

# PA-LEP2420



## Dimensions

Length	245mm	+/-2mm
Width	170mm	+/-1mm
Height	72mm	+/-2mm

preliminary datasheet may differ from final edition

## Data for Pack

Nominal voltage		25.6V	20V - 29.2V
Nominal capacity		20Ah	typical
IEC designation		8IFpR27/66-5	LiFePO4
Internal resistance pack ( initial)		< 48 mΩ	@ 20 °C measured @ 1000Hz AC
Charge voltage		29.2V	max. voltage; cut-off current 760mA
Charge current	standard	5A	10 °C < T < 45 °C <sup>2)</sup>
	rapid	20A	10 °C < T < 45 °C <sup>2)</sup>
Discharge	standard	8A	-20 °C < T < 60 °C <sup>1), 2)</sup>
	cont.	20A	-20 °C < T < 55 °C <sup>1), 2)</sup>
	cont.	40A	-20 °C < T < 45 °C <sup>1), 2)</sup>
	max. peak 1	60A	-20 °C < T < 60 °C <sup>1), 2)</sup> t <sub>max</sub> < 50 ms @ 20 °C
Cycle No.	typ. >	1500	@20°C charge current 5A / discharge current 7.6A
Short circuit current		~380A	
Connector	TE	VAL-U-LOK	
Housing	flammability	UL94 V-0	
Storage @ 30% SOC	months	12	storage @ 20°C, (state of charge recheck min every 12 month req.)
Weight		3.45 kg	± 5%
Watt-hour rating		486.4Wh	acc. to UN38.3 Certificate from cell

1) below 0°C with limited performance in current output and available capacity 2) Limited by cell temperature, not ambient temperature

## Limitations by Safety Unit (SU)

over voltage (per cell)	cut off	3.70 V	± 25 mV @ 20°C
	release	3.60 V	± 50 mV @ 20°C
under voltage (per cell)	cut off	2.20 V	± 100 mV @ 20°C
	release	2.50 V	± 100 mV @ 20°C
Current Limit 1 by SU		40A	typical @ 20 °C; reaction time typ. 150 ms
Current Limit 2 by SU		240A	typical @ 20 °C; reaction time typ. 17 ms
Short Circuit Protection		760A	typical @ 20 °C; reaction time typ. 333µs
Charge Current Protection		24A	typical @ 20 °C; reaction time typ. 1024ms
Current Protection Release			Load remove @ discharge / Charger remove @ charge
Temperature protection against charge		T<5°C or T>50°C	± 5 K; temperature @ cell ; current is stopped outside range
Temperature protection against discharge		T > 65 °C	± 5 K; temperature @ cell ; current is stopped outside range
Power consumption	active	< 90 µA	@ U > 20 V and 20 °C
	shutdown	< 20 µA	@ U < 17 V and 20 °C

## Recommended Charger

CC/CV Charger 4s LiFePO4: Standby use 27.2V / initial max. 5A | cycle life 28.8V to 29.2V initial max. 20A, cut off @ 760mA; for optimal pack balance up to 60min. constant voltage 28.8V @ limited current of max. 2A can be applied, then stop charge