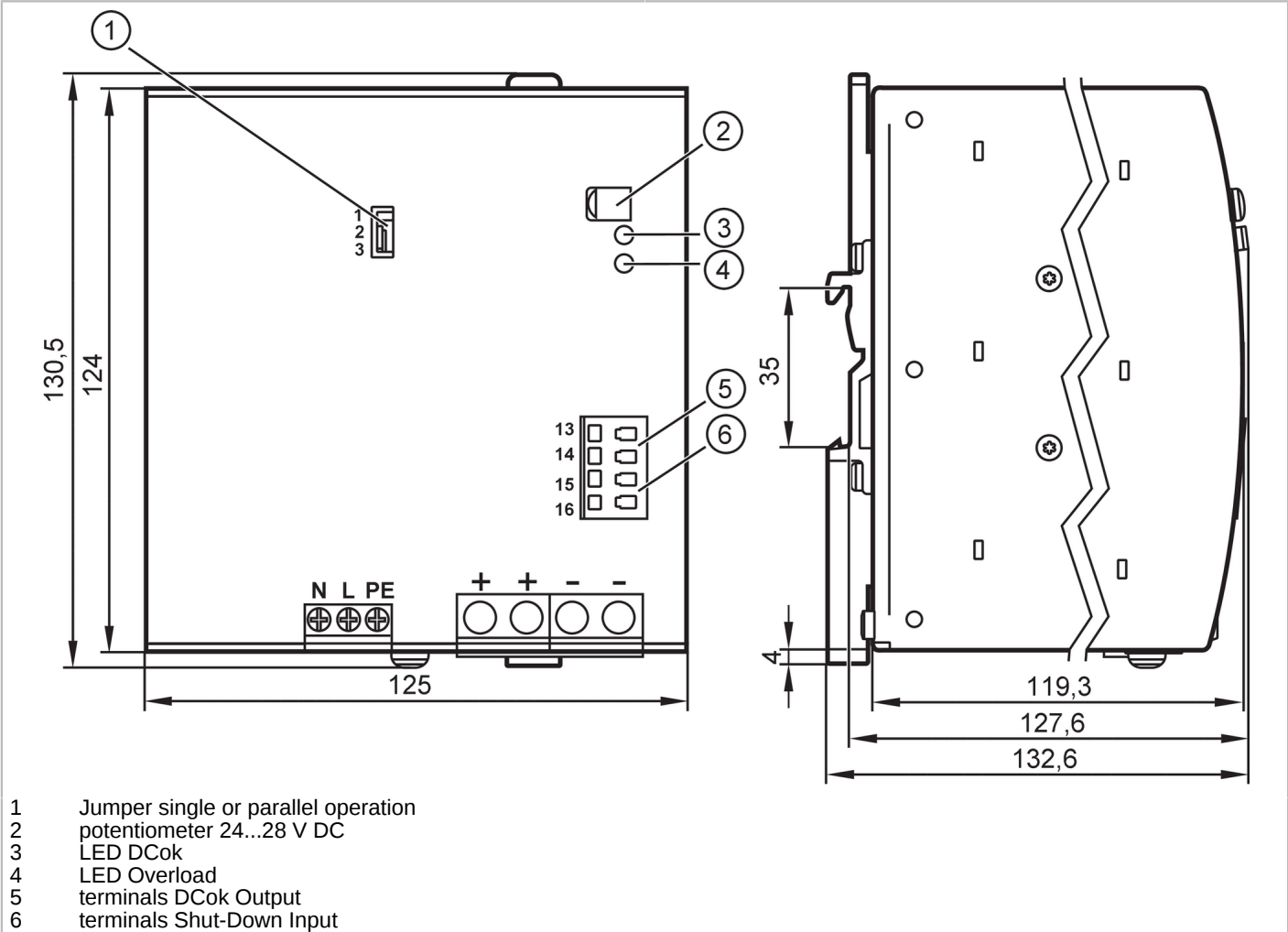


E84016



Switched-mode power supply 24 V DC

PSU-1AC/24VDC-40A



Electrical data

Frequency AC	[Hz]	47...64
Nominal voltage AC	[V]	< 230
Input voltage range AC	[V]	100...240; (-15 % / +10 %)
Output voltage DC	[V]	24...28
Protection class		I; (IEC 61140)
Overvoltage 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
Output power (peak)	[W]	1440
Note on output power (peak)	[W]	if consumption > 4 s the power is automatically reduced to the output power



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Power factor (nominal voltage 120 V AC / 60 Hz)	0.99
Power factor (nominal voltage 230 V AC / 50 Hz)	0.99
Power reserve [%]	50
Number of output circuits	1
Max. residual ripple [mV]	100
Switch-on peak current (nominal voltage 120 V AC / 60 Hz) [A]	17
Switch-on peak current (nominal voltage 230 V AC / 50 Hz) [A]	11
Inrush current limitation	yes
Efficiency (nominal voltage 120 V AC / 60 Hz) [%]	93.6
Efficiency (nominal voltage 230 V AC / 50 Hz) [%]	94.6
External input protection	$\geq B-16 A / \geq C-16 A$
Derating [W/K]	24 (60...70 °C)
Mains buffering time (nominal voltage 120 V AC / 60 Hz) [ms]	27
Mains buffering time (nominal voltage 230 V AC / 50 Hz) [ms]	27
Input current (nominal voltage 120 V AC / 60 Hz) [A]	8.6
Input current (nominal voltage 230 V AC / 50 Hz) [A]	4.5
Power loss (nominal voltage 120 V AC / 60 Hz) [W]	65.6
Power loss (nominal voltage 230 V AC / 50 Hz) [W]	54.8
Back feeding protection [V]	35

Outputs

Short-circuit proof	yes
Overload protection	yes
Overload performance	Hiccup Mode; in the event of overload / short circuit, the output alternately supplies continuous power for 2 s and then switches off for 17 s
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)
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)



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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]		55
Power Factor Correction (PFC)		met

Mechanical data		
Weight [g]		2044.5
Housing		rectangular
Type of mounting		Mounting on DIN rail; (TH35 (EN 60715))
Dimensions [mm]		124 x 125 x 132.6
Material		housing: steel sheet

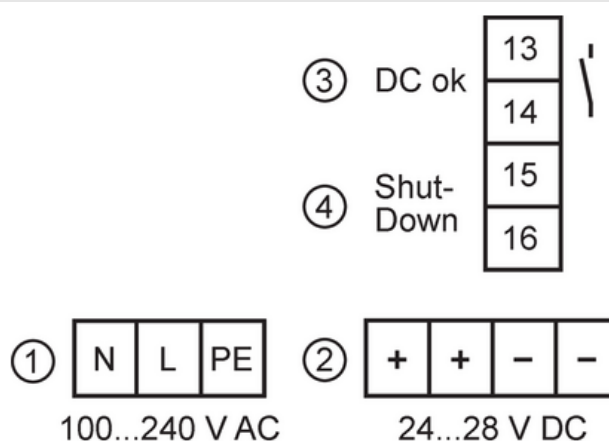
Displays / operating elements		
Display	DCok	1 x LED
	overload	1 x LED

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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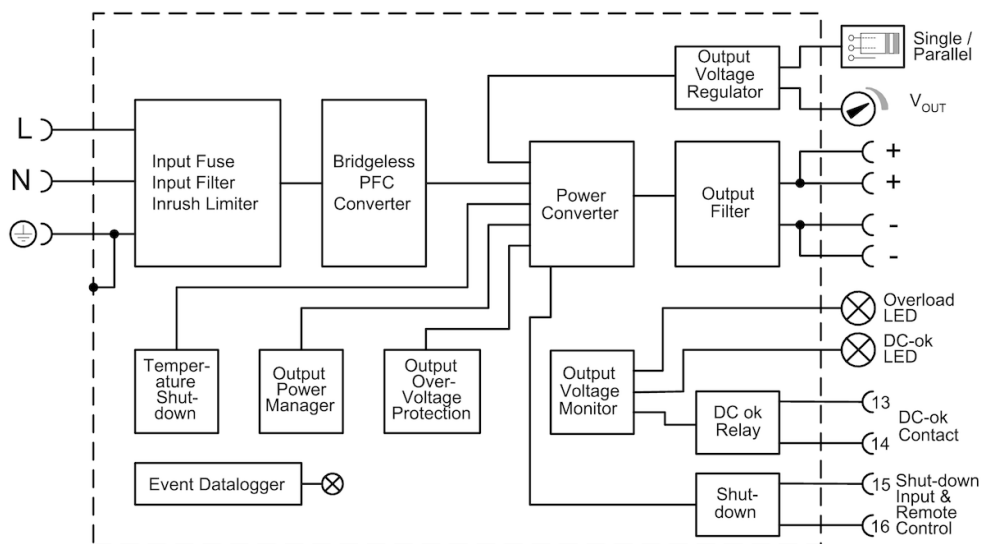
Switched-mode power supply 24 V DC

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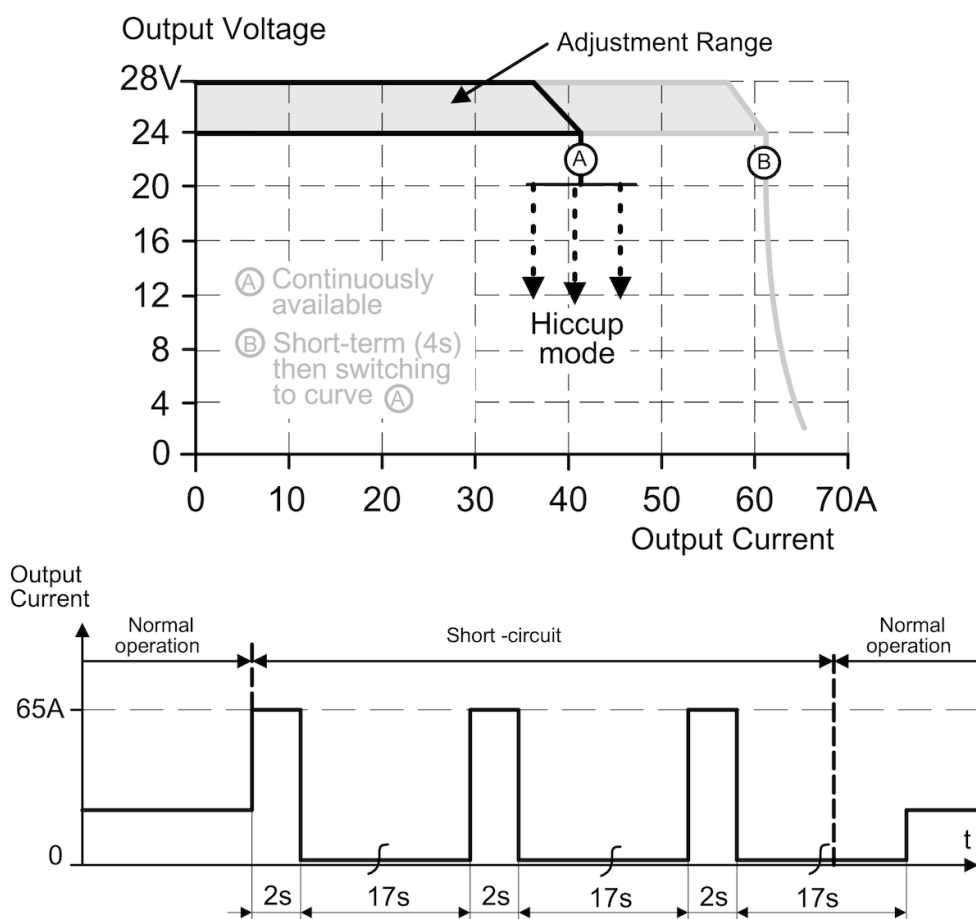


Diagrams and graphs

Block diagram



Output curve



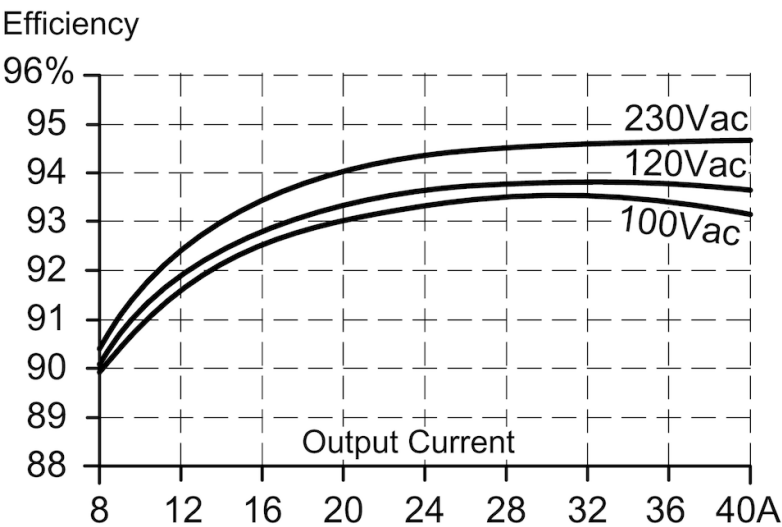
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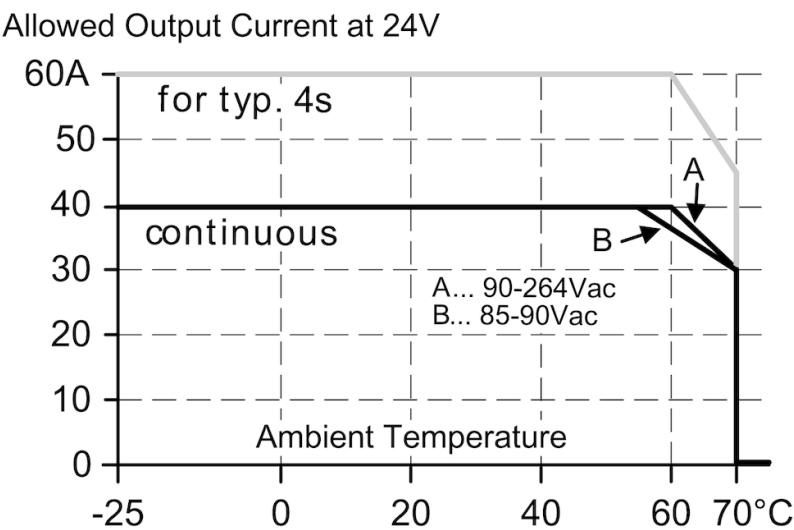
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Characteristic curve for degree of efficiency / power loss



Characteristic curve for derating



Characteristic curve for mains buffering time

