

# SCHIEDERWERK

**Electronic Lamp Power Supply**

**PVG 12-25 AC HLV**

*Technical Specifications*



## CHARACTERISTICS

- PFC according to DIN EN 61000-3-2, Class C
- Optimal solution for lamps with
- High burning voltage
- Compact design equipped with remote ON/OFF function and an auxiliary output for running an external fan
- Power factor > 0,98
- Flicker-free operation
- Longer lamp lifetime
- Constant lamp power over entire service time by power regulation
- Increased light output
- Wide range mains input
- Dim function (dependent on lamp type)
- Lamp on/off via opto coupler or switch (optional)
- Lamp OK via opto coupler.

## ORDER NUMBERS

| Type                | Order No.   | Output Power / W | Ignition time | Output frequency during the ignition |
|---------------------|-------------|------------------|---------------|--------------------------------------|
| PVG 12-25 AC HLV    | 32 587 1000 | 2500             | max. 30 sec.  | 250 Hz                               |
| PVG 12-20 AC HLV    | 32 587 1010 | 2000             | max. 30 sec.  | 250 Hz                               |
| PVG 12-20 AC HLV    | 32 587 1015 | 900              | max. 30 sec.  | 250 Hz                               |
| PVG 12-10 AC HLV    | 32 587 1020 | 1000             | max. 10 sec.  | 2,5 Hz                               |
| PVG 12-20 AC HLV    | 32 587 1060 | 2000             | max. 5 sec    | 250 Hz                               |
| PVG 12-20 AC HLV *) | 32 587 1070 | 2000             | max. 5 sec    | 2,5 Hz                               |
| PVG 12-20 AC HLV *) | 32 587 1080 | 2000             | max. 5 sec    | 1000 Hz                              |
| PVG 12-20 AC HLV *) | 32 587 1090 | 2000             | max. 5 sec    | 1000 Hz                              |

\*) PVG with fan

Dimmer control by 1kHz PWM signal.

## LIMITS

Generally all discharge lamps can be supplied within following limits:

**ILmax = 12A**

**ULmax = 320V**

**Pmax = 2500W**

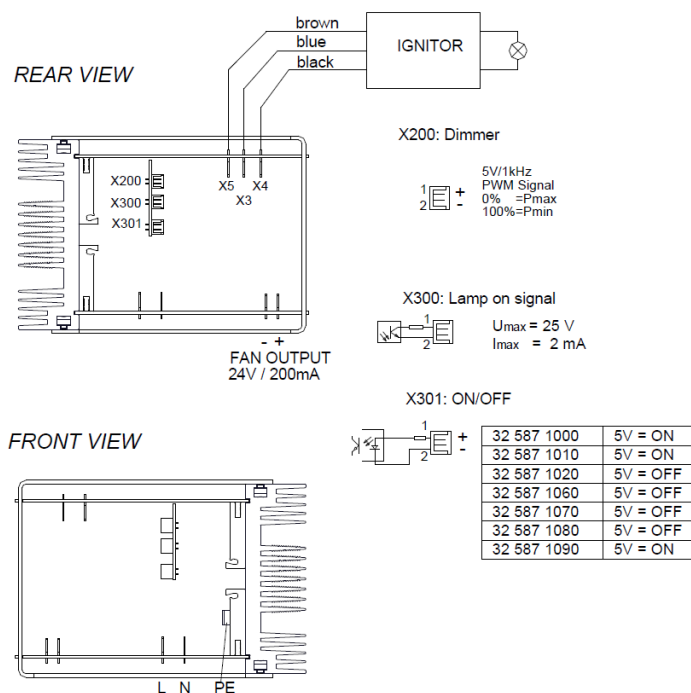
## TECHNICAL DATA

|                                       |  |
|---------------------------------------|--|
| Input voltage range                   | 190-264V   |
| Line frequency                        | 50/60Hz  |
| Open circuit voltage                  | approximately 400V   |
| Maximum lamp voltage                  | 320V   |
| Maximum lamp current                  | 12A  |
| Current ripple                        | < 4%   |
| Earth leakage current 230V, 50-60Hz   | < 0,7mA  |
| Dimming range                         | ~10 -100%, dependent on lamp type  |
| Efficiency                            | 0,94 typ. at $U_e = 230V$ , $U_L = 280V$   |
| Power fluctuation in lamp arc / mains | $\pm 5\%$ / $\pm 1\%$  |
| Auxiliary voltage                     | 24V DC, 200 mA   |
| Ambient temperature                   | 45°C, forced cooling required  |
| Output power tolerance                | $\pm 5\%$  |
| EMI                                   | internal noise filter  |
| Maximum dimensions                    | L x W x H 271 x 153 x 104  |
| Maximum dimensions with fan           | L x W x H 311 x 153 x 104  |
| PFC                                   | Active Power Factor Correction   |
| Approvals                             | UL 60950-1 2 <sup>nd</sup> Edition<br>CSA C22.2 No. 60950-1-07 2 <sup>nd</sup> Edition |

Subject to changes without notice

## CONNECTOR WIRING

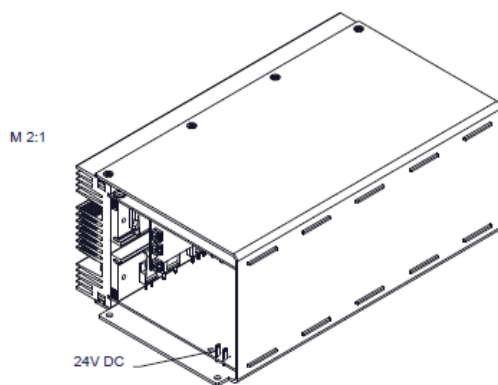
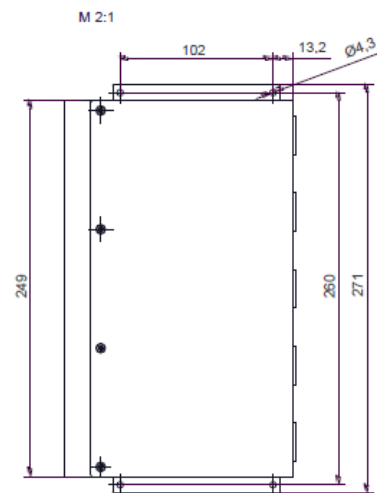
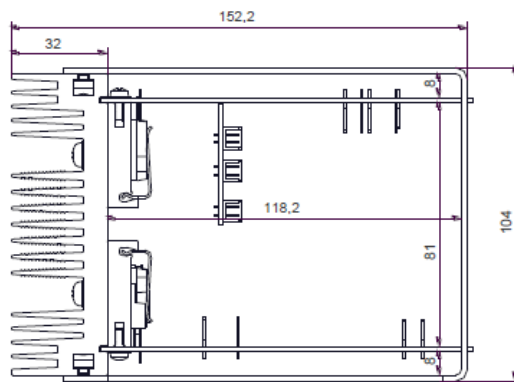
**ATTENTION:** For 2-wire ignitors connect X3 – X4



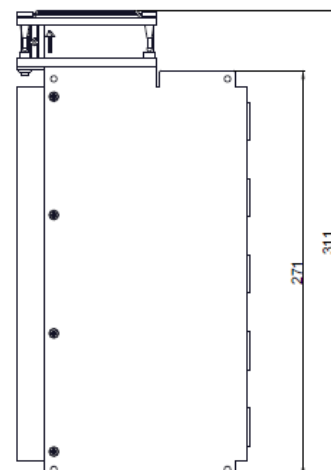
## CONNECTORS

|                |              |            |
|----------------|--------------|------------|
| Mains          | AMP 6,3      | L, N       |
| Ignitor        | AMP 6,3      | X5, X3, X4 |
| Remote         | JST B2B-EH-A | X 301      |
| Dimmer         | JST B2B-EH-A | X 200      |
| Lamp on signal | JST B2B-EH-A | X 300      |
| Fan Output     | AMP 2,8      | + , -      |

## MOUNTING DETAILS



View with fan / Ansicht mit Lüfter



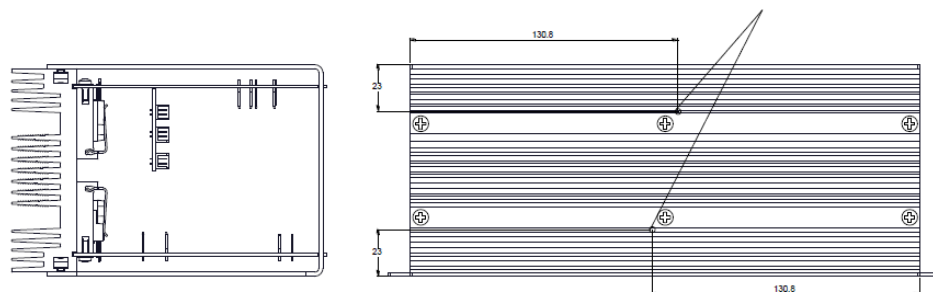
## ACCESSORIES

|                    | Description  | Order No    |
|--------------------|--|-------------|
| Ignitors           | HZG 15-25 L3, for hot restrike *)                    | 32 118 1000 |
|                    | KZG 15-5 L3, for cold start *)                       | 32 059 1000 |
|                    | KZG 10-6 A, for cold start                           | 32 471 1000 |
|                    | KZG 10-8 A, for cold start                           | 32 471 1030 |
| Cables/ Connectors | JST 2-pole connectors with wires, L=500mm, red/black | 32 520 6130 |

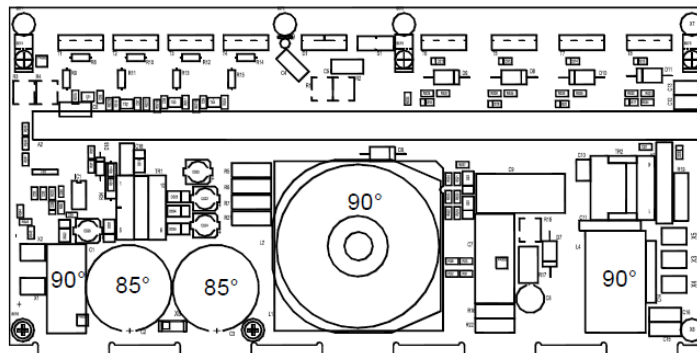
\*) Not suitable in combination with 32 587 1020 (very low start-up frequency)

## TEMPERATURE MEASUREMENT POINTS

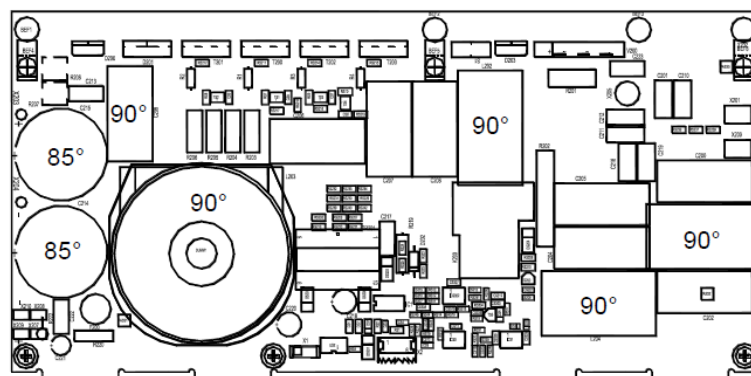
Temperature measurement points on heat sink



Temperature measurement points on PCB TSW-LT



Temperature measurement points on PCB HSF-LT



## WARNING NOTICE

Do not attempt to handle or operate an electronic power supply (EPS) and ignitor before completely reading and understanding this notice. Contact Schiederwerk if you are uncertain of hazards associated with these devices.

The ignitor produces starting voltages of up to 60 kV and electromagnetic radiation interference which are hazardous to personnel and sensitive instrumentation. Exercise appropriate care in the handling of high voltages. Do not touch any conductive parts during operation.

Ensure the units are disconnected from the mains before exchanging the lamp connected to the PSU / ignitor resp. to the end application. The residual charge left on the capacitors is a danger to life if the units are still connected to mains!

**Caution:** The residual charge on the capacitors can be a danger to life even if the units are disconnected from the mains. Please handle with care!

Both electronic lamp ballast and ignitor must never be installed or operated in an explosive or volatile atmosphere. Never use the ballast or ignitor near flammable gases or liquids. See that there will be no moisture, dust or similar which could lead to short circuits or fire.

Before using the ballast or ignitor in any kind of outdoor application you have to take additional measures and observe special requirements. If you are uncertain, contact Schiederwerk.

No potential isolation is provided between line input and output. Accidentally grounding of an output terminal by direct contact or arcing to GND can damage the unit (no warranty replacement).

The unit is designed for case mounting. Due observation of electrical safety and RFI suppression code requirements is mandatory in all applications. See that sufficient cooling of EPS and ignitor is provided.

All installation and repair work on this unit is only permitted by qualified personnel. Always comply with local safety requirements when operating the unit uncased.

Extreme care must be taken when testing the unit live. The use of an isolating transformer is mandatory. On no account may grounded test instruments / meters be used for this purpose!

Schiederwerk does not assume liability for disregarding of this notice, incorrect use of the EPS and ignitor or dis-regarding of any legal requirements. This product is subject to technical changes without prior notice.

### **CAUTION:**

**Mains supply must be fused according to local safety regulations.**

**Schiederwerk recommends 2 pole fuse (L+N). The appropriate fuse value can be calculated as:**

$$1,5 * \frac{P_{\text{lamp}}}{V_{\text{line}}} \geq I_{\text{fuse}} \geq 1,2 * \frac{P_{\text{lamp}}}{V_{\text{line}}}$$

Last Update: 13.01.2015