



# SWUF590-12FR

Valve Regulated Lead-Acid (VRLA)  
Absorbed Glass Mat (AGM)

Yuasa SWU Series with **HT X Alloy™**, high temperature batteries optimized for performance and life

## SPECIFICATIONS

|                                                 |                                                |
|-------------------------------------------------|------------------------------------------------|
| Battery Model:                                  | SWUF590-12FR                                   |
| Nominal Voltage:                                | 12                                             |
| Capacity: 15 minute rate, 1.67vpc @ 25°C (77°F) | 606                                            |
| 20-hr rate, 1.75vpc @ 25°C (77°F)               | 178.0                                          |
| Case Material:                                  | UL94V-0                                        |
| Terminal Options:                               | Front - M6 Stud<br>Top - M8                    |
| Terminal Torque (Terminals using Bolts):        | M6, 4.9Nm (43 in-lb)<br>M8, 10.17Nm (90 in-lb) |
| Dimensions:                                     |                                                |
| ◦ Length (mm inches)                            | 556.0   21.89                                  |
| ◦ Width (mm inches)                             | 125.0   4.92                                   |
| ◦ Case Height (mm inches)                       | 280.0   11.02                                  |
| ◦ Height over Terminal (mm inches)              | 280.0   11.02                                  |
| Weight (kg lbs):                                | 52.7   116.18                                  |
| Short circuit current (A):                      | 3350                                           |
| Maximum charge current (A):                     | 40.0                                           |
| Internal Resistance (mΩ):                       | 2.5                                            |

## GENERAL

|                                                         |                                |
|---------------------------------------------------------|--------------------------------|
| Design Life:                                            | 10 Years                       |
| Flame arresting one-way vent                            |                                |
| Epoxy sealed terminals to prevent post leaks            |                                |
| Rugged ABS cases to minimize handling damage            |                                |
| Storage:                                                |                                |
| ◦ Capacity loss per month at 25°C (77°F)                | ~3%                            |
| ◦ In fully charged condition                            | -20°C to 60°C (-4°F to 140°F)  |
| Operating Temperature Range:                            | -40°C to 65°C (-40°F to 149°F) |
| ◦ Refer to Product Manual for optimum temperature range |                                |
| Float Charge Voltage:                                   |                                |
| ◦ Charge voltage at 25°C (77°F)                         | 2.275±1%/cell                  |
| ◦ Temperature correction factor from 25°C (77°F)        | -3mV per °C/cell               |

### Features providing longer life:

**HT X Alloy™**

Proprietary Additives

Lead Calcium Grids

Primary Lead

Strategic use of Tin

Optimized AGM Separators

### Applications:

Uninterruptible Power Supply (UPS)

Datacenter

Switchgear & Control

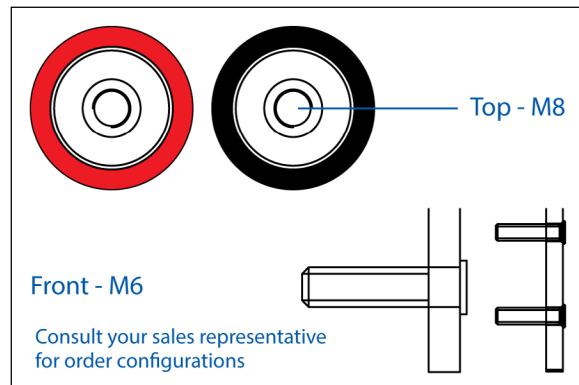
Energy



## CERTIFICATIONS/COMPLIANCE

- ISO 9001
- ISO 14001
- IEC 60896-21
- UL recognized component, UL1989
- TAA Compliant - Available
- DRC Conflict Free

## TERMINAL OPTIONS



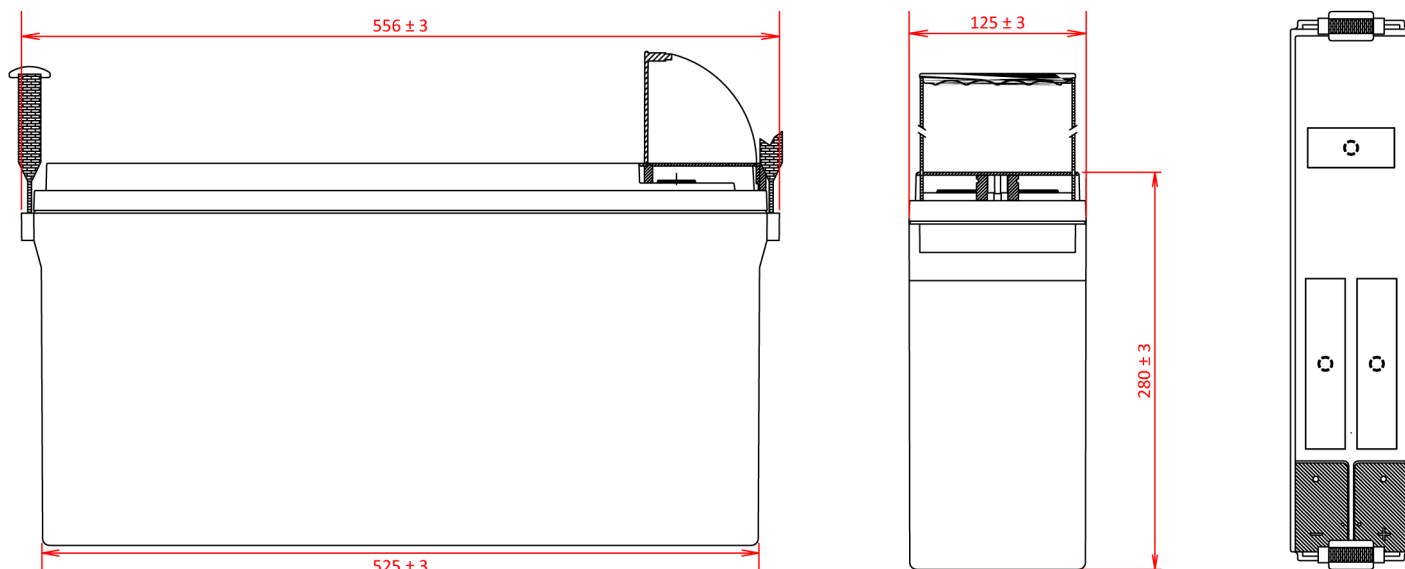
*Non-spillable, meets or exceeds DOT and IATA requirements for non-hazardous transportation*





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Discharge, Watts per Cell @ 25°C (77°F)

| End vpc | 1m    | 2m    | 4m    | 5m    | 6m  | 8m  | 10m | 15m | 20m | 30m | 45m | 1h  |
|---------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|
| 1.75vpc | 1,022 | 942   | 863   | 837   | 793 | 730 | 681 | 572 | 478 | 359 | 264 | 211 |
| 1.70vpc | 1,120 | 1,038 | 943   | 910   | 858 | 784 | 725 | 598 | 492 | 368 | 270 | 215 |
| 1.67vpc | 1,182 | 1,078 | 975   | 940   | 884 | 805 | 742 | 606 | 495 | 370 | 271 | 216 |
| 1.60vpc | 1,303 | 1,182 | 1,060 | 1,017 | 953 | 858 | 783 | 626 | 502 | 374 | 272 | 217 |

Discharge, Amps @ 25°C (77°F)

| End vpc | 1m  | 2m  | 4m  | 5m  | 6m  | 8m  | 10m | 15m | 20m | 30m | 45m | 1h  |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1.75vpc | 564 | 510 | 464 | 448 | 423 | 388 | 360 | 300 | 249 | 184 | 134 | 106 |
| 1.70vpc | 636 | 577 | 521 | 501 | 471 | 428 | 393 | 321 | 261 | 192 | 139 | 109 |
| 1.67vpc | 672 | 612 | 549 | 525 | 492 | 445 | 408 | 329 | 266 | 196 | 141 | 111 |
| 1.60vpc | 773 | 700 | 622 | 593 | 553 | 494 | 448 | 352 | 279 | 203 | 145 | 113 |

GS Yuasa Energy Solutions, Inc. (GYES) is an American subsidiary of GS Yuasa Corporation, the world's second largest lead battery manufacturer. GS Yuasa Corporation is a Japanese corporation known for quality and global firsts. GS Yuasa Group globally produces several battery chemistries serving many markets and applications, such as Backup Power, Renewable Energy, Traction, Automotive, Motorcycle, Satellites, Aircrafts, and more.

GYES leverages GS Yuasa's advanced technologies with proven successes in American markets with Lithium, and Lead-acid in Telecom, UPS, Alarm (Fire & Security), Energy Storage, and other applications.

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**WARNING: Cancer and Reproductive Harm. Wash hands after handling. [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**



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