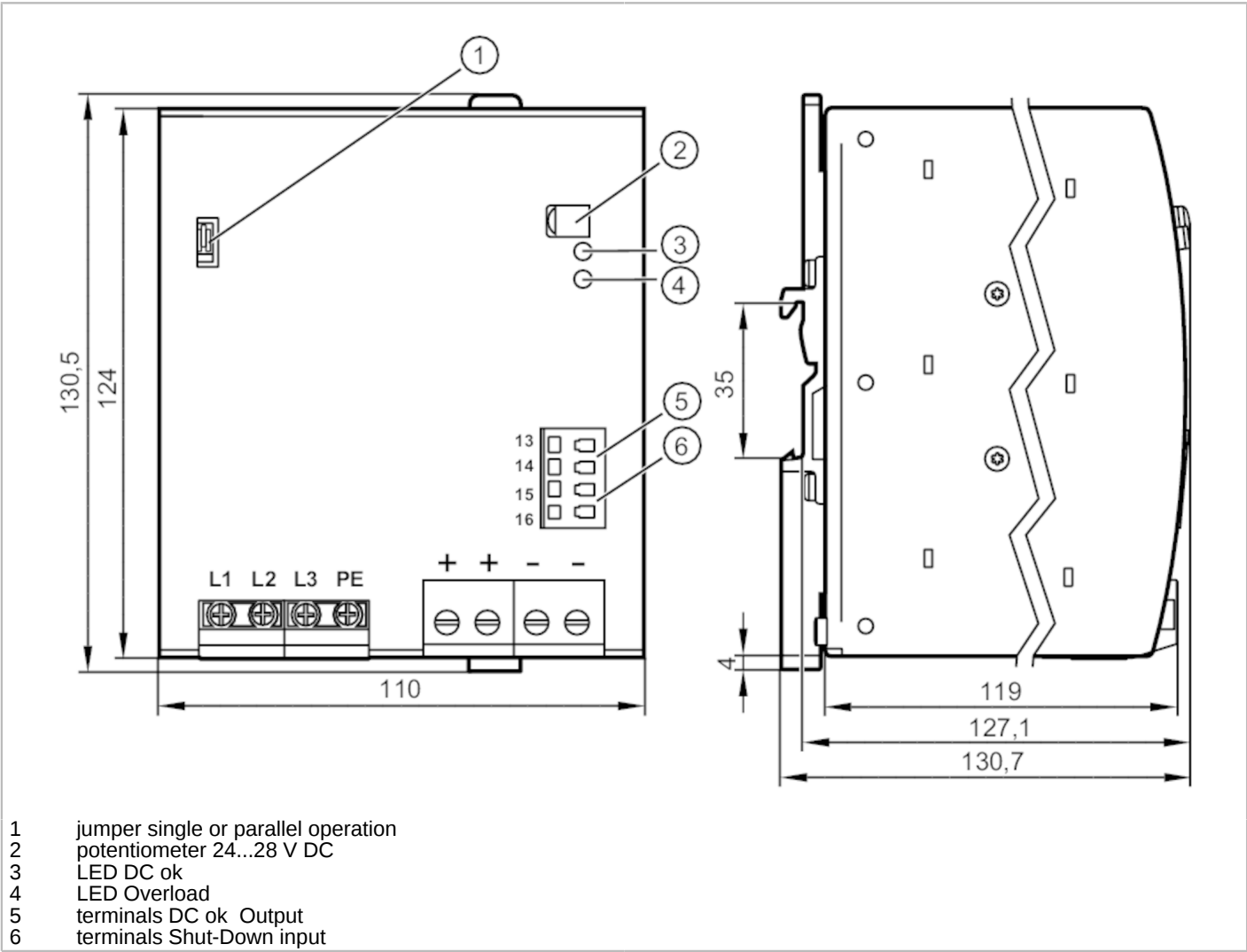


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Switched-mode power supply 24 V DC

PSU-3AC/24VDC-40A



- 1 jumper single or parallel operation
- 2 potentiometer 24...28 V DC
- 3 LED DC ok
- 4 LED Overload
- 5 terminals DC ok Output
- 6 terminals Shut-Down input



Electrical data

Frequency AC	[Hz]	47...64
Operating voltage tolerance	[%]	15...20
Nominal voltage AC	[V]	< 400
Input voltage range AC	[V]	380...480
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



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Output power (permanent)	[W]	960
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	output current constant
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
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Note on ambient temperature	observe the free space for convection (see operating instructions)
Storage temperature [°C]	-40...85
Max. relative air humidity [%]	95; (IEC 60068-2-30)
Protection	IP 20; (EN 60529)
Pollution degree	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
Materials	housing: steel sheet

Displays / operating elements

Display	DC ok	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.

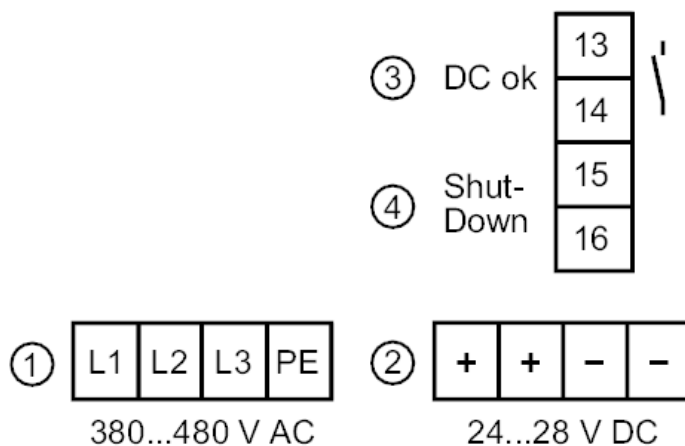
Switched-mode power supply 24 V DC

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Electrical connection

screw terminals:

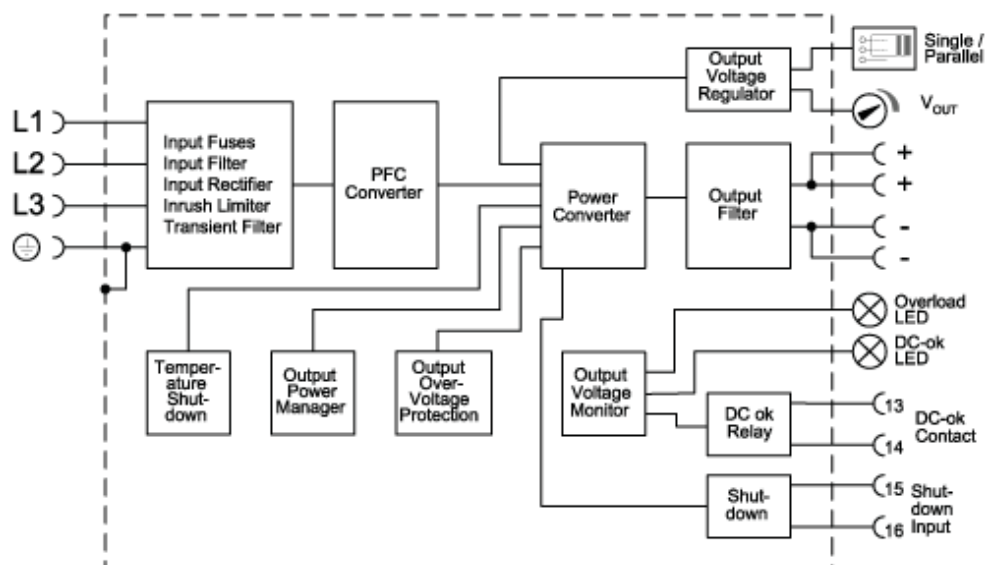
Connection



- 1: primary
- 2: secondary
- 3: DC ok relay output
- 4: Shut-Down input < 2 V / < 0.5 W

Diagrams and graphs

block diagram



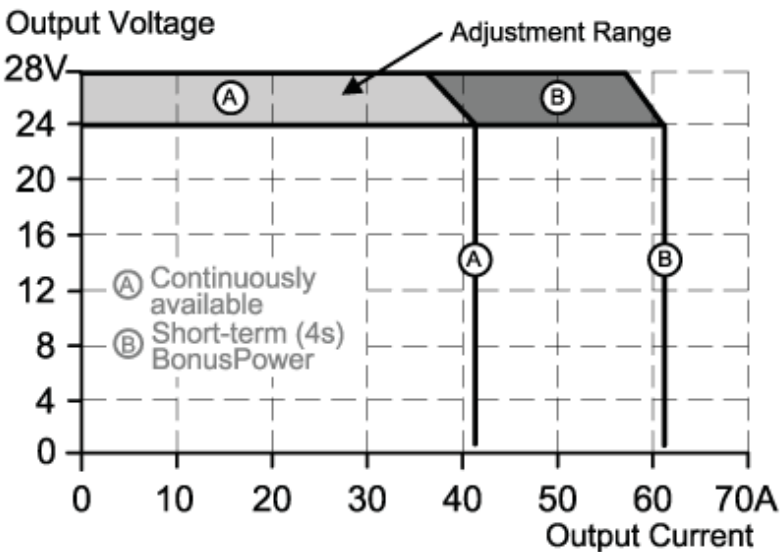
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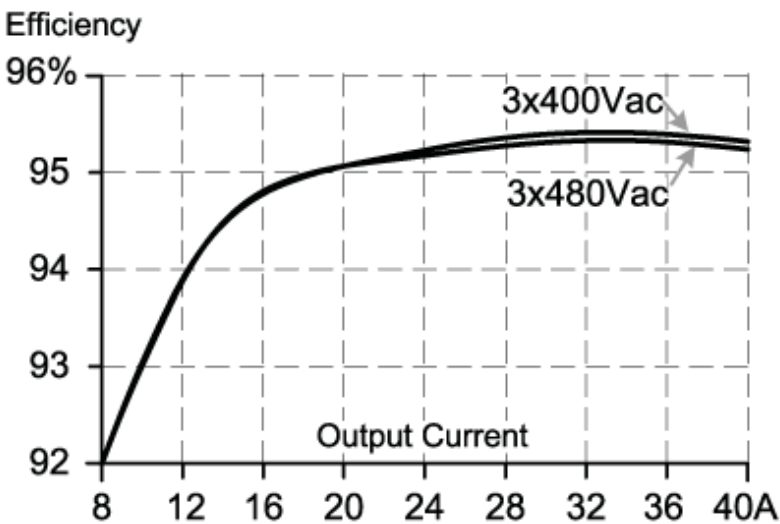
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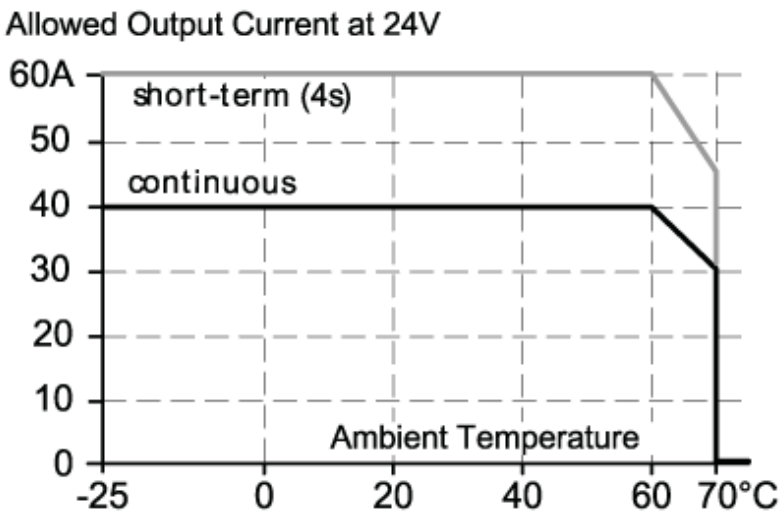
output characteristics



characteristic curve for degree of efficiency / power loss



characteristic line for derating



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Switched-mode power supply 24 V DC

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characteristic line for mains buffering
time

