# UCS-CHR12V155W

## Combined Power supply
## &
## Battery Charger

**Data Sheet**


BRODERSEN
simplifying systems

## INTRODUCTION

**UCS-CHR12V155W** is a combined charger and power supply with dedicated outputs for both charging and power supply. With a large input range 85~264VAC it suits most applications requiring a combined power supply and charger in a small form factor.
UCS-CHR12V155W charges the lead acid battery by floating charge. Floating charge enables the power supply to determine where the watts are required instead of a fixed ratio between power supply and charger.
When mains power fails UCS-CHR12V155W automatically switches to feed the application with battery supply uninterrupted. (UPS function)
Potential free contact set for Mains missing & Battery low.

## UCS-CHR12V155W Features.

- Output for AC mains failure.
- Output for battery low voltage
- Battery +/- pole reverse connection protection
- Protections for overload
- Protection for over voltage & short circuit.
- Prevent deep discharge of battery.
- Din rail mountable or direct on backplane.

The small form factor and the combination of power supply and charger built into one unit makes the **UCS-CHR12V155W** ideal for remote applications where combined power supply, charger & UPS backup is required.

## SPECIFICATIONS

| | |
|---|---|
| Input Voltage | 85~132/170~264VAC switchable |
| Input Current | 3.6A/115V, 1.8A/230V |
| Input Frequency | 47~63Hz |
| Inrush Current | cold start, 20A/115V, 40A/230V |
| Input Leakage Current | < 1mA/230VAC |
| Line Regulation (full load) | ± 0.5% |
| Voltage Adjust Range | V1: ± 5%, V2: not adjustable |
| Output Overload | 110~130%, shut off |
| Output Over Voltage Protection | 115~150%, shut off |
| Short Circuit Protection | shut off |
| Rise Time | 50ms @full load (typical) |
| Hold up Time | 20ms @full load (typical) |
| Mechanical Feature | Enclosed |
| DC output Indication | Red LED on when battery +/- pole reverse connected |
| Dimensions | 199 x 98 x 39mm (L x W x H) |

| | |
|---|---|
| DC output adjustable | 13.8V, 11.5A (10-14.5) |
| DC output Charger | 13.3V, 0.5A |
| Voltage Tolerance | ± 1% |
| Voltage Tolerance charger | ± 3% |
| Charging current | 0.5A |
| Battery Low Voltage Protection | 9.6V ± 0.5V |
| Ripple & Noise (max.) | 120mVp-p |
| Efficiency | 85% |
| Relay Main failure | Max. 100 mA |
| Relay Batt. low | Max. 100 mA |



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## SPECIFICATIONS

| | |
|---|---|
| Operating Temperature | -20°C ~+70°C<br>(ref. derating curve) |
| Storage Temperature | -20°C ~+85°C |
| Operating Humidity | 20%~93%RH<br>(non condensing) |
| Storage Humidity | 20%~95%RH<br>(non condensing) |
| MTBF | >100,000 hours |
| Cooling | convection |
| Safety Standards | GB4943, UL60950,<br>EN60950 |
| EMC Standards | GB9254, EN55022 Class B<br>EN55024, EN61000-3-2,3<br>EN61000-4-2,3,4,5,6,8,11 |
| Withstand Voltage | I/P -O/P: 3.0KVAC/1min<br>I/P - PE: 1.5KVAC/1min<br>O/P-PE: 0.5KVAC/1min |
| Vibration | 10~150Hz, 2G<br>10min/1cycle, 30min each<br>along X, Y, Z axes |
| Connection | 7P/8.25mm pitch terminal<br>block |
| Signal Output CN2,CN3<br>(refer to drawing) | 3P/2.50mm, 2501WV-3P<br>wafer<br>2501-T terminal, 2501H-3P<br>housing |
| Weight | 0.74kgs |

## NOTE

1. All parameters are measured at 230VAC input, rated load and 25°C ambient temperature.
2. Line regulation is measured from low line to high line at rated load.
3. Load regulation is measured from 0% to 100% of rated load for single output models. For multi-output models, it is measured from 20% to 100% of rated load, and other output at 60% rated load.
4. Ripple & noise are measured at 20MHz of bandwidth by using a 12” twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.



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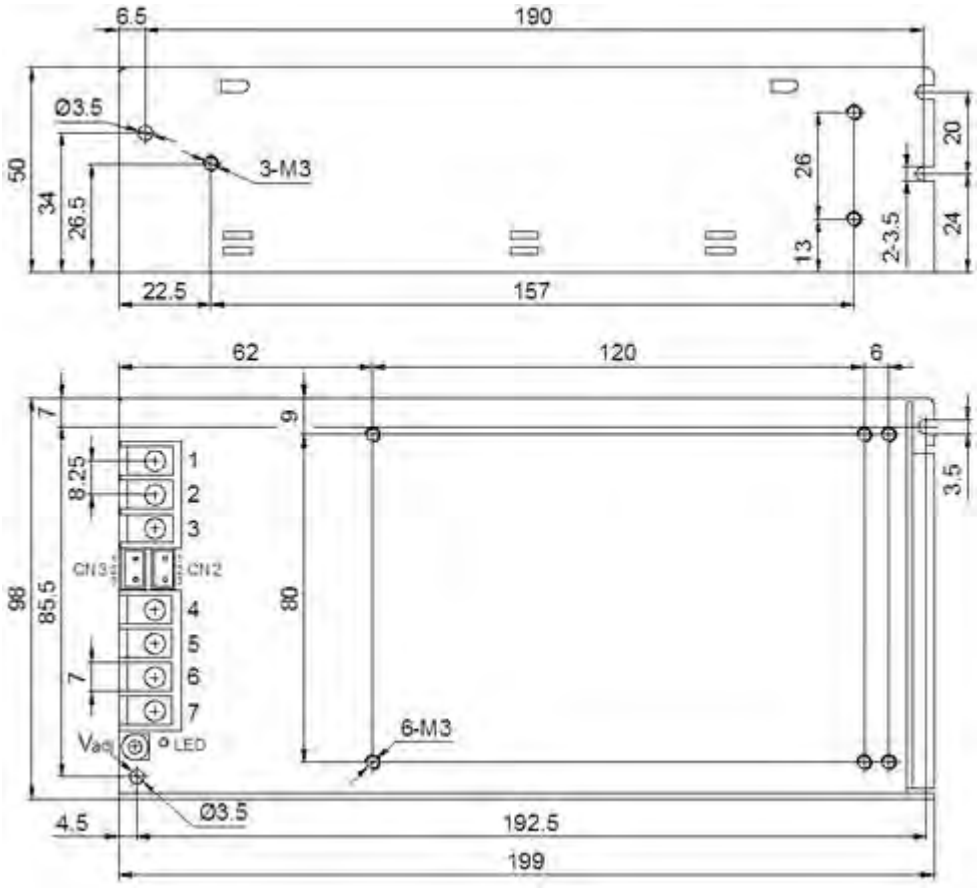
## DRAWING




## PIN ASSIGMENT

| Pin No. | Assignment |
|---|---|
| 1 | AC/L |
| 2 | AC/N |
| 3 | PE |
| 4 | COMMON “-”BATTERY OUTPUT |
| 5 | BATTERY “+” POLE |
| 6 | COMMON “-” DC OUTPUT |
| 7 | DC OUTPUT +V |
| | |
| CN1 | |
| 1 | Main power failure contact set |
| 2 | Main power failure contact set |
| CN3 | |
| 1 | Battery low contact set |
| 2 | Battery low contact set |



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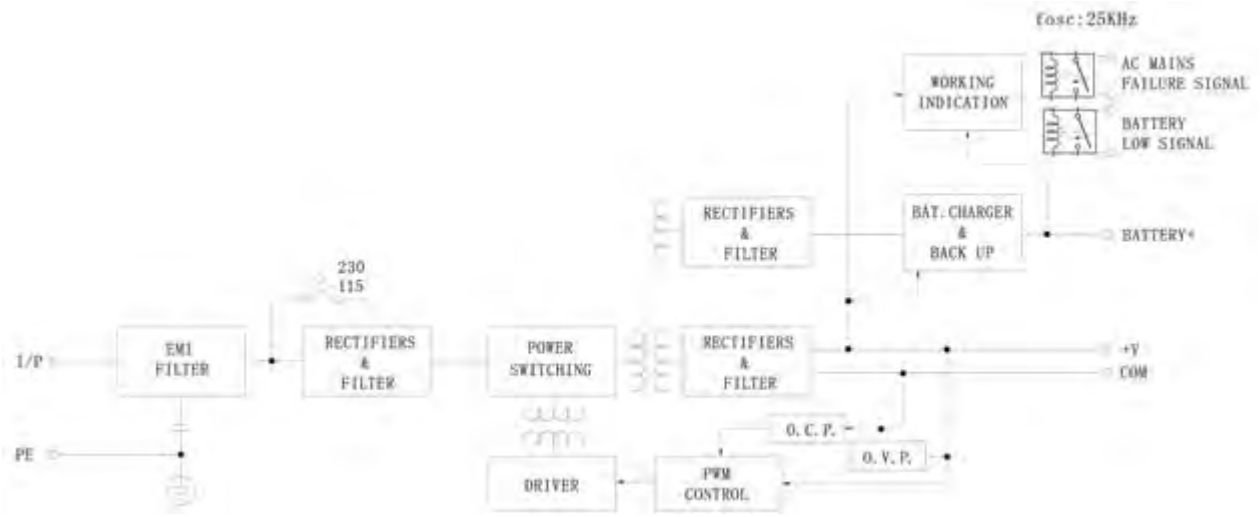
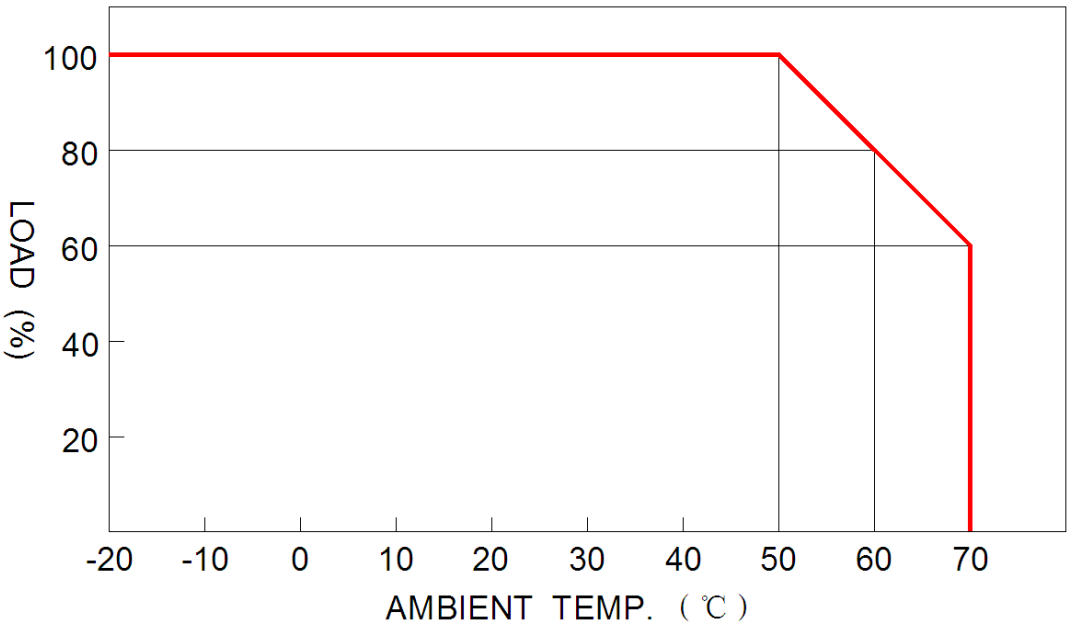
## BLOCK DIAGRAM




## DERATING CURVE



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