



**BOSCH**  
Invented for life



# Universal Battery Chargers

Fully automatic and future-proof



**BAT 645 / 690**

Universal Battery chargers

## BENEFITS OF BAT 645 / 690 AT A GLANCE

- ▶ 45 A or 90 A – universal battery chargers for all lead acid battery types and new Li-Ion – Lithium Iron Phosphate
- ▶ 12 V / 24 V for cars and trucks with automatic selection
- ▶ Fully automatic charging characteristics – Universal for all battery types (UNI) and specific characteristics for WET, AGM, GEL, EFB and LFP and soft charging phase for deeply discharged batteries (automatic)
- ▶ Backup mode maintaining current supply to buffer data during battery replacement
- ▶ Floating mode which keeps SOC of the battery and stabilizes vehicle electrical systems (engine is off)
- ▶ HMI with a dot matrix display
- ▶ Electronic protection management system
- ▶ USB port for SW updates
- ▶ Exchangeable charging and power cord cables
- ▶ Charger holder for wall mounting

### SOLUTION-ORIENTED

The new Bosch BAT 645 and 690 battery chargers, offers automotive workshops two universally applicable professional devices featuring 45 or 90 ampere of continuous current output. Automatically detecting the required nominal voltage, both chargers can be used for 12-volt car batteries and 24-volt commercial vehicle batteries alike.

### UNIVERSAL

As additional modes of operations, BAT 645 and BAT 690 feature both a back-up and a floating mode. At the back-up mode, the device ensures the vehicle's power supply in case the starter battery has been removed. The floating mode, on the other hand, is of increasing importance in everyday workshop life. In this case, the battery charger supports the on-board power supply, for instance, in case of control unit updates.

### FUTURE-PROOF

The new battery chargers are equipped with a USB port easing software updates. This allows, for instance, uploading characteristics for innovative types of batteries – thus keeping the devices up to date at any time. In addition, a WiFi connection is planned for BAT 690 in order to enable its future integration into workshop networks.

TECHNICAL DATA	BAT 645 0 687 000 164	BAT 690 0 687 000 169
Max. Charge current intensity - 12V - 24V	45 A 22,5 A	90 A 45 A
Length of the charging cable	2 x 3 m	2 x 3 m
Cross-section charging cable	6 mm <sup>2</sup>	18 mm <sup>2</sup>
Power input	Max. 800 W	Max. 1600 W
Weight (without charging and power cable)	3,7 kg	6,6 kg
Charging characteristic	I1U1I2aI3aI3...	I1U1I2aI3aI3...
Backup mode	12.0 V / 24.0 V max. 20 A	12.0 V / 24.0 V max. 30 A
Floating-mode operation	13.0 V / 26.0 V max. 45 A / 22,5 A	13.0 V / 26.0 V max. 90 A / 45 A
Function temperature range	-5°C – +45°C	-5°C – +45°C
Main voltage	230 V, 50/60 Hz	230 V, 50/60 Hz
Battery nominal voltage	12 V / 24 V	12 V / 24 V
Protection type (DIN 40050)	IP 20 D	IP 20 D
Safety class (DIN 40530)	SK I	SK I
Dimensions (W x H x D)	220 x 115,5 x 296 mm	220 x 115,5 x 473 mm
Emitted interference level (DIN 40839)	Class B	Class B



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