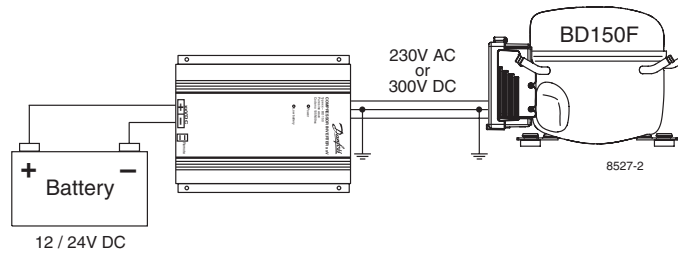


INSTRUCTIONS

Inverter for BD150F Compressors
 Type 12 – BD150 code no 105N0912
 Type 24 – BD150 code no 105N0924
 12/24V DC - 230V AC



System configuration



Identification

The identification of the code no is shown on the photo below.

- 12V DC units: 105N0912
- 24V DC units: 105N0924



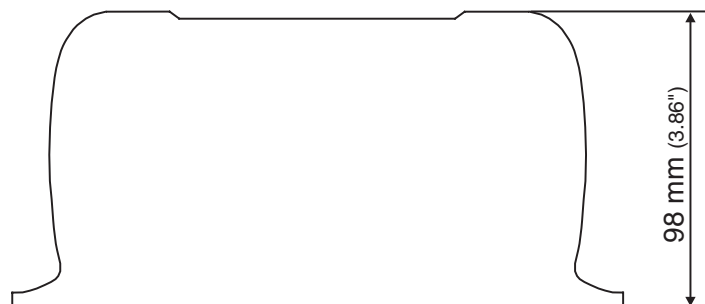
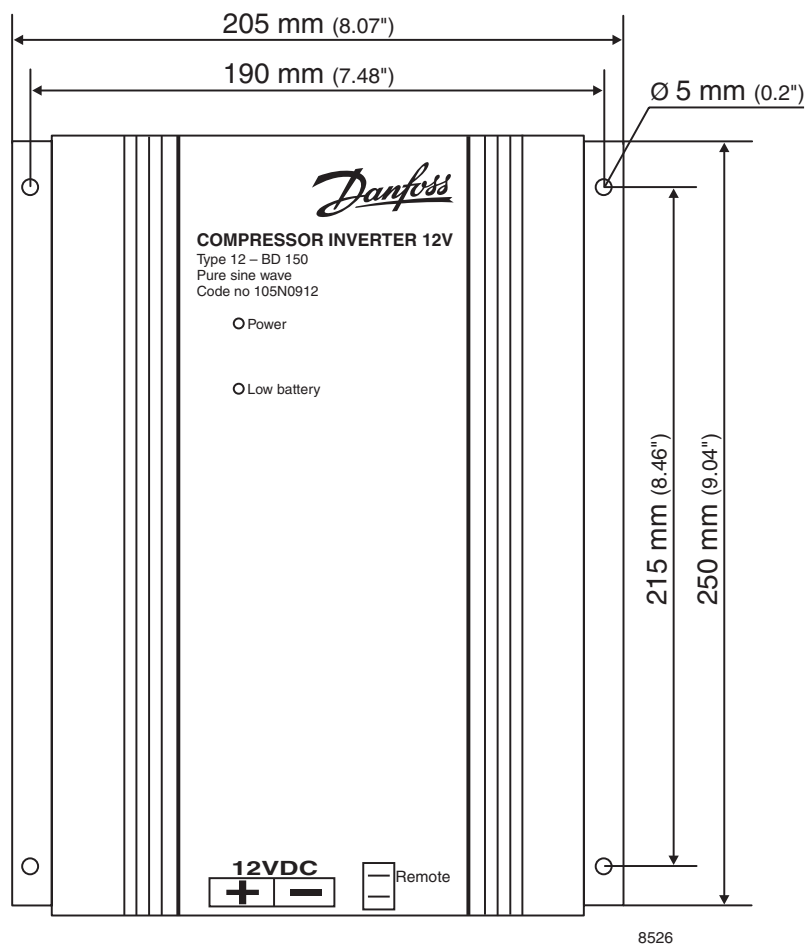
Technical data

Electrical specifications	
Input voltage 12V DC version	12V DC nominal, range 10-15V DC
Input voltage 24V DC version	24V DC nominal, range 20-30V DC
Output voltage	230 V AC \pm 3%
Frequency	50 Hz
Output wave form	Pure sine-wave
Continuous output power	300 W
Standby consumption	5 mW
No load power consumption 12V DC version	8.5 W
No load power consumption 24V DC version	12 W
Efficiency at full load	> 90 %
Environmental specifications	
Ambient temperature during operation	-20°C to + 55°C
Cooling	Static air cooling

Technical data (continued)

Mechanical specifications	
Housing	Anodized extruded aluminum
Weight	4.5 kg ~ 10 lbs
AC outlet	3-pole female IEC socket
Housing dimensions in mm (L x W X H)	250 x 205 x 98)
Mounting	Horizontal or vertical
Alarm indication	Overload/High temp./Short circuit/Low battery
Enclosure	IP 21
Standards	
CE marking	EMC directive 89/336/EEC
Automotive directive	95/54/EC
Emission	EN 50081-1
Immunity	EN 50082-2
Safety	IEC 950

Dimensions



Installation

It is recommended to install the inverter in a dry and dust free environment.

Place the inverter as close as possible to the battery, in order to keep the lengths of the cables between battery and inverter as short as possible.

Never use the inverter in environments with presence of dust or explosive gases.

The inverter can be mounted on a wall or flat mounted.
Optimum cooling is obtained in a vertical position.

Cables

The cables between the battery and the inverter must be sized according to the table below.

The wiring of the cables is influencing the EMC behavior of the system, in which the inverter is a component. This is due to the fact that the cables are receiver and transmitter antennas of radio frequency electromagnetic interference.

Good EMC properties are obtained in the following way: Place the cables in a metal rail. The metal offers resistance against interference currents. The battery cables should be placed close to each other to reduce looping area. Cables from different groups should not be twisted but be placed parallel with each other.

Size		Max. length between battery and inverter. 12V operation		Max. length between battery and inverter. 24V operation	
AWG Gauge	Cross section mm ²	Foot	Meter	Foot	Meter
6	16	8	2.5	16	5
4	25	13	4	26	8

Mounting of the cables

- Check that the battery voltage matches the inverter DC input voltage.
- Check that the inverter is switched off.
- Connect the cables to the inverter.
- Check that the cables are well tightened.
- Make sure that the battery poles are clean, and that there is a good electrical contact.
- Connect the selected cables to the battery.

Note!

Do not interchange the battery cables. It will result in instantaneous damage of the inverter.

230V AC

Ensure that the inverter is switched off before connecting an AC cable to the inverter.
Mount a 3-pole male connector into the 230V AC socket on the inverter.

The inverter is protected against overload and short circuit. It is not necessary to mount a fuse at the output of the inverter.

Remote input

The remote input is used to turn the inverter ON/OFF remotely e.g. through a cars ignition system.
The power consumption of BD150F is usually so big that a standard battery car would be drained very fast if the engine is not running.

Note!

The remote switch is positive. Do not touch the housing of the inverter, with the remote switch terminal, it will damage the switch.

Monitoring

The inverter is equipped with two LED.

The power LED

Constant light: The inverter is in operation mode.
1 flash: Overload. The inverter is overloaded.
2 flashes: High temperature. The inverter is too hot inside, and will enter standby mode. When the inverter has cooled down it will restart automatically.
3 flashes: Short circuit. Switch of the inverter and load. Check all equipment and find out what caused the short circuit, before the inverter is restarted.
4 flashes: Battery can not handle high peak power. Wrong or defect battery.

The low battery LED

Constant light: The voltage is below 10V DC on a 12V DC version or below 20V DC on a 24 V DC version. Check the condition of the battery, check if there are loose connections. Eventually charge the battery.