

LIFESPEED™ 3000

High-Speed, Smart Charger



LifeSpeed™ 3000

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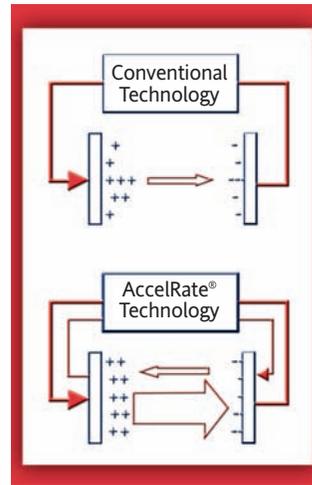
LifeSpeed™ 3000 is the latest addition to the HAWKER charger family. LifeSpeed 3000 is a high-frequency, high-speed, smart charger with the flexibility to be an opportunity charger or a straight-through charger — automatically. Fast charging eliminates battery changes, improves productivity, and reduces costs.

A Battery Boss® control mounted on the battery gives LifeSpeed 3000 detailed battery characteristics (voltage, AH capacity, age, temperature, etc.) used to establish the optimal fast charging profile. LifeSpeed 3000 then utilizes patented AccelRate® technology to create a unique charge algorithm, which combined with the exceptional efficiency and power factor of high frequency IGBT technology charges your batteries faster, cooler, and at a dramatically lower cost.

Technology

At the core of the LifeSpeed 3000 high-speed, smart charger are patented methods for diagnosing and recharging batteries. This technology, coupled with the data being communicated from the battery to the charger, gives LifeSpeed 3000 the ability to automatically adapt to battery voltage, AH capacity, and state of charge. So LifeSpeed can charge a universal range of batteries (voltages from 24 to 48 volts) and AH capacities (four sizes cover the full range of battery sizes) without any user intervention or programming.

LifeSpeed incorporates AccelRate technology to achieve a superior high-speed charge. Through a patented algorithm, the AccelRate profile reduces the natural resistance of the battery by inserting at precise



intervals discharge cycles into the charging profile. This homogenizes the ion field around the plates, promoting a far better distribution of the active ions over the entire charging area.

Therefore, a substantially higher charging current can be applied and maintained, resulting in a much faster charge, with a controlled increase in the electrolyte temperature.

With LifeSpeed 3000, batteries will be returned to a full state of charge, without excessive heat generation in approximately two hours, while greatly reducing your energy demands. And with LifeSpeed 3000, there is no need to interrupt charging at the 80% point to limit heating. You can do a partial charge or a full charge whenever your work cycle demands it, keeping your fleet “At The Ready”.

Battery Boss®

LifeSpeed 3000 chargers interface with the electronic battery management system called the Battery Boss. The Battery Boss control is a compact wireless electronic device that attaches to the battery to provide real-time battery diagnostics. The Battery Boss measures voltage and temperature and can provide the following data –

- Battery identity, age, type, and serial number
- Number of cycles
- Total discharge time
- Equalization charges completed or omitted
- Total rest time
- Record of abnormal operating temperatures



LifeSpeed™ 3000 High-Speed, Smart Charger

Battery Boss® by HAWKER





Data stored in the Battery Boss can be downloaded quickly and simply by infrared communication with a personal digital assistant device (PDA.) Using Tracker software, the PDA can hold many thousands of events, satisfying even the largest fleets. Using Profile software, the PDA can also download all charging data directly from the LifeSpeed 3000.

LifeSpeed 3000 chargers also permit data from the last 100 charge cycles to be viewed directly from the charger's digital display. Data from the PDA can be transmitted to HAWKER for detailed analysis and reporting of battery and charger performance. (See the back page for sample reports.)

Bottom Line

LifeSpeed 3000 chargers:

- Feature high energy-efficiency and a high, constant power factor to reduce operating costs.
- Fully recharge your batteries 3-5 times faster than conventional units, without requiring any significant modifications to the battery. (The ATR 3030 requires dual cables.)
- Are fully automatic. Wall mount or floor mount models can be used wherever or whenever a full or partial charge is required to keep your fleet "At The Ready".

LifeSpeed™ 3000 Technical Specifications

Model	ATR 3010	ATR 3015	ATR 3020	ATR 3030
Max Output	180 Amps	260 Amps	350 Amps	500 Amps
Power Supply	480V ± 10%	480V ± 10%	480V ± 10%	480V ± 10%
Frequency	60 Hz	60 Hz	60 Hz	60 Hz
Consumption	15 Amps	21 Amps	29 Amps	41 Amps
Cables	2/0 x 10'	2/0 x 10'	2/0 x 10'	2/0 x 10' (x2)
Connector	SBX-350	SBX-350	SBX-350	SBX-350 (x2)
Weight	133 lbs	133 lbs	264 lbs	264 lbs
Mounting	Wall	Wall	Floor	Floor

For the right HAWKER power solution to meet your needs, please call **1-877-7HAWKER** for a HAWKER representative in your area.

LifeSpeed™ 3000 Control Panel

Available Battery Voltage 24-36-48

Charge Profile—Fast or Ionic

Red "Fault" Light

Yellow "Battery on Charge" Light

Green "Battery Available" Light

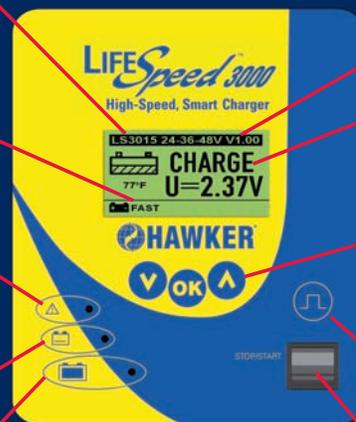
Software Version

Digital Display

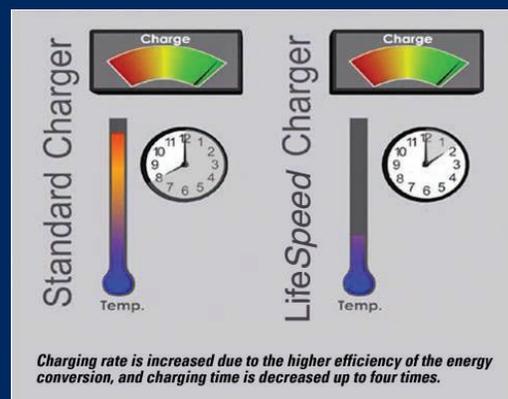
Parameter/Memory Menu

Desulphation Button

Stop / Start Switch



LifeSpeed™ Key Benefit



Lead-acid industrial motive power batteries will be returned to a FULL STATE OF CHARGE in approximately two hours, while greatly reducing your energy demands.

Sample Reports

Battery Boss® Customer Card

HAWKER Serial N° Cells
Customer Battery N°

Number of Cycles 106

Normal Duty Application < 80%	64
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Number of complete cycles :	51
Number of incomplete cycles :	13

Deep Discharge > 80%	42
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Number of complete cycles :	42
Number of incomplete cycles :	0

	Number	Time	Unit	Action
Age		3.4	(months)	
Number of cycles / week	0			
Over discharge		9.6	(hours)	!
Excessive T°	0	0	(hours)	
Low T°	2	2	(hours)	
Recharge required				!

Global Health Card N°

	Total	Since reset
Number of equalization charges	10	10
Total discharge time	406 h	406 h
Maximum rest time	8.6 days (106 °F)°C	8.6 days (106 °F)°C
Storage time after battery assembly	0.9 days (116 °F)°C	
Total time of over discharge	9.6 h	9.6 h
Number of cycles at T° > 131 °F	0	0
Total time at T° >	0 h	0 h
Total time at 95 °F > T° > 131 °F	29.5 h	29.5 h
Number of cycles at T° > 59 °F	2	2
Total time at T° < 59 °F	2 h	2 h
Number of disconnections	3	3
Number of charges with HAWKER HF Charger : EasyCom	0	0
- with appropriate current (based on Technical spec)	0	0
- with incorrect current (based on Technical spec)	0	0
Number of charges with other chargers (Included HAWKER HF but without communication)	106	106



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