

CROWN

VFORCE

# V-HFM<sup>3</sup> SERIES

High-Frequency Modular Chargers



# So Versatile

It's quite possibly the one battery charger to satisfy every need

We're revolutionising modular charging with the smart, connected and efficient V-HFM<sup>3</sup> Series battery charger.

With advanced intelligence, impressive efficiency and broad connectivity, the V-HFM<sup>3</sup> Series charger simplifies and enhances the charging process to keep your forklift fleet moving. Our scalable design accommodates your changing business needs and future technology growth, including lithium-ion batteries, to offer low total cost of ownership. It all adds up to an impressive return on your investment.



Increase productivity and reduce downtime with responsive service and support

Crown's expansive service network of technicians and motive power specialists, supported by extensive parts availability, can provide the maintenance and consulting services you need to leverage your power investment.

Visit [crown.com](http://crown.com)

See the V-HFM<sup>3</sup> Series



## Charging efficiency that reduces energy costs

Compared to older SCR and Ferro chargers and even more recent high-frequency chargers, the V-HFM<sup>3</sup> is compact, lightweight and power dense. Its 97% efficiency reduces energy consumption and increases your return on investment with every charge.



## Smart charging with advanced intelligence

Smart sensors and intelligent displays make battery charging safe and easy. Automatic voltage sensing identifies a battery upon connection and applies the correct charging profile from 24–96 volts without the use of a monitoring device, enabling one charger to take the place of many. High-visibility indicators and a colour display provide quick indication of each charger's current state while easy-to-read, LED indicator lights inform operators of charging status, cooling time, equalising and watering needs at a glance.



## Flexibility to meet your changing needs

With its modular design, the V-HFM<sup>3</sup> Series charger can be easily scaled to fit evolving charging requirements. Whether you need to charge lead-acid or lithium-ion batteries, upgrade hardware or software, or utilise conventional, opportunity and fast charging methods, our unique charger design incorporates new technology and battery charging needs to enhance compatibility for today and the future.

As your business needs evolve, so does the V-HFM<sup>3</sup> Series charger. Multi-voltage capability enables one charger to be configured to charge virtually any lift truck battery in your operation, from 24–96 volts, and handle input voltages around the world, from 208 to 600 volts.

In the event that your current application requires additional power output, the V-HFM<sup>3</sup> Series charger can easily be upgraded by adding a module to an available slot.



## Broad connectivity provides seamless integration

Having multiple ways to access charger configuration and logs saves time and money. Integrating your battery charger with monitoring and management systems has never been easier. A built-in web browser-accessible interface and support for Wi-Fi, Ethernet and USB connections means you can configure, monitor and complete diagnostics seamlessly, without the need for special apps, cables and software.



### Unleash the power of battery management

Crown's V-Force Battery Monitoring Identification Device (BMID) provides an additional level of control for lead-acid batteries. Automatic temperature compensation and battery electrolyte level monitoring during the charging cycle maintains battery health and simplifies battery watering.

## 24–96 V

LEAD-ACID & LITHIUM-ION  
COMPATIBLE



# Specifications

Model	FS3 Three phase				FS4 Three phase				FS6 Three phase			
Battery Voltage Range	24 V, 36 V, 48 V, 72 V, 80 V, 96 V											
Main Voltage (three phase)	208–240 Vac 380–480 Vac 480–600 Vac				380–480 Vac 480–600 Vac				380–480 Vac 480–600 Vac			
Module Configuration	One to three modules				Two to six modules				Two to six modules			
Efficiency	Up to 97%											
Battery Voltage vs Charge Current (V)	24/36	48	72/80	96	24/36	48	72/80	96	24/36	48	72/80	96
Max Charging Current (A)	300 A	255 A	150 A	127.5 A	400 A	400 A	300 A	255 A	600 A	510 A	300 A	255 A
Dimensions (W x H x D)	12 x 9.5 x 14.5 in (305 x 240 x 365 mm)				12 x 18.5 x 14.5 in (305 x 470 x 365 mm)				12 x 18.5 x 14.5 in (305 x 470 x 365 mm)			
Weight	Maximum 37.4 lb (17 kg) with three modules				Max 71.5 lb (32.5 kg) with six modules				Max 71.5 lb (32.5 kg) with six modules			
Marks of Conformity	UL Listed, cUL Listed, CEC-BC Compliant, CE Compliant											
Charge Profile Options	Conventional, Opportunity, Fast and V-Force Lithium-Ion											

## Options and Accessories



### Wired Remote Control Kit Part No. 396587-001

The remote switch provides easy access to charger functions when the charger must be mounted in a hard-to-reach location.



### Tower Light Kit Part No. 396586-001

LED light indicates battery charge status from a distance. Includes 11.81-inch pole with mounting bracket, I/O expansion board with internal wiring loom, expansion board mounting standoff and DE9 mounting standoffs.



### Battery Monitoring Identification Device (BMID) Part No. 396525-BT

Mounts on top of lead-acid batteries to monitor battery health, control and optimise charging, detect low electrolyte levels and communicate watering needs. Adjusts charge rate based on voltage and temperature to ensure optimal performance.

## Models



FS3



FS4



FS6



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