

# DDC7480 SERIES

*DC/DC Converters for industrial and telecom applications*



**Switched mode DC/DC Converters**  
**High power – light weight**  
**Parallel connectable**  
**Over temperature failure alarm output**  
**Remote Standby**

DC/DC CONVERTERS						
Type	Input voltage range *)	Output voltage	Setting range	Output current	Max power	Installation / dimensions (Width x Height x Depth, mm)
DDC7480/24/48H	21-32VDC	48 VDC	0-48VDC	20 A	1000W	Wall/Bench / 475x253x83 mm
DDC7480/24/110H	21-32VDC	110 VDC	0-111VDC	9 A	1000W	Wall/Bench / 475x253x83 mm
DDC8280	77-140VDC	24 VDC	N/A	115 A	2750W	Wall/Bench / 475x253x83 mm

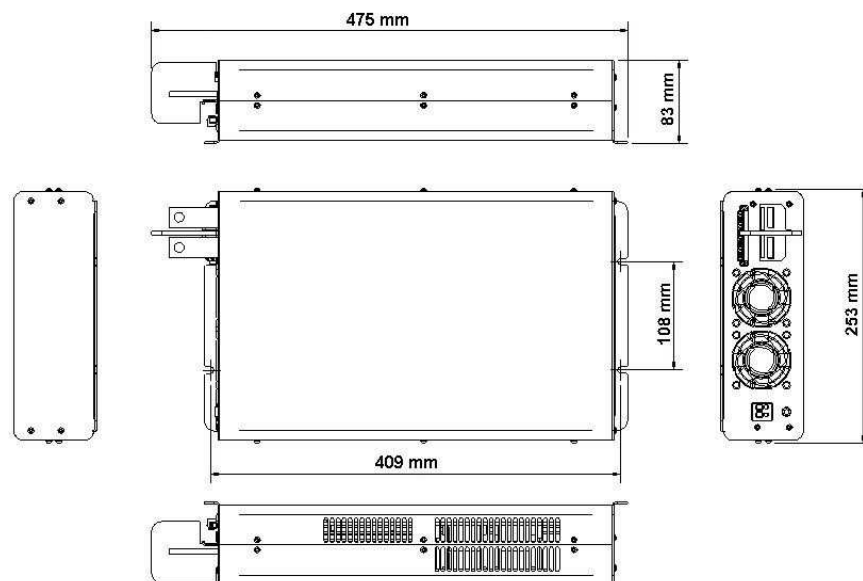
\*) Reduced power at input voltage 21-26VDC and 77-95VDC

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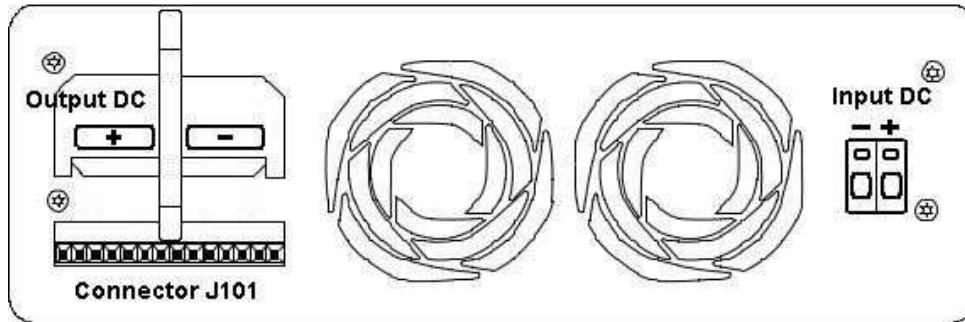
## TECHNICAL DATA

Input Voltage, 24VDC models	21-32VDC (26–32VDC full power, 20-26VDC reduced power)
Input Voltage, 110VDC model	77-140VDC (95–140VDC full power, 77-95VDC reduced power)
Efficiency, 24VDC models	85% at full load, (26VDC input)
Efficiency, 110VDC model	90% at full load, (110VDC input)
Power Consumptions	2W - Standby 70W - No Load
Output isolation	Floating Isolation from Earth 500VAC
Voltage Regulation	0,1% Typical (See Parallel Connection)
Parallel Connection	Realized with a static characteristic (the output voltage decreases slightly by an increasing current, e.g. 111V without load, 108.5V at full load).
Connectors	Input Output Options
	Phoenix SPT 5/1-H-7,5 terminal block Copper bus bar Phoenix MC 1,5/14-ST-3,5 screw connector
Enclosure	Aluminium case, IP21
Mechanics	Wall mounting, see dimensions p. 2
Weight	7,1 kg without cables
Ambient temperature	-25°C...+45°C
Over Temperature protection	Processor controlled
Over Current protection and short circuit protection	Electrical current limit
Reverse polarity protection	With fuse

## UNIT DIMENSIONS



**PIN CONFIGURATION, CONNECTOR J101**



Connector J101														
RLY Com	RLY NC	RLY NO							Standby	Standby				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	

**Screw terminals connector J101**

- 1. Alarm relay (common) Cooling alarm
- 2. Alarm relay (nc) Cooling alarm
- 3. Alarm relay (no) Cooling alarm
  
- 9. Standby
- 10. Standby

**Cooling alarm**

Processor monitors the internal operating temperature inside DC/DC Converter. If the internal temperature raises too high, the processor triggers the cooling alarm. Cooling alarm connections are in connector J101 pin 1, 2 and 3 as shown in figure above.

If no actions made for decreasing the ambient temperature and the internal temperature continues raising the to critical point, processor will automatically shutdown the output, until the temperature starts to decrease.

If unit gives the cooling alarm, operator should check that the units ventilation holes are open, cooling fans are running and that the ambient temperature is in the acceptable range -25°C...+45°C. If operator can't solve the problem, unit should be checked by qualified service person. Instructions for changing the cooling fans are found in Service manual.

**Controlling**

Unit must have 24V (+/- 20%) AC or DC signal to connector J101 pins 9 and 10 for operating.  
 0V=standby and 24V=enable

## INSTALLATION

The location must be dry, dust-free and indoor. The acceptable full power temperature range is  $-25^{\circ}\text{C} \dots +45^{\circ}\text{C}$ . If unit is used in higher ambient temperature, unit will give cooling alarm. The thermal protection will cause the unit to power down at too high operating temperature.

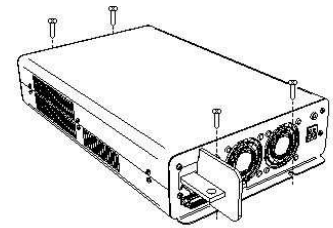
The DC/DC converter is not waterproof. Keep it dry and away from areas with high humidity in order to avoid the risk for electrical shock and damages to the charger.

### Wall mounting

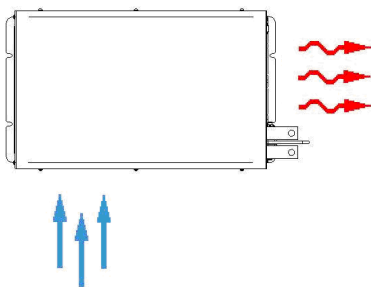
The DC/DC Converter can be mounted to the wall with the aid of the two mounting holes on both ends of the unit as shown in figure.

Unit can be installed horizontally or vertically. Mounting directions is shown in mounting pictures below, otherwise IP21 can not be met.

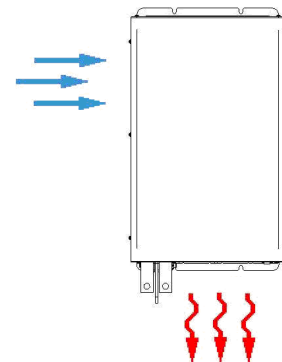
Leave at least 10cm free space at the cooling fan end and to that side where the cooling air outflow holes are, to ensure sufficient ventilation.



#### Horizontal mounting



#### Vertical mounting



When DC/DC Converter is used with battery, the explosive hydrogen gases are present near batteries. Install charger as far away from battery as possible to prevent hydrogen gases going inside the unit. Keep the area very well ventilated.

## WARNING!

Dangerous voltages, capable of causing death, are present in this equipment. Do not remove the cover. No operator serviceable parts inside. Refer servicing to qualified service personnel.

All installations and connection works, should also be made by qualified personnel. Wrong polarity connections to input will cause the internal fuse to burn. Wrong installations, like free space is below that it's specified, may cause the unit to overheat.

Fuse specifications and informations for servicing are found in Service manual.

NOTE! Warranty doesn't cover wrong made installations and connections!