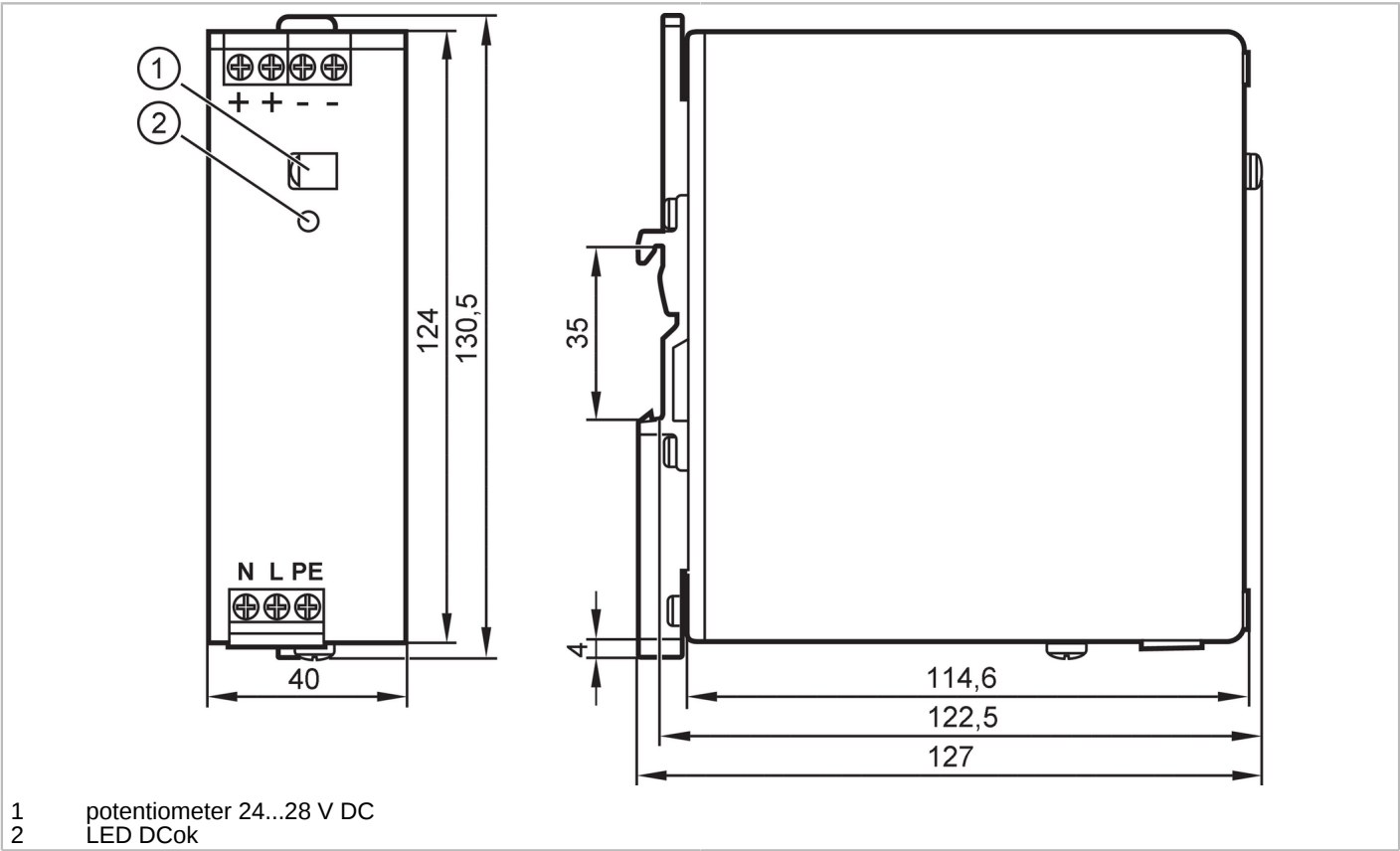


DN4012



Switched-mode power supply 24 V DC

PSU-1AC/24VDC-5A



- 1 potentiometer 24...28 V DC
2 LED DCok



Application		
Design		housing for DIN rail mounting
Electrical data		
Frequency AC	[Hz]	47...64
Operating voltage	[V]	automatic range selection
Nominal voltage AC	[V]	< 230
Input voltage range AC	[V]	100...120 / 200...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]	5
Max. output current at max. output voltage	[A]	4.3
Max. output current peak at min. output voltage	[A]	6
Max. output current peak at max. output voltage	[A]	5.1
Output power (permanent)	[W]	120
Output power (peak)	[W]	144
Note on output power (peak)	[W]	≤ 45 °C permitted continuously; > 45 °C < 1 minute every 10 minutes



Switched-mode power supply 24 V DC

PSU-1AC/24VDC-5A

Power factor (nominal voltage 120 V AC / 60 Hz)	0.56
Power factor (nominal voltage 230 V AC / 50 Hz)	0.47
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) [%]	89.4
Efficiency (nominal voltage 230 V AC / 50 Hz) [%]	90.2
External input protection	$\geq B-10 A / \geq C-6 A$
Derating [W/K]	3 (60...70 °C)
Mains buffering time (nominal voltage 120 V AC / 60 Hz) [ms]	80
Mains buffering time (nominal voltage 230 V AC / 50 Hz) [ms]	78
Input current (nominal voltage 120 V AC / 60 Hz) [A]	2.05
Input current (nominal voltage 230 V AC / 50 Hz) [A]	1.23
Power loss (nominal voltage 120 V AC / 60 Hz) [W]	14.5
Power loss (nominal voltage 230 V AC / 50 Hz) [W]	13.2
Back feeding protection [V]	35

Outputs	
Short-circuit proof	yes
Overload protection	yes
Overload performance	constant output current
Parallel connection of outputs possible	no
Series connection of outputs possible	yes

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)

DN4012



Switched-mode power supply 24 V DC

PSU-1AC/24VDC-5A

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
MTTF [years]		73

Mechanical data		
Weight [g]		594.5
Housing		rectangular
Type of mounting		Mounting on DIN rail; (TH35 (EN 60715))
Dimensions [mm]		124 x 40 x 122.5
Material		housing: steel sheet

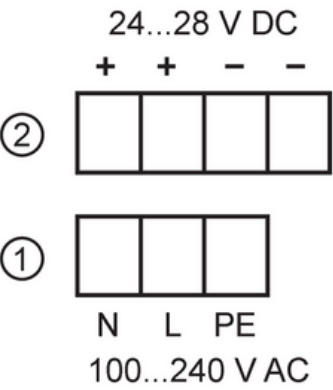
Displays / operating elements		
Display	DCok	1 x LED

Remarks		
Remarks	series connection of outputs only applies to identical units up to max. 150 V DC overall voltage	
	100 V AC mains power and permanent P > 120 W may result in thermal shutdown	
Pack quantity		1 pcs.

Electrical connection

screw terminals:

Connection



- 1: primary
2: secondary

DN4012

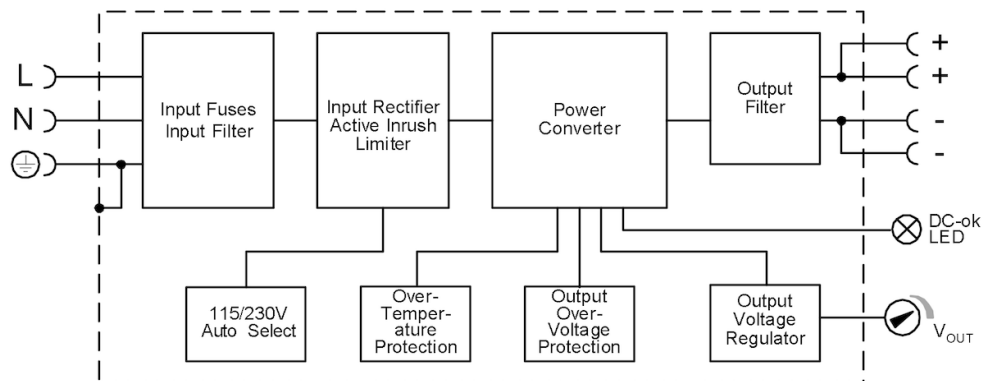


Switched-mode power supply 24 V DC

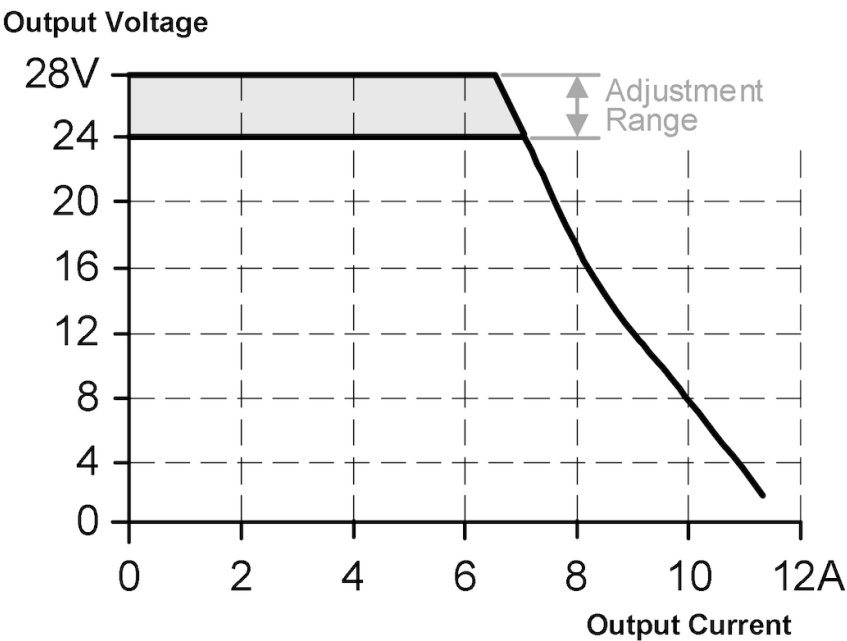
PSU-1AC/24VDC-5A

Diagrams and graphs

Block diagram



Output curve



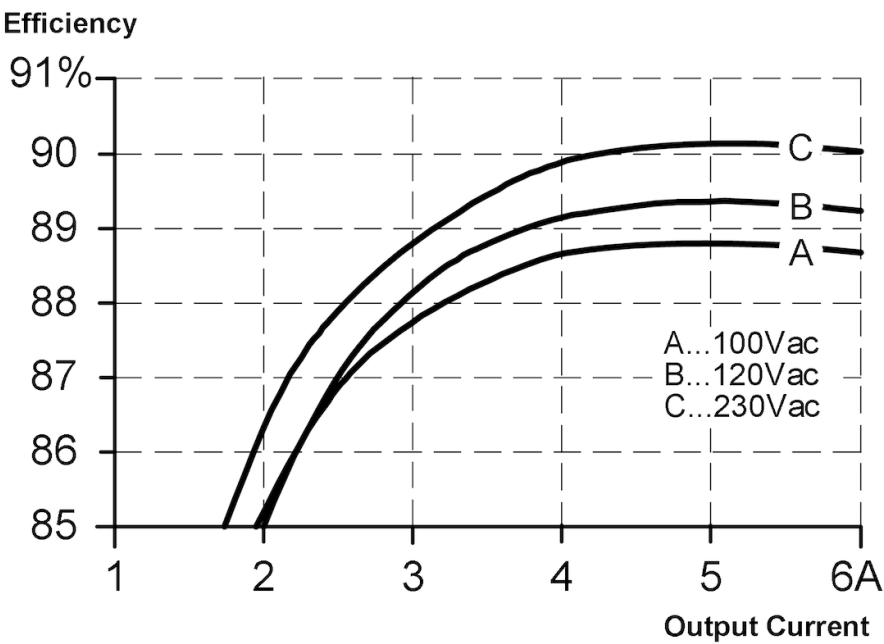
DN4012



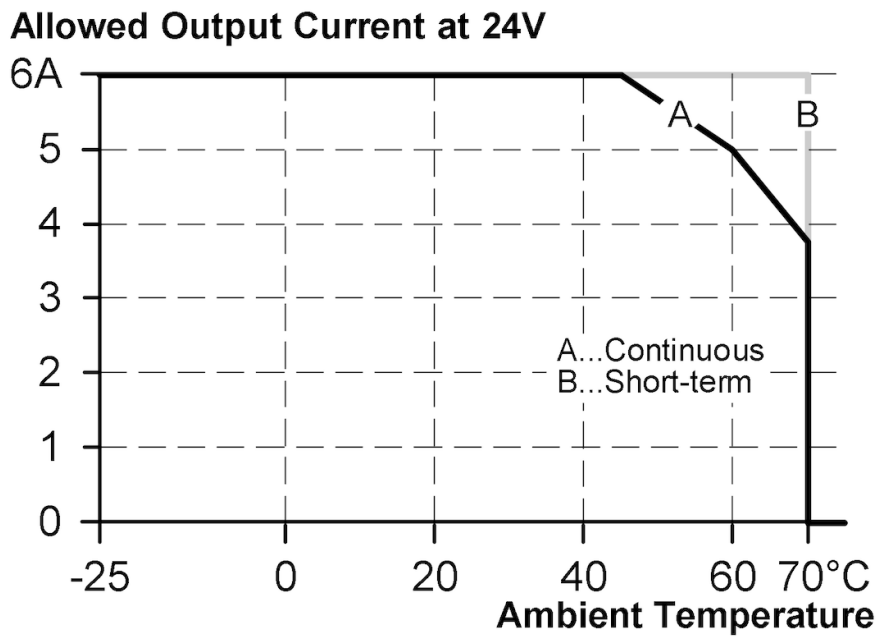
Switched-mode power supply 24 V DC

PSU-1AC/24VDC-5A

Characteristic curve for degree of efficiency / power loss



Characteristic curve for derating



DN4012



Switched-mode power supply 24 V DC

PSU-1AC/24VDC-5A

Characteristic curve for mains buffering time

