

-90 -80 -70 -60 -50 -40 -30 -20 -10

-10
-20

Undervoltage Buffer UP-25



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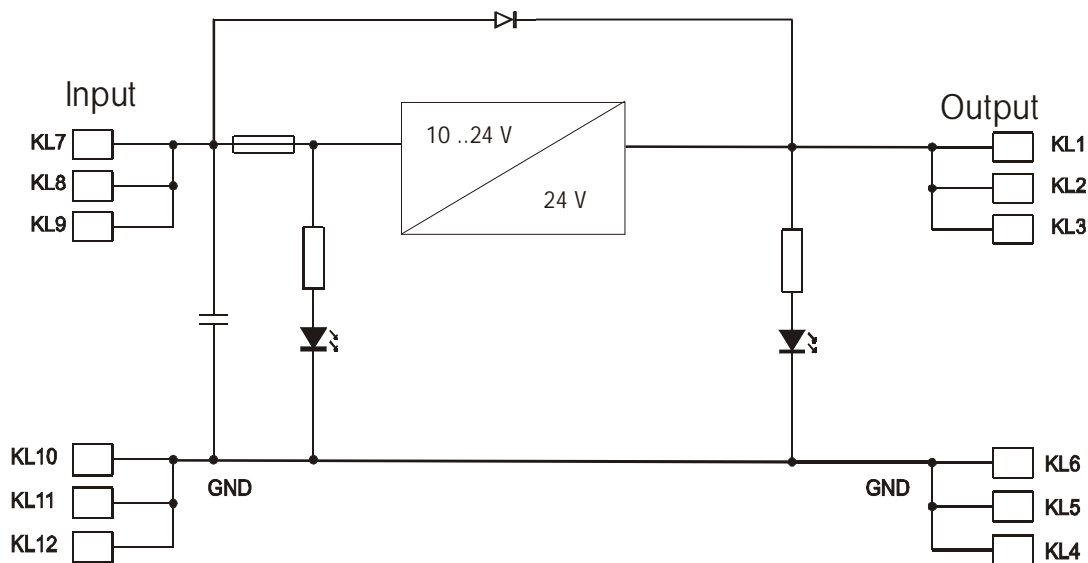


1 General remarks

The UP-25 serves for a temporary supply of DC powered devices that respond sensitive in case of voltage drop, e.g. controllers or CPUs of memory-programmable controllers. It bridges brief voltage dips (no power failures!), that occur for instance when starting diesel generators, and supplies the necessary power for the connected controllers for an interim period. Unlike conventional accumulator-based solutions, the UP-25 is totally maintenance-free.

The UP-25 is available in a 12 V and a 24 V version. A variant with adjustable output voltage (18 up to 26 V) is also available on request.

2 Function



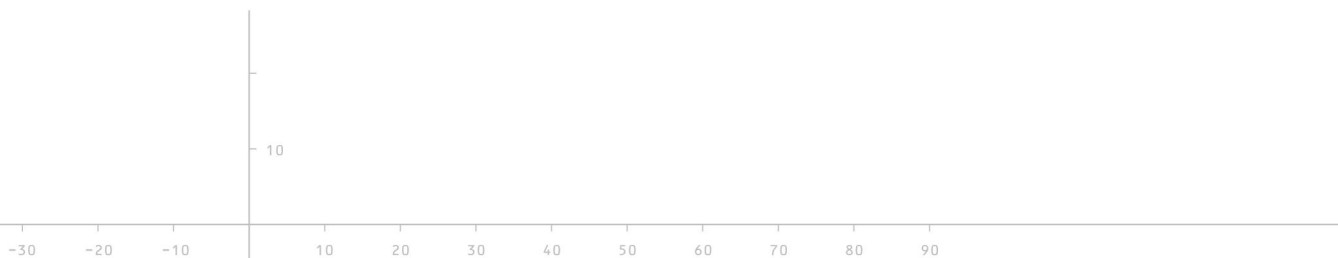
The auxiliary voltage of plant ($> 24,6\text{ V}$) is supplied to the input during normal operation. This voltage is transmitted directly to the output (minus $0,6\text{ V}$ diode voltage).

This undervoltage buffer will take over the power supply when the input voltage drops below 24 V and will supply 24 V to the output. The UP-25 can maintain this operating status for up to 60 seconds at approx. 40 watts output power and a minimum input voltage of 10 V .

for 12 V devices: auxiliary voltage of plant $> 12,6\text{ V}$;
 minimum voltage 7 V , 60 s at approx. 20 watts output power;

2.1 Indication LEDs

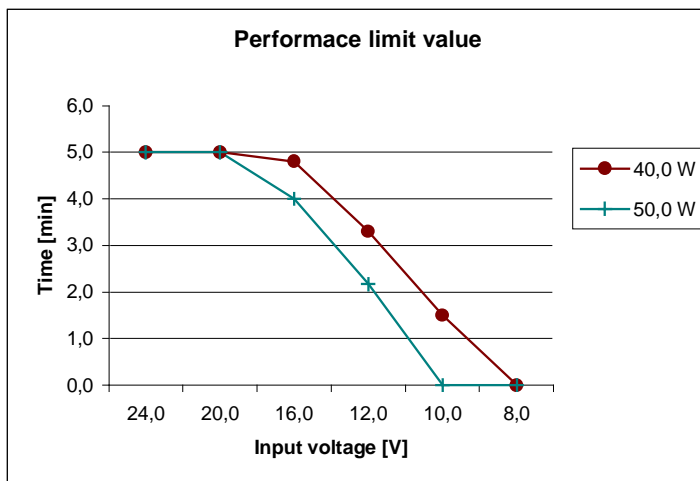
One LED is connected to both, the input and output terminals. These LEDs indicate that voltage is supplied to the input, respectively is available at output.





2.2 Limits of performance

The UP-25 is designed for a maximum current of 2 A in continuous operation and is internally safeguarded by a self-reset control. Buffering operation will supply 1.6 A at an output voltage of 24 V for approx. 60 seconds. At higher output currents the output voltage will slowly decline (approx. 20 V at 2 A).



Example relating to the Diagram:

At 40 W output power and an input voltage of 10 V the UP-25 is able to maintain the power supply for up to 1.5 minutes.

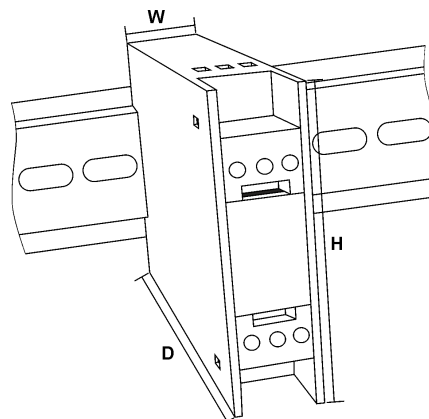
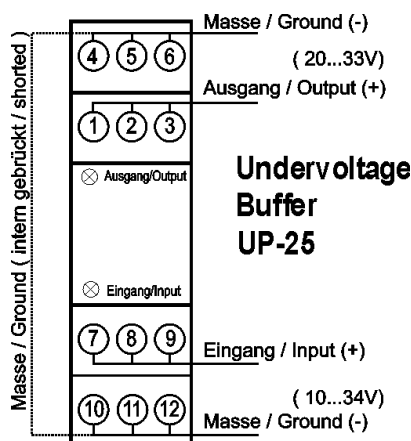
For power failures we recommend the additional use of the UKP-01 to bridge short power failure periods. For trouble-free operation the UP-25 always requires a minimum voltage of approx. 10 V and an adequate power supply (6 A at approx. 10 V) when a 40 watt consumer is connected.

3 Technical data



Installation and commissioning only by trained specialists.
Connecting according to VDE 0160.

	24 V – Version	12 V – Version
Normal operation:	24 ... 34 V DC	12 ... 18 V DC
Output current:	max. 2A (S1)	
Buffering Operation:	10 ... 24 V DC	7 ... 12 V DC
Output power:	max. 40 W (S6) 60 sec at 24 V DC	max. 20 W (S6) 60 sec at 12 V DC
Power consumption (inherent):	approx. 1 W	
Ambient temperature:	-20 ... 55 °C	
Case dimension:	W / H / D : 23 x 75 x 100 mm	
Accessory:	UKP-01	

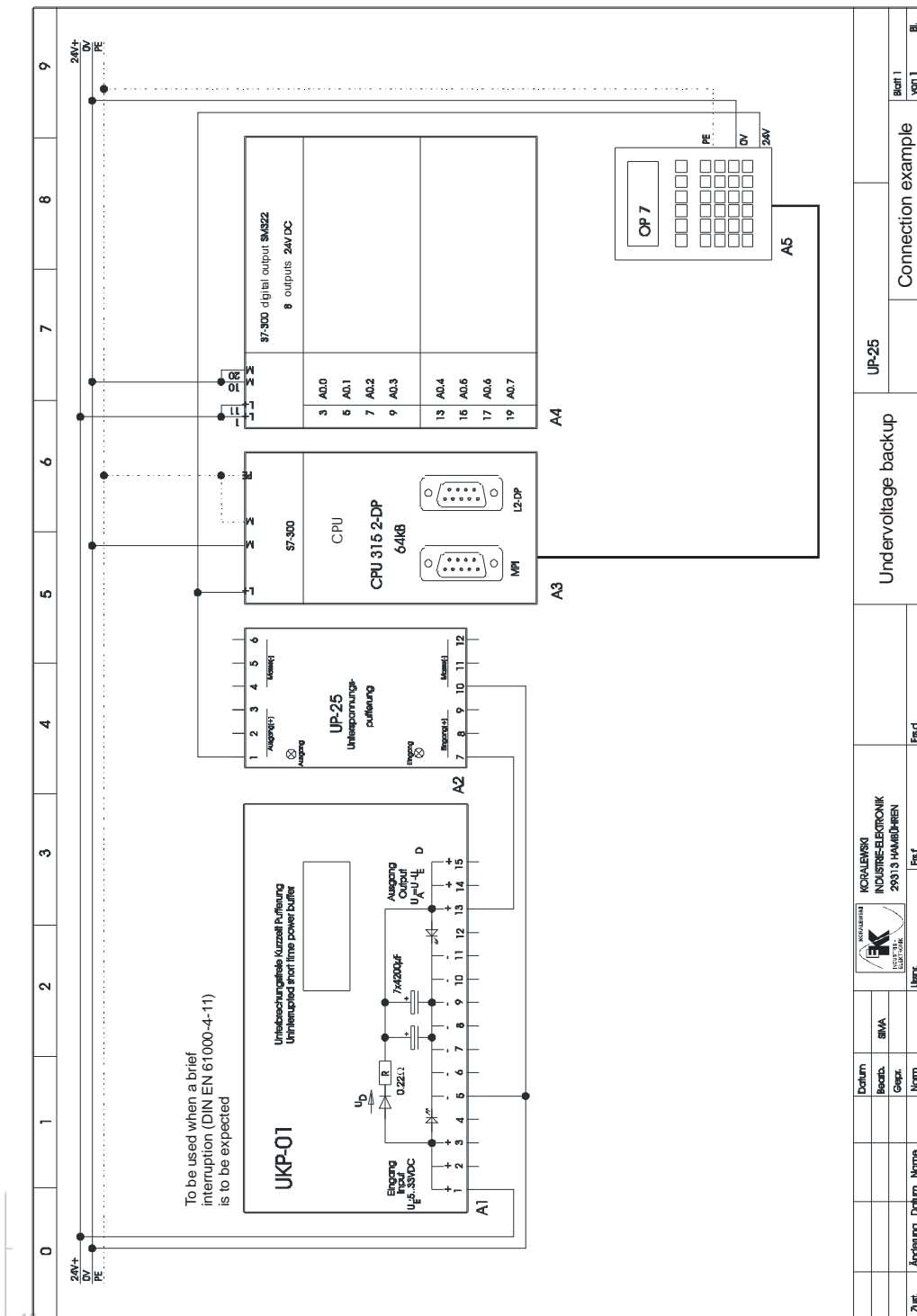




3.1 Ordering information

Undervoltage Buffer UP-25	Part number
12 V DC – version	E1317
24 V DC – version	E1316
Accessories – UKP-01:	E1204

4 Connection example



Zust.		Änderung		Datum	Name	Ueap.			Entf.
					SVA				
					Norm				
					Gez.				
					Recap.				
					Datum				
KORALEWSKI INDUSTRIE-ELEKTRONIK 29313 HAMBÜHREN									
					UP-25 Connection example				
Blatt 1 von 1 Bl.									