

# M-SERIES

The Stryten Energy EHF Series provides a multi-curve range for standard flooded, low-maintenance flooded and low-maintenance valveregulated batteries. This smart charger includes multiple algorithms appropriate for our M-Series T300, T310, T330, F100 and F110 batteries.



# THE ENERGY TO CHALLENGE

## **EHF MODEL AND PERFORMANCE MATRIX**

| MODEL NUMBER              | DC VOLTS            | DC AMPS            | CAPACITY<br>RANGE, C6<br>RATED AH | PHASE | INPUT<br>CURRENT @<br>480V (±10%) | WEIGHT (LBS)<br>(±10%) | CABINET SIZE |  |
|---------------------------|---------------------|--------------------|-----------------------------------|-------|-----------------------------------|------------------------|--------------|--|
| EHF24T40                  |                     | 40                 | 260                               |       | 1.8                               |                        |              |  |
| EHF24T70                  |                     | 70                 | 475                               |       | 3.1                               | 55                     | G1           |  |
| EHF24T90                  | 24                  | 90                 | 600                               | 3     | 4.0                               |                        |              |  |
| EHF24T110                 | 24                  | 110                | 750                               |       | 4.9                               |                        |              |  |
| EHF24T130                 |                     | 130                | 865                               |       | 5.8                               |                        |              |  |
| EHF24T150                 |                     | 150                | 1000-1500*                        |       | 6.6                               |                        |              |  |
| MODEL NUMBER              | DC VOLTS            | DC AMPS            | CAPACITY<br>RANGE, C6<br>RATED AH | PHASE | INPUT<br>CURRENT @<br>480V (±10%) | WEIGHT (LBS)<br>(±10%) | CABINET SIZE |  |
| EHF36T40                  |                     | 40                 | 260                               |       | 2.7                               |                        |              |  |
| EHF36T70                  |                     | 70                 | 475                               |       | 4.6                               |                        |              |  |
| EHF36T90                  |                     | 90                 | 600                               |       | 6.0                               | FF                     | G1           |  |
| EHF36T110                 |                     | 110                | 750                               |       | 7.3                               | 55                     | 61           |  |
| EHF36T130                 | 36                  | 130                | 865                               | 3     | 8.6                               |                        |              |  |
| EHF36T150                 |                     | 150                | 1000                              |       | 10.0                              |                        |              |  |
| EHF36T180                 |                     | 180                | 1200                              |       | 12.0                              | 142                    | G2           |  |
| EHF36T220                 |                     | 220                | 1450                              |       | 14.7                              |                        |              |  |
| EHF36T240                 |                     | 240                | 1600                              |       | 16.0                              |                        |              |  |
|                           |                     |                    |                                   |       |                                   |                        |              |  |
| MODEL NUMBER              | DC VOLTS            | DC AMPS            | CAPACITY<br>RANGE, C6<br>RATED AH | PHASE | INPUT<br>CURRENT @<br>480V (±10%) | WEIGHT (LBS)<br>(±10%) | CABINET SIZI |  |
| EHF48T40                  |                     | 40                 | 260                               | 3     | 3.5                               | 55                     | G1           |  |
| EHF48T70                  |                     | 70                 | 475                               |       | 6.2                               |                        |              |  |
| EHF48T90                  |                     | 90                 | 600                               |       | 8.0                               |                        |              |  |
| EHF48T110                 |                     | 110                | 750                               |       | 9.7                               |                        |              |  |
| EHF48T130                 | 48                  | 130                | 865                               |       | 11.5                              |                        |              |  |
| EHF48T150                 |                     | 150                | 1000                              |       | 13.3                              | 60                     |              |  |
| EHF48T180                 |                     | 180                | 1200                              |       | 16.0                              | 142                    | G2           |  |
| EHF48T220                 |                     | 220                | 1450                              |       | 19.5                              |                        |              |  |
| EHF48T240                 |                     | 240                | 1600                              |       | 21.3                              |                        |              |  |
| MODEL NUMBER              | DC VOLTS            | DC AMPS            | CAPACITY<br>RANGE, C6<br>RATED AH | PHASE | INPUT<br>CURRENT @<br>480V (±10%) | WEIGHT (LBS)<br>(±10%) | CABINET SIZI |  |
| EHF72T40                  |                     | 40                 | 260                               |       | 5.3                               |                        |              |  |
| EHF72T70                  |                     | 70                 | 475                               |       | 9.3                               | 60                     | G1           |  |
| EHF72T90                  | 72                  | 90                 | 600                               | 3     | 11.9                              |                        |              |  |
| EHF72T100                 |                     | 100                | 750-1000*                         |       | 13.3                              |                        |              |  |
| MODEL NUMBER              | DC VOLTS            | DC AMPS            | CAPACITY<br>RANGE, C6<br>RATED AH | PHASE | INPUT<br>CURRENT @<br>480V (±10%) | WEIGHT (LBS)<br>(±10%) | CABINET SIZ  |  |
| EHF80T40                  |                     | 40                 | 260                               |       | 5.9                               |                        |              |  |
| EHF80T70                  | 80                  | 70                 | 475                               |       | 10.3                              |                        |              |  |
| EHF80T90                  |                     | 90                 | 600                               | 3     | 1.3                               | 60                     | G1           |  |
|                           |                     | 100                | 750-1000*                         |       | 14.8                              |                        |              |  |
| EHF80T100                 |                     |                    |                                   |       |                                   |                        |              |  |
| EHF80T100<br>CABINET SIZE | WIDTH (IN)          | DEPTH (IN)         | HEIGHT (IN)                       |       |                                   |                        |              |  |
|                           | WIDTH (IN)<br>16.26 | DEPTH (IN)<br>13.5 | HEIGHT (IN)<br>20.25              |       |                                   |                        |              |  |

# **EMC / ESS MODEL AND PERFORMANCE MATRIX**

| MODEL NUMBER<br>EMC OR ESS |          | DC AMPS   | CAPACITY RANGE, | PHASE |                    | WEIGHT<br>(LBS) | CABINET SIZE |     |
|----------------------------|----------|-----------|-----------------|-------|--------------------|-----------------|--------------|-----|
| (ADD PREFIX)               | DC VOLTS | @ 2.40VPC | C6 RATED AH     | PHASE | @ 480VAC<br>(±10%) |                 | EMC          | ESS |
| 24T40-4                    | 24       | 40        | 260             | 3     | 7.2                | 209             | G3           | G4  |
| 24T70-4                    | 24       | 70        | 475             | 3     | 12.4               | 209             | G3           | G4  |
| 24T90-4                    | 24       | 90        | 600             | 3     | 16.0               | 209             | G3           | G4  |
| 24T110-4                   | 24       | 110       | 750             | 3     | 19.6               | 226             | G3           | G4  |
| 24T130-4                   | 24       | 130       | 865             | 3     | 23.2               | 226             | G3           | G4  |
| 24T150-4                   | 24       | 150       | 1000 - 1500*    | 3     | 26.4               | 226             | G3           | G4  |

|              | EMC OR ESS DC VOLTS DC AM | DC AMPS   | CAPACITY RANGE,<br>C6 RATED AH | PHASE | INPUT CURRENT<br>@ 480VAC<br>(±10%) | WEIGHT<br>(LBS) | CABINET SIZE |     |
|--------------|---------------------------|-----------|--------------------------------|-------|-------------------------------------|-----------------|--------------|-----|
| (ADD PREFIX) |                           | @ 2.40VPC |                                |       |                                     |                 | EMC          | ESS |
| 36T70-4      | 36                        | 70        | 475                            | 3     | 18.4                                | 226             | G3           | G4  |
| 36T90-4      | 36                        | 90        | 600                            | 3     | 24.0                                | 226             | G3           | G4  |
| 36T110-4     | 36                        | 110       | 750                            | 3     | 29.2                                | 226             | G3           | G4  |
| 36T130-4     | 36                        | 130       | 865                            | 3     | 34.4                                | 226             | G3           | G4  |
| 36T150-4     | 36                        | 150       | 1000 - 1500*                   | 3     | 40.0                                | 226             | G3           | G4  |

|          | MODEL NUMBER<br>EMC OR ESS<br>(ADD PREFIX) |     | CAPACITY RANGE, | PHASE | INPUT CURRENT<br>@ 480VAC<br>(±10%) | WEIGHT<br>(LBS) | CABINET SIZE |     |
|----------|--|-----|-----------------|-------|-------------------------------------|-----------------|--------------|-----|
|          |  |     | C6 RATED AH     |       |                                     |                 | EMC          | ESS |
| 48T70-4  | 48   | 70  | 475             | 3     | 24.8                                | 226             | G3           | G4  |
| 48T90-4  | 48   | 90  | 600             | 3     | 32.0                                | 226             | G3           | G4  |
| 48T110-4 | 48   | 110 | 750             | 3     | 38.8                                | 226             | G3           | G4  |
| 48T130-4 | 48   | 130 | 865             | 3     | 46.0                                | 226             | G3           | G4  |
| 48T150-4 | 48   | 150 | 1000 - 1500*    | 3     | 53.2                                | 235             | G3           | G4  |

| MODEL NUMBER<br>EMC OR ESS<br>(ADD PREFIX) | DC VOLTS | DC AMPS<br>@ 2.40VPC | CAPACITY RANGE,<br>C6 RATED AH | PHASE | INPUT CURRENT<br>@ 480VAC<br>(±10%) | WEIGHT<br>(LBS) | CABINET SIZE |
|--|----------|----------------------|--------------------------------|-------|-------------------------------------|-----------------|--------------|
| EMC72T40-4                                 | 72       | 40                   | 260                            | 3     | 21.2                                | 235             | G3           |
| EMC72T70-4                                 | 72       | 70                   | 475                            | 3     | 37.2                                | 235             | G3           |
| EMC72T90-4                                 | 72       | 90                   | 600                            | 3     | 47.6                                | 235             | G3           |
| EMC72T100-4                                | 72       | 100                  | 750 - 1000*                    | 3     | 53.2                                | 235             | G3           |

| MODEL NUMBER<br>EMC OR ESS<br>(ADD PREFIX) | DC VOLTS | DC AMPS<br>@ 2.40VPC | CAPACITY RANGE,<br>C6 RATED AH | PHASE | INPUT CURRENT<br>@ 480VAC<br>(±10%) | WEIGHT<br>(LBS) | CABINET SIZE |
|--|----------|----------------------|--------------------------------|-------|-------------------------------------|-----------------|--------------|
| EMC80T40-4                                 | 80       | 40                   | 260                            | 3     | 23.6                                | 235             | G3           |
| EMC80T70-4                                 | 80       | 70                   | 475                            | 3     | 41.2                                | 235             | G3           |
| EMC80T90-4                                 | 80       | 90                   | 600                            | 3     | 53.2                                | 235             | G3           |
| EMC80T100-4                                | 80       | 100                  | 750 - 1000*                    | 3     | 59.2                                | 235             | G3           |

\* Recharge times may be longer than 8 hours



FHF

M-SERIES

MULTI VOLTAGE INDUSTRIAL CHARGERS

### **FEATURES**

#### **Cost Savings**

Greater efficiency of power conversion compared to other technologies results in reduced power consumption and reduced energy costs.

Reduced maximum input currents allow for reduced circuit breaker, cabling and distribution equipment sizes.

#### **Light and Compact**

Advanced patented monocoque heat sink arrangement facilitates efficient cooling, enabling reduced size and weight. Handling and installation costs are therefore lower.

#### **Multi-Profile**

With the EHF Series, you can recharge a wide range of battery capacities of different technologies, flooded or valve regulated.

#### **Efficiency Optimization**

The charger ensures that the charging current and voltage remain constant during any mains fluctuations, guaranteeing a constant and optimized charge.

End of charge is detected by the change in voltage over the change in time measure (dV/dt) to avoid risk of under charge or over charge.

#### Multi Language

High Resolution LCD Display provides detailed information on the screen in seven selectable languages, including Danish, Dutch, English, French, German, Spanish and Swedish.

#### **Cycle History**

Data archive available from front panel detailing recharge information from last 250 cycles, including charts from last 15 recharges viewable on the LCD screen.

#### **Rugged Case**

Sturdy steel cabinet with powder coat finish. Designed for rack and wall mounting.

#### Technology

Utilizes space saving Planar Transformer design with ferrite core. Zero Volt Switching (ZVS) technology coupled with the latest MOSFET technology results in very high efficiency.

#### The Energy to Challenge

Stryten Energy helps solve the world's most pressing energy challenges with a broad range of energy storage solutions and components across the Essential Power, Motive Power, Transportation, Military and Government sectors. Headquartered in Alpharetta, Georgia, we partner with some of the world's most recognized companies to meet the growing demand for reliable and sustainable energy storage capacity. Stryten powers everything from submarines to subcompacts, microgrids, warehouses, distribution centers, cars, trains and trucks. Our stored energy technologies include advanced lead, lithium and vanadium redox flow batteries, intelligent chargers and energy performance management software that keep people on the move and supply chains running.

#### Learn more at www.stryten.com