

# LE300

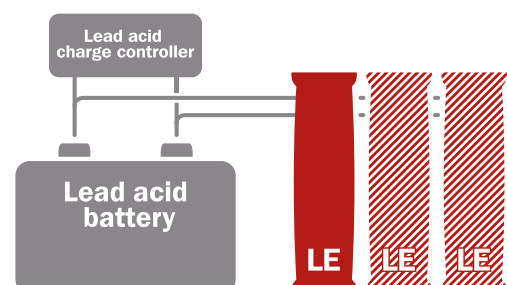
The best of two technologies



## The intelligent lithium battery to combine with lead

The LE300 Smart Battery System is a lithium extension for any 12V lead-acid, AGM or GEL batteries. The compact design, modularity, scalability, and smart technology allow the LE300 Smart Battery System to be used for any application and capacity needed, from solar home systems to mobile applications such as motorhomes and boats.

Unlike pure Lithium systems, upgrade to LE300 doesn't need charging technology to be changed. Quick and easier to install because of its true plug & play feature, LE300 is the easiest and safest way to expand your battery capacity to experience anew self sufficiency and travel freedom.



# LE300

## TECHNICAL DATA

System voltage	12 VDC
Nominal voltage	12.8 VDC
Voltage range	11 – 15 VDC
Battery packs used in LE300	IFpR/26/65 [8p/4s] E/-20NA/95 LiFePO4 rechargeable battery
Nominal lithium capacity	28 Ah/358 Wh
Usable lithium capacity	90 % (25,2 Ah/322 Wh)
Numbers of cycles at room temperature	3000 full cycles (80% remaining capacity after 3000 cycles)
Continuous charging/dischargin current	Max. 12.5 A between 5 and 40 °C, at higher and lower temperatures current is limited.
Housing dimensions	175x229x67 mm
Weight	3.4 kg
Connection terminals	RAST 5/mini module 4 pin/communication interface/external display
Recommended wire size	1.5 – 4 mm <sup>2</sup>
Ambient temp. (operation & warehousing)	-20 – 50 °C ambient temperature with maximum battery life at 15-25 °C. Warehousing temperature 10 – 30 °C.
Low and high temperature protection, heating, charging & discharging	Temp. sensor prevents lithium battery charge under -5 °C or above 55 °C cell temp. Charging starts once cell temp. is higher than -5 °C. Device has an integrated heating that is active between -20 °C and 10 °C cell temp. Discharge possible between -20 °C and 60 °C cell temp. At cell temp. below -20 °C and over 60 °C system is running in pure lead acid mode for higher battery lifetime.
Lithium cell balancing	Battery management inclusive balancer
Protection features	Overcurrent, overvoltage, short circuit, deep discharge, wrong polarity protection.
Compatible external batteries	Works in combination with any 12 V lead acid battery & lead acid charge controller.
Max. parallel LE300s	Maximum of 24 can be connected in parallel, higher quantities possible after consulting BOS partner.

## EXEMPLARY BATTERY PACK CONFIGURATION



Size fits into space of a 95Ah lead acid battery

Qt. of packs connected in parallel	2	6
Total nominal voltage	12.8 VDC	12.8 VDC
Total lithium capacity	56 Ah/ 716 Wh	168 Ah/2,15 kWh
Continuous charging/discharging current	Max. 25 A	Max. 75 A
Recommended lead acid capacity (not incl.)	Min 20 Ah	Min 40 Ah