

Laboratory Power Supplies

Made in Europe 

IEC-BUS
compatible with
Interface
Series INT 2

Single Output Series ZPS

Output power up to 10 kW
Voltage and current regulated
Primary switched
Master - slave - operation
Programming current - voltage
19" rack



Input:

Input voltage ZPS3: 230 V \pm 10 %
1 phase 50 / 60 Hz
ZPS6/ZPS10: 400 V \pm 10 %
3 phase 50 / 60 Hz
Inrush current < 5 A
Power factor ZPS3: 0,99

Output:

Output voltage (DC) see table
Output current see table
Efficiency \geq 80%

Regulation:

Line regulation voltage 0,1 % U_A
(AC line change 10 %) current 0,1 % I_A
Load regulation voltage 0,1 % U_A
(99 % load change) current 0,1 % I_A
Stability 0,1 %
after 8 h working time and
const. ambient temp.
Dynamic response < 2 ms at
set in U-const. Mode load change 1 % – 100 %,
nominal value change 1 %–100 %,
neg. nominal value change
100 % – 80 % (at $I > 100$ A)
Absolute accuracy 0,5 % I_{max} , U_{max}
Reproducibility 0,1 %
Ripple and noise < 0,5 % U_{max}
Temperature coefficient voltage: 0,05 % / K
current: 0,1 % / K
AC-line undervoltage
protection shut down

Protection:

Overload protection short circuit protection
Thermal protection shut down, auto recover

Environmental Conditions:

Operating temperature 0 – + 70 °C
Derating 3,3 % / K
from + 40 – + 70 °C
Cooling int. fans, temperature controlled

Safety:

Safety standard EN60950
Isolation
input - output: $U_A \leq 200$ V: 3,7 kV_{rms}
input - ground: 2,2 kV_{rms}
output - ground: $U_A \leq 60$ V: 500 V_{rms}
 $U_A > 60$ V: 1,35 kV_{rms}

EMC:

Input EMI filter EN50081-2
Input immunity EN50082-2

Operating and Control:

Programming analog voltage and current:
0 – 10 V \cong 0 – 100 % U_A , I_A
Programming digital Contol: U and I
only with Option INT2 nominal value presetting
U and I Monitor signals,
Power ON/OFF,
isolated Bus - signals and analog
signals; isolation between digital
signals; SCPI-programmable
(IEC625-2); programming of
analog value with absolute values
max. three same units
Parallel operation 3 units with same U_A
Series operation same units
(total voltage ≤ 150 V)
Remote sense standard
Instruments voltage and current,
LED, 3½ dig
Adjustment voltage and current
10 - turn potentiometer

Connectors:

Input Cable (6m) with CEE- Connector
16A or 32A
ZPS 3: Cable (6m)
with schuko connector
Output Copper bars rear side

Physical Specifications:

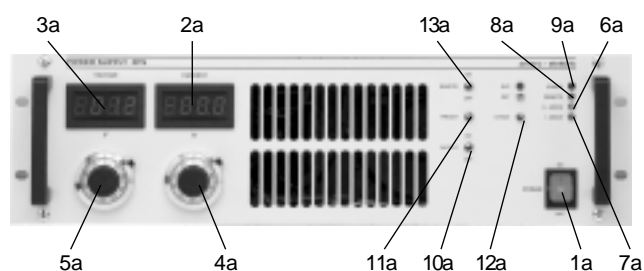
Dimensions ZPS3/ZPS6: 19", 3 U;
depth 400 mm
ZPS10: 19", 6 U, depth 420 mm
Weight ZPS3 19 kg
ZPS6 21 kg
ZPS10 32 kg

Output		Power (kW)	Input		Model Number
Voltage (V) / Current (A)	Voltage (V) / Phase				
0 - 20 / 0 - 150	3	230 / 1	ZPS3/20/150		
0 - 25 / 0 - 400	10	400 / 3	ZPS10/25/400		
0 - 36 / 0 - 85	3	230 / 1	ZPS3/36/85		
0 - 36 / 0 - 160	6	400 / 3	ZPS6/36/160		
0 - 36 / 0 - 280	10	400 / 3	ZPS10/36/280		
0 - 48 / 0 - 65	3	230 / 1	ZPS3/48/65		
0 - 48 / 0 - 120	6	400 / 3	ZPS6/48/120		
0 - 48 / 0 - 210	10	400 / 3	ZPS10/48/210		
0 - 52 / 0 - 115	6	400 / 3	ZPS6/52/115		
0 - 52 / 0 - 190	10	400/3	ZPS10/52/190		
0 - 72 / 0 - 45	3	230 / 1	ZPS3/72/45		
0 - 72 / 0 - 80	6	400 / 3	ZPS6/72/80		
0 - 72 / 0 - 140	10	400 / 3	ZPS10/72/140		
0 - 96 / 0 - 35	3	230 / 1	ZPS3/96/35		
0 - 96 / 0 - 60	6	400 / 3	ZPS6/96/60		
0 - 96 / 0 - 105	10	400 / 3	ZPS10/96/105		
0 - 120 / 0 - 50	6	400 / 3	ZPS6/120/50		
0 - 140 / 0 - 25	3	230 / 1	ZPS3/140/25		
0 - 140 / 0 - 42	6	400 / 3	ZPS6/140/42		
0 - 140 / 0 - 72	10	400 / 3	ZPS10/140/72		
0 - 150 / 0 - 50	7,5	400 / 3	ZPS10/150/50		
0 - 300 / 0 - 10	3	230 / 1	ZPS3/300/10		
0 - 400 / 0 - 25	10	400 / 3	ZPS10/400/25		

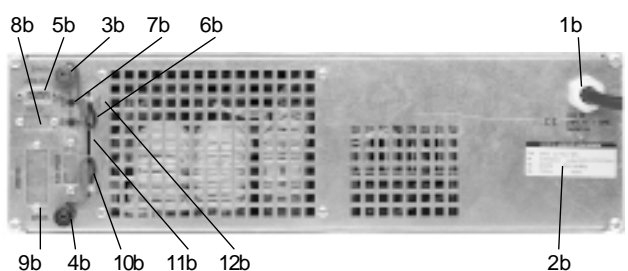
Options:
 Installed IEEE 488.2 Interface Euro - Card
 INT2E with Lab View Driver
 Power 4 KW contact factory

For more technical data concerning digital programming see datasheet INT2/INT2E

Unit front view:



Unit rear view:



- 1a Mains switch with lamp "ON"
- 2a Ampermeter
- 3a Voltmeter
- 4a Setpoint adjustment "Current"
- 5a Setpoint adjustment "Voltage"
- 6a LED-display "U-MODE"
- 7a LED-display "I-MODE"
- 8a LED-display "REMOTE"
- 9a LED-display "ERROR"
- 10a Output ON/OFF
- 11a Preset
- 12a OVP "Overvoltage Protection"
- 13a Remote ON/OFF

- 1b Power cord (3m-cable)
- 2b Nameplate
- 3b Sense jack (Sense +)
- 4b Sense jack (Sense -)
- 5b Analog interface (Sub-D-connector 9 pol.)
- 6b Toggle switch "Current adjustment internal/external"
- 7b Toggle switch "Voltage adjustment internal/external"
- 8b RS232 - interface (Option)
- 9b IEEE488.2 - interface (Option)
- 10b "Addr. / Mode"-switch (Option)
- 11b Output terminal "OUT-", (screw terminal M8)
- 12b Output terminal "OUT+", (screw terminal M8)