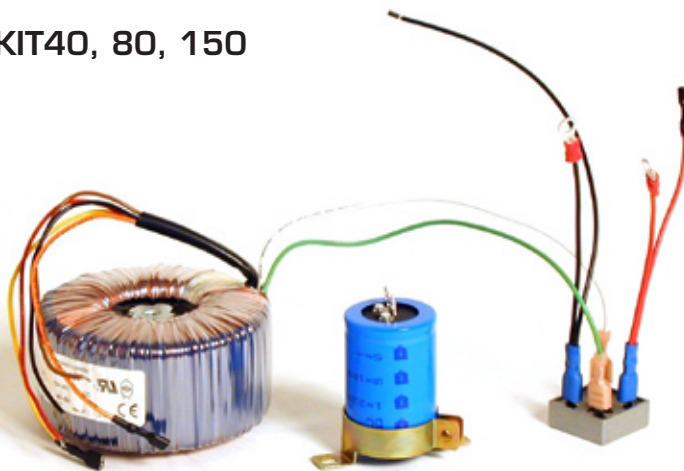


Power supply kits for motor drivers and controllers PSUKIT 40, 80, 150 and PSU00-PD1

PSUKIT40, 80, 150



PSU00-PD1



These power supplies can be used in applications when there is insufficient space for a standard power supply or a more cost-effective solution is required.

General

- Low-cost unregulated DC power supplies.
- Simple construction and low cost
- Flexibility in mounting (loose parts)
- 115 and 230VAC, 50-60Hz input

- Built-in TCO thermo switch, 128°C
- Compact and easy to mount
- High peak current ideal for motor controllers with fast acceleration
- UL and CSA transformer
- Transformer design in accordance with EN60742 (VDE0551)
- Low-cost alternative to standard power supply series PSUxx from JVL
- Ideal for OEM use

PSUKIT 40, 80 and 150

The PSUKIT consists of a transformer, a capacitor and a bridge rectifier.

- 40, 80 and 150VDC output
- 100 to 1000W. Up to 4kW peak

PSU00-PD1 and PSU00-PD2

- Modules with built-in power dump circuit and resistor
- Used for AC or DC operation.
- Dimensions: Ø67mm x 134mm



PSUKIT 40, 80, 150

Connections for PSUKIT

All kits contain transformer with connector to diode bridge, transformer screw, capacitor, bridge with 4 diodes, 2-wire with connector to diode bridge.

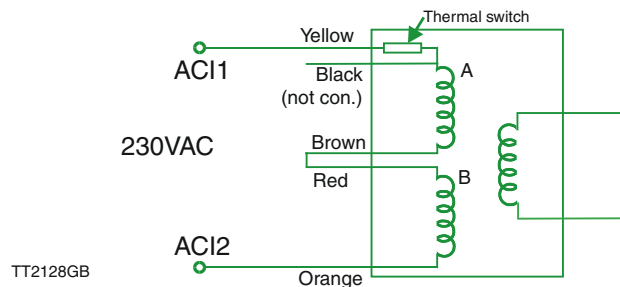
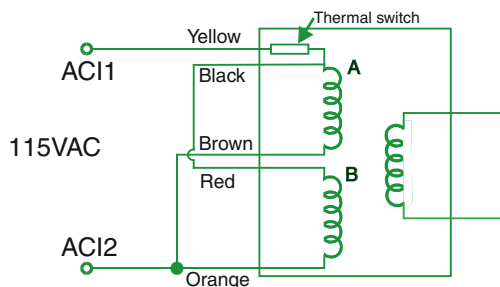
Model	Transformer	Input voltage	AC outout Voltage from transformer	DC voltage (nominal)	Amp.	Power	Thermo switch (AC1)	Primary Winding A	Primary Winding B	AC Output (AC01)	AC Output (AC02)	Recom- mended R (Note 1)	Trafo Dimen- sions dia. x height (mm)
PSUKIT40-3	RTD300-128	2x115 or 230VAC	28VAC	39VDC	9.2A	300W	Yellow	Black* Brown	Red* Orange	Red	Red	10kΩ	97x85
PSUKIT40-10	RTD1000-29944	2x115 or 230VAC	28VAC	29VDC	26A	1kW	Yellow	Black* Brown	Red* Orange	Blue (AC01) Grey (AC03)	Violet (AC02) White (AC04)	10kΩ	170x90
PSUKIT80-40	RTD360-154	2x115 or 230VAC	54VAC	76VDC	6.6A	360W	Yellow	Blak* Brown	Red* Orange	Black	Black	22kΩ	97x89
PSUKIT80-10	RTD1000-29944	2x115 or 230VAC	54VAC	76VDC	13A	1kW	Yellow	Black* Brown	Red* Orange	Blue (AC01) Grey (AC03)	Violet (AC02) White (AC04)	10kΩ	170x90
PSUKIT150-2	RTD260-1128-02	2x115 or 230VAC	105VAC	155VDC	1.8A	260W	Yellow	Black* Brown	Red* Orange	White	White	33kΩ	97x78

Note 1: A 1W resistor, R, is recommended to discharge the capacitor at power off, and to ensure that the voltage does not increase at "no load" applications.

Connections for PSUKIT's

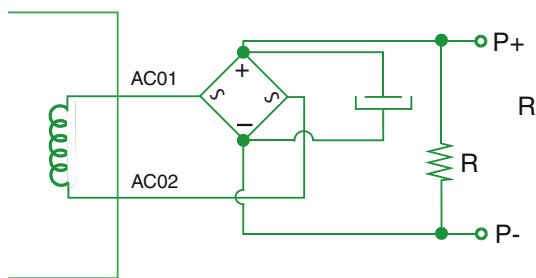
Mains supply connections for 115VAC and 230VAC

PSUKIT40-3, PSUKIT40-10, PSUKIT80-4, PSUKIT80-10, PSUKIT150-2



Transformer AC output connections

PSUKIT 40-3, PSUKIT80-4, PSUKIT 150-2

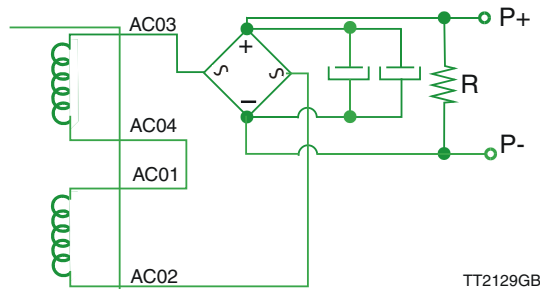


Example of connection:

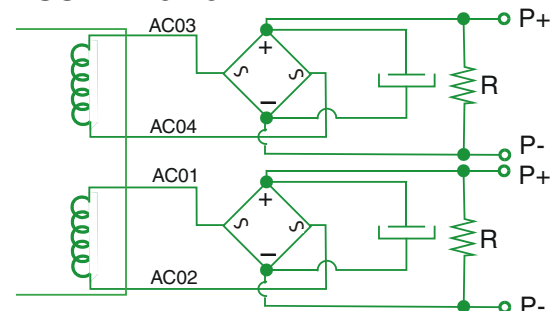
Trafo RTD300-128 is used

- Connect 230VAC to yellow and orange. Short circuit brown/red.
- Connect AC output from transformer. Red and Red wire to the 2 AC inputs on diode bridge.
- Connect + on the diode bridge to + on the capacitor (pin1) and to P+ on driver.
- Connect - on diode bridge to - on the capacitor (pin5) and to P- on the driver
- Connect a resistor, 10kOhms/1W between the 2 capacitor pi

PSUKIT 80-10



PSUKIT 40-10



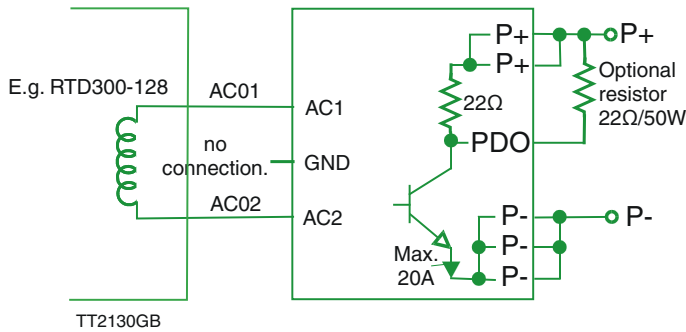
Connections for PSU00-PD1

The PSU00-PD1 Power supply and power dump resistor consists of a rectifier, a capacitor and a large capacitor. If the voltage nevertheless increases to more than about 50VDC, the

energy will be dissipated in a built in power dump resistor. An external transformer can be connected e.g. RTD300-128 with a maximum voltage of 30VAC. It can also be used to-

gether with switchmode power supplies to absorb energy and keep a stable DC voltage regardless of peak power consumption.

AC Connection to PSU00-PD1

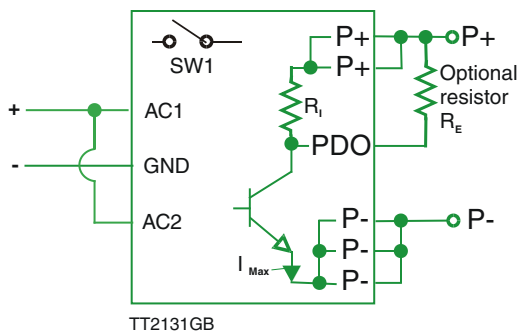


Dimensions Ø67x134mm

Absolute max. Values:

AC voltage between AC1 and AC2: 35VAC
 DC voltage between AC1 or AC2 and GND: 50VDC
 Current in AC1 or AC2: 15A
 Internal dump resistor: 10W cont. 40W peak
 PSU00-PD1 is not short circuit protected

DC Connection to PSU00-PD1



SW=on:

Activates PDO to discharge capacitor when AC supply is removed.

SW=off:

If AC01 or AC02 are unconnected, set

SW=off:

Power LED:

Shows voltage between P+ and P-

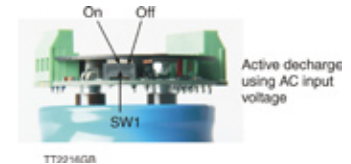
Overload LED:

Shows over-temperature >59°C on PCB

Active:

Flashes if PDO output is active

	PSU00-PD1	PSU00-PD2
P+max	49VDC	98VDC
R _i	22Ω/10W	47Ω/10W
R _e min	≥5Ω	≥10Ω
R _e typ.	22Ω/100W	47Ω/100W
I Max	20A	10A
PDO on	52VDC	94VDC
PDO off	50VDC	87VDC



- PDO is an output where an external power resistor can be connected to absorb deceleration energy.
- The PDO output is activated when the voltage P+ goes above 52VDC. The Power LED

will be active when P+ is above 18VDC.

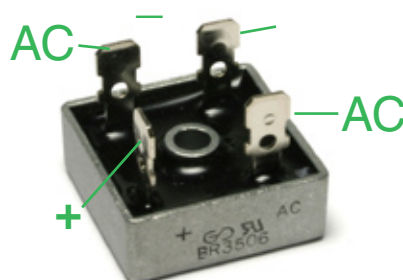
- The active LED will flash when the power dump output is active.
- The overload LED is active when the internal temperature is above 60° C.

- With dipswitch SW1 it is possible to activate a discharge
- capacitor circuit at power off: If SW is on the internal or external power dump resistor secures that the P+ voltage is below 5VDC within 10 seconds.

Connection of Capacitor



Connection of Rectifier





JVL Industri Elektronik A/S
Blokken 42
DK-3460 Birkerød, Denmark
Tel: +45 4582 4440
Fax: +45 4582 5550
E-mail: jvl@jvl.dk www.jvl.dk

