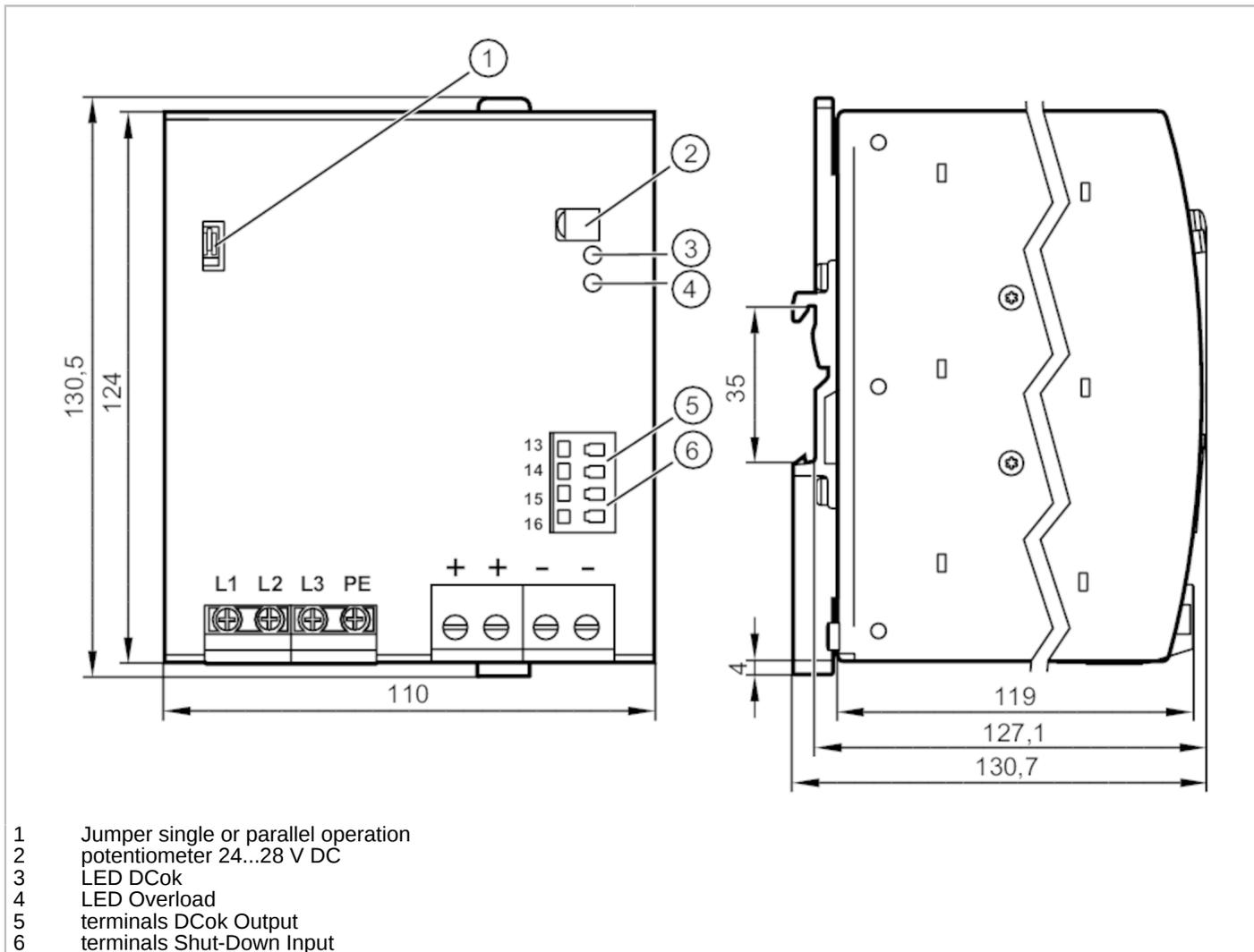


# E84036



## Switched-mode power supply 24 V DC

PSU-3AC/24VDC-40A



- 1 Jumper single or parallel operation
- 2 potentiometer 24...28 V DC
- 3 LED DCok
- 4 LED Overload
- 5 terminals DCok Output
- 6 terminals Shut-Down Input



| Electrical data                                 |  |
|---|--|
| Frequency AC                                    | [Hz] 47...64                                 |
| Nominal voltage AC                              | [V] < 400                                    |
| Input voltage range AC                          | [V] 380...480; (-15 % / +20 %)               |
| Output voltage DC                               | [V] 24...28                                  |
| Protection class                                | I; (IEC 61140)                               |
| Oversvoltage protection                         | yes; (< 32 DC)                               |
| Output voltage                                  | [V] adjustable; output voltage to SELV, PELV |
| Max. output current at min. output voltage      | [A] 40                                       |
| Max. output current at max. output voltage      | [A] 34.3                                     |
| Max. output current peak at min. output voltage | [A] 60                                       |
| Max. output current peak at max. output voltage | [A] 51.5                                     |
| Output power (permanent)                        | [W] 960                                      |

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|   |   |
|---|---|
| Output power (peak) [W]                                       | 1440  |
| Note on output power (peak) [W]                               | if consumption > 4 s the power is automatically reduced to the output power |
| Power factor (nominal voltage 400 V AC / 50 Hz)               | 0.88  |
| Note on power factor (nominal voltage 400 V AC / 50 Hz)       | with symmetrical phase voltage  |
| Power factor (nominal voltage 480 V AC / 50 Hz)               | 0.9   |
| Note on power factor (nominal voltage 480 V AC / 50 Hz)       | with symmetrical phase voltage  |
| Power reserve [%]   | 50  |
| Number of output circuits                                     | 1   |
| Max. residual ripple [mV]                                     | 100   |
| Switch-on peak current (nominal voltage 400 V AC / 60 Hz) [A] | 4.5   |
| Switch-on peak current (nominal voltage 480 V AC / 50 Hz) [A] | 4.5   |
| Inrush current limitation                                     | yes   |
| Efficiency (nominal voltage 400 V AC / 60 Hz) [%]             | 95.3  |
| Efficiency (nominal voltage 480 V AC / 50 Hz) [%]             | 95.2  |
| External input protection                                     | ≥ B-6 A / ≥ C-6 A   |
| Derating [W/K]  | 24 (60...70 °C)   |
| Mains buffering time (nominal voltage 400 V AC / 60 Hz) [ms]  | 25  |
| Mains buffering time (nominal voltage 480 V AC / 50 Hz) [ms]  | 25  |
| Input current (nominal voltage 400 V AC / 60 Hz) [A]          | 1.65  |
| Input current (nominal voltage 480 V AC / 50 Hz) [A]          | 1.35  |
| Power loss (nominal voltage 400 V AC / 60 Hz) [W]             | 47.3  |
| Power loss (nominal voltage 480 V AC / 50 Hz) [W]             | 48.4  |
| Back feeding protection [V]                                   | 35  |

### Outputs

|                                 |   |
|---------------------------------|---|
| Short-circuit proof             | yes   |
| Overload protection             | yes   |
| Overload performance            | constant output current                           |
| Type DC-OK signal               | Relay output                                      |
| Reliability of the DC OK signal | 60 V DC (0.3 A) / 30 V DC (1 A) / 30 V AC (0.5 A) |

### Operating conditions

|                             |  |
|-----------------------------|--|
| Ambient temperature [°C]    | -25...70   |
| Note on ambient temperature | observe the free space for convection (see operating instructions) |

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|                            |      |  |
|----------------------------|------|--|
| Storage temperature        | [°C] | -40...85   |
| Max. relative air humidity | [%]  | 95; (IEC 60068-2-30)                             |
| Protection                 |      | IP 20; (EN 60529)                                |
| Degree of soiling          |      | 2; (IEC 62103: conductive soiling not permitted) |

### Tests / approvals

|                               |                |   |
|-------------------------------|----------------|---|
| EMC                           | EN 61000-6-1   |   |
|                               | EN 61000-6-2   |   |
|                               | EN 61000-6-3   |   |
|                               | EN 61000-6-4   |   |
|                               | EN 61000-3-2   | class A                                 |
| Vibration resistance          | IEC 60068-2-6  | ±1,6 mm 2...17,8 Hz / 1 g 17,8...500 Hz |
| Shock resistance              | IEC 60068-2-27 | 15 g 6 ms / 10 g 11 ms                  |
| MTTF                          | [years]        | 42                                      |
| Power Factor Correction (PFC) |                | met                                     |

### Mechanical data

|                  |      |   |
|------------------|------|---|
| Weight           | [g]  | 1754.5                                  |
| Housing          |      | rectangular                             |
| Type of mounting |      | Mounting on DIN rail; (TH35 (EN 60715)) |
| Dimensions       | [mm] | 124 x 110 x 130.7                       |
| Material         |      | housing: steel sheet                    |

### Displays / operating elements

|         |          |         |
|---------|----------|---------|
| Display | DCok     | 1 x LED |
|         | overload | 1 x LED |

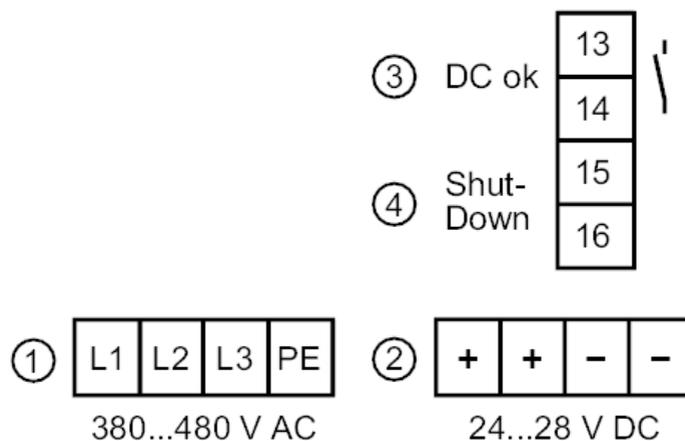
### Remarks

|               |  |
|---------------|--|
| Remarks       | series connection of outputs only applies to identical units up to max. 150 V DC overall voltage |
| Pack quantity | 1 pcs.   |

### Electrical connection

screw terminals:

#### Connection



- 1: primary
- 2: secondary
- 3: DCok Relay output
- 4: Shut-Down Input < 2 V / < 0.5 W

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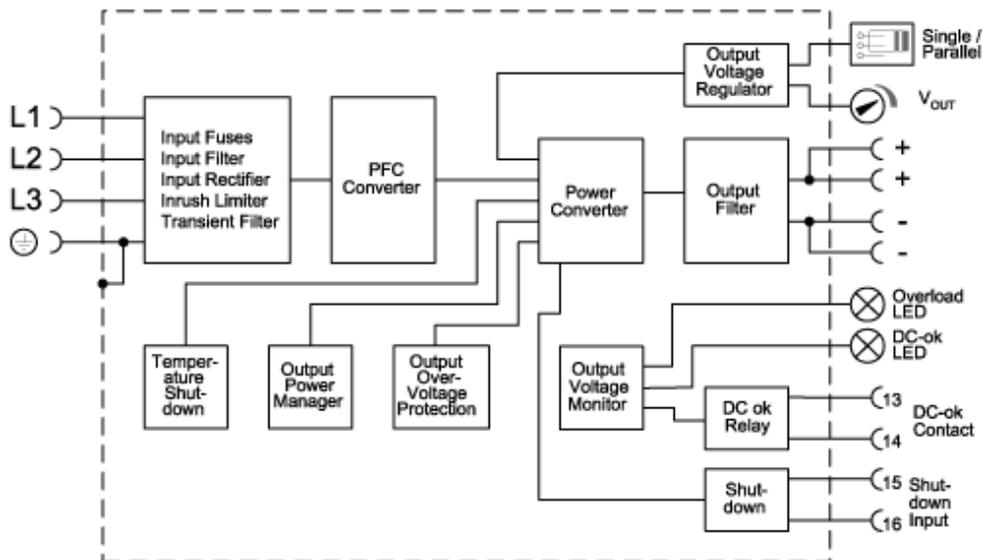


## Switched-mode power supply 24 V DC

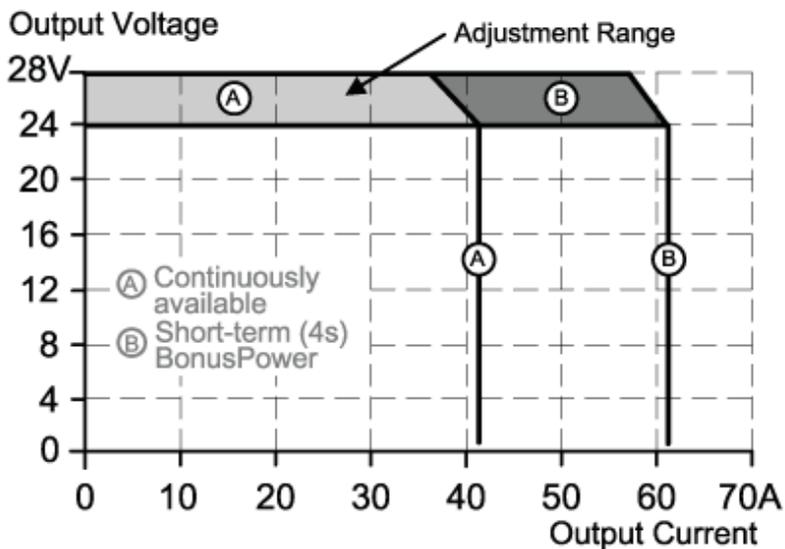
PSU-3AC/24VDC-40A

### Diagrams and graphs

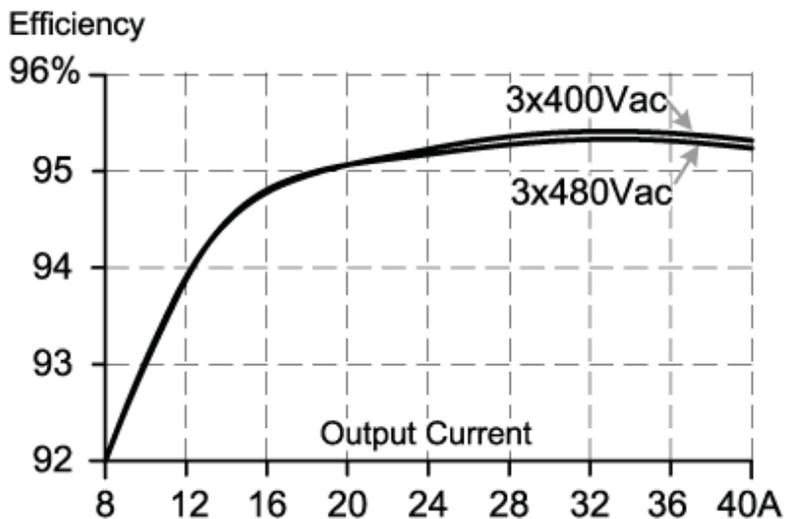
Block diagram



Output curve



Characteristic curve for degree of efficiency / power loss



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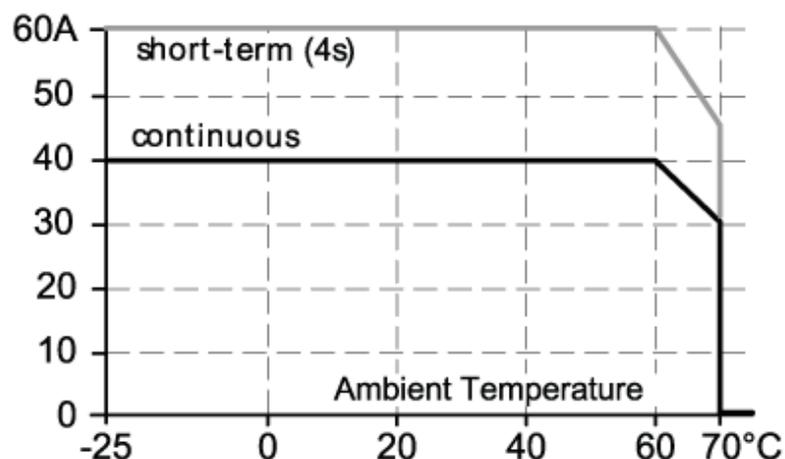


## Switched-mode power supply 24 V DC

PSU-3AC/24VDC-40A

Characteristic curve for derating

### Allowed Output Current at 24V



Characteristic curve for mains buffering time

