



- Primary clocked switch mode power supply
- Output ± 15 V DC
- Low power dissipation
- Operation indication by LED
- Supply for encoders, inductive transducers and electronic modules (as TBA, IW250, OV15)

KEY INFORMATION OVERVIEW

DESIGN & FUNCTION

The switching power supply E18U is for powering sensors with a supply voltage of ± 15 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

TECHNICAL DATA

ELECTRICAL DATA

Supply voltage	110 V DC to 250 V DC 100 V AC to 240 V AC
Mains buffering	typ. 32 ms (230 V AC)
Frequency range	50 to 60 Hz
Power consumption (for nominal values)	typ. 80 VA
Power loss	< 2 W (no load) < 8 W (nominal)
Switch on current	< 5 A
Ripple	< 60 mV _{SS}
Output voltage	± 15 V DC (short circuit proof)
Output current	2 A (+) / 1.4 A (-)

MECHANICAL DIMENSIONS

Breadth	45 mm
Heigth	106 mm
Width	95 mm
Weigth	0.3 kg

MOUNTING INTO CONTROL RACK

(Minimum clearance to other components for ≥ 50 % of rated output power)

Distance horizontal	5 mm
Distance vertical	30 mm

ENVIRONMENTAL DATA

Operating temperature range	-25 °C to +70 °C
Storage temperature range	-40 °C to +85 °C
Humidity	≤ 95 % (no condensation)
Protection class	IP20
Isolation	Class 2

APPROVALS AND STANDARDS

CE	Electromagnetic conformity
UL (listed UL 61010-1)	US Approval
IEC 61010-1	Electrical safety (of control and regulation devices)
IEC 61558-2-16	Safe isolation
EN 61000-6-2	Electromagnetic compatibility (EMC): Immunity
EN 61000-6-3	Electromagnetic compatibility (EMC): Emission

PRODUCT CHARACTERISTICS**BOOST CURRENTS**

The E18U-30 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.

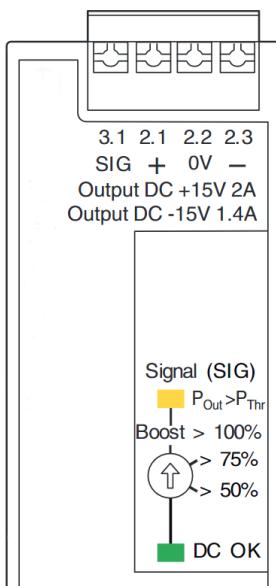
A dynamic boost of up to 200 % of the nominal current is available for maximum 5 s at temperatures up to +60 °C. After the boost a recovery time of up 30 s is needed depending on boost current and boost time.

FUNCTIONAL MONITORING

For functional monitoring the E18U 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“ (15 V DC, max. 24 mA) or „active low“ (0 V DC, max. 24 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 than $0,9 * U_{out}$ 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“.

**ORDER CODE FORMAT**

E18U - 30 - 01 STANDARD VERSION

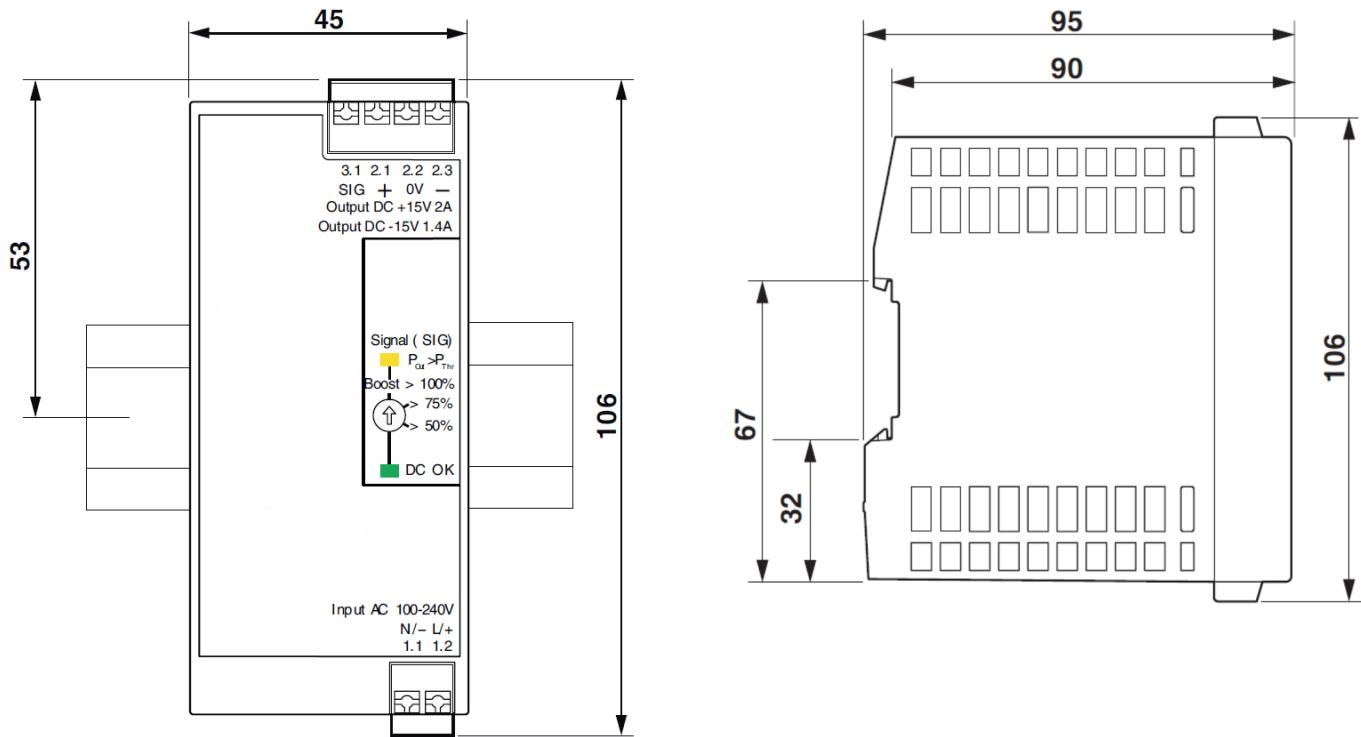
E18U	Power supply		
30	Output voltage	30	± 15 V
01	Electrical and mechanical variants*	01	Standard

* 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-30-01

Dimensions in mm



ELECTRICAL CONNECTIONS

Connection method	Push in
Cable diameter	0.2 mm ² to 2.5 mm ² (AWG 24 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 (+15 V DC)
2.2	0V- Output (0 V)
2.3	- Output (-15 V DC)

MATERIALS USED

Housing material	Polycarbonat
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