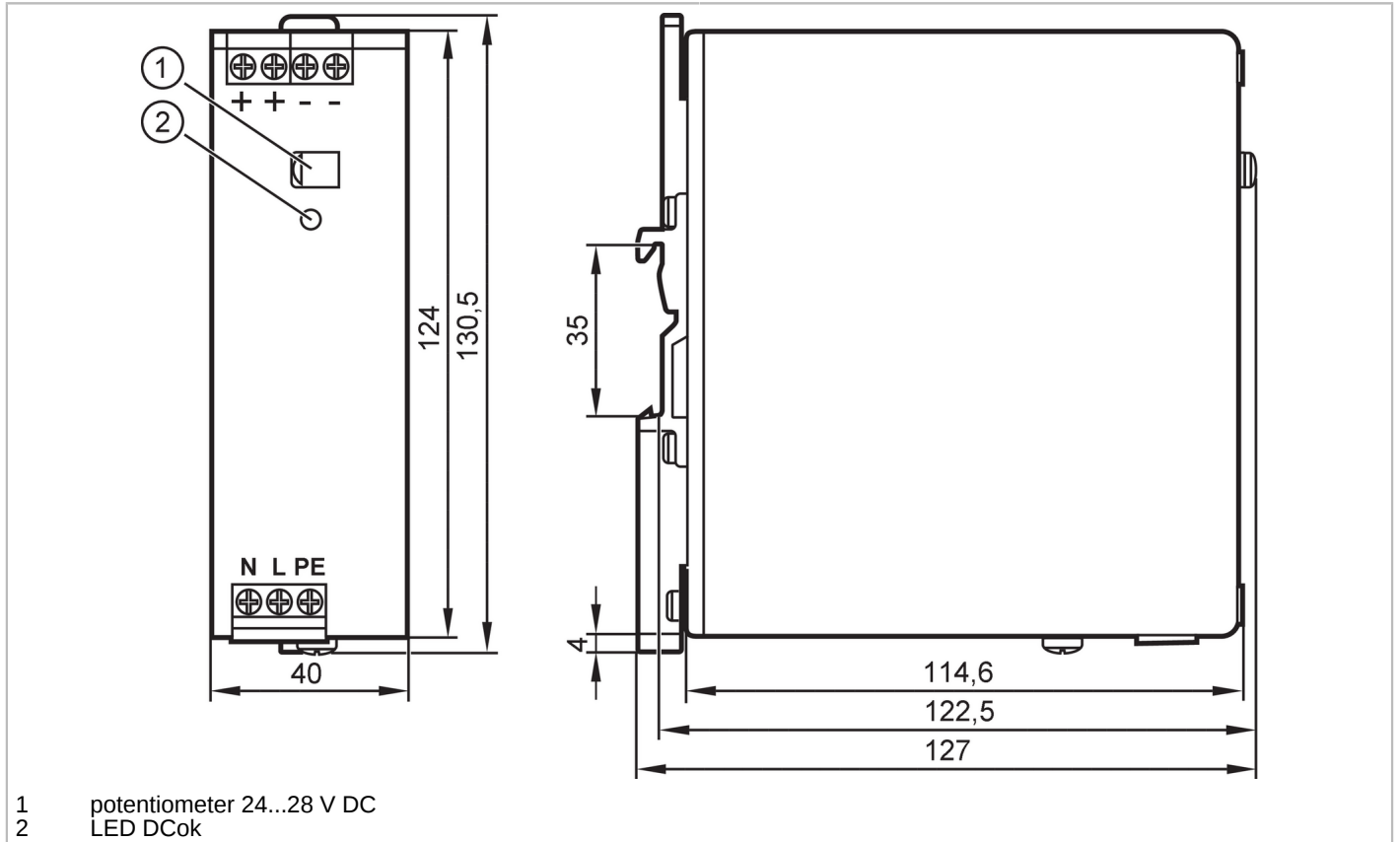


# DN4011



## Switched-mode power supply 24 V DC

PSU-1AC/24VDC-3,3A



### Application

Design housing for DIN rail mounting

### Electrical data

Frequency AC	[Hz]	47...64
Nominal voltage AC	[V]	< 230
Input voltage DC	[V]	110...300; (-20 % / +25 %)
Input voltage range AC	[V]	100...240; (-10 % / +10 %)
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]	3.3
Max. output current at max. output voltage	[A]	2.7
Max. output current peak at min. output voltage	[A]	3.3
Max. output current peak at max. output voltage	[A]	2.7
Output power (permanent)	[W]	80
Output power (peak)	[W]	80
Power factor (nominal voltage 120 V AC / 60 Hz)		0.61

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PSU-1AC/24VDC-3,3A

Power factor (nominal voltage 230 V AC / 50 Hz)	0.56
Number of output circuits	1
Max. residual ripple [mV]	50
Switch-on peak current (nominal voltage 120 V AC / 60 Hz) [A]	23
Switch-on peak current (nominal voltage 230 V AC / 50 Hz) [A]	45
Inrush current limitation	yes
Efficiency (nominal voltage 120 V AC / 60 Hz) [%]	88
Efficiency (nominal voltage 230 V AC / 50 Hz) [%]	89.8
External input protection	$\geq B-10 A / \geq C-6 A$
Derating [W/K]	1.8 (60...70 °C)
Mains buffering time (nominal voltage 120 V AC / 60 Hz) [ms]	30
Mains buffering time (nominal voltage 230 V AC / 50 Hz) [ms]	128
Input current (nominal voltage 120 V AC / 60 Hz) [A]	1.24
Input current (nominal voltage 230 V AC / 50 Hz) [A]	0.68
Power loss (nominal voltage 120 V AC / 60 Hz) [W]	11.1
Power loss (nominal voltage 230 V AC / 50 Hz) [W]	9.1
Back feeding protection [V]	35

### Outputs

Overload protection	yes
Overload performance	constant output current

### 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)

### 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	$\pm 1,6 \text{ mm } 2...17,8 \text{ Hz} / 2 \text{ g } 17,8...500 \text{ Hz}$
Shock resistance	IEC 60068-2-27	30 g 6 ms / 20 g 11 ms
MTTF [years]		204

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Power Factor Correction (PFC)	met
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### Mechanical data

Weight [g]	569
Housing	rectangular
Type of mounting	Mounting on DIN rail; (TH35 (EN 60715))
Dimensions [mm]	124 x 40 x 122.5
Material	housing: steel sheet

### Displays / operating elements

Display	DCok	1 x LED
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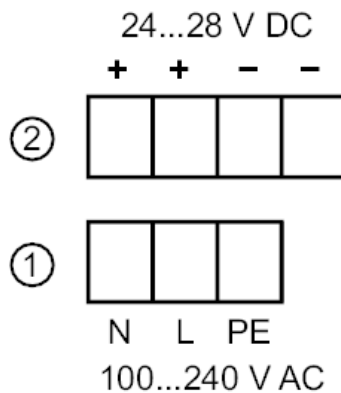
### Remarks

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:

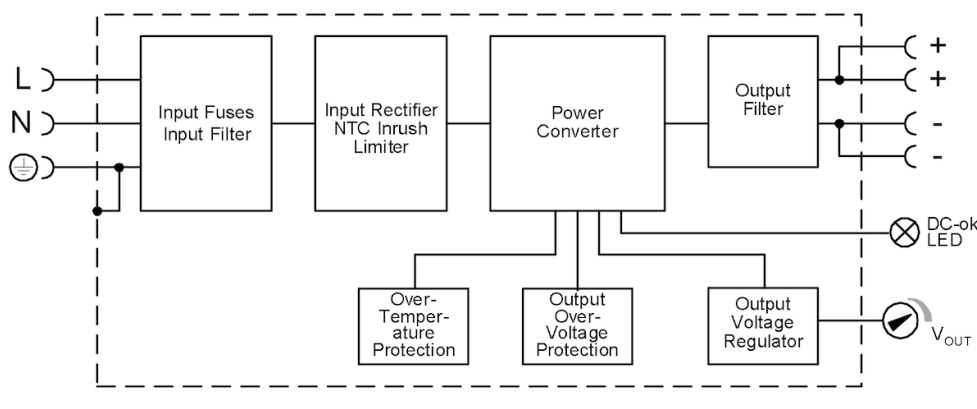
#### Connection



- 1: primary
- 2: secondary

### Diagrams and graphs

Block diagram



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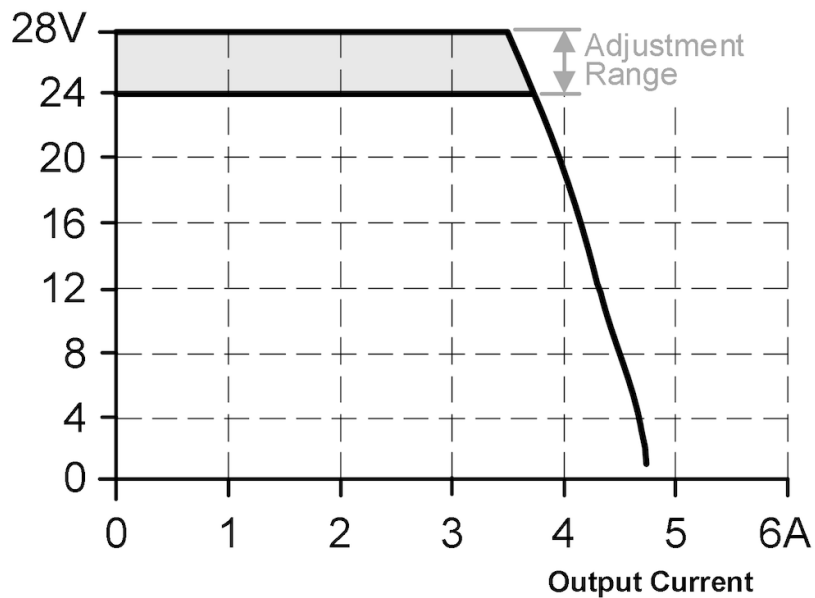


## Switched-mode power supply 24 V DC

PSU-1AC/24VDC-3,3A

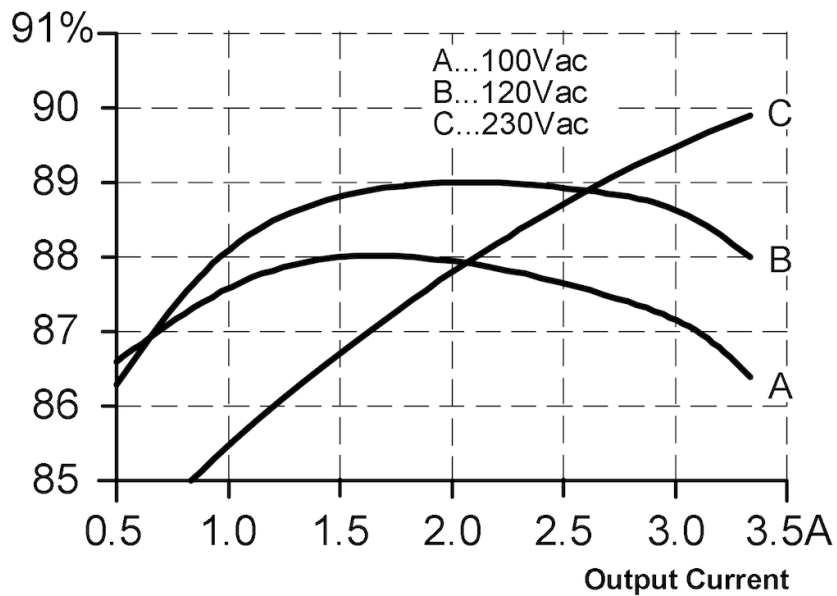
Output curve

Output Voltage



Characteristic curve for degree of efficiency / power loss

Efficiency



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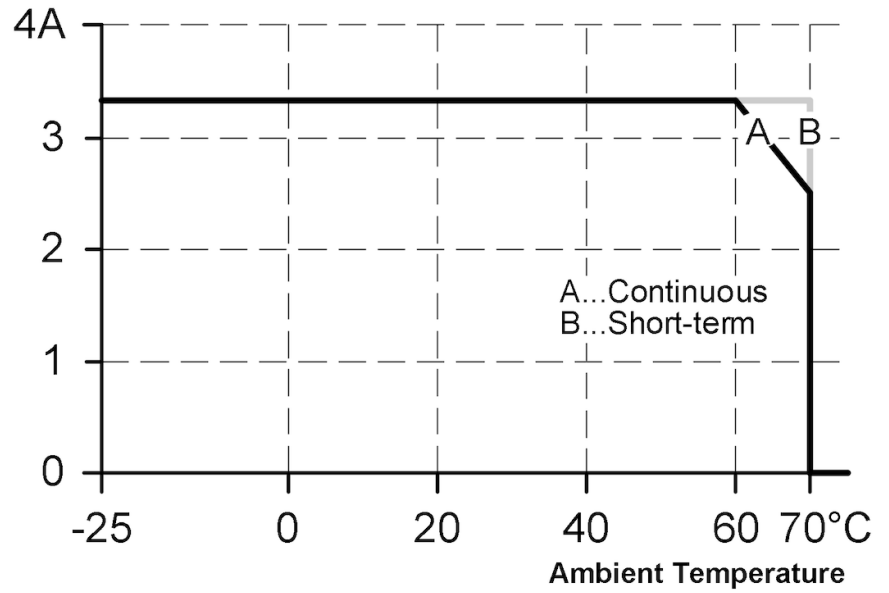


## Switched-mode power supply 24 V DC

PSU-1AC/24VDC-3,3A

Characteristic curve for derating

### Allowed Output Current at 24V



Characteristic curve for mains buffering time

### Hold-up Time at 24V

