

Pressure Equalizing Unit



GENERAL FUNCTION

The housing of an energy storage represents a large, closed air volume. To avoid damage caused by pressure differences (environment, temperature changes, transport), pressure compensation with the environment is required.

Pressure equalizing units from ElringKlinger with integrated safety function compensate pressure differences. Due to the integrated emergency degassing function, the pressure equalizing unit releases a large cross section in the event of the outgassing of a battery cell, thus enabling a controlled degassing from the storage housing. The use of a specially developed PTFE membrane ensures a high air flow rate.



TECHNOLOGY

DIMENSIONS (L x W x H)	84,4 x 61,5 x 23,5 mm
AIR COMPENSATION CAPABILITY (AT 50 MBAR DIFFERENCE PRESSURE)	≥ 4 l/min
DEGASSING CROSS-SECTION	~ 700 mm ²
PRESSURE THRESHOLD FOR EMERGENCY DEGASSING	< 350 mbar @ cpk 1,67
IP RATING (ACC. ISO 20653)	IPX9K IP6X IPX7 IPXXB (in normal operation)
FLAMMABILITY	UL94-V0
OPERATING TEMPERATURE	-40 to 100 °C
EMC	EMC protection can be provided upon request



MOUNTING

The assembly takes place via a screw flange or bayonett flange. In case of a screw flange the threads in the storage wall can be screwed via threaded holes or e.g. via inserts. The tightness requirements of the flange must be ensured by the customer. The PEU will be delivered with a pre-assembled non loosable gasket and 100% end-of-line-leakage tested.





SERVICE

After a defect of one or more cells, as well as after a thermal event inside or outside the battery pack, the pressure equalizing unit must be exchanged. Damaged components must be exchanged as well. Reuse of the PEU is not permitted.

PEU has to be replaced after disassembly. Otherwise warranty will be void.



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