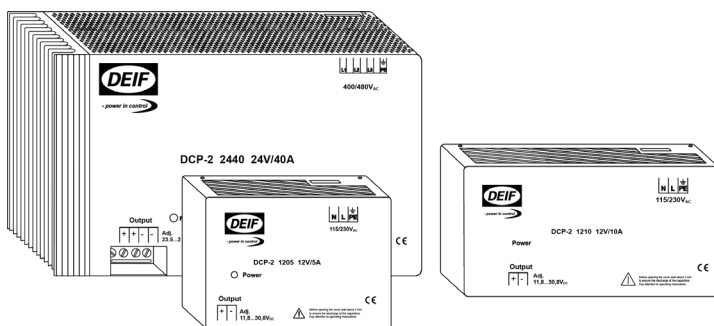


**Type DCP2**  
**Battery chargers**  
**4189320008F (UK)**



- *Easy installation - DIN-rail mounting*
- *Automatic recovery from overload conditions*
- *5-10-20-40 A types*
- *Switch mode power technology*
- *Extremely low ripple <100 mV*



## General data

<b>Input voltage:</b>	3 x 400/480 V AC $\pm 15\%$	Type: DCP2-2420 and DCP2-2440
	1 x 230 V AC $\pm 15\%$	Type: DCP2-1210 and DCP2-2420
	1 x 230 V AC $\pm 15\%$	Type: DCP2-1205
<b>Output voltage:</b>	23.5-27.5 V DC (type DCP2-24XX)	
	11.8-13.8 V DC (type DCP2-12XX)	
<b>Output current:</b>	DCP2-1205:	
	5 A (typical current limit 6 A)	
	DCP2-1210:	
	10 A (typical current limit 12.5 A)	
	DCP2-2420:	
<b>Terminals:</b>	20 A (typical current limit 25 A)	
	DCP2-2440:	
	40 A (typical current limit 45 A)	
<b>Terminals:</b>	DCP2-1205 and -1210:	
	Insulation stripping length:	10 mm, for stranded conductor use isolated wire end ferrules
	Conductor material:	Copper
	Insulation temp. rating:	75 °C
	Tightening torque:	0.5 – 0.6 Nm
	Primary min. – max.:	0.5 - 2.5 mm <sup>2</sup>
	Secondary min. - max.:	0.5 - 2.5 mm <sup>2</sup>
	DCP2-2420:	
	Primary min. - max.:	0.5 - 2.5 mm <sup>2</sup>
	Secondary min. - max.:	0.5 - 4.0 mm <sup>2</sup>
	DCP2-2440:	
	Primary min. - max.:	0.5 - 2.5 mm <sup>2</sup>
	Secondary min. - max.:	0.5 - 10.0 mm <sup>2</sup>
<b>Indication:</b>	Green LED – operating indication	
<b>Housing:</b>		
	Materials:	All plastic parts are self-extinguishing to UL94 (V0) DCP2-2440 is encapsulated in a metal housing
<b>Dimensions:</b>	147 x 123 x 86 mm	(DCP2-1205)
	L x W x H	205 x 123 x 86 mm (DCP2-1210)
	(Appendix)	240 x 153 x 86 mm (DCP2-2420)
		292 x 185 x 130 mm (DCP2-2440)

Distance for con-  
vection: 100 mm above and below the DCP2, 30 mm to each side

Mounting: DIN-rail, EN 50022-35

**Safety:** IEC60950; EN61010-2-201

Protection: Class I

Deg. of protection: IP20

Leakage current: <0.75 mA (47-63 Hz line frequency)  
(DCP2-2420 3-phase supply and DCP2-2440: <3.5 mA)

<b>Weight:</b>	DCP2-1205:	approx. 0.8 kg
	DCP2-1210:	approx. 1.2 kg
	DCP2-2420:	approx. 1.9 kg
	DCP2-2440:	approx. 3.6 kg

## Functions and settings

Besides the output terminals (secondary side) the DCP2 has a trim potentiometer for setting of the output voltage. By means of an insulated slotted screwdriver or adjusting pin the output voltage can be set in the range 23.5 - 27.5 V respectively 11.8 - 13.8 V.

### Setting:

Lower output voltage = Counterclockwise rotation

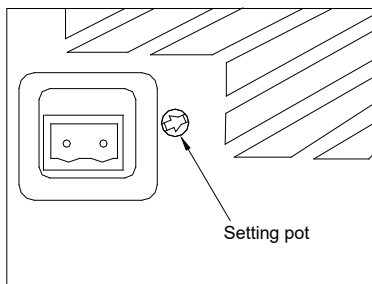
Higher output voltage = Clockwise rotation

The LED on the front indicates that the unit is operational.

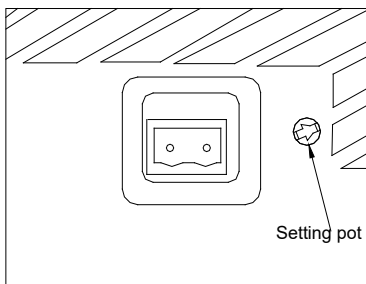
### Illustration:

Terminals of the secondary side and setting potentiometer for output voltage.

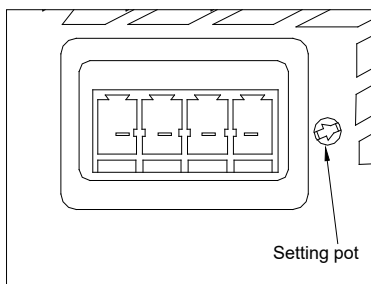
DCP2-1205



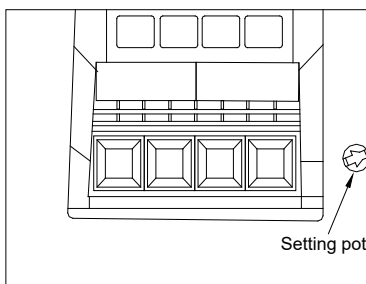
DCP2-1210



DCP2-2420



DCP2-2440



### CAUTION:

For DCP2-2420 and DCP2-2440 the plugs on the secondary side have two terminals for each pole (+/-). The current can be drawn by one single terminal for each pole. DEIF recommends to use both terminals for each pole to avoid any unnecessary heating of the connection.

Do not plug or disconnect terminals neither under voltage nor under load.

**Mounting**

To obtain optimum cooling it is imperative to comply with the specified installation position, where the input terminals (L1, L2, L3, PE or L1, N, PE) are placed at the top and the output terminals (+/-) at the bottom.

**Distance:**

Above and below the DCP2: 100 mm

To each side: 30 mm

The permissible ambient temperature must not be exceeded:

-10 – 70 °C (operating, free convection)

-25 – 85 °C (storage)

5 – 95 % relative humidity

**Connection:**

See the cover of the unit (imprint). The phase sequence is indifferent.

**Protection:**

Units supplied by 1 x 230 V AC are internally protected by a fuse and can be connected directly to line.

The power cords for 3 x 400/480 V AC units must be protected by a three-pole C-fuse or a three-pole motor circuit breaker (only DCP2-2420 and DCP2-2440). Operating with a disconnected phase is not permissible.

**Fuse:** DCP2-1205:  
5 x 20 mm T3.15 A/250 V internal

DCP2-1210:  
5 x 20 mm T6.3 A/250 V internal

DCP2-2420:  
5 x 20 mm T10 A/250 V internal

DCP2-2420, -2440:  
Three poles, C-fuse or motor circuit breaker  
Switch - external (setting 3 A)

**ATTENTION:**

The devices do not contain any user-serviceable components.

Only special trained personnel is allowed to remove the cover.

In case of malfunction it is recommended to send back the unit to the deliverer.

If these rules are not observed, contact with live parts on an open unit or improper use can result in death or severe personal injury.

Use of the units outside the specification mentioned in this instruction may destroy the power supplies or/and affect electrical safety.

## CE marking

All variants of the DCP2 are CE marked to the EMC Directive and the Low Voltage Directive. However, the following comments concerning EN 61000-3-2 (limits for harmonic current emissions) apply and must be observed upon installation of the 10 A and 20 A variants:

If the 10 A and 20 A variants are used as part of an apparatus which has a rated AC power of 1 kW or more, there is no requirement for compliance with EN 61000-3-2.

If the 10 A and 20 A variants are used as part of an apparatus which has a rated AC power less than 1 kW, compliance with EN 61000-3-2 must be ensured by the maker of the apparatus. In this case the maker of the apparatus containing the DCP2 must

carry out CE marking to the EN 61000-3-2 himself. All other parts of the CE marking provided by DEIF A/S are still valid.

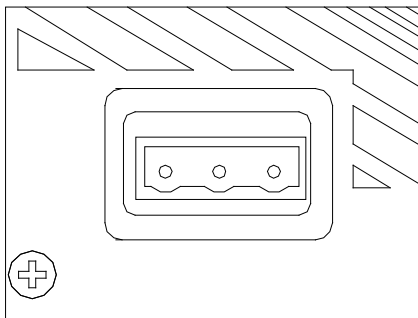
Alternatively, permission to connect the 10 A and 20 A variants must be given by the local power supply authority of the place of installation of the DCP2, as stipulated by EN 61000-3-2, clause 4. In this case the entire CE marking provided by DEIF A/S, including to EN 61000-3-2, is valid.

**The protective earth (PE) of the DCP2 must be connected to the protective earth of the switchboard.**

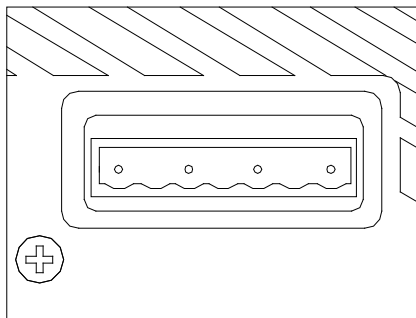
### Illustration:

Grid connection.

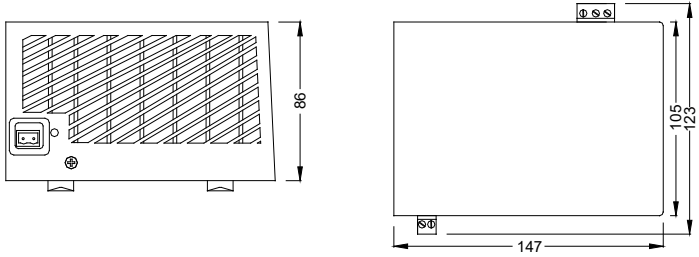
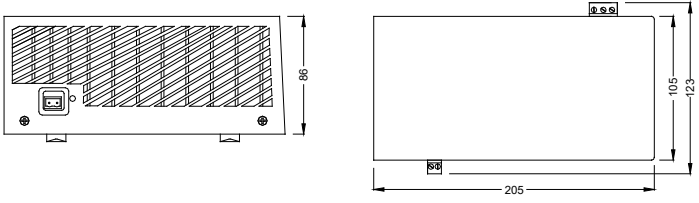
DCP2-1205, DCP2-1210  
and DCP2-2420

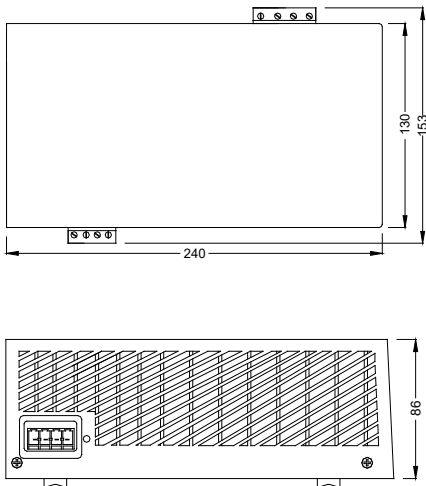
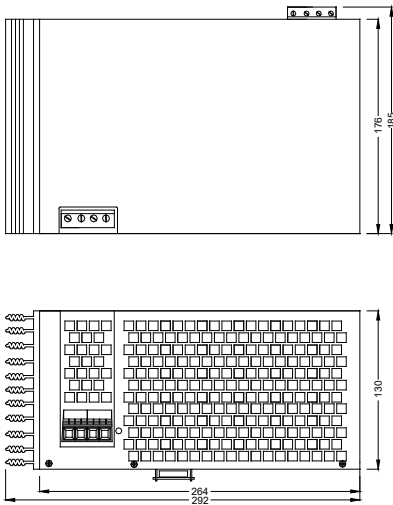


DCP2-2420 and DCP2-2440




Appendix

Type	Dimensions
DCP2-1205	 <p>Technical drawing of the DCP2-1205 unit. The front view (left) shows a rectangular unit with a height dimension of 86. The side view (right) shows a rectangular unit with a width dimension of 147 and a height dimension of 105. The side view also shows a depth dimension of 123.</p>
DCP2-1210	 <p>Technical drawing of the DCP2-1210 unit. The front view (left) shows a rectangular unit with a height dimension of 86. The side view (right) shows a rectangular unit with a width dimension of 205 and a height dimension of 105. The side view also shows a depth dimension of 123.</p>

Type	Dimensions
DCP2-2420	 <p>Front view dimensions: 240 (width), 130 (height), 153 (total height including top rail).</p> <p>Side view dimensions: 86 (depth).</p>
DCP2-2440	 <p>Front view dimensions: 264 (width), 176 (height), 185 (total height including top rail).</p> <p>Side view dimensions: 292 (width), 130 (height).</p>

### Explanation of markings:

The symbol  means **Attention, hot surface**.