# **ZORN® Electric Cooler now with 3 connection options**



**230 Volt** 

12 Volt (Car)

USB-A/-c









**Now New** extends the cooling time of your cool box by up to 10 hours with a USB-A/-c connection to a mobile power pack (output 5 V / 3 A)!



## Z 26 LNE + USB

Product Name: Z 26 LNE + USB Product EAN: 4251702501142 Article Number: 770049

Color: Grey/Orange

Product Dimensions: 39x29x41,6cm

Product Weight: 3,6 kg

Packaging: Tray Shrink Packaging

Product Dimensions with packaging: 39,5x29,5x42cm

Product weight with packaging: 4,1 kg

Volume: 26 Liter

Cooling Funtion(Delta T): up to 17°C below ambient temperature

Connection possibilities to: 12 Volt - Car

230 Volt - Household

USB-A/-c to mobile, Power Packs 5V/3A

Units in 40 FC HC: 1440 Units on Euro Palette: 40

Units in Lorry: 1320

# Z 32 LNE + USB

Product Name: Z 32 LNE + USB

Product EAN: 4251702501173

Article Number: 770099

Color: Grey/Orange

Product Dimensions: 39x29x50,5cm

Product Weight: 4,0 kg

Packaging: Tray Shrink Packaging

Product Dimensions with packaging: 39,5x29,5x52cm

Product weight with packaging: 4,3 kg

Volume: 30 Liter

Cooling Funtion(Delta T): up to 17°C below ambient temperature

Connection possibilities to: 12 Volt - Car

230 Volt - Household

USB-A/-c to mobile, Power Packs 5V/3A

Units in 40 FC HC: 1200

Units on Euro Palette: 32

Units in Lorry: 1056



# **Zorn Electric Cooler now with 3 connection options**

230 volts + 12 volts (car) + USB-A/-C (5 volts 3 A power pack)

# Extend the cooling time of your cool box by up to 10 hours (in Eco cooling function) with a USB-A/-C connection to a mobile power pack (output 5 V / 3 A)!

Note on operating the cool box with a mobile battery (Power Pack Output 5V/3A):

In the cable compartment of the cool box lid there is now an additional connection cable with USB-A/USB-C plug for connecting the cool box to a standard mobile battery (power pack) with an output of 5V/3A.

### Why?

When connected to 230 volt mains voltage, the cool box works with the 230V/12V voltage converter built into the cooling unit with 12 volts, the same as when the cool box is connected directly to a 12 volt socket in the car (volt socket /cigarette lighter).

The Peltier cooling/heating element in the lid of the cool box generates cold on the side facing the cooling room and heat on the side facing away from the cooling room when the electricity is connected.

The aluminum radiators and fans attached to the top and bottom of the Peltier element dissipate the heat into the environment at the top and distribute the cold inside the cool box.

If your cool box has a heating function, the mode of action of the Peltier element is reversed by reversing the current flow and the previously cool side in the cool box is heated and the warm side is cooled.

If the power supply to the cool box is interrupted, the system can no longer maintain the separation of the hot and cold sides; the aluminum radiator in the cool box heats up after a short time and with it the chilled goods.

By using a mobile battery/power pack, it is now possible to maintain the separation of the hot and cold side of the cooling system with only 5 volts / 3A and to keep the food and drinks that have already been pre-cooled in the cool box for many hours with a lower cooling capacity (equal to the ECO function with 230 volt operation) and a temperature difference of approx. 10°C to the ambient temperature of the cool box. Another advantage of cooling with the help of 5 volt / 3 A power packs is that the lower voltage of only 5 V is also associated with a reduction in noise emissions from the cooling box fan, so that with a lower ambient temperature at night of e.g. only 17 ° C an almost noiseless cooling of your food and drinks with 7 ° C, in the vicinity of your sleeping place (e.g. tent / caravan or hotel room), is possible.

You can find numerous mobile power packs with a maximum output of 5 volts / 3 A in specialist electronics stores.

For an optimal cooling process, we recommend using a mobile 5 volt / 3 A power pack with a capacity of 24,000 mAh, which maintains the cooling capacity with a temperature difference of 10°C to the outside temperature of the box (= Eco cooling function) for up to approx. 10 hours can; a power pack with a lower capacity of e.g. 10,000 mAh, this eco cooling function can be maintained for up to approx. 3 hours.

The cooling curve below shows the possible cooling duration of power packs with a maximum output of 5 volts/3 A and different capacities of 20 or 24 Ah.

The already pre-chilled food and drinks placed in the cool box were chilled at an ambient temperature of approx. 22°C for 3 hours in the cool box with 230 volts or 12 volt cars with maximum cooling capacity down to approx. 5°C; then the 230 volt or 12 volt car power connection was interrupted and the cooler was connected to a 5 volt / 3 A power pack with the USB A/C cable.

The power pack with a capacity of 20 Ah can then maintain the cooling capacity with a difference to the ambient temperature of approx. 10 °C for up to approx. 8 hours, the power pack with a capacity of 24 Ah can maintain this temperature difference for up to approx. 10 hours. The "AC/DC" curve shows the temperature development in the box if the cool box had not been connected to a power pack

All of the above data are approximate values measured at an ambient temperature of 22°C and may vary depending on how the cool box is filled and the condition of the batteries.

#### Important:

- · Please observe the instructions for use and the manufacturer's warnings for the Power Pack you are using.
- · Only use power packs with a maximum output of 5 V / 3A.
- Do not connect the cool box to 230 volts, 12 volts or cars at the same time 5 volt power pack on.
- · While the Power Pack is being charged, it must not be connected to the cool box.

10,0 12,0 14,0 16,0 18,0 20,0 20,00 20,00 24,00 24,00 24,00 24,00h 9,5 0′6 8,5 7,5 8,0 2,0 20,0A 20,0A 20,0A 20,0A 6,5 9,0 5,5 5,0 20,0A 20,0A 20,0A 20,0A 4,5 4,0 3,5 3,0 "AC/DC" 20,0A 2,5 "AC/DC" 20,0A "AC/DC" 2,0 20,0A "AC/DC" 20,0Ah 20,0A 2 20,0Ah 20,0Ah 20,0Ah 1,5 1,0 20,0Ah 20,0Ah 20,0Ah "AC/DC" 20,0Ah 0,5 3,0 20,0 Ah 8:00 h 24,0 Ah 10:00h "AC/DC" 2,5 "AC/DC" 2,0 74,00 Wh 88,80 Wh 1,5 "AC/DC" 1,0 "AC/DC" 5 \ AC/DC 0,5 20000 mAh 24000 mAh 20,0 Ah Min
Powerpack
20000 mAh
max output
5V/3A 74,0 Wh 24000 mAh max output 5V/3A 88,8 Wh Outside Temp delta t 10 k 24,0 Ah Min Power Pack Powerpack Powerpack

Cooling performence using iffernt Power Packs 5V/3A with different capacity 20 Ah and 24 Ah to maintain cooling of Delta T of approx 10 K