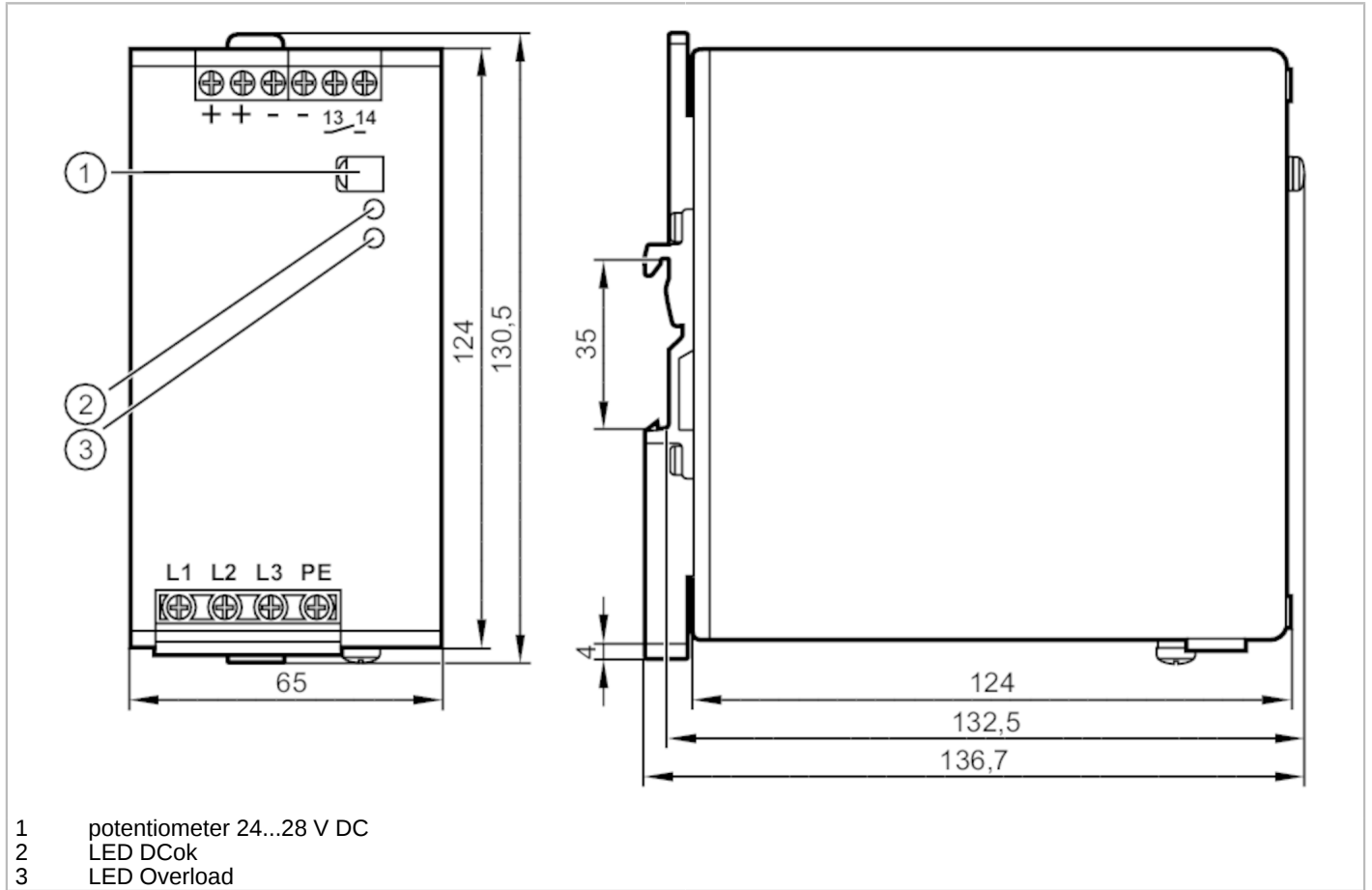


# DN4034



## Switched-mode power supply 24 V DC

PSU-3AC/24VDC-20A



Electrical data	
Frequency AC	[Hz] 47...64
Operating voltage tolerance	[%] 15
Nominal voltage AC	[V] < 400
Input voltage range AC	[V] 380...480
Output voltage DC	[V] 24...28
Protection class	I; (IEC 61140)
Overvoltage protection	yes; (< 35 DC)
Output voltage	[V] adjustable; output voltage to SELV, PELV
Max. output current at min. output voltage	[A] 20
Max. output current at max. output voltage	[A] 17.5
Max. output current peak at min. output voltage	[A] 30
Max. output current peak at max. output voltage	[A] 26
Output power (permanent)	[W] 480
Output power (peak)	[W] 720
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 400 V AC / 50 Hz)	0.94
Note on power factor (nominal voltage 400 V AC / 50 Hz)	with symmetrical phase voltage
Power factor (nominal voltage 480 V AC / 50 Hz)	0.95
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]	3
Switch-on peak current (nominal voltage 480 V AC / 50 Hz) [A]	3
Inrush current limitation	yes
Efficiency (nominal voltage 400 V AC / 60 Hz) [%]	95
Efficiency (nominal voltage 480 V AC / 50 Hz) [%]	94.8
External input protection	$\leq B-6 A / \leq C-3 A$
Derating [W/K]	12 (60...70 °C)
Mains buffering time (nominal voltage 400 V AC / 60 Hz) [ms]	22
Mains buffering time (nominal voltage 480 V AC / 50 Hz) [ms]	22
Input current (nominal voltage 400 V AC / 60 Hz) [A]	0.78
Input current (nominal voltage 480 V AC / 50 Hz) [A]	0.64
Power loss (nominal voltage 400 V AC / 60 Hz) [W]	25.3
Power loss (nominal voltage 480 V AC / 50 Hz) [W]	26.6
Back feeding protection [V]	34

### 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)

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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	±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
Power Factor Correction (PFC)		met

### Mechanical data

Weight	[g]	1029
Type of mounting		rail; (TH35 (EN 60715))
Dimensions	[mm]	124 x 65 x 132.5
Material		steel sheet

### Displays / operating elements

Display	DCok	1 x LED
	overload	1 x LED

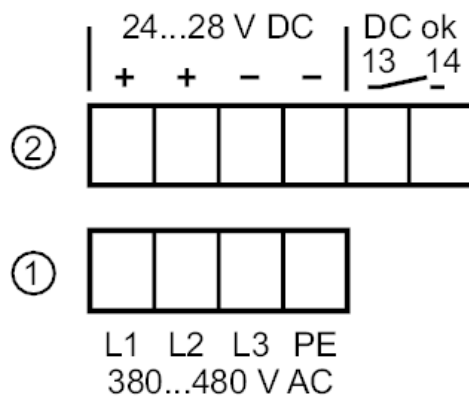
### Remarks

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

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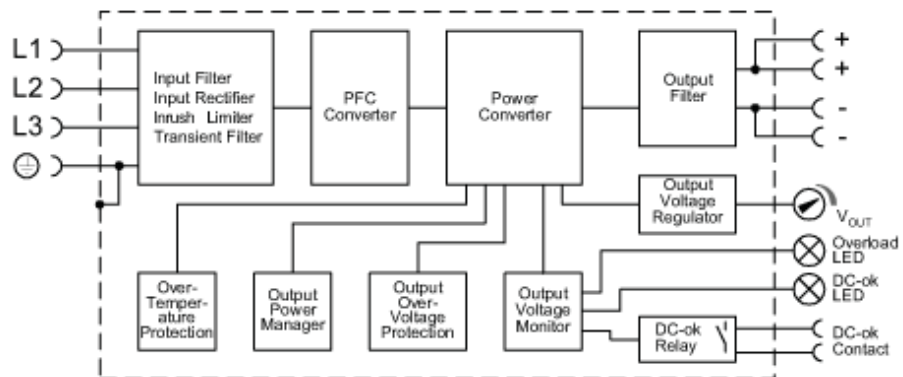


## Switched-mode power supply 24 V DC

PSU-3AC/24VDC-20A

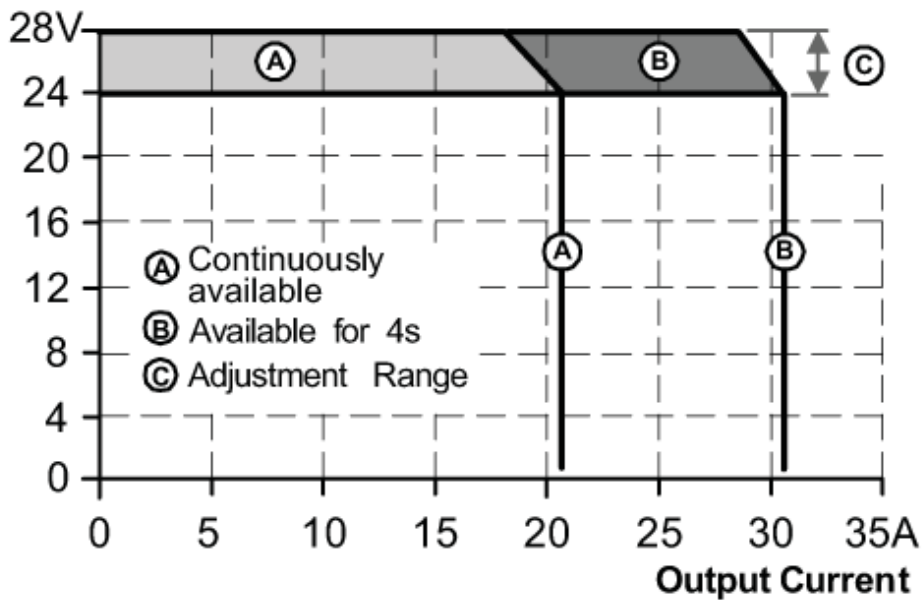
### Diagrams and graphs

Block diagram



Output curve

### Output Voltage



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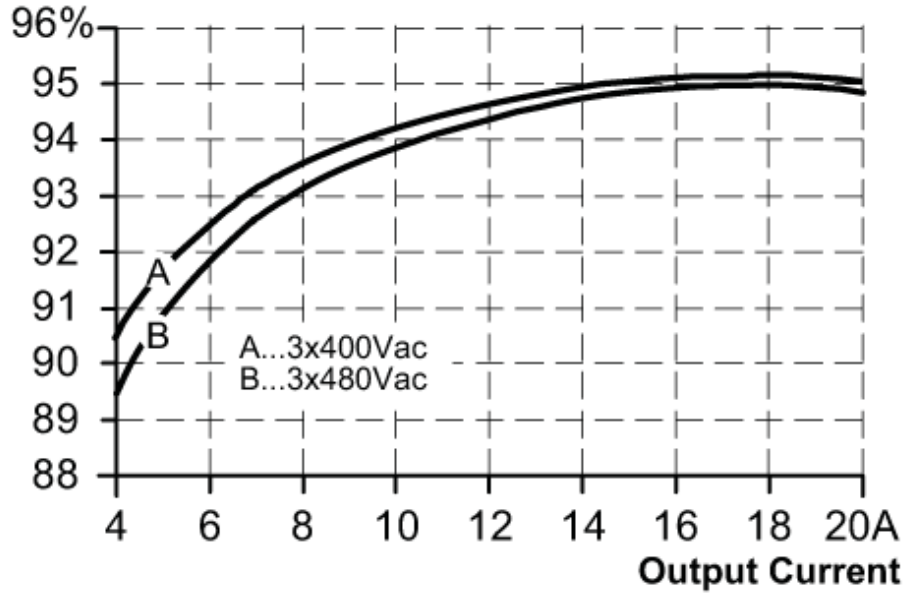


## Switched-mode power supply 24 V DC

PSU-3AC/24VDC-20A

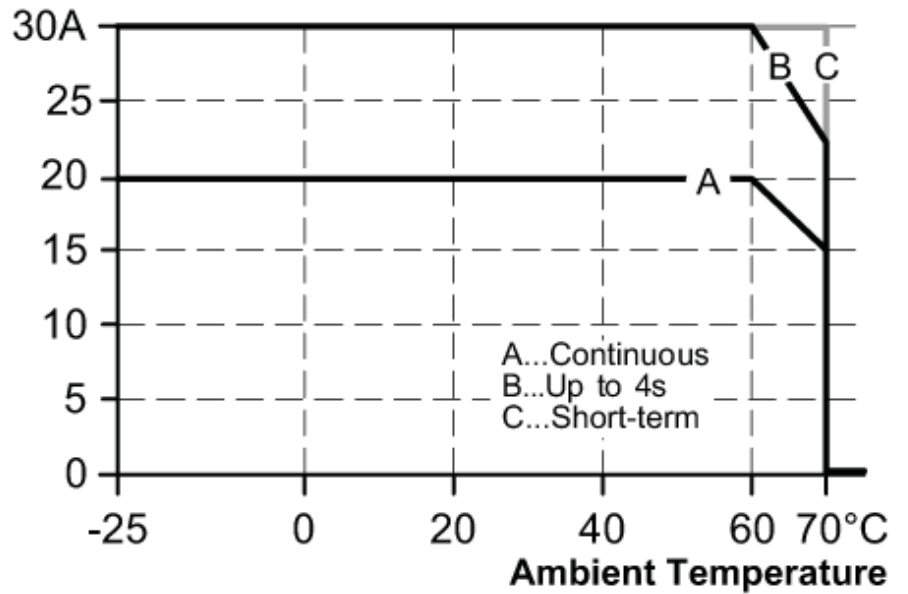
Characteristic curve for degree of efficiency / power loss

### Efficiency



Characteristic curve for derating

### Allowed Output Current at 24V



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## Switched-mode power supply 24 V DC

PSU-3AC/24VDC-20A

Characteristic curve for mains buffering time

