

# Data Sheet

E Power 4512A  
E Power 4524A

## Power Supply



Measure



Control



Record

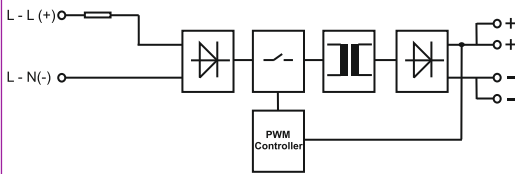


Analyze

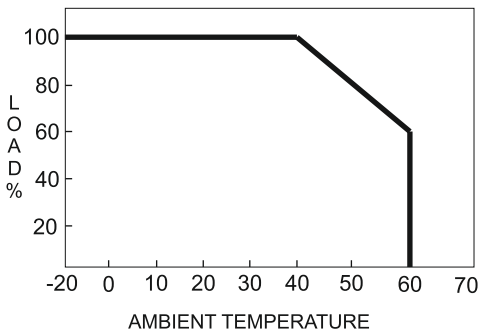


Optimize

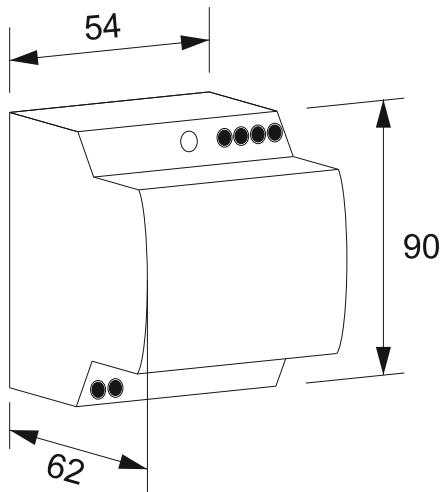
### Block diagram:



### Temperature derating curve:



### Dimensional details:



w x h x d  
54 x 90 x 62  
all dimensions are in mm

### Technical Specifications:

#### INPUT DATA :

|                             |                                     |
|-----------------------------|-------------------------------------|
| AC input voltage range      | 90 VAC...264 VAC                    |
| DC input voltage range      | 124 VDC ... 370 VDC                 |
| Nominal input voltage (UL)  | 115V - 230VAC (±10%)                |
| Inrush current              | ≤ 36 A typical                      |
| AC frequency range          | 45 Hz ... 65 Hz                     |
| Input current               | 0.95 A (115 VAC) , 0.55 A (230 VAC) |
| Internal fuse               | T4 A                                |
| External fuse (recommended) | 10A (MCB curve B)                   |

#### OUTPUT DATA :

|                                   |  |
|-----------------------------------|--|
| Nominal output voltage            | See Table 1                                    |
| Adjustment range                  | See Table 1                                    |
| Rated current at 12 VDC           | See Table 1                                    |
| Power boost current @ 60 °C       | See Table 1                                    |
| Holdup time                       | ≥ 20 msec (230 VAC)                            |
| Line regulation                   | < ± 1.0 %                                      |
| Load regulation                   | < ± 1.0 % (change in load, static 10% ... 90%) |
| Overload                          | 105...160% rated output power                  |
| Dissipation power load max        | 6.2 W  |
| Efficiency                        | > 87 %   |
| Residual ripple <sup>Note 2</sup> | ≤ 150 mVpp                                     |
| Short circuit protection          | Yes  |
| Overload protection               | Yes (Hiccup mode)                              |
| Overvoltage output protection     | Yes (See Table 1)                              |
| Parallel connection               | No   |
| Series connection                 | Yes  |
| Turn on Delay                     | 2 Seconds                                      |
| Rise time                         | 30 msec  |
| Resistance to reverse feed        | See Table 1                                    |



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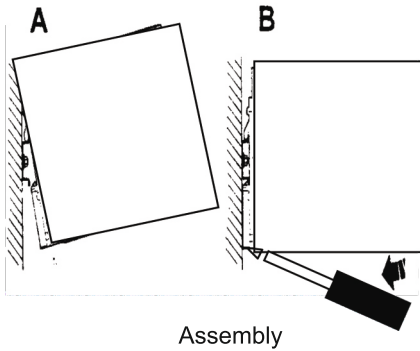


Analyze

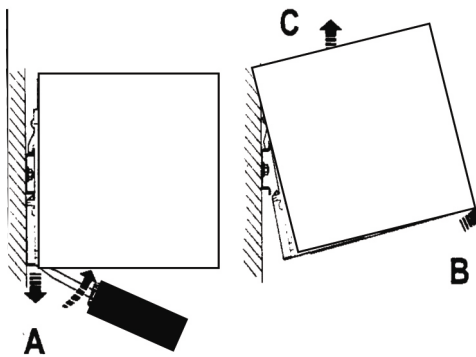


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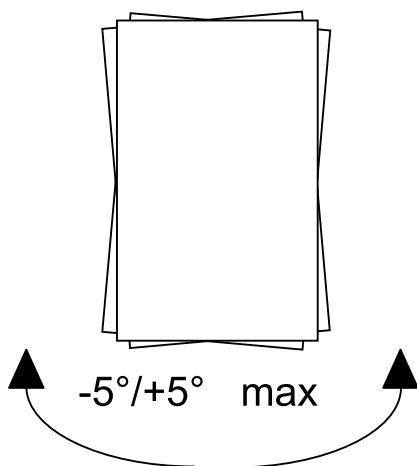
### Installation:



Assembly



Disassembly



Maximum angle of Assembly

### Technical Specifications: (cont.)

#### GENERAL DATA :

|                                |  |
|--------------------------------|--|
| Isolation voltage input/output | 3000V AC   |
| Degree of protection           | IP20 (EN/IEC 60529)                              |
| Protection class               | II   |
| MTBF                           | > 4,50,000 Hrs in acc. with IEC 61709 (SN 29500) |
| Type of housing                | Plastic enclosure                                |
| Housing material               | PC Lexan 940                                     |
| Dimensions W / H / D           | 54 mm / 90 mm / 62 mm                            |
| Weight                         | 0.25 kg approx.                                  |
| Connection terminal blocks     | Screw type 2.5 mm <sup>2</sup>                   |

#### CLIMATIC DATA :

|                                 |                             |
|---------------------------------|-----------------------------|
| Ambient temperature (operation) | -25 °C ... +60 °C           |
| Ambient temperature (storage)   | -40 °C ... +85 °C           |
| Humidity at 25 °C               | 95 % (no condensation)      |
| Pollution degree environment    | 2 (in acc. with EN 50178)   |
| Climatic class                  | 3K3 (in acc. with EN 60721) |



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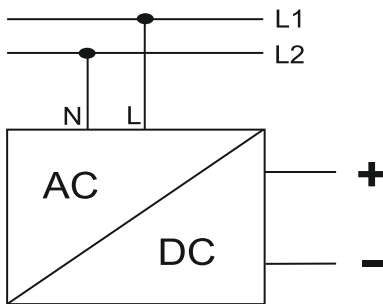
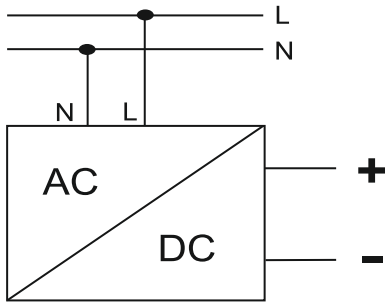


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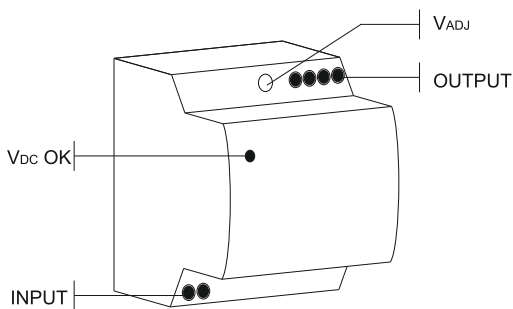


Optimize

### Electrical Connection:



### Layout:



### Technical Specifications: (cont.)

#### STANDARDS :

Electrical safety:

Assembling device IEC/EN 60950 (VDE 0805)  
EN 50178 (VDE 0160)

Installation according IEC/EN 60950

Input/output separation EN 60950-1(SELV) , EN 60204-1(PELV)  
Double or reinforced insulation

EMC standards immunity IEC 61326-1:2012, Table 2.  
EN 61000-4-2  
EN 61000-4-3  
EN 61000-4-4  
EN 61000-4-5

EMC standards emission EN 61000-6-4  
EN 61000-3-2

Safety of electrical equipment EN 60204-1  
for machines

Note:

- 1) All parameters not specifically mentioned are measured at 230VAC input, Rated load and 25°C of ambient temperature.
- 2) Ripple and noise are measured at 20MHz of bandwidth short length lead terminated with a 0.1uF & 47uF parallel capacitor.

Table 1:

| Parameter                      | E Power 4524A                 | E Power 4512A                 |
|--------------------------------|-------------------------------|-------------------------------|
| Nominal Output Data            | 24 VDC ± 3%                   | 12 VDC ± 3%                   |
| Adjustment Range               | 22 VDC.....27 VDC             | 10 VDC.....14 VDC             |
| Rated Current                  | 1.75 A @ 50°C<br>1.4 A @ 60°C | 3.75 A @ 50°C<br>2.8 A @ 60°C |
| Power Boost current @ 60°C     | 1.75A<br>(For ≤ 3 Minutes)    | 3.75A<br>(For ≤ 3 Minutes)    |
| Output Over Voltage Protection | 35 VDC Typ.                   | 24 VDC Typ.                   |
| Resistance to reverse feed     | Max 35 VDC                    | Max 16 VDC                    |

| Model No      | Order Code         | Input Voltage(UL)       | Output Voltage | Output Current | Power Range |
|---------------|--------------------|-------------------------|----------------|----------------|-------------|
| E Power 4512A | RF14-1R000000000RS | 115V - 230VAC<br>(±10%) | 12 V DC        | 3.75 A         | 45 W        |
| E Power 4524A | RF14-1L000000000RS |                         | 24 V DC        | 1.75 A         |             |



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All specifications are subject to change without notice



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