iCCU — Intelligent Light Control for Outdoor Applications

COUPLING UNIT

iCCU

Developed to enable powerline coupling of electrically isolated supply networks, the product permits C-/B-band data transfer in accordance with Cenelec EN-50065-1.

Technical Details:
- Standby consumption of 0.0 W
- C-/B-band powerline communication in acc. with Cenelec EN-50065-1.
- ANSI CEA 709.1, 709.2 or EN 14908-1, EN 14908-2
- Voltageproof up to 3 kV
- Also suitable for standalone operation as part of a light management system.
- No software-based configuration required.
- Connection with an NH fuse possible on request

Typical Applications:
- Lighting in proximity to buildings, street lighting
- Company premises, warehouses, sports facilities
iCCU – Intelligent, Capacitive Coupling Unit

Technical Details

<table>
<thead>
<tr>
<th>Capacitive Coupling Unit</th>
<th>186345.02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input voltage</td>
<td>200 V AC to 250 V AC</td>
</tr>
<tr>
<td>Net frequency</td>
<td>50 Hz (+1% / –2%)</td>
</tr>
<tr>
<td>Power consumption</td>
<td>0,0W</td>
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</tbody>
</table>

**Communication**

- **Powerline**: Via the power supply line in acc. with Cenelec 50065-1
- **C band** primary band: 125 – 140 kHz
- **B band** secondary band: 95 – 125 kHz
- **Data transfer USA**: ANSI CEA 709.1, ANSI CEA 709.2
- **Data transfer Europe**: EN 14908-1, EN 14908-2
- **Electrical isolation**: No input-to-output potential separation. Phase connections must be correct when coupling supply networks.
- **Connection cable**: 1 mm², length: 800 mm
- **Conductor type of the connection cable**: fine-stranded
- **Configuration**: not required
- **Operation in**: Powerline networks with and without a repeating function
- **Scope of delivery**: High voltage silicone lead with open cable ends

**Climatic Conditions**

- **Operating temperature range Tc**: -25 °C to +80 °C
- **Lagertemperaturbereich**: -25 °C to +85 °C
- **Resistance against surge voltage**: 3 kV
- **Standard**: DIN EN 61037
- **Protection Class**: IP65
- **Degree of Protection**: IP65
- **Weight**: 770g
- **Dimensions (LxWxH)**: 180 x 94 x 60 mm

The values detailed in this data sheet can change due to technical innovations; such changes will be made without separate notification. Further detailed information can be found at: www.vossloh-schwabe.com.
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Dimensions

Drill Holes

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Casing
The extremely compact design of the unit facilitates installation in just about any sub-distribution.

Connection
The two supply networks are connectable using the high-voltage silicone cable.

Application No. 1

The iCCU can be used to couple the powerline signal into a further network.

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The iCCU can be used to couple the powerline signal into a UPS-supported network.

Sales Text

Intelligent, capacitive coupling unit for powerline communication. Capable of standalone operation, suitable for lighting in proximity to buildings, street lighting and industrial lighting. Powerline signals are transferred using the B/C frequency range in acc. with Cenelec specifications. The unit is suitable for direct installation without requiring configuration and is transparent for data transfer purposes. Important: the unit draws no power when operated in standby mode. Care must be taken to avoid phase reversal when connecting the 230 V AC control inputs/outputs. For applications in the field of street lighting, the unit can also be provided with NH fuse inserts on request.

Text for Invitations to Tender

Intelligent, capacitive coupling unit for powerline communication. Capable of standalone operation, suitable for lighting in proximity to buildings, street lighting and high-bay industrial lighting. Powerline signals are transferred using the B/C frequency range in acc. with Cenelec specifications. The unit is suitable for direct installation without requiring configuration and is transparent for data transfer purposes. Important: the energy draws no power when operated in standby mode. Care must be taken to avoid phase reversal when connecting the 230 V AC control inputs/outputs. For applications in the field of street lighting, the unit can also be provided with NH fuse inserts on request. Data transfer is possible in accordance with the ANSI CEA (709.1, 709.2) or the EN 14908(-1, -2) standard. Cenelec-compliant, bidirectional LON powerline communication is effected in the C band (primary; 125 ... 140 kHz) or the B band (secondary; 95 ... 125 kHz) in accordance with DIN EN 50065-1.

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iCCU – Intelligent, Capacitive Coupling Unit

Text for Invitations to Tender (cont.)

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The unit is suitable for electrically isolated coupling of three-phase 400 V AC supply networks, although care must be taken to ensure correct phase connection.

Electrical data: mains power 230 V (10%), frequency 50 Hz (+1%/-2%), power consumption 0 VA (standby) / (data transfer operation), resistance to surge voltage 2 kV/1.2/50 in acc. with DIN EN 61037, protection class I. Climatic capacity: operating temperature – 25 °C to + 65 °C, storage temperature – 25 °C to + 85 °C. Polycarbonate (PC) casing. Dimensions (L/H/W): 330 mm / 55 mm / 95 mm. Weight: 770 g; degree of protection: IP65.