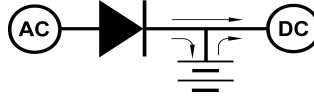


Time-proven, reliable station DC power ensures a high availability of emergency lighting. **StatiVolt**® **Chargers** are designed & built for decades of robust duty & field serviceability. These are integrated with proven **EnerSys VRLA batteries** to provide on-line, self-contained, single vendor DC EL UPS solutions.

## EL DC UPS Systems

**Built & Power Ready - 30 Year Design Life**  
**20 Year Parts & Service Availability**



## EL DC UPS Ratings & Features

### Charger Features

#### Reliability by Design

- Robust industrial duty
- Failsafe, soft-switching, low noise
- Natural convection cooled

#### Regulated DC Power

- Constant  $V_{dc}$  charging & supply
- Minimal ripple voltage

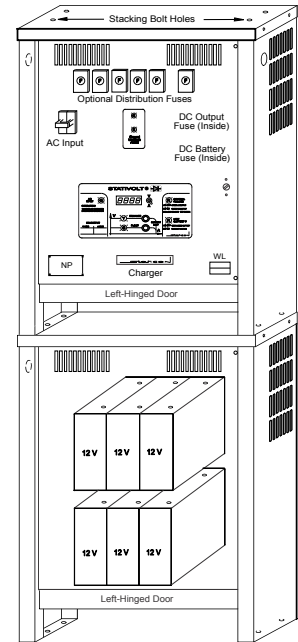
#### Protection

- AC Input fuse
- DC Output breaker
- Transformer isolation
- Output current limiting
- Failsafe output V control

#### Versatile Options

- Key lockable door handle - KL
- NEMA 2 top cabinet drip shield - DS
- Ground leakage alarm - GL
- Brown-out sensing & transfer - BT
- Auto equalize after AC outage – AE
- Seismic anchoring / mounting brackets

System	Charger	Max. Battery Load	
		$A_{dc}$	$W_{dc}$
24	15	60	1,440
24	30	86	2,076
36	15	60	2,124
36	30	86	3,115
120	15	60	7,080
120	30	86	10,380



### DC UPS System Solutions

- 120 V or 347 V, 1 phase, 60 Hz AC input
- Integrated batteries
- Battery fuse protection
- Low V disconnect to protect batteries
- Optional DC distribution fuses
- Front access charger & battery cabinets
- Floor, wall, or bench mount stackable cabinets

### VRLA Battery Features

- **EnerSys DataSafe 12V HX FT**®
- Valve-regulated lead acid, AGM
- High energy, 10 Year Life
- 12 V blocks (6 cells per block)
- Top terminals for easy installation
- Flame retardant, UL94 V-0 materials
- Non-hazardous transportation

### Design & Test Standards

- CSA SPE-1000 inspected & certified
- Per CSA C22.2 No. 141.15 (R2020)
- Magnetics designed for Class H, 180°C

### Quality Assurance

- Station Charger-System, N299.4
- EnerSys Batteries, ISO9001

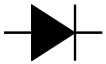
### Warranty

- 3 year charger full warranty
- 20 year charger parts & service availability
- 4 year full warranty – EnerSys HX Series VRLA batteries

### Contents

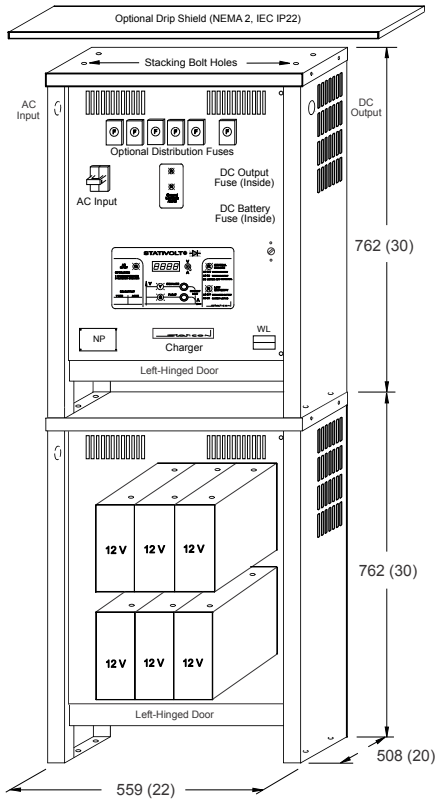
DC EL UPS	2
DC EL UPS Ratings Table	3





### EL DC UPS Systems

Built & Power Ready - 30 Year Design Life  
20 Year Parts & Service Availability



#### Power Conversion Design

- Transformer input (60 or 50 Hz)
- Full-wave, silicon diode rectifier
- Soft switching, low noise
- ≤ 1% rms ripple (on battery)

#### Output Control

- Closed loop, -ve feedback control
- FET based voltage-to-current control
- Failsafe, magnetic shunt regulation

#### Battery Charging

- PB select / defeat float & equalize V
- Independently adjustable
- Optional auto equalize after outage

#### Steady-State V Regulation

- ±1% (full load, ±10% AC V)
- ±1% (10-100% load, constant AC V)

#### Annunciation & Meters

- Standard annunciation & meters:
  - AC Normal green LED
  - General Fail red LED, contacts
  - Float / Equal green / yellow LEDs
  - V+A Meter digital, 2% accuracy
- DC low V disconnect, red LED, contacts
- General failure, red LED, contacts
- Contacts are form 'C' contacts rated:
  - 0.6 A @ 125 V<sub>AC</sub>
  - 2 A @ 28 V<sub>DC</sub>

#### Protection

- AC breaker I ≈ 1.5 x full load I<sub>AC</sub>
- DC fuse I ≈ 120% full charger load I<sub>DC</sub>
- Batt. fuse I ≈ 120% full battery load I<sub>DC</sub>
- Input transformer, electrical isolation
- I<sup>2</sup>t breaker coordinated diode stacks
- Control fuses for protection / isolation
- Failsafe I limit set at 120% of full load

#### Audible Noise

- 55-65 dBA (at 1 m, rating dependent)

#### Cabinets

- NEMA type 1, IEC 60529 IP 20
- Front accessible, side / top cable entry
- 14 / 10 gage steel panels / mounts
- Powder coated, baked enamel finish
- Front, back & side ventilation
- Option - NEMA2, IEC IP22 drip shield
- Option - Key-lockable door handle

#### Environmental Requirements

- Natural convection cooled, RH < 95%
- -20°C to +40°C continuous operation

#### Design & Test Standards

- CSA SPE-1000 inspected & approved
- Per CSA C22.2 No. 141.15 (R2020)
- Magnetics designed for Class H, 180°C
- Breakers are UL 489, CSA C22.2 No. 5 certified

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#### Notes

Sizes may vary for certain options  
 Add 152 (6) to height for drip shield  
 All dimensions in **mm (inches)**  
 Drawing is not to scale

#### System Type Number

CT\_24 B 15 EL 50 - 30 - 1 - \_\_\_\_

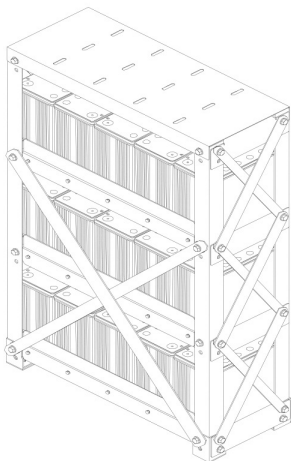
- Options (see table)
- Number of Load Fuses (1-6)
- Battery Run Time (minutes)
- Battery Ampere Capacity
- Emergency Lighting
- Charger Ampere Rating
- Battery Ripple Filter (2% rms)
- Nominal DC System Voltage
- AC Input Voltage (A for 120V, N for 347V)
- Designates Staticon Charger / Rectifier



Option	Description
C	<ul style="list-style-type: none"> <li>• Brown-out sensing &amp; transfer <b>contactor</b></li> <li>• Transfers lighting from AC to battery DC at start of outage and back to AC when restored</li> </ul>
A	<ul style="list-style-type: none"> <li>• <b>Auto</b> equalize after outage battery charge</li> <li>• 8-72 hour adjustable equalize (boost) timer</li> <li>• Also manual PB initiate &amp; defeat</li> </ul>
O	<ul style="list-style-type: none"> <li>• <b>AC outage</b> alarm (1 red LED, dry contacts)</li> </ul>
G	<ul style="list-style-type: none"> <li>• <b>Ground</b> leak alarm (+ve &amp; -ve), 1-5 mA adj.</li> <li>• Annunciate by 2 red LEDs, dry contacts</li> </ul>
D	<ul style="list-style-type: none"> <li>• Top cabinet <b>drip shield</b></li> <li>• Per NEMA 2, IEC 60529 IP22</li> <li>• Water / sprinkler protection from above</li> </ul>

**EL DC UPS System Ratings**  
**Voltages, Current, Capacity, Battery Type**

System	Charger	New Battery Capacity <sup>1</sup>			Battery Parameters			DC UPS Type Number	Mass
		Nomin al V <sub>dc</sub>	Rating A <sub>dc</sub>	Backup Minutes	Load A <sub>dc</sub>	Load W <sub>dc</sub>	12V Blocks	Cab or Rack <sup>2</sup>	EnerSys Type ®
24	15	30	60	1420	2	Cab	12HX205FR	CT_24 B 15 EL 60 - 30 -	120
24	15	60	60	1440	2	Cab	12HX330FR	CT_24 B 15 EL 60 - 60 -	145
24	15	120	60	1440	2x2	Cab	12HX330FR	CT_24 B 15 EL 60 - 120 -	210
24	30	30	86	2076	2	Cab	12HX300FR	CT_24 B 30 EL 86 - 30 -	135
24	30	60	86	2076	2	Cab	12HX505FR	CT_24 B 30 EL 86 - 60 -	185
24	30	120	86	2076	2x2	Cab	12HX505FR	CT_24 B 30 EL 86 - 120 -	295
36	15	30	60	2124	3	Cab	12HX205FR	CT_36 B 15 EL 60 - 30 -	150
36	15	60	51	1836	3	Cab	12HX300FR	CT_36 B 15 EL 51 - 60 -	175
36	15	120	47	1675	3	Cab	12HX540FR	CT_36 B 15 EL 47 - 120 -	235
36	30	30	86	3115	3	Cab	12HX300FR	CT_36 B 30 EL 86 - 30 -	185
36	30	60	86	3115	3	Cab	12HX505FR	CT_36 B 30 EL 86 - 60 -	240
36	30	120	86	3115	2x3	Cab	12HX505FR	CT_36 B 30 EL 86 - 120 -	390
120	15	30	60	7080	10	Cab	12HX205FR	CT_120 B 15 EL 60 - 30 -	320
120	15	60	50	6120	10	Cab	12HX300FR	CT_120 B 15 EL 50 - 60 -	390
120	15	120	47	5580	10	Rack <sup>3</sup>	12HX540FR	CT_120 B 15 EL 47 - 120 -	610
120	30	30	86	10380	10	Cab	12HX300FR	CT_120 B 30 EL 86 - 30 -	430
120	30	60	86	10380	10	Rack <sup>3</sup>	12HX505FR	CT_120 B 30 EL 86 - 60 -	620
120	30	120	86	10380	2x10	Rack <sup>4</sup>	12HX505FR	CT_120 B 30 EL 86 - 120 -	1090


**Note <sup>1</sup>**

At the end of their 10 year life, batteries are at 80% of their “new” capacity due to electro-chemical aging. Larger capacity systems are also available.

**Note <sup>2</sup>** Batteries in Cab are pre-assembled at Staticon.

Batteries on Rack are shipped separately and installed on site. Instructions are provided with EL DC UPS System.

**Note <sup>3</sup>** 2 Tier Rack (h x w x d): 980 x 980 x 396 mm (37 x 37 x 16 in)

**Note <sup>4</sup>** 4 Tier Rack (h x w x d): 1842 x 980 x 406 mm (73 x 37 x 16 in)

**Battery Rack (Multi-Tier)**  
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