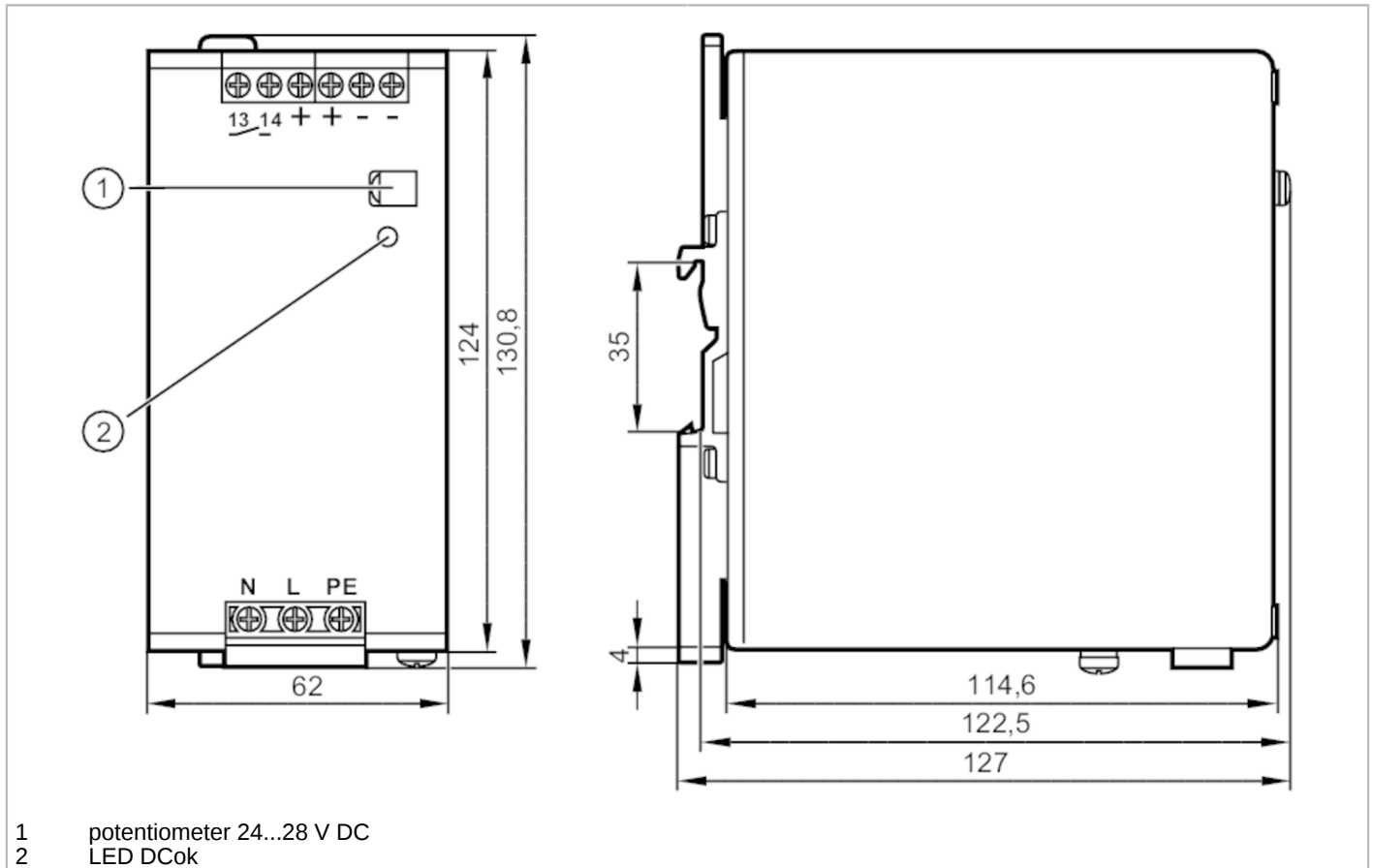


# DN4013



## Switched-mode power supply 24 V DC

PSU-1AC/24VDC-10A



### Electrical data

Frequency AC	[Hz]	47...64
Operating voltage tolerance	[%]	10
Operating voltage tolerance 2	[%]	10
Operating voltage	[V]	automatic range selection
Nominal voltage AC	[V]	< 230
Nominal frequency AC	[Hz]	50...60
Input voltage range AC	[V]	100...120 / 200...240
Output voltage DC	[V]	24...28
Protection class		I; (IEC 61140)
Overvoltage protection		yes; (< 39 DC)
Output voltage	[V]	adjustable; output voltage to SELV, PELV
Max. output current at min. output voltage	[A]	10
Max. output current at max. output voltage	[A]	8.6
Max. output current peak at min. output voltage	[A]	12
Max. output current peak at max. output voltage	[A]	10.3
Output power (permanent)	[W]	240

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Output power (peak)	[W]	288
Note on output power (peak)	[W]	≤ 45 °C permitted continuously; > 45 °C < 1 minute every 10 minutes
Power factor (nominal voltage 120 V AC / 60 Hz)		0.59
Power factor (nominal voltage 230 V AC / 50 Hz)		0.51
Power reserve	[%]	20
Number of output circuits		1
Max. residual ripple	[mV]	50
Switch-on peak current (nominal voltage 120 V AC / 60 Hz)	[A]	3
Switch-on peak current (nominal voltage 230 V AC / 50 Hz)	[A]	3
Inrush current limitation		yes
Efficiency (nominal voltage 120 V AC / 60 Hz)	[%]	91
Efficiency (nominal voltage 230 V AC / 50 Hz)	[%]	91.6
External input protection		≤ B-10 A / ≤ C-6 A
Derating	[W/K]	6 (60...70 °C)
Mains buffering time (nominal voltage 120 V AC / 60 Hz)	[ms]	46
Mains buffering time (nominal voltage 230 V AC / 50 Hz)	[ms]	47
Input current (nominal voltage 120 V AC / 60 Hz)	[A]	3.73
Input current (nominal voltage 230 V AC / 50 Hz)	[A]	2.23
Power loss (nominal voltage 120 V AC / 60 Hz)	[W]	23.7
Power loss (nominal voltage 230 V AC / 50 Hz)	[W]	22
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)
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)
Overheat protection		yes

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### Tests / approvals

EMC	EN 61000-6-1	
	EN 61000-6-2	
	EN 61000-6-4	
Vibration resistance	IEC 60068-2-6	±1,6 mm 2...17,8 Hz / 2 g 17,8...500 Hz
Shock resistance	IEC 60068-2-27	30 g 6 ms / 20 g 11 ms

### Mechanical data

Weight [g]	875.5	
Type of mounting	rail; (TH35 (EN 60715))	
Dimensions [mm]	124 x 62 x 122.5	
Material	steel sheet	

### Displays / operating elements

Display	DCok	1 x LED
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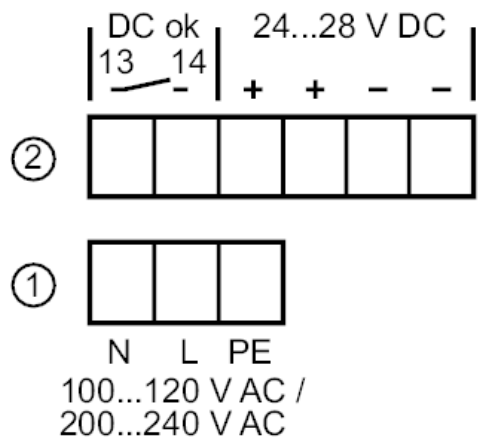
### Remarks

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:

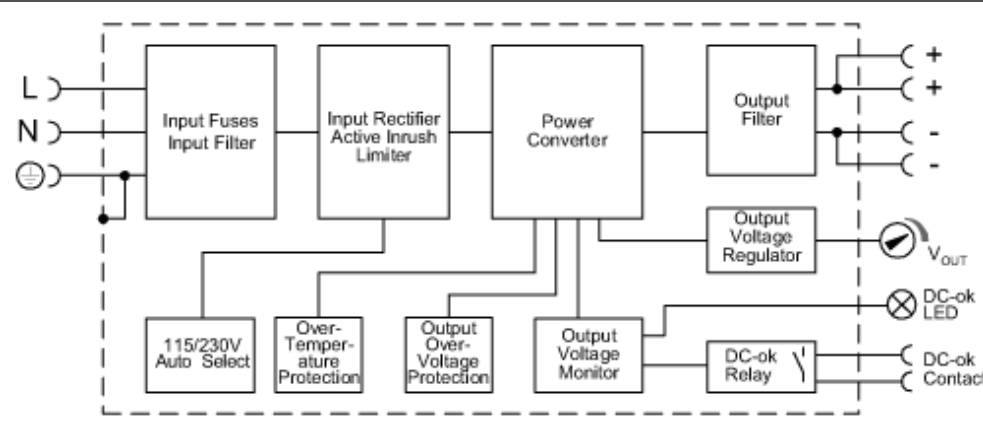
### Connection



- 1: primary
- 2: secondary

### Diagrams and graphs

Block diagram



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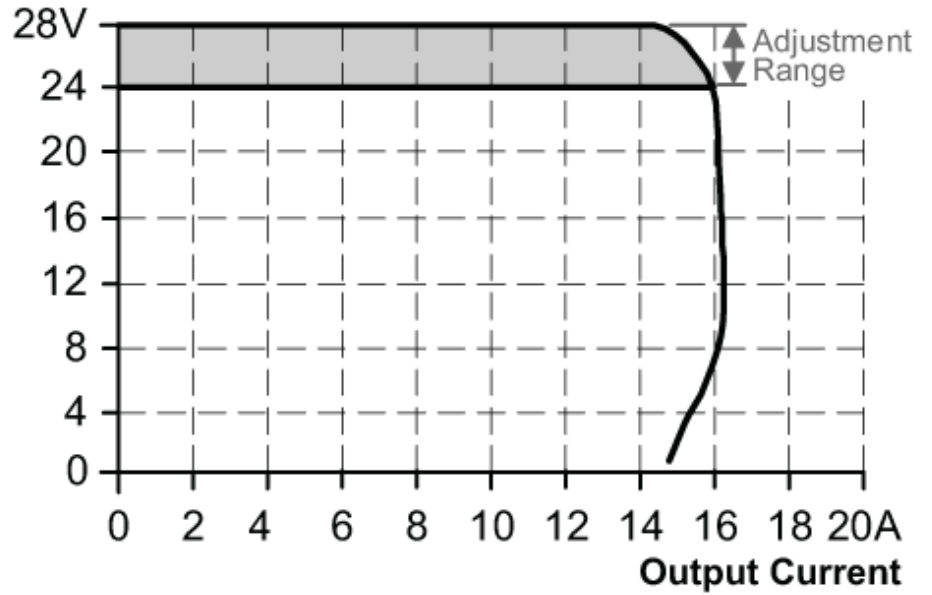


## Switched-mode power supply 24 V DC

PSU-1AC/24VDC-10A

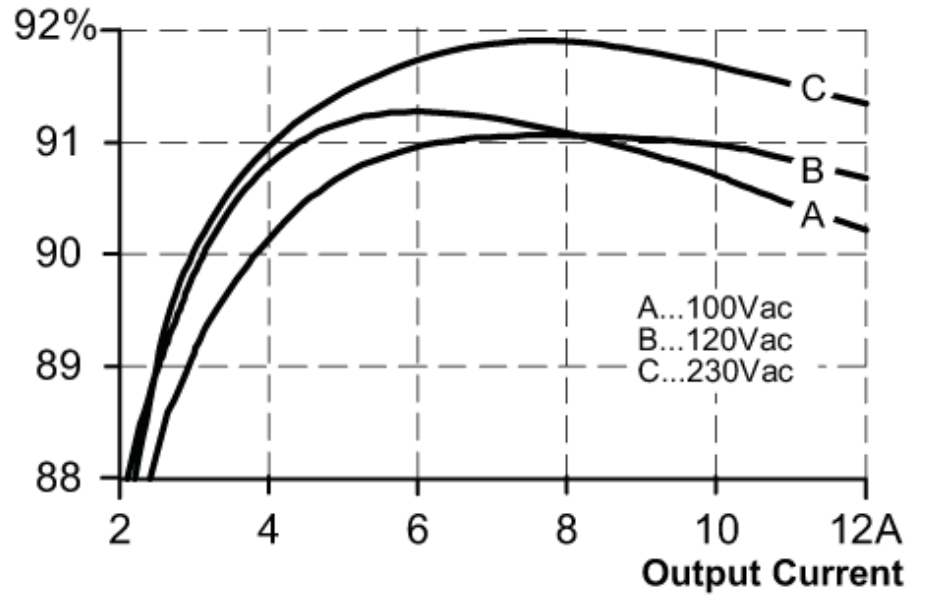
Output curve

### Output Voltage



Characteristic curve for degree of efficiency / power loss

### Efficiency



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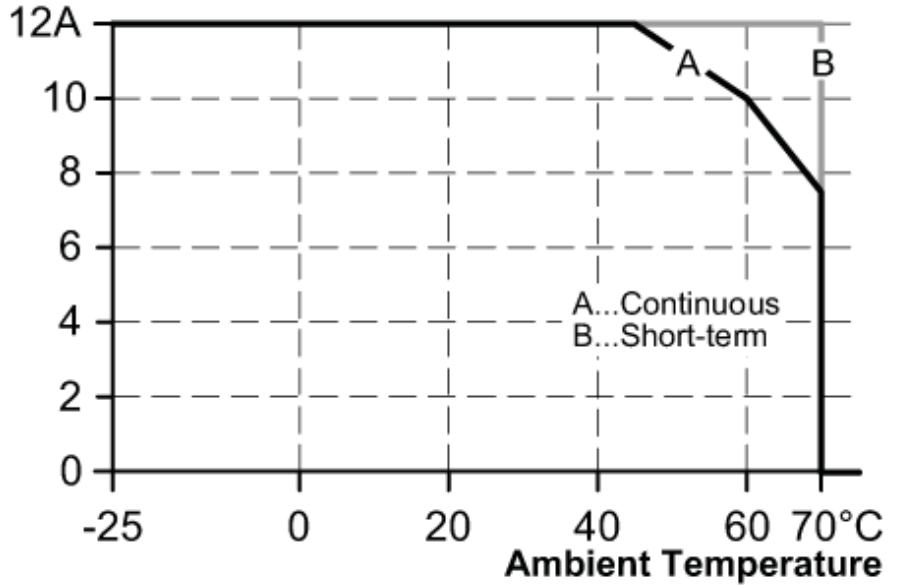


## Switched-mode power supply 24 V DC

PSU-1AC/24VDC-10A

Characteristic curve for derating

### Allowed Output Current at 24V



Characteristic curve for mains buffering time

### Hold-up Time at 24V

