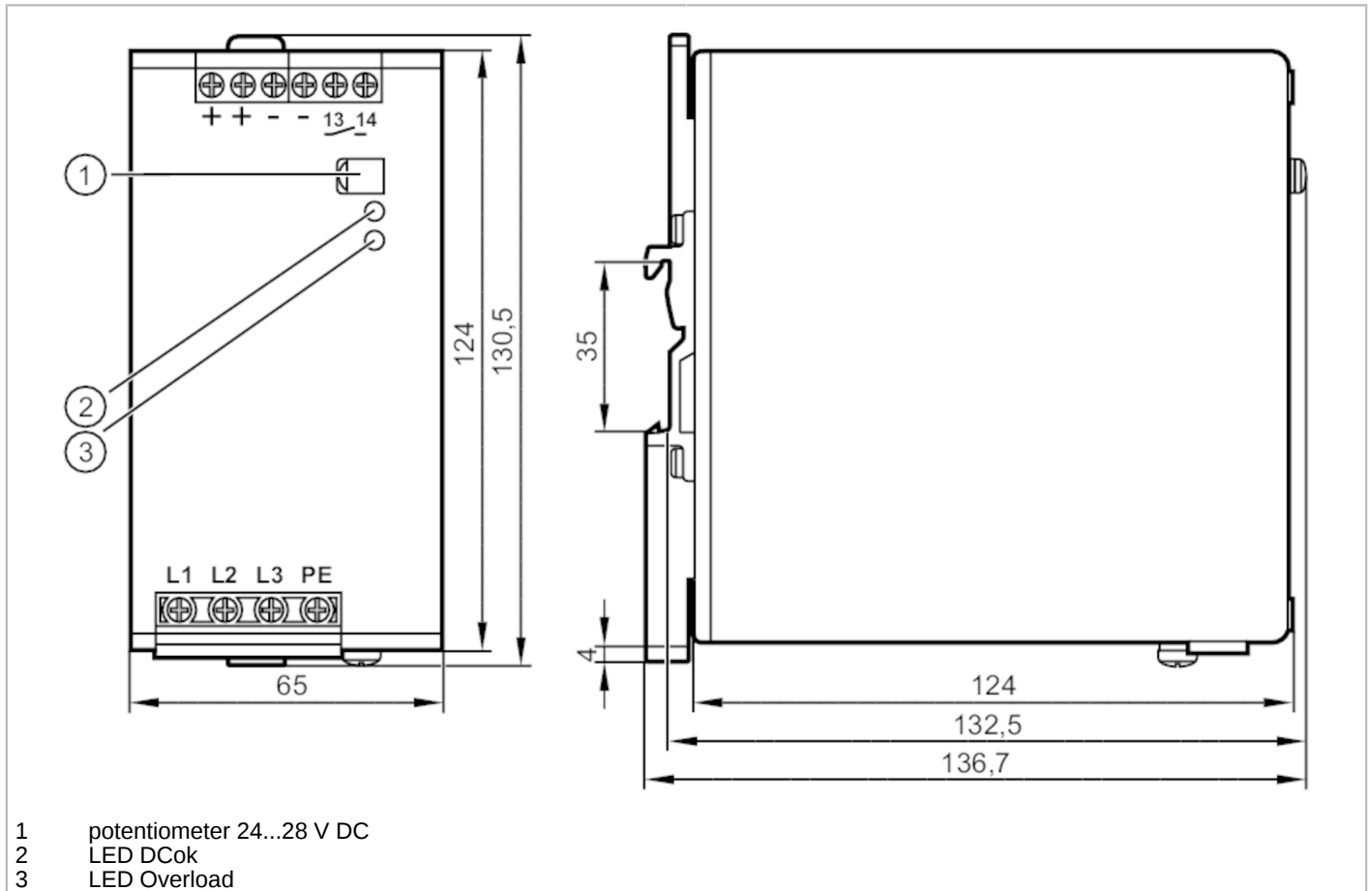


DN4034



Switched-mode power supply 24 V DC

PSU-3AC/24VDC-20A



Application

Design housing for DIN rail mounting

Electrical data

Frequency AC	[Hz]	47...64
Nominal voltage AC	[V]	< 400
Input voltage range AC	[V]	380...480; (-15 % / +15 %)
Output voltage DC	[V]	24...28
Protection class		I; (IEC 61140)
Oversvoltage 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

DN4034



Switched-mode power supply 24 V DC

PSU-3AC/24VDC-20A

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	$\geq B-6 A / \geq C-3 A$
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)

DN4034



Switched-mode power supply 24 V DC

PSU-3AC/24VDC-20A

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
MTTF [years]		132
Power Factor Correction (PFC)		met

Mechanical data

Weight [g]	1029
Housing	rectangular
Type of mounting	Mounting on DIN rail; (TH35 (EN 60715))
Dimensions [mm]	124 x 65 x 132.5
Material	housing: steel sheet

Displays / operating elements

Display	DCok	1 x LED
	overload	1 x LED

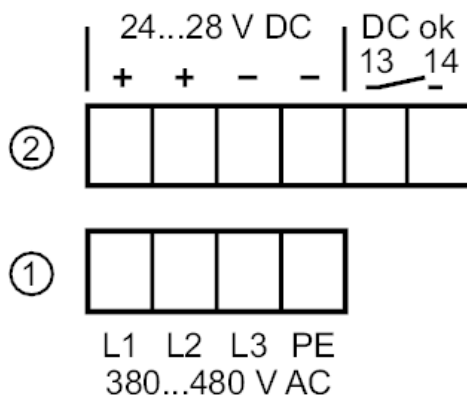
Remarks

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

DN4034

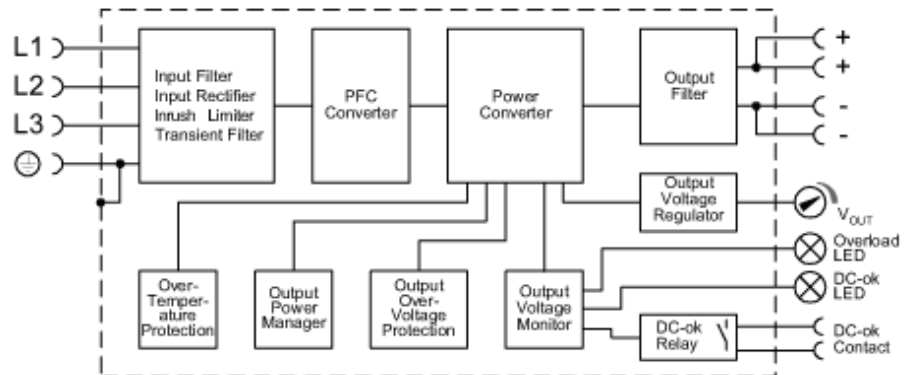


Switched-mode power supply 24 V DC

PSU-3AC/24VDC-20A

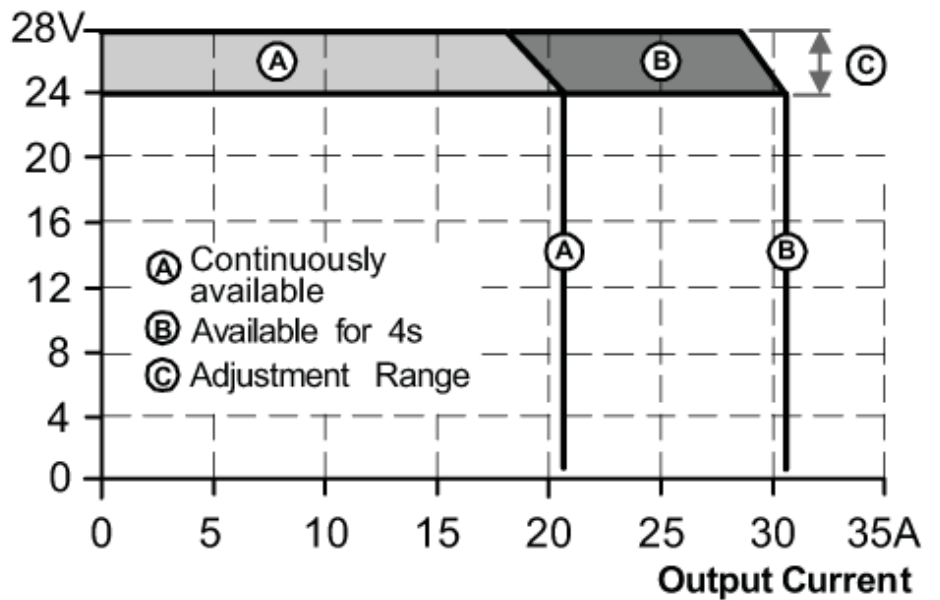
Diagrams and graphs

Block diagram



Output curve

Output Voltage



DN4034

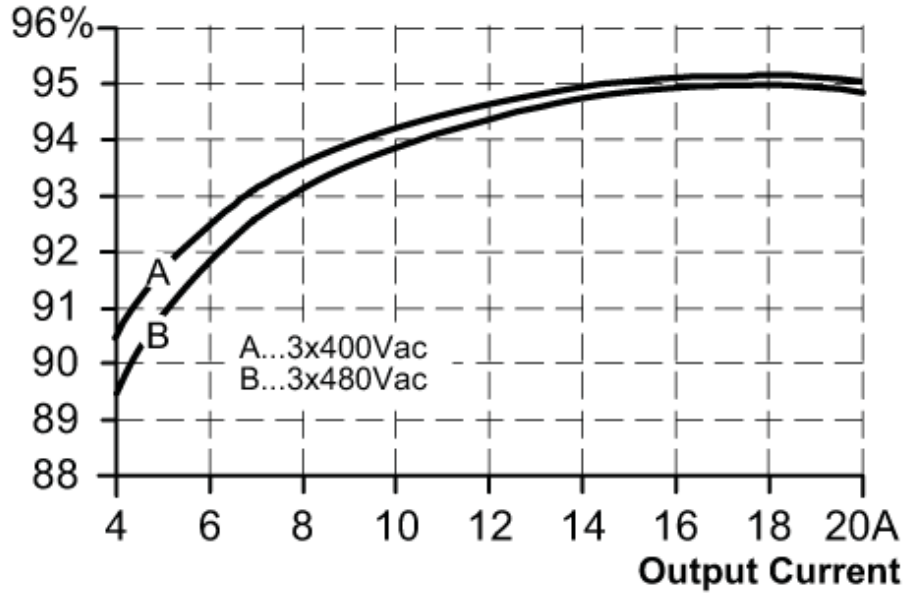


Switched-mode power supply 24 V DC

PSU-3AC/24VDC-20A

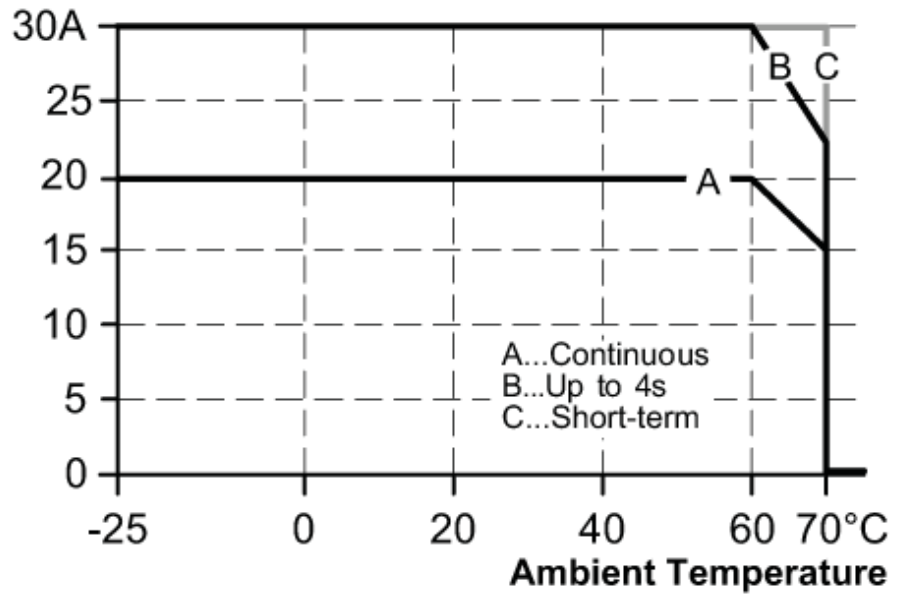
Characteristic curve for degree of efficiency / power loss

Efficiency



Characteristic curve for derating

Allowed Output Current at 24V



DN4034



Switched-mode power supply 24 V DC

PSU-3AC/24VDC-20A

Characteristic curve for mains buffering time

