

# CSW SERIES | INVERTER

## COMPACT SINE WAVE ON THE GO

### Introduction

The CSW Series Inverter is a pure sine wave inverter designed to be powerful, yet simple to operate. The CSW will provide you with reliable AC power for troublefree use.



### Features

- Compact and Lightweight – The CSW provides pure sine wave power from a small footprint designed to fit in tight vehicle and marine spaces. And it is lightweight, so won't weigh you down.
- At-a-Glance Status – The inverter's status can be determined at a glance with the easy-to-read LED light.
- Digital Display\* – The alphanumeric display shows the inverter's battery voltage, total AC output power, along with additional operation codes. (\*not available on the CSW412)
- USB Port – Power and charge your USB-enabled device with the available USB port.
- GFCI AC Outlet – Plug in two pieces of equipment directly to the CSW and know that the GFCI outlet will quickly stop the flow of electricity should a ground fault occur. The outlet also comes with an LED indicator and test/reset capability.
- Automatic Transfer Switch Option – The CSW2012-X automatically switches between shore power and inverter/battery power.

### Options

- Remote Switch – Use the optional CSW-RS remote switch for even easier on/off access away from the inverter. The CSW-RS comes with a 20' cable.
- Transfer Switch – Use the optional 15 amp CSW-TS15 transfer switch to automatically switch AC load connections between utility/generator power and the AC output of the CSW1012 inverter.

### Model Numbers

- CSW412
- CSW1012
- CSW2012
- CSW2012-X

### Available For

- Emergency Medical Services
- Marine Systems
- Military Vehicles
- RV Systems
- Trucks
- Utility Vehicles

### Available Accessories

- Remote Switch [CSW-RS]
- Transfer Switch [CSW-TS15]



Pure Sine Wave



12 Battery Voltage Options



400-2000 VA Continuous Output Options



# SPECIFICATIONS



|   | <b>CSW412</b>  | <b>CSW1012</b>                         | <b>CSW2012</b>   | <b>CSW2012-X</b>   |
|---|--|--|--|--|
| <b>INVERTER SPECIFICATIONS - OUTPUT</b>       |  |  |  |  |
| <b>Continuous power at nominal DC voltage</b> | 400 watts  | 1000 watts                             | 2000 watts   | 2000 watts   |
| <b>Peak surge power</b>                       | 800 watts  | 2000 watts                             | 4000 watts   | 4000 watts   |
| <b>10 sec surge power</b>                     | 400 - 550 watts  | 1000 - 1500 watts                      | 2000-3000 watts  | 2000-3000 watts  |
| <b>1 sec surge power</b>                      | 550-800 watts  | 1500 - 2000 watts                      | 3000-4000 watts  | 3000-4000 watts  |
| <b>200 msec surge power</b>                   | > 800 watts  | > 2000 watts                           | > 4000 watts   | > 4000 watts   |
| <b>AC output voltage at 12.5 VDC</b>          | 120 VAC $\pm$ 5%   | 120 VAC $\pm$ 5%                       | 120 VAC $\pm$ 5%   | 120 VAC $\pm$ 5%   |
| <b>AC output current</b>                      | 3.3 AAC  | 8.3 AAC                                | 16.6 AAC   | 16.6 AAC   |
| <b>AC output voltage range</b>                | 104 - 127 VAC  | 104 - 127 VAC                          | 104 - 127 VAC  | 104 - 127 VAC  |
| <b>AC output frequency</b>                    | 60 Hz $\pm$ 0.5 Hz   | 60 Hz $\pm$ 0.5 Hz                     | 60 Hz $\pm$ 0.5 Hz   | 60 Hz $\pm$ 0.5 Hz   |
| <b>AC output waveform</b>                     | Pure sine wave   | Pure sine wave                         | Pure sine wave   | Pure sine wave   |
| <b>Total harmonic distortion [THD]</b>        | < 3%   | < 3%                                   | < 3%   | < 3%   |
| <b>Transfer Time</b>                          | NA   | NA                                     | NA   | < 30 ms  |
| <b>USB</b>                                    | 5 V, 750 mA  | 5 V, 750 mA                            | 5V, 2.1 A  | 5V, 2.1 A  |
| <b>INVERTER SPECIFICATIONS - INPUT</b>        |  |  |  |  |
| <b>Nominal DC input voltage</b>               | 12.5 VDC   | 12.5 VDC                               | 12.5 VDC   | 12.5 VDC   |
| <b>DC input voltage range</b>                 | 10.5 - 15.5 VDC  | 10.5 - 15.5 VDC                        | 10.5 - 15.5 VDC  | 10.5 - 15.5 VDC  |
| <b>Input current</b>                          | 38 DCA   | 94 DCA                                 | 187 DCA  | 193 DCA  |
| <b>No load draw</b>                           | < 0.8 ADC  | < 1.2 ADC                              | < 1.2 ADC  | < 1.5 ADC  |
| <b>Optimum efficiency</b>                     | > 90%  | > 90%                                  | > 90%  | > 90%  |
| <b>High voltage shutdown</b>                  | 15.5 VDC   | 15.5 VDC                               | 15.5 VDC   | 15.5 VDC   |
| <b>Low voltage alarm</b>                      | 11.0 VDC, audible  | 11.2 VDC, audible                      | 11.2 VDC, audible  | 11.2 VDC, audible  |
| <b>Low voltage shutdown</b>                   | 10.5 VDC   | 10.5 VDC,<br>Recover at 11.8 VDC       | 10.5 VDC   | 10.5 VDC   |
| <b>GENERAL FEATURES AND CAPABILITIES</b>      |  |  |  |  |
| <b>Transfer relay capability</b>              | NA   | NA                                     | NA   | 30 AAC   |
| <b>Display status indictator</b>              | LED: Power, Fault  | Green, amber, red                      | LED: Status  | LED: Status, Display                                       |
| <b>Digital display</b>                        | None   | Input voltage/current,<br>output power | Input voltage, output<br>power, warning, and<br>error code | Input voltage, output<br>power, warning, and<br>error code |
| <b>AC receptacles</b>                         | NEMA 5-15 [GFCI]   | NEMA 5-15 [GFCI]                       | NEMA 5-20 [GFCI]   | NEMA 5-20 [GFCI]   |
| <b>Listings</b>                               | Conforms to UL458, Certified to CSA C22.2 No. 107.1, meets FCC Class B |  |  |  |
| <b>Warranty</b>                               | One year   | One year                               | One year   | One year   |

| PHYSICAL SPECIFICATIONS                |  |   |  |  |
|--|--|---|--|--|
| <b>Dimensions (L x W x H)</b>          | 7.9" x 6.9" x 3.4"<br>[20.0cm x 17.5cm x 8.7cm]    | 12.6" x 6.9" x 3.4"<br>[32.1cm x 17.5cm x 8.4cm]    | 16.5" x 9.1" x 4.3"<br>[[41.9cm x 23.1cm x 10.9cm] | 17" x 9" x 4.5"<br>[43.2cm x 22.9cm x 11.4cm]  |
| <b>Shipping dimensions (L x W x H)</b> | 11.1" x 8.9" x 5.75"<br>[28.2cm x 22.6cm x 14.6cm] | 15.5" x 8.75" x 5.63"<br>[39.2cm x 22.3cm x 14.3cm] | 19" x 11.3" x 6.7"<br>[48.3cm x 28.7cm x 17cm]     | 19" x 11.3" x 6.7"<br>[48.3cm x 28.7cm x 17cm] |
| <b>Mounting</b>                        | Shelf [top or bottom up] or bulkhead               |   |  |  |
| <b>Weight</b>                          | 3.8 lb [1.7 kg]                                    | 6.6 lb [3.0 kg]                                     | 11.5 lb [5.2 kg]                                   | 13.0 lb [5.9 kg]                               |
| <b>Shipping weight</b>                 | 4 lb [1.8 kg]                                      | 7.5 lb [3.4 kg]                                     | 13 lb [5.9 kg]                                     | 14.1 lb [31 kg]                                |
| <b>Operating temperature</b>           | -0°C to +40°C [32°F to 104°F]                      |   |  |  |
| <b>Nonoperating temperature</b>        | -20°C to +60°C [-4°F to 140°F]                     |   |  |  |
| <b>Operating humidity</b>              | 0 to 90% RH non condensing                         |   |  |  |
| <b>Max operating altitude</b>          | 9843' [3000 m] above sea level                     |   |  |  |



## GENERAL NOTES

Testing for specifications at 25°C.  
Specifications subject to change without notice.



## AGENCY APPROVALS & CERTIFICATIONS

- Conforms to UL458, Certified to CSA C22.2 No. 107.1, meets FCC Class B

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