



- Primary clocked switch mode power supply
- Output 24 V DC
- Low power dissipation
- Operation indication by LED
- Supply for encoders, inductive transducers and electronic modules (as T-Series, IW250, OE30)

KEY INFORMATION OVERVIEW

DESIGN & FUNCTION

The switching power supply E18U-24 is for powering sensors with a supply voltage of 24 V DC. The input power (e.g. 230 V AC) is converted to this voltage. The input is protected against overvoltage and overcurrent, the output is galvanically isolated. Functional monitoring of power thresholds or output voltage is available.

FEATURES INTERFACE

- Cabinet for click on rail
- Operation indication by LEDs
- With functional monitoring of power thresholds or output voltage

PRODUCT CHARACTERISTICS

BOOST CURRENTS

The E18U-24 is provided with a static boost for a permanent load supply and a time-limited dynamic boost.

With the static boost the load supply can be expanded up to 125 % of the nominal current. It is available up to +40 °C.

A dynamic boost of up to 200% of the nominal current is available for maximum 5 s at temperatures up to +60 °C. After the boost a recovery time up to 30 s is needed depending on boost current and boost time.

FUNCTIONAL MONITORING

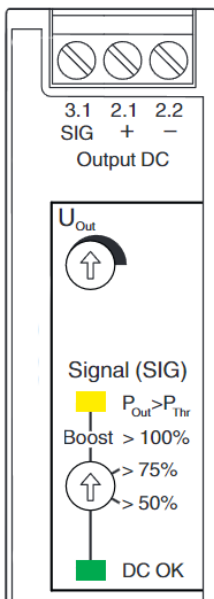
For functional monitoring the E18U-24 is supplied with a rotary selector switch, two LEDs and a signal control output (clamp 3.1, see picture below). The signal control output can be „active high“ (24 V DC, max. 30 mA) or „active low“ (0 V DC, max. 30 mA). With the mentioned items the output signals can be controlled.

If the selector switch is in down position the output voltage is monitored. In normal operation the lower LED is green and the signal control output is „active high“. If the output voltage is less then $0,9 * U_{Out}$ the LED is flashing and the output control signal becomes „active low“.

In the other selector switch positions the output power is monitored. Three different power thresholds can be chosen: >50 %, >75 % or boost >100 % of the maximum output power. In normal operation the upper LED is off and the signal control output is „active high“. When the chosen threshold is exceeded, the upper LED lights up and the signal control output switches to „active low“.

RANGE OF OUTPUT VOLTAGE

The nominal output voltage is 24 V. By turning the potentiometer (see picture below) it can be increased up to 28 V.



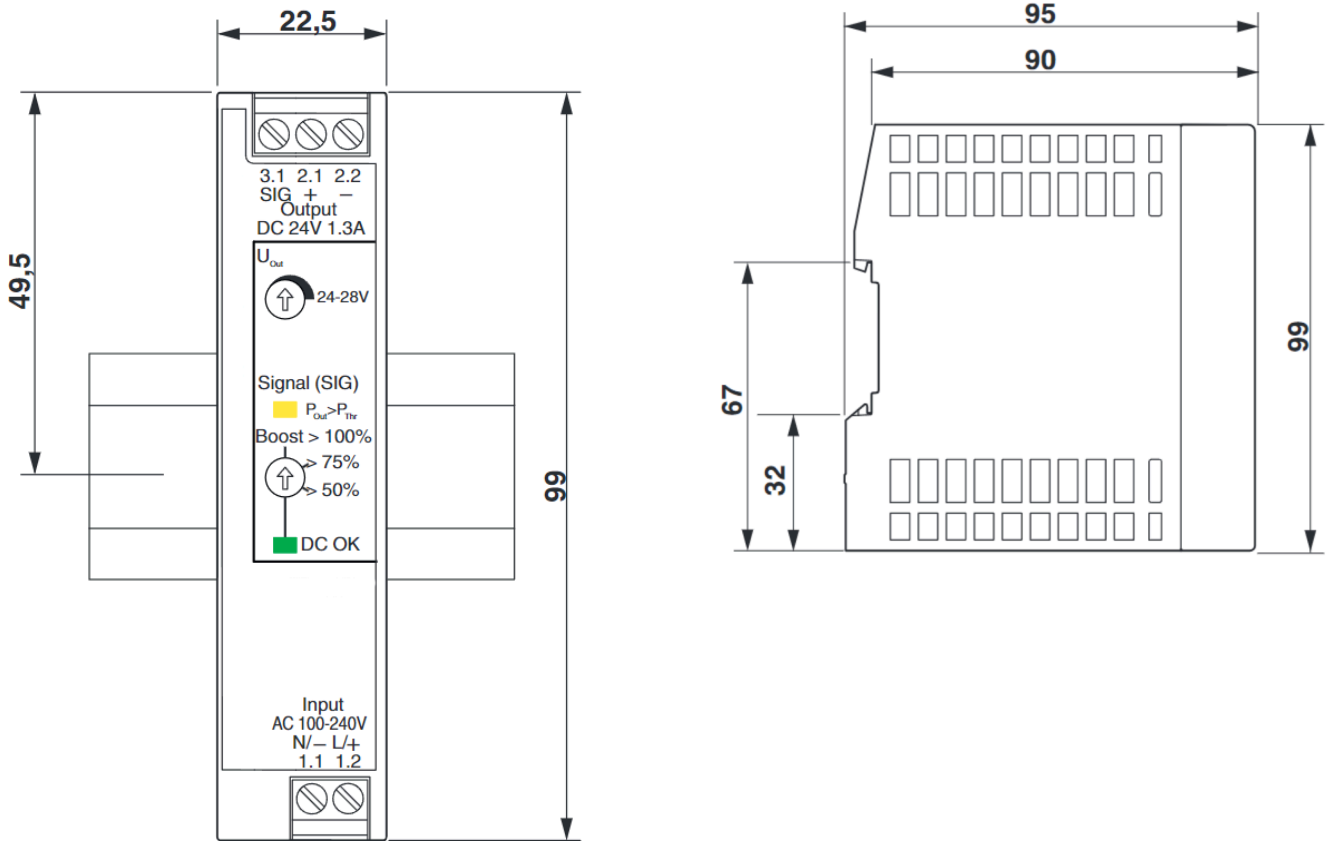
ORDER CODE FORMAT

E18U	- 24	- 01	STANDARD VERSION
E18U	Power supply		
24	Output voltage	24	24 V
01	Electrical and mechanical variants*	01	Standard

* The basic versions according to the data sheet bear the number 01. Deviations are identified with a variant number and are documented at TWK.

INSTALLATION DRAWING

MODEL E18U-24-01



ELECTRICAL CONNECTIONS

Connection method	.....	Screw connection
Cable diameter	.....	0.14 mm ² to 2.5 mm ² (AWG 26 to 14)
1.1	..... N/-	Input -Ub (ground)
1.2	..... L/+	Input +Ub (supply voltage, see page 2)
3.1	..... SIG	Signaling (see page 3)
2.1	..... +	Output (+24 V DC to 28 V DC, see page 3)
2.2	..... 0V-	Output (0 V)

MATERIALS USED

Housing material Polycarbonat