



HAWKER

LIFEPLUS[®] MOD3

WHERE TECHNOLOGY MEETS INNOVATION

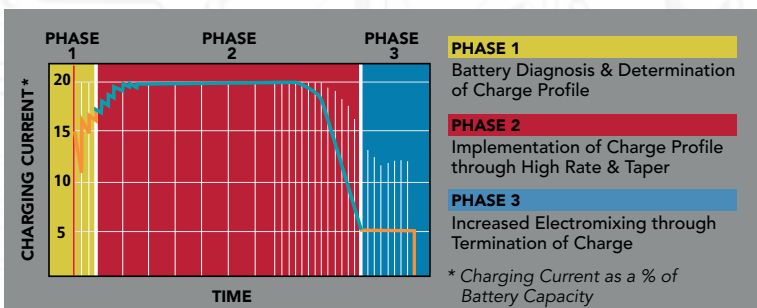
Lead the modular charging revolution with the HAWKER LIFEPLUS® MOD3 charger – the latest innovation of high-frequency switch-mode IONIC smart chargers, leading the world in high-frequency charging technology. HAWKER LIFEPLUS® chargers are the result of more than 35 years of high-frequency, smart charging experience. These chargers provide multiple charge profiles, peak efficiency, and non-stop power while reducing charging costs.

BENEFITS AND HIGHLIGHTS

Combining the HAWKER LIFEPLUS® charging heritage with the advantages of modular technology, HAWKER LIFEPLUS® MOD3 chargers deliver a variety of benefits to enhance your operation.

- **Energy Savings** – HAWKER LIFEPLUS® MOD3 technology offers the highest conversion efficiency and power factor available in the industry – significantly reducing electrical consumption and demand charges. The HAWKER LIFEPLUS® MOD3 operates at efficiencies of up to 94% and a power factor of .96.
- **Plug-and-Play Flexibility** – The HAWKER LIFEPLUS® MOD3 responds dynamically to charge a wide range of battery voltages and capacities without user intervention. It is the easiest high-frequency switch-mode charger in the industry to operate. On-site programming capabilities allow the charger to be custom tailored to the application's specific needs.
- **Advanced Data Management** – The chargers communicate wirelessly with the HAWKER® Battery Boss™ WC (BBWC) and maintain a data history of numerous charge parameters for easy analysis and optimization. Optional Ethernet interface provides network connectivity for remote monitoring and data collection.
- **Opportunity Charging** – The HAWKER LIFEPLUS® MOD3 includes a distinct opportunity charge profile which returns capacity to the battery during breaks without excessively gassing the battery. The opportunity profile can be set either manually using front panel menus or automatically using the HAWKER® BBWC.

The chart below depicts the three phases of the IONIC profile. Vertical lines identify pulses.



Every module in the HAWKER LIFEPLUS® MOD3 chargers are stand-alone, eliminating the risk of catastrophic failures and downtime.

- **Extended Battery Warranty** – The IONIC charge profile delivers an optimal charge with less heat which extends battery life. HAWKER POWERLINE® and ENERGY-PLUS™ batteries charged only in this profile will be warrantied for 6-years or 1,800 cycles – provides up to an additional 20% longer life on your battery investment.

SELECTABLE CHARGE PROFILE OPTIONS

The HAWKER LIFEPLUS® MOD3 offers nine different charge profile options based on your operation's requirements:

- 1. IONIC** – This profile is the preferred choice for most applications. Employing periodic current pulses which both identify the battery's true capacity and state of charge, as well as mix the electrolyte throughout charge to avoid acid stratification. This profile provides the optimal recharge with minimal heating.
- 2. Cold Storage** – The HAWKER LIFEPLUS® MOD3 charger series will automatically switch to the cold storage profile if the battery temperature is below 59°F when communicating with the HAWKER® BBWC.
- 3. Opportunity** – The charge current is up to a 25% start rate depending on battery and charger size. The opportunity profile may be used with or without a HAWKER® BBWC. When employing a HAWKER® BBWC, the charger will change profiles based on the HAWKER® BBWC's settings. Without a HAWKER® BBWC, you must program the charger in opportunity charge mode. When using a HAWKER® BBWC in opportunity mode, HAWKER® POWERLINE® and ENERGY-PLUS™ batteries receive an extra year of warranty. (4 years standard plus 1 extra year with HAWKER® BBWC.)

Equalize and complete charge time parameters must be programmed through the charger configuration screen.

- 4. Lithium** – The HAWKER LIFEPLUS® MOD3 charger will change to a lithium charge profile when connected to a HAWKER FLEX® Li3 battery. The charge current and voltage will be controlled by the battery's BMS.
(Conversion kit required to charge HAWKER FLEX® Li3.)
- 5. TPPL 2V** – Allows for fast or opportunity charging of Thin Plate Pure Lead 2V batteries with a start rate of up to 40% when using with a HAWKER® BBWC.
- 6. TPPL Bloc** – Allows for fast or opportunity charging of Thin Plate Pure Lead bloc batteries with a start rate of up to 70% when using with or without a HAWKER® BBWC.
- 7. TPPL Fast** – Allows for fast charging of a Thin Plate Pure Lead battery up to a 0.40 C6 charging rate.
- 8. TPPL Elite** – Allows for charging of a HAWKER FLEX® Elite bloc TPPL battery at up to a 0.7 C6 charging rate.
(Conversion kit required to charge HAWKER FLEX® Elite.)
- 9. Gel** – The HAWKER LIFEPLUS® MOD3 charger comes equipped with a profile for industry-standard, sealed lead-acid gel batteries.

ADVANTAGES OF MODULAR POWER

- ⚡ Power You Can Count On** – The new high-frequency modular HAWKER LIFEPLUS® MOD3 charger supplies dependable, proven power – delivering maximum reliability and improved efficiency to keep you moving.
- 🔗 Flexible. Adaptable. Fast.** – The modules in the HAWKER® chargers automatically adjust to effectively charge the battery while maintaining optimal efficiency and best power factor.

The modular design of the HAWKER LIFEPLUS® MOD3 allows for adaptation to a variety of battery capacities, potentially reducing or eliminating the need for more chargers in your fleet.



LIFEPLUS MOD3



3.5 kW Modules

4, 6, & 8 bay cabinets

208-240 V, 440 V, 480 V, 600 V 3-phase

Output voltage: 24/36/48/60/64/72/80V
from 7kW to 28kW

- 🔄 Eliminate Downtime** – When employing two to eight individual power modules for single cable charging, HAWKER LIFEPLUS® MOD3 chargers provide you with a non-stop charge. Even if one module stops working, the rest will keep working to continue charging the battery – making downtime a thing of the past.
- 🔧 Simplified Service** – The HAWKER LIFEPLUS® MOD3 self-diagnostics feature alerts operators to any possible failures. Replacement modules are available for quick delivery, and because of their design, installation is fast and simple.
- 🏗️ Scalability for Future Needs** – Our modular charger design offers the advantage of scalability. The 4-bay, 6-bay, and 8-bay HAWKER LIFEPLUS® MOD3 charger cabinets allow modules to be added in response to changing power needs. Your current operations may require only a few modules to effectively charge your batteries, but if your workload changes (or if you switch to opportunity charging), these larger cabinets can quickly accommodate additional modules to meet your expanded power requirements.
- 🌿 Environmentally Engineered** – The HAWKER LIFEPLUS® MOD3 chargers consume less electricity, simultaneously reducing battery recharge costs while positively impacting our carbon footprint.

The modules in the HAWKER LIFEPLUS® MOD3 chargers work as a team to deliver consistent power. Even if one module goes down, the other modules will continue charging.

For more information on the HAWKER LIFEPLUS® MOD3 chargers, call 1.877.7HAWKER today to speak with a HAWKER® representative in your area. (U.S. & Canada Only)

KEY FEATURES

HAWKER LIFEPLUS® MOD3 WHERE TECHNOLOGY MEETS INNOVATION

CHARGING

- Automatic diagnosing of the battery
- Automatic equalization charge day and time of day
- Condition charge (programmable DoD)
- De-sulphation charge
- Built-in arc-reducing circuit (arcless option available)
- IONIC smart charge profile
- Opportunity charge profile
- High temperature charge interruption with Battery Boss™ WC
- Programmable delay start, either period of time after plugged-in or specific time of day
- Block-out timer to avoid peak demand

FLEXIBILITY

- Multi profile capability / automatic with Battery Boss™ WC
- Automatic temperature adjustment with Battery Boss™ WC
- Multi capacity and scalable output power
- Auto cell sizing for 12/18/24 cells
- Auto selection of I-E-I charge profile for cold storage applications

COMMUNICATION

- Wireless communication between charger and battery via BBWC
- USB port to download charger data and upload firmware
- Optional Ethernet adapter
- LED indicators on each module for on/off or if a fault is detected
- Built-in real-time clock
- Bluetooth capability to download data & program charger configuration settings

CONSTRUCTION

- Light and modern design
- Shelf or wall mounted
- 4 - 3/8" multi-color TFT screen with customer programmable menu
- Background changes color with battery status
- Adjustable cable settings: length and gauge

GREEN TECHNOLOGY

- Energy savings with efficiency up to 94% and .96 power factor
- Consumption below 10W in Energy Saver mode

THE BOTTOM LINE FOR HAWKER LIFEPLUS® MOD3 CHARGERS

HAWKER LIFEPLUS® MOD3 chargers are the smartest and most energy-efficient chargers in the business. The HAWKER LIFEPLUS® MOD3 charger series reduces your battery recharge costs, reduces water consumption, and reduces battery maintenance and repair costs.

ENERGY SAVINGS – The HAWKER LIFEPLUS® MOD3 IONIC charge profile lowers charge factor by diagnosing the battery and precisely returning the energy needed to completely charge your battery. The IONIC profile coupled with high electrical efficiency can offer significant savings on electrical costs.

MAINTENANCE SAVINGS – With the HAWKER LIFEPLUS® charger IONIC technology and lower charge factor, you will spend at least 25% less time and less money watering your batteries, when charging in IONIC mode.

BATTERY SAVINGS – HAWKER LIFEPLUS® MOD3 chargers can extend the life of your battery fleet by a minimum of 20%. Less heat generation during recharge means longer battery life, less downtime, and less money spent on battery repairs and replacements.

OBSOLESCENCE SAVINGS – The flexibility and scalability of the HAWKER LIFEPLUS® MOD3 means that your chargers may not need to be replaced when your present trucks or batteries are replaced.

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WHERE POWER AND DATA CONNECT

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