

dimensions **125.5 x 125.2 x 100mm**
to
276.0 x 125.2 x 100mm

switching power supply unit output voltage
24V DC

- ✓ large AC input voltage range
- ✓ protected against short circuit, overcurrent, overvoltage and overheating
- ✓ mountable on 35mm DIN-rail
- ✓ LED indicator for power on



compact, lightweight
UL approved



description

A switching power supply unit is an electronic module which converts an unstabilized input voltage (DC or AC voltage) into a DC voltage of a different level.

Unlike with conventional power supply units with a 50 or 60 Hz transformer, with switching power supply units the mains voltages is first rectified, then converted into an AC voltage of a considerably higher frequency for transformation and, after transformation, is finally rectified again.

Owing to the lower copper losses, switching power supply units are much more efficient than mains transformers in the lower power range. Moreover, they are more compact and lighter than conventional, linear power supply units that contain a heavy transformer with iron core and cause additional losses in the linear regulator.

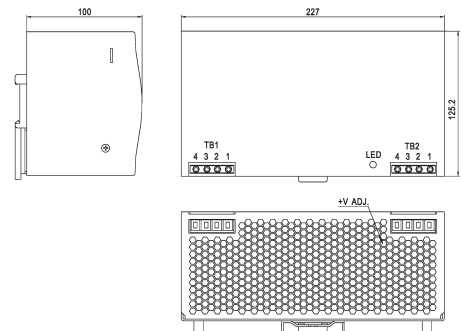
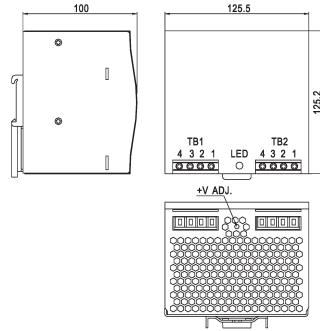
Another advantage is the high tolerance range for input voltage and mains frequency.

Using the „+V Adj“ potentiometer, the output voltage can be regulated in the specified ranges without impairing stability.

application examples

- ▶ DC voltage supplies from power grid
- ▶ power supply units for diode lasers
- ▶ arc welders
- ▶ chargers for large accumulators
- ▶ power supply devices for pump light sources of solid-state lasers (flash and arc lamps)

article-no.	NCKB1001	NCLB2001
output voltage	24V DC $\pm 1\%$	24V DC $\pm 1\%$
output current (I nom)	10A	20A
output power	240W	480W

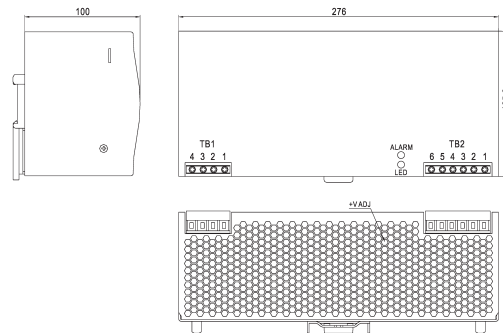


TECHNICAL DATA

output voltage	24V DC	24V DC
adjustment range	24 ... 28V DC	24 ... 28V DC
output current (I nom)	10A	20A
output power	240W	480W
input voltage	340 ... 550V	340 ... 550V AC
frequency	47 ... 63Hz	47 ... 63Hz
input current (I nom)	0.75A/500V AC	1.3A/500V AC
display (operation)	green LED	green LED
overload protection	105 ... 150% of power consumption 30 ... 36V DC	105 ... 150% of power consumption 30 ... 36V DC
	temperature protection: switch-off at $< +100^{\circ}\text{C}$	temperature protection: switch-off at $< +100^{\circ}\text{C}$
dimensions	125.5x125.2x100mm	227x125.2x100mm
housing material	aluminum	aluminum
weight	1.3kg	2.5kg
temperature (operation/storage)	$-20 \dots +70^{\circ}\text{C}$ / $-40 \dots +85^{\circ}\text{C}$	$-20 \dots +70^{\circ}\text{C}$ / $-40 \dots +85^{\circ}\text{C}$
temperature coefficient	$\pm 0.03\% / ^{\circ}\text{C}$ (0 ... 50°C)	$\pm 0.03\% / ^{\circ}\text{C}$ (0 ... 50°C)
air humidity (operation/storage)	20 ... 90% / 10 ... 95%	20 ... 90% / 10 ... 95%
degree of protection (EN 60529)	IP 20	IP 20
vibration resistance	10 ... 500Hz, 2g	10 ... 500Hz, 2g
standards (reference)	UL 508, EN60950-1	UL 508, EN60950-1
connection	terminals	terminals
mounting	35mm DIN-rail	35mm DIN-rail

2-phase operation with smaller load possible

article-no.	NCLG4001
output voltage	24V DC $\pm 1\%$
output current (I nom)	40A
output power	960W



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TECHNICAL DATA

output voltage	24V DC
adjustment range	24 ... 28V DC
output current (I nom)	40A
output power	960W
input voltage	340 ... 550V AC
frequency	47 ... 63Hz
input current (I nom)	2A
display (operation)	green LED
overload protection	105 ... 125% of output power 30 ... 36V DC temperature protection: switch-off at $< +100^{\circ}\text{C}$
dimensions	276x125.2x100mm
housing material	aluminum
weight	0.8kg
temperature (operation/storage)	$-20 \dots +60^{\circ}\text{C}$ / $-40 \dots +85^{\circ}\text{C}$
temperature coefficient	$\pm 0.03\%$ / $^{\circ}\text{C}$ (0 ... 50°C)
air humidity (operation/storage)	20 ... 90% / 10 ... 95%
degree of protection (EN 60529)	IP 20
vibration resistance	10 ... 500Hz, 2g
standards	UL 508, EN60950-1
connection	terminals
mounting	35mm DIN-rail 2-phase operation with smaller load possible

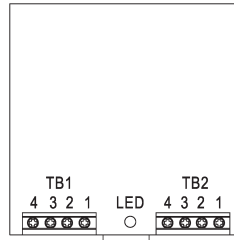
connection NCKB1001

terminals TB1

terminal 1:	PE
terminal 2:	input AC L3
terminal 3:	input AC L2
terminal 4:	input AC L1

terminals TB2

terminal 1:	output DC (+24V)
terminal 2:	output DC (+24V)
terminal 3:	output DC (0V)
terminal 4:	output DC (0V)



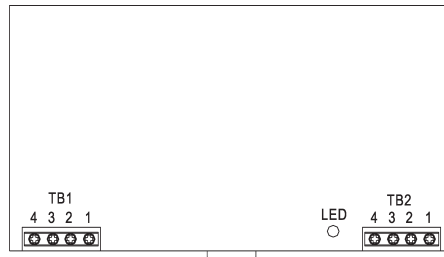
connection NCLB2001

terminals TB1

terminal 1:	input AC L1
terminal 2:	input AC L2
terminal 3:	input AC L3
terminal 4:	PE

terminals TB2

terminal 1:	output DC (+24V)
terminal 2:	output DC (+24V)
terminal 3:	output DC (0V)
terminal 4:	output DC (0V)



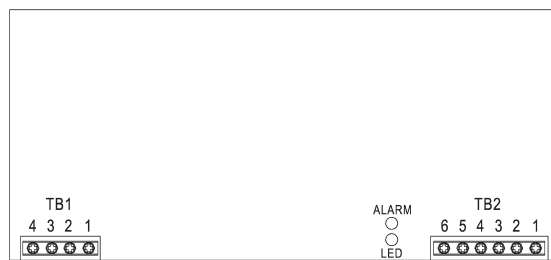
connection NCLG4001

terminals TB1

terminal 1:	input AC L1
terminal 2:	input AC L2
terminal 3:	input AC L3
terminal 4:	PE

terminals TB2

terminal 1:	output DC (+24V)
terminal 2:	output DC (+24V)
terminal 3:	output DC (+24V)
terminal 4:	output DC (0V)
terminal 5:	output DC (0V)
terminal 6:	output DC (0V)



This data sheet only contains the available standard variants. For other output / connection variants, we kindly ask that you contact us.

We are happy to supply the right cable socket for the plug equipment. You will find a list in the “accessories” section of the catalog under **ipf-SENSORFLEX**® “cable sockets” or in the search window on our homepage www.ipf-electronic.com (using the search term “VK”).

Warning: Never use these devices in applications where the safety of a person depends on their functionality.

You also find this data sheet, as well as contact details under www.ipf-electronic.com