



MPL 3000 - xx

Input voltage: 230 V, 50 – 60 Hz
 Output voltage (DC): 24 V, 48 V, 60 V, 110 V, 220 V
 Output power: 3000 W

MAIN CHARACTERISTICS

- High fidelity
- Robust design
- High efficiency
- Fan cooling

APPLICATION

This device is designed to be used in industrial modular systems of uninterrupted power supply of DC voltages that are demanded to function as high efficiency systems. It is designed for long lasting function and life time without specific need for the maintenance.

DEVICE TYPES

Type	MPL 3000 - 24	MPL 3000 - 48	MPL 3000 - 60	MPL 3000 - 110	MPL 3000 - 220
Output voltage, nominal	24 VDC	48 VDC	60 VDC	108 VDC	216 VDC
Output voltage, real, at 20°C	27,2 VDC	54,5 VDC	68,1 VDC	122,6 VDC	245,2 VDC
Output current	70 A	60 A	50 A	27 A	13,5 A

DESCRIPTION

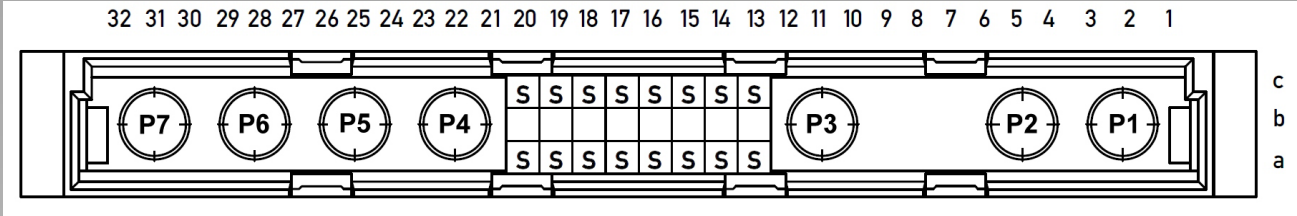
This device has inbuilt the set for the power factor correction and input power shaping in the correct sinus form. There is inbuilt the regulator that makes the input voltage changing depending on the battery ambiental temperature. The rectifier shows very good dynamic responses on the input voltage changes and load changes as well. Charging characteristics are IU or IUUo with precise current limit.

There is the communication microprocessor set inbuilt which enables the communication with the microprocessor unit of the uninterruptible power supply system. The correctly chosen and defined topology, precisely chosen and dimensioned the components, wide function temperature range, robust design and temperature based controlled fan, guarantee very high efficiency of this devices.

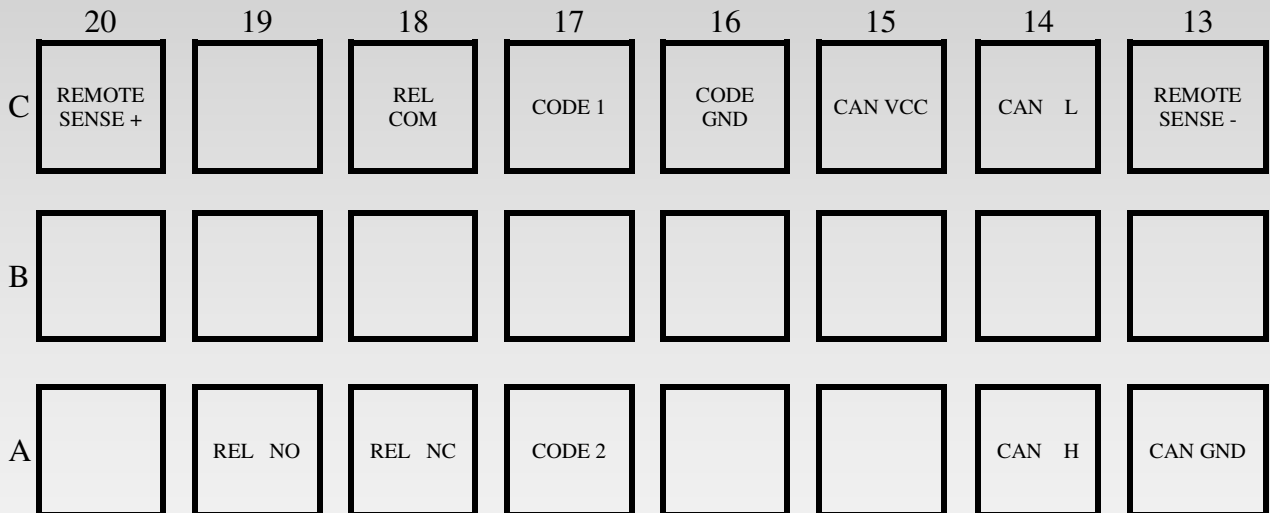
TECHNICAL DATA

Series:	MPL 3000
Output power:	3000 W (1.800 W @ 24 V output)
Nominal input voltage:	230 VAC, 50Hz (195 VAC - 275 VAC)
Start voltage:	184 V,AC
Input undervoltage:	164 V,AC
Power decreasing:	164 VAC < U _{ul} 195 VAC, linear
Nominal input current:	14.00 AAC, sinus
Input power factor:	>0.99 @ P >20%, >0.9995 @ P >95%
Efficiency:	≥93% @ P =40%
Internal input fuse:	20 A fast (6.3 x 32mm)
Internal output fuse:	fast (6.3 x 32mm)
RSO input and output protection:	yes
O-Ring diode:	MOSFET in positive (+) line at 24 V and 48 V output diode at 110 V and 220 V output
Input surge protection:	yes
Stability of output voltage:	-1%, passive current splitting
Short circuit protection:	yes, continuous short circuit 1 x I _{nom}
Charging characteristics:	IU curve according to DIN 41772 / DIN 41773
Temp. power decreasing:	from 70°C up to 80°C linear
Output voltage ripple:	≤ 0,1 % (V _{pp} @ P =50%), ≤ 0,04 % (V _{rms} @ P =50%),
Design:	PFC preregulator – LLC regulator
Remote signaling:	malfunction, relay contacts: (1A @30 V,DC / 0.5A @60 VDC)
Communication:	CAN-Bus
Connector:	ERNI 374183
Parallel output connection:	possible, current splitting difference ≤ 3 % I _n
Ambiental temperature:	(in function) -30°C up to +55°C, (in storage) -40°C up to +85°C
Max. inbuilt height:	2500 m
Dimensions (l/w/h):	342 mm x 106 mm x 132 mm
Cooling:	active, regulated fan rotation velocity
Casing type / protection:	IP 20
Weight:	4.18 kg





CONNECTORS



CONNECTOR X1	CONNECTION
P1	Grid, L
P2	Grid, N
P3	Earth
P4	Output, 0 V,DC
P5	Output, 0 V,DC
P6	Output, + V,DC
P7	Output, + V,DC



LED INDICATION

LED	Color		Function
U_u		green	Input voltage OK (criteria: $195 \text{ VAC} \leq U_u \leq 275 \text{ VAC}$)
U_i		green	Output voltage OK
$U_{i>}$		red	Overvoltage of output voltage (critaria: $U_{i>} > 1,12 U_n$)
!		red	Common alarm (input undervoltage, non correct ripple form and input frequency, input overvoltage, output overvoltage, internal communication error, remote sense error, non valid CAN address, overheating, short circuit, fan malfunction)

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