

DC-DC Step-Down Converter



Summary & Applications

This product is designed to provide a reduced supply to power auxiliary electrical systems, is configured specifically for electric vehicles. The NQZB Series DC/DC Converters achieve unmatched power levels of high efficiency and safety.

The devices provide provide a regulated output of 12.5 or 24.5 volts for vehicles lamps and solar applications etc, also provides 13.5 or 27.0 volts for charging auxiliary batteries.

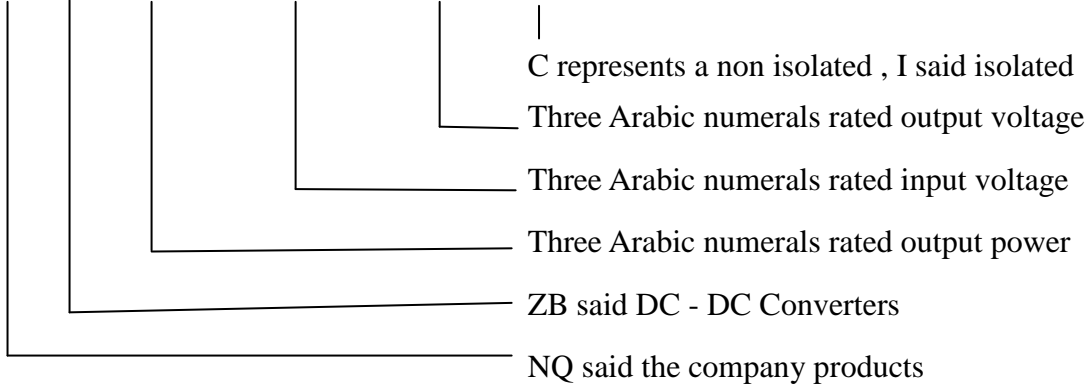
Features

- ◆ Replace diode rectification with synchronous, over88% efficient as high power density
- ◆ Available for maximum pulse power exceeds 120% of the nominal rating
- ◆ Wide voltage input , suitable for battery applications (cell voltage of 1.65V ~ 2.50V)
- ◆ Smaller, lighter and significantly more quiet than conventional converters
- ◆ Short circuit / overload output protection (resume after the short circuit disappear)
- ◆ Applicable to a variety of environmental , protection class IP54

Naming rules

The naming rules of DC-DC converter in Figure 1.

NQ ZB □ □ □ - □ □ □ - □ □ □ □



Specification

◆ Major technical indicators

Model	Input Voltage	Input Voltage Range	Output Voltage	Output Current	Net Weight	Size
NQZB100-024-012I	24V	20V~29V	12V	0~10A	0.65kg	140
NQZB100-036-012I	36V	27V~45V	12V	0~10A	0.65kg	140
NQZB200-036-012I			12V	0~20A	0.77kg	180
NQZB250-036-012I			12V	0~25A	0.85kg	180
NQZB300-036-012I			12V	0~30A	0.85kg	180
NQZB400-036-012I			12V	0~40A	0.95kg	220
NQZB300-036-024I			24V	0~15A	0.77kg	180
NQZB400-036-024I			24V	0~20A	0.85kg	200
NQZB100-048-012I			48V	36~60V	12V	0~10A
NQZB200-048-012I	12V	0~20A			0.77kg	180
NQZB250-048-012I	12V	0~25A			0.85kg	180
NQZB300-048-012I	12V	0~30A			0.85kg	180
NQZB400-048-012I	12V	0~40A			0.95kg	220
NQZB150-048-024I	24V	0~7.5A			0.85kg	140
NQZB200-048-024I	24V	0~10A			0.85kg	180
NQZB300-048-024I	24V	0~15A			0.85kg	180
NQZB400-048-024I	24V	0~20A			0.85kg	200
NQZB100-060-012I	60V	45V~75V			12V	0~10A
NQZB200-060-012I			12V	0~20A	0.77kg	180
NQZB300-060-012I			12V	0~30A	0.85kg	180

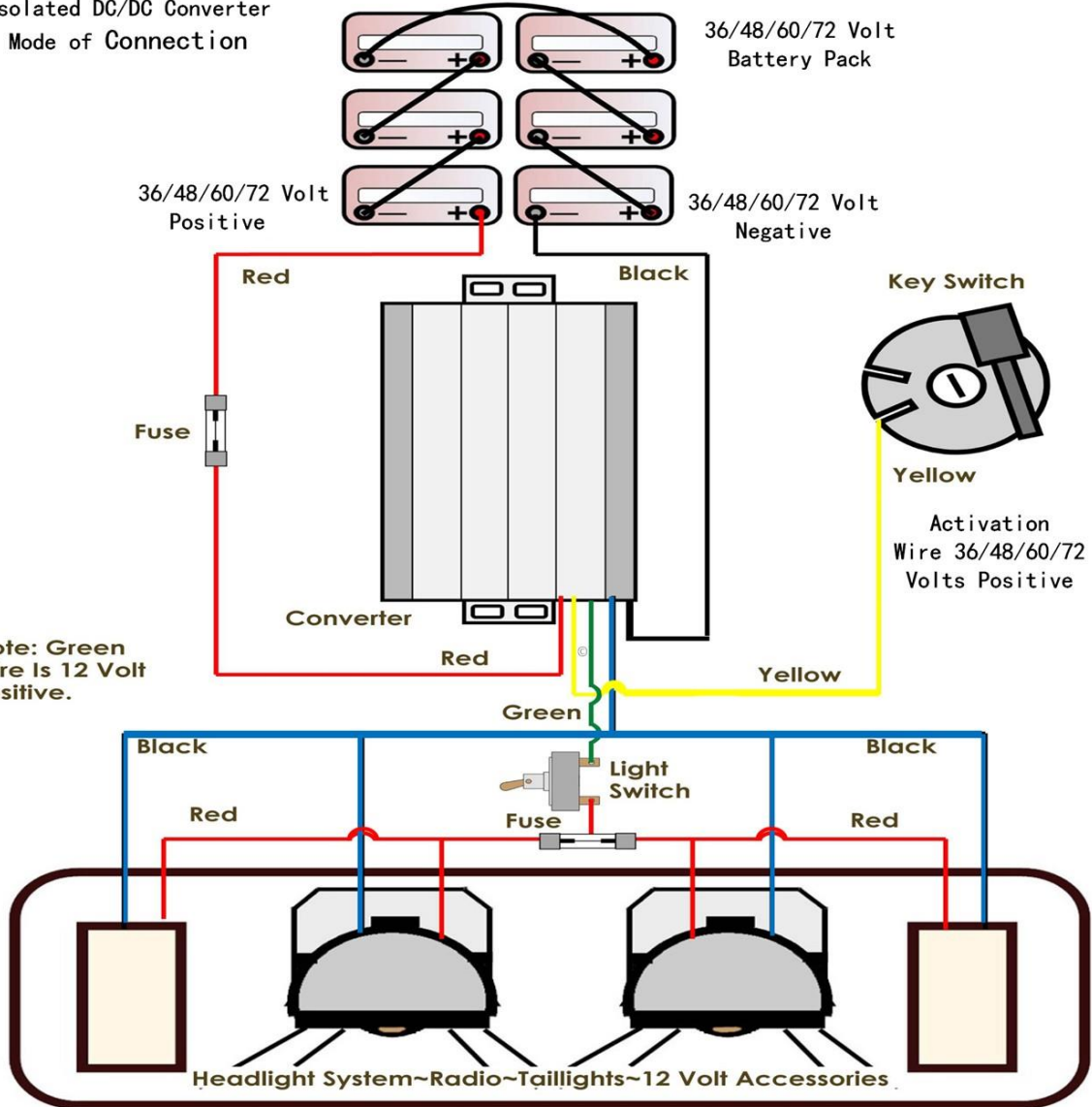
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NQZB400-060-012I			12V	0~40A	0.95kg	220		
NQZB400-060-024I			24V	0~20A	0.85kg	200		
NQZB100-072-012I	72V	54V~90V	12V	0~10A	0.77kg	140		
NQZB200-072-012I			12V	0~20A	0.77kg	180		
NQZB250-072-012I			12V	0~25A	0.85kg	180		
NQZB300-072-012I			12V	0~30A	0.85kg	180		
NQZB400-072-012I			12V	0~40A	0.95kg	220		
NQZB250-072-024I			12V	0~12.5A	0.80kg	180		
NQZB400-072-024I			24V	0~20A	0.85kg	200		
NQZB400-072-048I			48V	0~10A	0.85kg	200		
NQZB100-080-012I			80V	64~96V	12V	0~10A	0.75kg	140
NQZB150-096-012I			96V	77~115V	12V	0~15A	0.85kg	180
NQZB200-096-012I	12V	0~20A			0.85kg	180		
NQZB300-096-012I	12V	0~30A			0.85kg	180		
NQZB400-096-012I	12V	0~40A			0.85kg	220		
NQZB400-096-024I	12V	0~20A			0.85kg	200		

Mode of connection

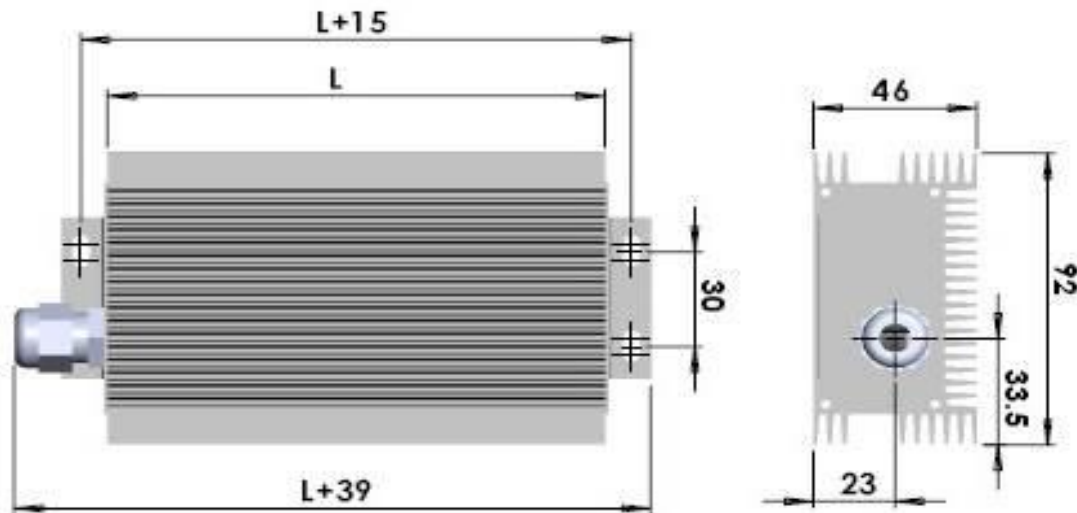
Isolated power ports defining and wiring as shown below

Isolated DC/DC Converter
Mode of Connection



Note: Green Wire Is 12 Volt Positive.

Installation size (Unit: mm)



Note: L=140mm / 160mm /180mm/200mm/220mm

Figure 4 Installation Size

Precautions

Installation & safety instructions

- ◆ The converter must be mounted on solid metal, aluminum for heat dissipation. The converter will be very hot during use, keep wiring from touching the converter and or do not touch it !
- ◆ Confirm battery pack main positive and negative potentials !
- ◆ For older cars using a negative through key switch you must use a relay for converter activation. Consult technical services for this application. For radio memory you must either leave the key switch in the on position or hardwire the yellow and red wire to 36/48/60/72 volt positive. Doing this you will have a constant drain on the battery pack and long extended period of “setting” will help drain the battery pack. It is advised for long storage to disconnect the converter.
- ◆ Anytime a battery pack is disconnected manufacturers instructions must be followed. Always make sure if the car has a run/tow switch the switch is placed in the tow position before disconnecting anything. Torque battery cable nuts to 80 to 100 inch pounds. Spray coat connections with anti corrosion spray. Tech Note: loose connection create heat and arcing make sure all wiring connections are clean and tight.

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- ◆ Make sure all wiring is free from moving parts, sharp objects or extreme hot area's! Tie up any loose wiring
- ◆ use process equipment will pay attention to timely remove surface dust and other debris impact of heat dissipations .
- ◆ Please don't disassemble the DC-DC converter yourself . it may cause electric shock or other injuries .
- ◆ In order to avoid damaging the power cord , don't put any object on the line and place the line where it will not be stepped on . If the cord is frayed or damaged , replace it immediately

Warranty: 12 months Limited Warranty from time of delivery