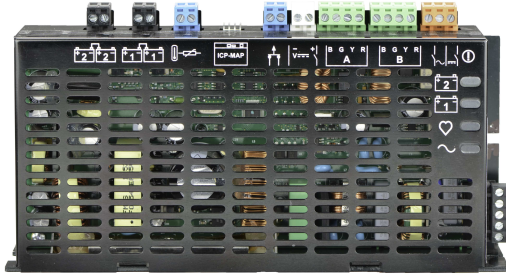


IPP-MAP0005-2 MAP Power supply, 150W

Modular Alarm Platform 5000



This power supply and battery charger unit converts 230 VAC input into 24 VDC nominal and 28 VDC fixed outputs.

Input	Converted Output
Mains Power 230 VAC -15%, +10% 47 Hz to 63 Hz AC	<ul style="list-style-type: none"> Two regulated and supervised 28 VDC ± 1 VDC fixed outputs 24 VDC nominal switched output Dedicated 24 VDC nominal panel output

Battery Power
24 VDC nominal

The unit independently maintains and supervises two 24 VDC batteries¹ for a combined rating of 80 Ah. The power supply is designed to work locally and remotely. In remote applications, the installer can place ICP-MAP0115 Power enclosure kit or ICP-MAP0120 Expansion enclosure kit containing power supply units anywhere on the Bosch Data Bus (BDB).

¹ Or four 12 VDC batteries, with each pair connected in series.

Functions

Firmware upgrades

The firmware of all devices in the MAP system can be upgraded or updated with Remote Programming Software for MAP (RPS for MAP). This allows for on-site or off-site (IP through Ethernet) upgrades or updates.

- ▶ Provides two independent power ports with fixed 28 VDC regulated output
- ▶ Provides 150 W for battery charging and system power
- ▶ Provides controlled 500 mA, 24 VDC nominal auxiliary output
- ▶ Provides color-coded terminal for easy installation
- ▶ Provides two dry relay contacts for AC and DC trouble signaling

Ground fault detection

The power supply detects ground faults of 25 k Ω or less in the system wiring, and reports the faults to the panel over the Bosch Data Bus.

Supervision Monitoring

The power supply firmware monitors and communicates status information over the Bosch Data Bus for the following:

- AC input power
- Battery power
- Battery charger
- 28 VDC outputs (Output A, Output B)
- 24 VDC nominal switched auxiliary output

Indicators

Yellow and green light-emitting diodes (LEDs) and signal outputs indicate AC, battery, and BDB communication status.

Yellow LEDs also indicate faults and green LEDs indicate updating, startup or normal operations.

Battery Charging Circuit

The battery charger provides 4.85 A nominal (5 A maximum) for all the outputs. The current available for recharging the batteries is this 4.85 A nominal current minus the current being supplied to all the other outputs (A and B outputs, Switched Auxiliary Output, and Panel Output).

If the AC power fails, the batteries must supply sufficient power to maintain operation for a specified period of time. The time for the delayed indication of AC power failure must be considered. With respect to 24VDC battery voltage the battery current is factor 1.3 higher than the load current. When AC power is

restored, the batteries must be recharged within a specified period of time to 80% or 100% of nominal capacity. The following table indicates the maximum available current for panel and more consumers in consideration of the used battery configuration and recharge time:

Recharge time in 100%	24 hours to 80%	24 hours to 100%	48 hours to 100%
24V/ 18 Ah	3 A	3 A	3 A
24V/ 36 Ah	3 A	2.7 A	3 A
24V/ 40 Ah	2.9	2.5 A	3 A
24V/ 72 Ah	1.5 A	1.2 A	2.4 A
24V/ 80 Ah	1.2 A	0.8 A	1.5 A

Load-shed, Overvoltage Protection and Recovery

All connected batteries are permanently monitored for under voltage (<25VDC). Following an extended AC power failure, the power supply hardware and software disconnects a battery from all outputs if the battery voltage falls below 20 VDC. The load-shed eliminates the possibility of permanent degradation in the batteries. After AC power is restored to an appropriate operating voltage, the battery charger recharges the batteries.

The overvoltage protection prevents the output voltage from rising above the value of >30 VDC. Connected consumers are thereby protected against damage by overvoltage.

Temperature Compensation

The power supply adjusts the battery charge voltage to compensate for the air temperature around the batteries.

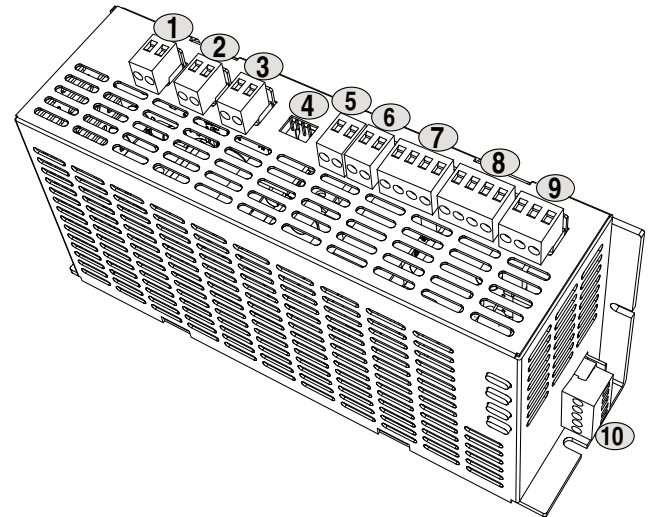
For more information, refer to MAP 5000 Installation manual.

Regulatory information

Region	Regulatory compliance/quality marks	
Europe	CE	
	EN50131	G111040 Grade 3
	EN-ST	EN-ST-000296 MAP 5000
Germany	VdS	G111040 VdS 2252, Class C
	VdS-S	S 112016

Installation/configuration notes

Terminals and Connectors



1. Battery Circuit 2
2. Battery Circuit 1
3. Thermal Compensation Circuit (Thermistor)
4. Power connection to main panel (Panel Output)
5. Tamper switch input
6. Switched Auxiliary Power Output
7. Bosch Data Bus connector (Output A)
8. Bosch Data Bus connector (Output B)
9. Trouble outputs - AC Main Fail and Power Supply Summary Trouble (optional)
10. Main power connector

Parts included

Quantity	Component
1	IPP-MAP0005-2 Power supply, 150W
1	Accessory pack, cables <ul style="list-style-type: none"> • Two Bosch Data Bus (BDB) cables, long (with 4-pin terminal plug) • One thermistor cable (with 2-pin terminal plug) • One battery cable (with ring terminal) • One battery jumper cable (with ring terminal)
1	Accessory pack, hardware <ul style="list-style-type: none"> • Two 2-pin terminal plugs (dark blue)

Quantity	Component
	<ul style="list-style-type: none"> • One 2-pin terminal plug (white) • One 3-pin terminal plug (orange) • One 4-pin terminal plug (green) • One 5-pin terminal plug (black)
1	Literature, Installation Instructions

Technical specifications

Electrical

Input voltage (VAC)	230 VAC
AC line frequency (Hz)	47 Hz - 63 Hz
Output voltage (VDC)	16 VDC – 30 VDC
Minimum current consumption (mA)	650 at rated load and 230 VAC
Maximum current consumption (mA)	100 at no-load and 24 VDC
Efficiency at rated load in percent	85

Battery

Battery configuration (VDC)	12 VDC
Battery type	Lead battery, maintenance - free
Ampere hour rating (Ah)	18 Ah - 80 Ah
Battery charge voltage (VDC)	27.6 VDC (with thermal compensation)
Nominal current (A)	4.85 A
Output current (A)	5 A

Outputs

Maximum output power (W)	109 W
Maximum ripple of all voltage outputs (mV)	250 mV

A and B output

Type	Supervised, independently short-circuit protected
Output voltage (VDC)	26 VDC - 30 VDC
Rated voltage (VDC)	28 ± 1 VDC
Rated current (A or B) (mA)	2000 mA

Rated current (sum of A and B) (mA)	3000 mA
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Switched auxiliary output

Type	Supervised
Output voltage (VDC)	24 VDC - 30 VDC
Rated voltage (VDC)	24 VDC
Rated current (mA)	500 mA

Panel output

Type	Unsupervised
Maximum output voltage (VDC)	27.6 VDC
Rated voltage (VDC)	24 VDC
Rated current (mA)	500 mA

Trouble output dry contacts

Maximum operating voltage (VDC)	30 VDC
Rated current (mA)	1000 mA

Mechanical

Dimensions (H x W x D) (mm)	114.30 mm x 222.30 mm x 66.70 mm
Weight (g)	590 g
LED color	Yellow; Green

Green LEDs:

- AC good
- Operation monitor

2x yellow LEDs:

- BAT1/2 (on = missing battery, blinking = low battery)

Number of inputs

Tamper switch input	1
Thermal compensation circuit*	1

* If supplied thermistor is not used, a leaded 10 kΩ, 1%, ¼ W resistor must be placed across the trim terminals (does not comply with VdS).

Out of tolerance high condition of the battery voltage is an indication of a missing trim resistor.

Environmental

Operating temperature (°C)	-10 °C – 55 °C
Storage temperature (°C)	-20 °C – 60 °C
Temperature compensation (Trim) (°C)	-20 °C - 55 °C
Operating relative humidity, non-condensing (%)	5% – 95%
IP rating	IP30
Impact protection	IK04
Environmental class (EN 50130-5)	II
Environmental class (VdS 2110)	II
Design type as per EN 50131	A
Usage	Indoor

Ordering information

IPP-MAP0005-2 MAP Power supply, 150W

Power supply and battery charger unit; converts 230 VAC input into 24 VDC nominal and 28 VDC fixed output.

Order number **IPP-MAP0005-2 | F.01U.245.558**
F.01U.423.904

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