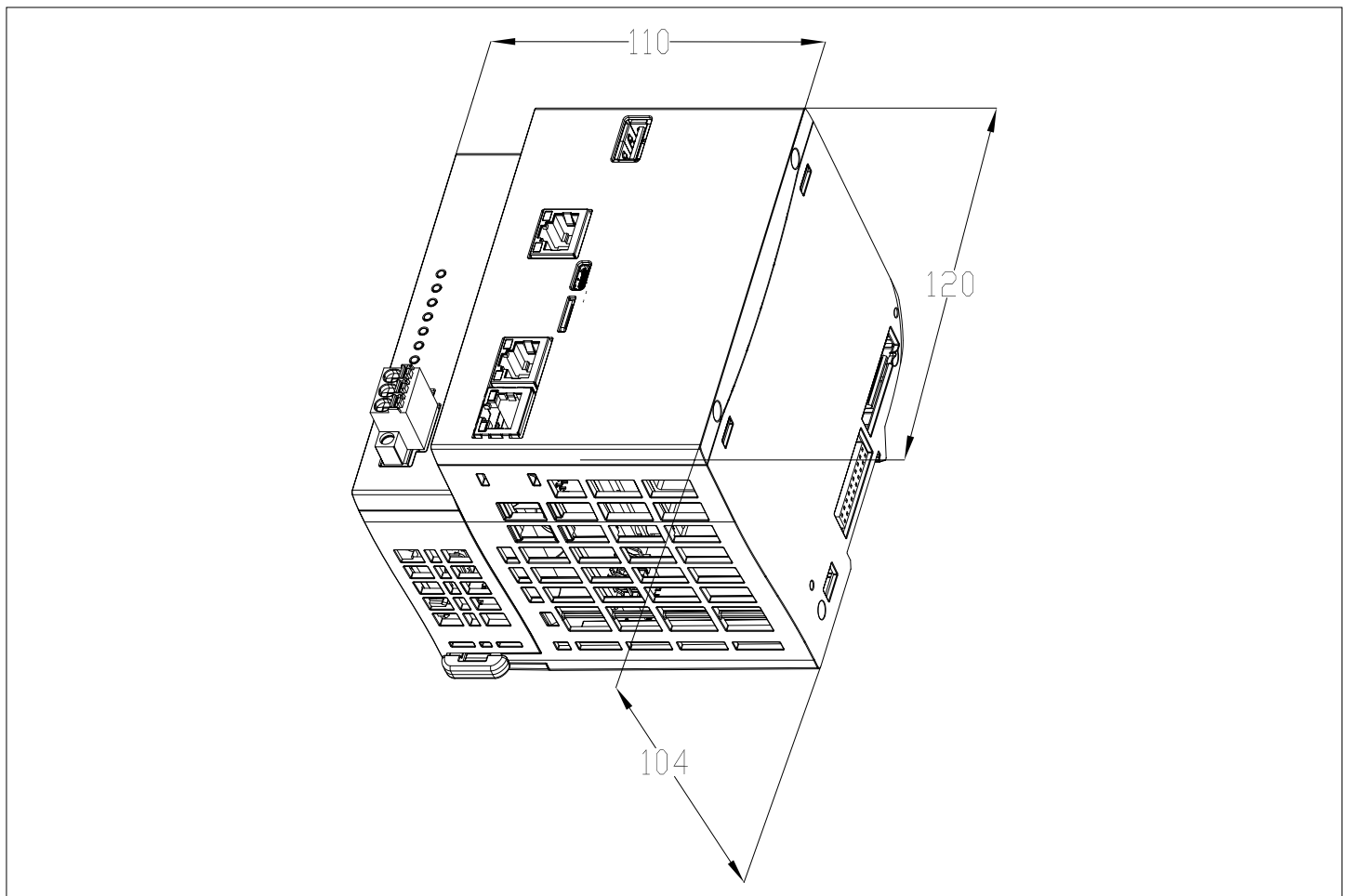
Compatible with Docker technology, it offers a highly responsive integrated web server for multiple HMI visualization.

It can be an RTE Profinet, Ethercat, or Ethernet IP slave. It offers up to 4 freely configurable Gigabit RJ45 Ethernet ports for Ethercat master or TCP-IP connection. One of the ports can have PoE class 6 power up to 60W for powering external devices.

- 1 or 2 RS485 and CANOpen communication ports
- Micro SD Card slot
- 2 high-speed USB3 type A and type C ports
- Diagnostic LEDs for the PLC and specific for RTE slaves
- 24Vdc±25%, 7A max power supply
- It is capable of providing power to up to 20 G3 I/O cards.



### DIMENSION



**TECHNICAL DATA****POWER SUPPLY**

Working power	24 VDC $\pm$ 25%
Current consumption (24 VDC)	7A max
Power dissipation	18 W, $\pm$ 5%
Protection	Polarity inversion, short circuit on output power ports PoE, G3-BUS, and fast expansion
Connection	3-pole removable polarized connector, screw terminals, max cable section 2,5 mm <sup>2</sup>
Overvoltage category	II
Means of Protection	Class III

**MECHANICAL DATA**

Dimensions	120x110x20 mm
Weight	709 g (Full Options)
Protection level	IP20 For UL: not UL evaluated. Open type device
Attachment	Mechanically snaps onto DIN rail

**ENVIRONMENTAL CONDITIONS**

Working temperature	-10...55°C
Storage temperature	-20...70°C
Humidity	max. 90% Rh not condensing
Pollution degree	2
Maximum altitude	2000 m

**CONNECTIONS**

Ethernet ports (ETHx)	Number of channels: max 6, of which one could be PoE and 2 ports dedicated for Slave RTE; Connector: RJ45 Speed: 10 / 100 / 1000 Mbit/s Indicators: Green LED link (Link/Act for EtherCAT), yellow LED data
PoE port (ETH0 - optional)	Compatible with IEEE802.3bt class 6 max 60W
RS485 port (SER - optional)	Optoisolated Connector: 4-pole 3.81mm pitch spring. Speed: 9.6kbit/s ... 115kbit/s Terminations and polarization: externally insertable, 5V available on connector
CAN port (CAN - optional)	Optoisolated Connector: 4-pole 3.81mm pitch spring Speed: 20, 50, 100, 125, 250, 500, 1000 kbit/s, default 500 kbit/s. Termination: external"
USB port	Number of ports: max 2 Connector: 1 x type A e 1 x type C. Standard: USB 3.0 Protection: overload
G3-BUS port	Number of ports: 1 to manage up to 20 G3-I/O modules. Connector: Gefran G-BUS port Communication : Ethercat Protection: short circuit and overload

**PROTOCOLLI DI COMUNICAZIONE**

Ethernet	FTP (File Transfer Protocol), SFTP Modbus TCP/IP Master/Slave OPC UA Client/Server, Metodi, Pub/Sub, Companion Spec. HTML5, Web Server MQTT Double Ethercat Master with DC and redundancy RTE Slave: - Ethercat - Ethernet IP - Profinet
CAN	CANopen Master
Modbus	Modbus RTU Master/Slave

**ELEMENTI DI VISUALIZZAZIONE**

Diagnostics	8 bi-color LEDs for CPU state diagnostics, PLC and specific for RTE slave
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**MICROPROCESSOR**

Type and frequency	ATOM x6414RE 1.5 GHz quad core
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**MEMORY**

System	4GB, DRAM tipo DDR 4
Mass storage	32 GB memoria Flash
Mass extension:	Slot Micro SD Card

## INSTALLATION AND CONNECTIONS

Use single-pole flexible electric wire with 0.5 .. 2.50 mm<sup>2</sup> section and 8 .. 9 mm strip length to wire the POWER SUPPLY.

For network cabling, use standard ethernet cable, shielded (UTP) with minimum CAT5e category



Cabinet temperature must never exceed 55°C



On 24Vdc power supply a protective fuse must be provided.

The fuse must be Listed (JDDZ/7), Class CC, No time delay, rated 12A, minimum 125Vdc

### ORDER CODE

G-Mation P6 -  -  -  -  -

CPU	
Atom 1,9 GHz quad core	6
Atom 1,5 GHz quad core	5
Atom 1,2 GHz dual core	4

Ethernet ports, SER, CAN	
3xETH	0
3xETH + CAN + SER	3
4xETH + CAN	5
4xETH + SER	6

SLAVE RTE	
None	00
Ethercat	EC
Profinet	PN
Ethernet IP	EI
Multi-Protocollo	RT

SW	
00	RESERVED

POE	
0	Without POE
P	With POE

Code	Order code	Description
F098813	G-MATION-P6-5-0-00-0-00	CPU Intel Atom 1,5 GHz quad core, 3 ETH ports
F098814	G-MATION-P6-5-0-00-P-00	CPU Intel Atom 1,5 GHz quad core, 3 ETH ports, POE
F098815	G-MATION-P6-5-3-00-0-00	CPU Intel Atom 1,5 GHz quad core, 3 ETH ports, CAN ports, RS485 porta
F098816	G-MATION-P6-5-3-00-P-00	CPU Intel Atom 1,5 GHz quad core, 3 ETH porta, CAN porta, RS485 porta, POE
F098817	G-MATION-P6-5-5-00-0-00	CPU Intel Atom 1,5 GHz quad core, 4 ETH porta, CAN porta,
F098818	G-MATION-P6-5-5-00-P-00	CPU Intel Atom 1,5 GHz quad core, 4 ETH porta, CAN porta, POE
F098819	G-MATION-P6-5-6-00-0-00	CPU Intel Atom 1,5 GHz quad core, 4 ETH porta, RS485 porta
F098820	G-MATION-P6-5-6-00-P-00	CPU Intel Atom 1,5 GHz quad core, 4 ETH porta, RS485 porta, POE

GEFRAN spa reserves the right to make aesthetic and functional changes at any time and without notice.



Il prodotto è conforme a:

- Documentazione tecnica per la valutazione dei prodotti elettrici ed elettronici rispetto alla restrizione delle sostanze pericolose: **EN 63000:2018**
- Direttiva Europea **2014/30/EU** con riferimento a generic standards: **EN 61000-6-2** (immunità in ambiente industriale) - **EN 61000-6-3** (emissioni in ambiente residenziale)
- **EN 61010-1** (safety)
- Standard di prodotto: **EN 61131-2**

La dichiarazione di conformità è disponibile sul sito web GEFRAN: [www.gefran.com](http://www.gefran.com)



Conformity UL61010-1