

Application 1

Typical pre-charge application in Power Distribution Unit (PDU)



UXP300



ESP62/20

Application Conditions:

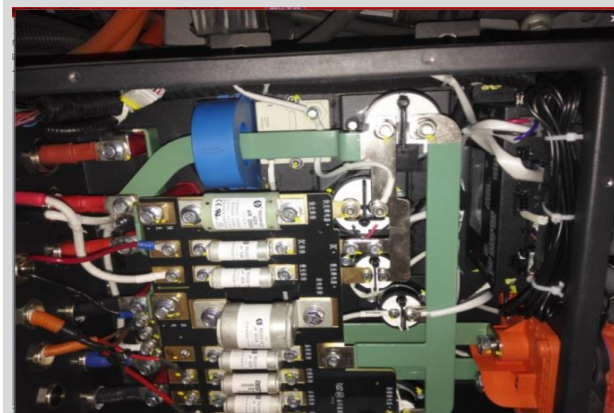
- DC Voltage: 420V
- Capacitor : C 1700uf
- Resistance : 50Ω, 100Ω, 200Ω

Application Conditions:

- DC Voltage: 420V
- Capacitor : C 2200uf
- Resistance : 25Ω

EBG Resistor Benefits vs. Existing Technology:

- Increased Safety, Stability, Reliability
 - (high pulse, no smoking, no fire, no explosion)
- Reduced size, easy to install
 - (mounted on the bottom, no soldering)
- Excellent performance in a “vibration environment”



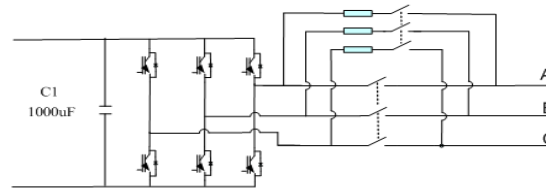
Installation Structure

Application 2

Typical pre-charge application in AC Charger



HXP200



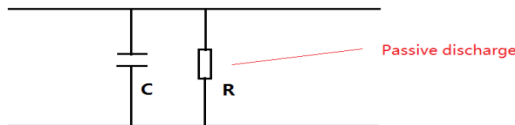
Circuit Diagram

Application Conditions:

- In-vehicle AC charger integrated in the Motor Control Unit (MCU). Connects three resistors to the three phases, working as a pre-charge for a short period of time.
- AC Input Voltage : 380V
- Charging Capacitor : C 945uf
- Charging Resistor : 33Ω

Application 3

Passive Discharge Resistors
----Typical application in MCU



Circuit Diagram

Application Conditions:

- Discharge time: 120~180S
- Capacitor: 800uF
- DC voltage:200~500VDC
- Resistance: 20K~100K
- Connected to the voltage directly.
- Continuous load power.

EBG Resistor Benefits vs. Existing Technology:

- Increased Safety, Stability, Reliability
 - (high pulse, no smoking, no fire, no explosion)
- Reduced size, easy to install
 - (mounted on the bottom, no soldering)
- Excellent performance in a “vibration environment”



HXP200



HPS150



HXP200

Application 4

Active Discharge Resistors

----Typical application in MCU

Active Discharge :

- Two typical applications for active discharge by high voltage (HV) and low voltage (LV).

1. HV active discharge

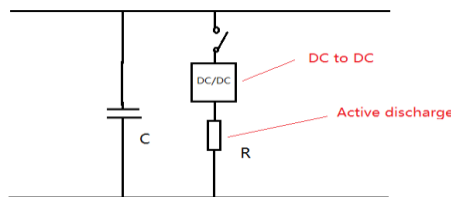
- Products: UXP300, UPT400
- Application: Similar with pre-charge in pulse.

2. LV active discharge

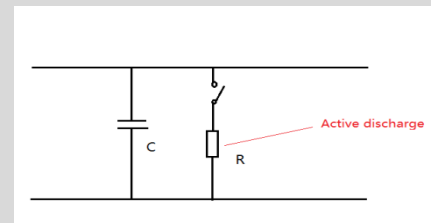
- Products: LXP100, MXP35, MHP35
- Application:
 - ✓ Convert the HV to the LV
 - ✓ Low rated power
 - ✓ Mounted on PCB

Strength of LV active discharge:

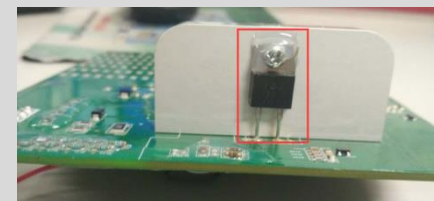
- Small size;
 - Mounted on PCB.
- Low rated power (less than 100W)
- Low cost
- Increased safety, stability, reliability.



LV-Circuit Diagram



HV Circuit Diagram



MXP35



MHP35