LED Backlight Panel EasyLine

LED Recessed Mounted Backlight Panels
The use of state-of-the-art LED technology in conventional office and hall illumination provides a lot of advantages like an optimal light distribution and an increased lifetime all at an affordable price. LED Backlight Panels are fully compatible with existing conventional lighting infrastructure, and are the perfect choice for both new and replacement markets.

- LED BackLight Panel
  - With integrated LED driver or without operating device
  - High efficiency of up to 130 lm/W
  - Flat design for easy installation in low false ceiling
  - High colour rendering index CRI: ≥ 80

- 100% INSTANT LIGHT
- WITH OR WITHOUT LED DRIVER
- 3 SHAPES: 595X595 MM, 620X620 MM AND 1195X295 MM
- STANDARD AND UGR19 VERSION
- 5 YEARS GUARANTEE
- ENEC, DEKRA APPROVED
LED Backlight Panel EasyLine

Built-in LED light panel

Dimensions [LxWxH]:
• BP-6060: 595x595x34 mm
• BP-6262: 620x620x34 mm
• BP-12030: 1195x295x34 mm

Frame colour: white (RAL 9003)

Material:
• Frame: aluminium
• Casing: SPCC
• Light diffuser: PC

Degree of protection Backlight Panel: IP40
Degree of protection LED driver: IP20
Impact rating: IK02

Colour accuracy initially: typ. 4 SDCM

Applied standards
• EN 60598-1:2015
• EN 60598-2:1989
• EN 60598-2:2012
• EN 62471:2008
• EN 62493:2010
• EN 55015:2013
• EN 61000-3-2:2014
• EN 61000-3-3:2013
• EN 61547:2009

Electrical characteristics

<table>
<thead>
<tr>
<th>Type</th>
<th>Voltage AC 50–60 Hz (V)</th>
<th>Power factor</th>
<th>Flicker [100 Hz]</th>
<th>Flicker index</th>
<th>SVM</th>
<th>Pst</th>
<th>THD at full load</th>
</tr>
</thead>
<tbody>
<tr>
<td>All types with LED driver</td>
<td>220–240</td>
<td>&gt; 0.9</td>
<td>&lt; 5</td>
<td>&lt; 0.01</td>
<td>&lt; 0.01</td>
<td>0.02</td>
<td>&lt; 1.5</td>
</tr>
</tbody>
</table>

Maximum ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the panels.

Values are only for the Backlight Panel.

<table>
<thead>
<tr>
<th>Type</th>
<th>Max. operating current for versions without LED driver mA</th>
<th>Typ. voltage DC for versions without LED driver V</th>
<th>Allowed operating temperature = t₀ min. °C</th>
<th>Allowed storage temperature = t₀ min. °C</th>
<th>Allowed operating temperature = t₀ max. °C</th>
<th>Allowed storage temperature = t₀ max. °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>All types</td>
<td>750</td>
<td>37–45</td>
<td>−10</td>
<td>+45</td>
<td>−20</td>
<td>+60</td>
</tr>
</tbody>
</table>

Operating Life

<table>
<thead>
<tr>
<th>Type</th>
<th>L70/B50 at t₀ 25 °C hrs</th>
<th>L70/B50 at t₀ 45 °C hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>With driver</td>
<td>50,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Without driver</td>
<td>50,000</td>
<td>50,000</td>
</tr>
</tbody>
</table>
# LED Backlight Panel EasyLine

## Standard version – with integrated LED driver

<table>
<thead>
<tr>
<th>Type</th>
<th>Ref. No.</th>
<th>Colour</th>
<th>Correlated colour temperature K</th>
<th>Typ. power consumption* W</th>
<th>Luminous flux* and efficiency</th>
<th>Typ. UGR 4H-8H</th>
<th>Beam angle °</th>
<th>Typ. CRI</th>
<th>Energy efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>595x595 mm</td>
<td>BP-6060-34-830 570086</td>
<td>warm white 3000 34</td>
<td>5910 115 4200 124 22 120 80 A+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>620x620 mm</td>
<td>BP-6262-34-830 570087</td>
<td>neutral white 4000 34</td>
<td>4080 120 4400 130 22 120 80 A+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1200x300 mm</td>
<td>BP-12030-34-830 570088</td>
<td>warm white 3000 34</td>
<td>5910 115 4200 124 22 120 80 A+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Production tolerance of luminous flux and power consumption: ±10%

## UGR19 version – with integrated LED driver

Low glare, especially suitable for office illumination

<table>
<thead>
<tr>
<th>Type</th>
<th>Ref. No.</th>
<th>Colour</th>
<th>Correlated colour temperature K</th>
<th>Typ. power consumption* W</th>
<th>Luminous flux* and efficiency</th>
<th>Typ. UGR 4H-8H</th>
<th>Beam angle °</th>
<th>Typ. CRI</th>
<th>Energy efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>595x595 mm</td>
<td>BP-6060-34-830-U 570092</td>
<td>warm white 3000 34</td>
<td>5860 114 4100 121 19 90 80 A+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>620x620 mm</td>
<td>BP-6262-34-830-U 570093</td>
<td>neutral white 4000 34</td>
<td>4070 120 4300 127 19 90 80 A+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1200x300 mm</td>
<td>BP-12030-34-830-U 570094</td>
<td>warm white 3000 34</td>
<td>5860 114 4100 121 19 90 80 A+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Production tolerance of luminous flux and power consumption: ±10%
## LED Backlight Panel EasyLine

### Standard version – without LED driver

<table>
<thead>
<tr>
<th>Type</th>
<th>Ref. No.</th>
<th>Colour</th>
<th>Correlated colour temperature K</th>
<th>Typ. power consumption* W</th>
<th>Luminous flux* typ. lm/W</th>
<th>Efficiency typ. lm/W</th>
<th>Typ. UGR 4H-8H</th>
<th>Beam angle °</th>
<th>Typ. CRI Ra</th>
<th>Energy efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>595x595 mm</td>
<td>BP-6060-30-830-ND</td>
<td>BP-6060-30-840-ND</td>
<td>warm white 3000</td>
<td>30</td>
<td>3910</td>
<td>115</td>
<td>4200</td>
<td>124</td>
<td>22</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>BP-6060-30-830-ND</td>
<td>BP-6060-30-840-ND</td>
<td>neutral white 4000</td>
<td>30</td>
<td>4080</td>
<td>120</td>
<td>4400</td>
<td>130</td>
<td>22</td>
<td>120</td>
</tr>
</tbody>
</table>

| 620x620 mm | BP-6262-30-830-ND | BP-6262-30-840-ND | warm white 3000 | 30 | 3910 | 115 | 4200 | 124 | 22 | 120 | 80 | A+ |
|           | BP-6262-30-830-ND | BP-6262-30-840-ND | neutral white 4000 | 30 | 4080 | 120 | 4400 | 130 | 22 | 120 | 80 | A+ |

| 1200x300 mm | BP-12030-30-830-ND | BP-12030-30-840-ND | warm white 3000 | 30 | 3910 | 115 | 4200 | 124 | 22 | 120 | 80 | A+ |
|             | BP-12030-30-830-ND | BP-12030-30-840-ND | neutral white 4000 | 30 | 4080 | 120 | 4400 | 130 | 22 | 120 | 80 | A+ |

* Production tolerance of luminous flux and power consumption: ±10%

### UGR19 version – without LED driver

Low glare, especially suitable for office illumination

<table>
<thead>
<tr>
<th>Type</th>
<th>Ref. No.</th>
<th>Colour</th>
<th>Correlated colour temperature K</th>
<th>Typ. power consumption* W</th>
<th>Luminous flux* typ. lm/W</th>
<th>Efficiency typ. lm/W</th>
<th>Typ. UGR 4H-8H</th>
<th>Beam angle °</th>
<th>Typ. CRI Ra</th>
<th>Energy efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>595x595 mm</td>
<td>BP-6060-30-830-U-ND</td>
<td>BP-6060-30-840-U-ND</td>
<td>warm white 3000</td>
<td>30</td>
<td>3860</td>
<td>114</td>
<td>4100</td>
<td>121</td>
<td>19</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>BP-6060-30-830-U-ND</td>
<td>BP-6060-30-840-U-ND</td>
<td>neutral white 4000</td>
<td>30</td>
<td>4070</td>
<td>120</td>
<td>4300</td>
<td>127</td>
<td>19</td>
<td>90</td>
</tr>
</tbody>
</table>

| 620x620 mm | BP-6262-30-830-U-ND | BP-6262-30-840-U-ND | warm white 3000 | 30 | 3860 | 114 | 4100 | 121 | 19 | 90 | 80 | A+ |
|           | BP-6262-30-830-U-ND | BP-6262-30-840-U-ND | neutral white 4000 | 30 | 4070 | 120 | 4300 | 127 | 19 | 90 | 80 | A+ |

| 1200x300 mm | BP-12030-30-830-U-ND | BP-12030-30-840-U-ND | warm white 3000 | 30 | 3860 | 114 | 4100 | 121 | 19 | 90 | 80 | A+ |
|             | BP-12030-30-830-U-ND | BP-12030-30-840-U-ND | neutral white 4000 | 30 | 4070 | 120 | 4300 | 127 | 19 | 90 | 80 | A+ |

* Production tolerance of luminous flux and power consumption: ±10%

### LED constant-current drivers

You will find more information about our LED drivers on our website: [www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)

<table>
<thead>
<tr>
<th>Max. output W</th>
<th>Ref. No.</th>
<th>Type</th>
<th>Version</th>
<th>Output current mA</th>
<th>Output voltage DC V</th>
<th>Dimensions (WxHxL mm)</th>
<th>Max. service life hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>186842*</td>
<td>ECx700.345</td>
<td>DIP switch</td>
<td>500–750</td>
<td>48–56</td>
<td>48x123x132</td>
<td>50,000</td>
</tr>
<tr>
<td>38</td>
<td>186762</td>
<td>ECa1050.299</td>
<td>DALI / DIP switch</td>
<td>300–750</td>
<td>32–34</td>
<td>48x123x132</td>
<td>100,000</td>
</tr>
</tbody>
</table>

* Cord grip 186845 for protection class II required

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.
Accessories

Suspension kit
Length: 1.5 m
Consisting of:
• 4 fixation brackets
• 8 fixing screws M3
• 6 screws M4, incl. pegs
Minimum order quantity: 50 pcs.
Ref. No.: 570320

Surface mounting frames for LED Backlight Panel EasyLine with integrated LED driver
Material: aluminium
Colour: white (RAL 9003)
Magnetic catch
Minimum order quantity: 5 pcs.
Type: 6060
Ref. No.: 567820 For LED Backlight Panel 595x595x60 mm
Type: 6262
Ref. No.: 567821 For LED Backlight Panel 620x620x60 mm
Type: 12030
Ref. No.: 567822 For LED Backlight Panel 1195x295x56 mm

Mounting clips
For ceiling with thickness: max. 20 mm
Minimum order quantity: 50 pcs.
Ref. No.: 570321

Safety rope kit
Length: 1.5 m
• 1 fixing bracket
• 2 fixing screws M3
Minimum order quantity: 50 pcs.
Ref. No.: 570322

Logistic details

<table>
<thead>
<tr>
<th>Type</th>
<th>Packaging white</th>
<th>Packaging brown</th>
<th>Minimum order quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dimensions</td>
<td>Pack. unit</td>
<td>Weight</td>
</tr>
<tr>
<td></td>
<td>LxWxH (mm)</td>
<td>pcs.</td>
<td>kg</td>
</tr>
<tr>
<td>BP-6060xx-xx-xx-ND</td>
<td>600x645x35</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>BP-6262xx-xx-xx-ND</td>
<td>625x670x35</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>BP-12030xx-xx-xx-ND</td>
<td>1210x305x35</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>BP-6060xx</td>
<td>600x645x35</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>BP-6262xx</td>
<td>625x670x35</td>
<td>1</td>
<td>2.1</td>
</tr>
<tr>
<td>BP-12030xx</td>
<td>1210x305x35</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>Surface mounting frame for 6060</td>
<td>610x62x10</td>
<td>1</td>
<td>2.2</td>
</tr>
<tr>
<td>Surface mounting frame for 6262</td>
<td>640x62x40</td>
<td>1</td>
<td>2.4</td>
</tr>
<tr>
<td>Surface mounting frame for 12030</td>
<td>310x62x122</td>
<td>1</td>
<td>2.6</td>
</tr>
</tbody>
</table>

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Comparison with Compact Fluorescent Lamps

<table>
<thead>
<tr>
<th>Type</th>
<th>LED</th>
<th>Fluorescent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service lifetime</td>
<td>50,000 hrs</td>
<td>10,000 hrs</td>
</tr>
<tr>
<td>Backlight Panel Easyline</td>
<td>34 W</td>
<td>4 x 18 W or 4 x 14 W</td>
</tr>
</tbody>
</table>

Safety and assembly information for LED drivers

Electrical installation

- **Wiring:** The mains conductor within the luminaire must be kept short (to reduce the induction of interference). Mains and lamp conductors must be kept separate and if possible should not be laid in parallel to one another. Max. secondary side lead length: 0.8 m
- **Polarity:** Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- **Through-wiring:** Is not allowed.
- **Parallel wiring:** Parallel connection of LED loads is not allowed.
- **Wiring diagram:**

![Wiring Diagram](image)

Selection of automatic cut-outs for VS LED drivers

- **Dimensioning automatic cut-outs:**
  High transient currents occur when an LED driver is switched on because the capacitors have to load. Ignition of LED modules occurs almost simultaneously. This also causes a simultaneous high demand for power. These high currents when the system is switched on put a strain on the automatic conductor cut-outs, which must be selected and dimensioned to suit.
- **Release reaction:**
  The release reaction of the automatic conductor cut-outs comply with VDE 0641, part 11, for B, C characteristics. The values shown in the following tables are for guidance purposes only and are subject to system-dependent change.
- **No. of LED drivers:**
  The maximum number of VS LED drivers applies to cases where the devices are switched on simultaneously. Specifications apply to single-pole fuses. The number of permissible drivers must be reduced by 20% for multi-pole fuses. The considered circuit impedance equals 400 mΩ approx. 20 m [2.5 mm²] of conductor from the power supply to the distributor and a further 15 m to the luminaire.

<table>
<thead>
<tr>
<th>Type</th>
<th>Automatic cut-out type and possible no. of VS drivers</th>
<th>pcs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP with driver</td>
<td>B 16 A, C 16 A</td>
<td>37</td>
</tr>
</tbody>
</table>

- To limit capacitive inrush currents the current carrying capacity of each circuit breaker (fuse) can be increased by a factor of 2.5 with the help of our ESB (Ref. No.: 149820, 149821, 149822) inrush current limiters.

Product code description

BP-6060-34-x xx-x

- **Backlight Panel** Dimensions
- **Power** CRI
- **CCT** Type
**Safety and Installation Instructions**

**General safety and installation Instructions for luminaires**
The following instructions must be observed. Non-observance can result in personal injury and damage to property or can damage both luminaires and control gear. In such cases, the manufacturer’s warranty as well as liability will be invalidated.

**General Instructions**
- Please read these instructions prior to installation/commissioning and keep them safe for future use.
- Any improper use or modification will invalidate the manufacturer’s warranty and liability as well as any warranty claims.
- The luminaire contains integrated and non-exchangeable LED light sources. The light source of this luminaire cannot be replaced. When the light source has reached the end of its service life, the entire luminaire must be replaced.
- Care must be taken to ensure the luminaire is operated only using the supplied Vossloh-Schwabe control gear and accessories or using an alternative brand of approved control gear.
- If the luminaire is marked with SELV, only control gear with SELV characteristics may be used.
- Children must be prevented from playing with or near the luminaire.

**Installation and operating instructions**
- Installation of this luminaire may be undertaken only by authorised and suitably trained staff in accordance with any country-specific regulations.
- Installation must be carried out only after disconnecting the device from mains voltage, i.e. in a voltage-free state.
- Depending on the site of operation, the degree of protection (IPxx) will have to be observed during installation.
- Please ensure that the correct supply voltage is applied by checking it against the voltage requirements of the luminaire and the driver.
- For the purpose of commissioning, please ensure the correct polarity of the connecting leads. Incorrect polarity can destroy the modules.
- For trouble-free operation, it is important to ensure that the permissible ambient temperature range (ta) as stipulated in the datasheet is not exceeded. Exposure to sunlight can increase the ambient temperature.
- Only ever operate the luminaire with all protective covers in place.
- Given functional problems, please contact your Vossloh-Schwabe representative. Should the power supply cable be damaged, please scrap the luminaire and/or contact your VS representative.
- On contact with moisture or condensation, any resulting corrosive damage will not be recognised as a product flaw or manufacturer’s defect.
- Connecting luminaires (LED modules) to supply units that are already connected to the mains can result in long-term damage. Secondary switching is not permissible.
- Touchable luminaire parts can reach high temperatures (risk of burning/injury).
- Highly flammable materials [e.g. cladding or insulation material] must be kept away from the luminaire.

**Cleaning instructions**
- Depending on the conditions on site, the luminaire must be cleaned on a regular basis.
- Never use any flammable, abrasive, harsh or corrosive cleaning liquids.
- Prior to cleaning the luminaire, please ensure it is disconnected from the mains and is given time to cool down.
- Once it has cooled down, the luminaire can be cleaned with a damp cloth.
- Let the luminaire dry fully before switching it back on.

Answers to technical questions can be found on our website at [www.vossloh-schwabe.com](http://www.vossloh-schwabe.com) or ask your Vossloh-Schwabe representative.

**Safety symbols**
- **Specify the minimum clearance to flammable materials in the direction of radiation.**
- **Indoor operation**
- **Caution: risk of electric shock.**
- **Caution: components with a risk of electrostatic charge.**
- **Luminaire/voltage supply unit must not be covered with any thermally insulating materials or similar.**
- **Any cover with damage must be replaced.**

**Product guarantee**
- **5 years**
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage ([www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)).

We will be happy to send you these conditions upon request.

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