

UCS-CHR12V55W

Combined Power Supply & Battery Charger

Data Sheet





INTRODUCTION

UCS-CHR12V55W is a combined charger and power supply with dedicated outputs for both charging and power supply. With a large input range 85~264VAC/ 120~370 VDC it suits most applications requiring a combined power supply and charger in a small form factor.

UCS-CHR12V55W 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-CHR12V55W automatically switches to feed the application with battery supply uninterrupted. (UPS function). **UCS-CHR12V55W** has two relay out for mains missing & Battery low. The potential free relays are closed when no failure.

For wiring of **UCS-CHR12V55W** see figure 3

UCS-CHR12V55W Features.

- Output for AC mains failure potential free relay.
- Output for battery low voltage potential free relay
- 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-CHR12V55W** ideal for remote applications where UPS backup is required.

SPECIFICATIONS

Input Voltage	85~264VAC, 120~370VDC
Input Current	1.8A
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 Protection	105~150%, hiccup mode, auto recovery
Output Over Voltage Protection	115~150%, hiccup mode, auto recovery
Short Circuit Protection	hiccup mode, auto recovery
Rise Time	50ms @full load (typical)
Hold up Time	20ms @full load (typical)
Mechanical Feature	Enclosed
Battery Reverse Connection Indication	Red LED on when battery +/- pole reverse connected
Dimensions	160 x 98 x 39mm (L x W x H)

DC output adjustable	13.8V, 2.9A (10-14.5)
DC output Charger	13.4V, 0.23A
Voltage Tolerance	± 1%
Voltage Tolerance charger	± 3%
Charging current	0.23A
Battery Low Voltage Protection	9.6V ± 0.5V
Ripple & Noise (max.)	120mVp-p
Efficiency	85%
AC mains failure relay.	Max. 100 mA
Batt. low failure relay.	Max. 100 mA

**SPECIFICATIONS**

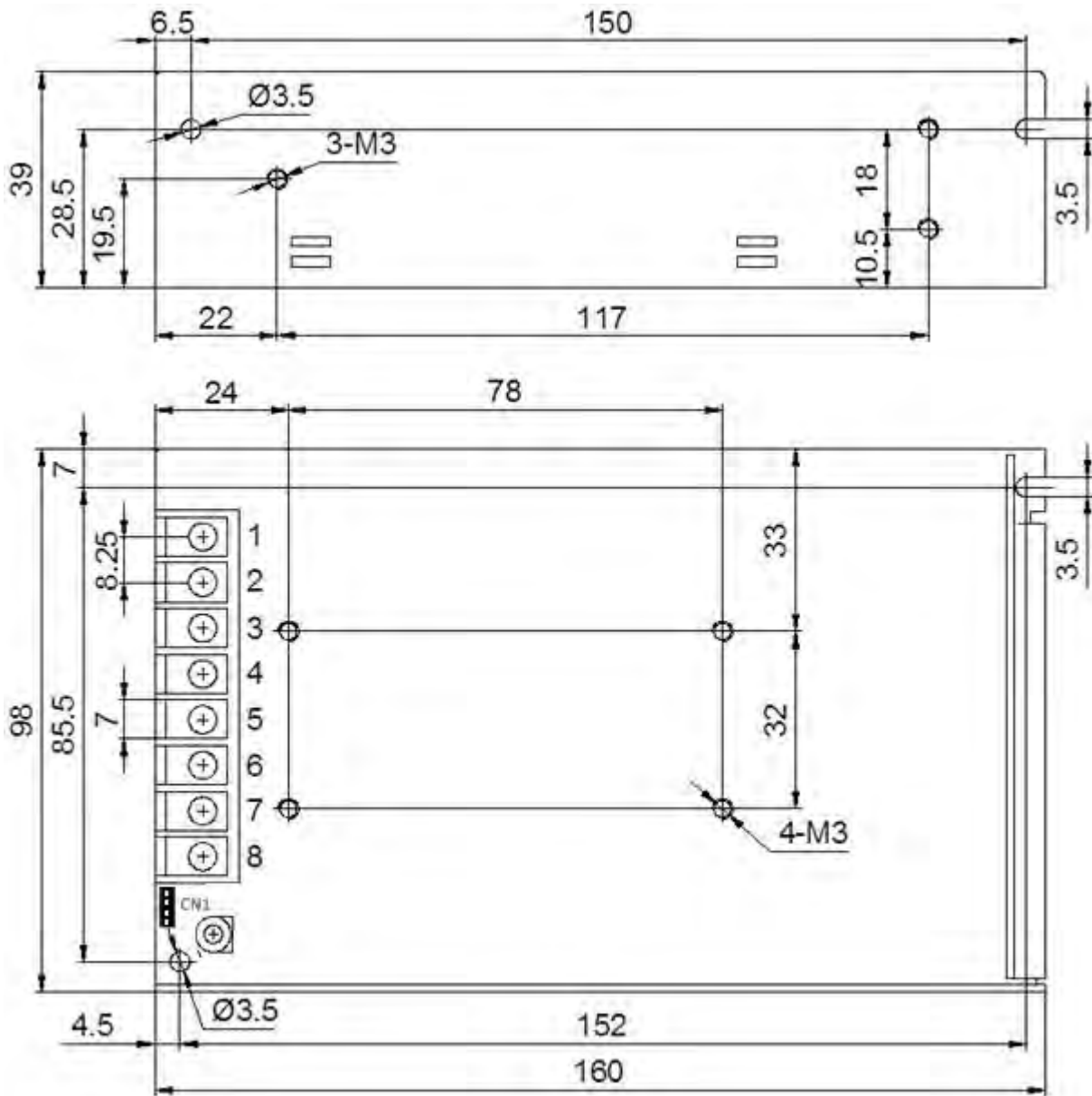
Operating Temperature	-20°C ~+70°C (ref. derating curve)
Storage Temperature	-20°C ~+85°C
Operating Humidity	20%~93%RH (non condensing)
Storage Humidity	20%~95%RH (non condensing)
MTBF	>100,000 hours
Cooling	Convection
Safety Standards	GB4943, UL60950, EN60950
EMC Standards	GB9254, EN55022 Class B EN55024, EN61000-3-2,3 EN61000-4-2,3,4,5,6,8,11
Withstand Voltage	I/P -O/P: 3.0KVAC/1min I/P - PE: 1.5KVAC/1min O/P-PE: 0.5KVAC/1min
Vibration	10~150Hz, 2G 10min/1cycle, 30min each along X, Y, Z axes
Connection	8P/8.25mm pitch terminal block
Signal Output CN1 (refer to drawing)	4P/2.50mm
Weight	0.46 kg

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.

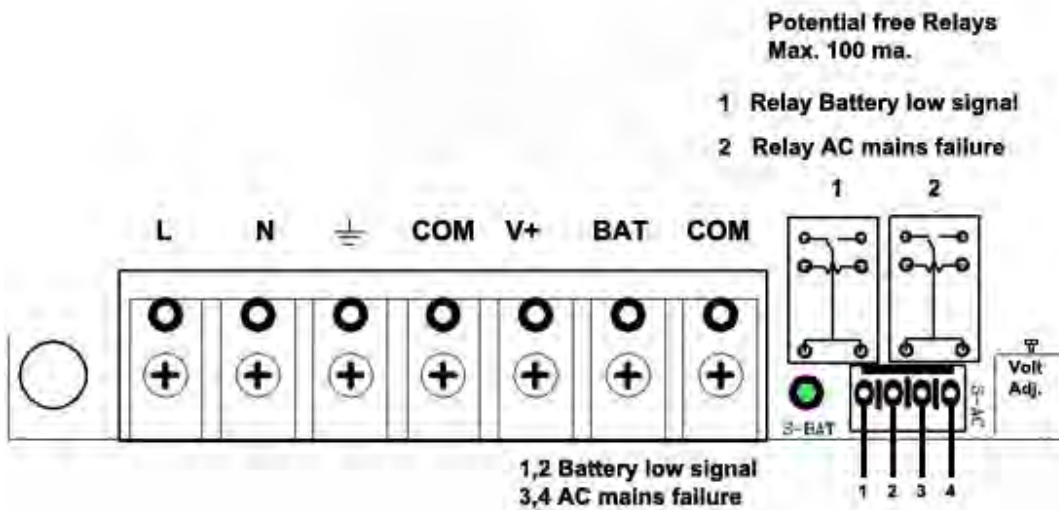
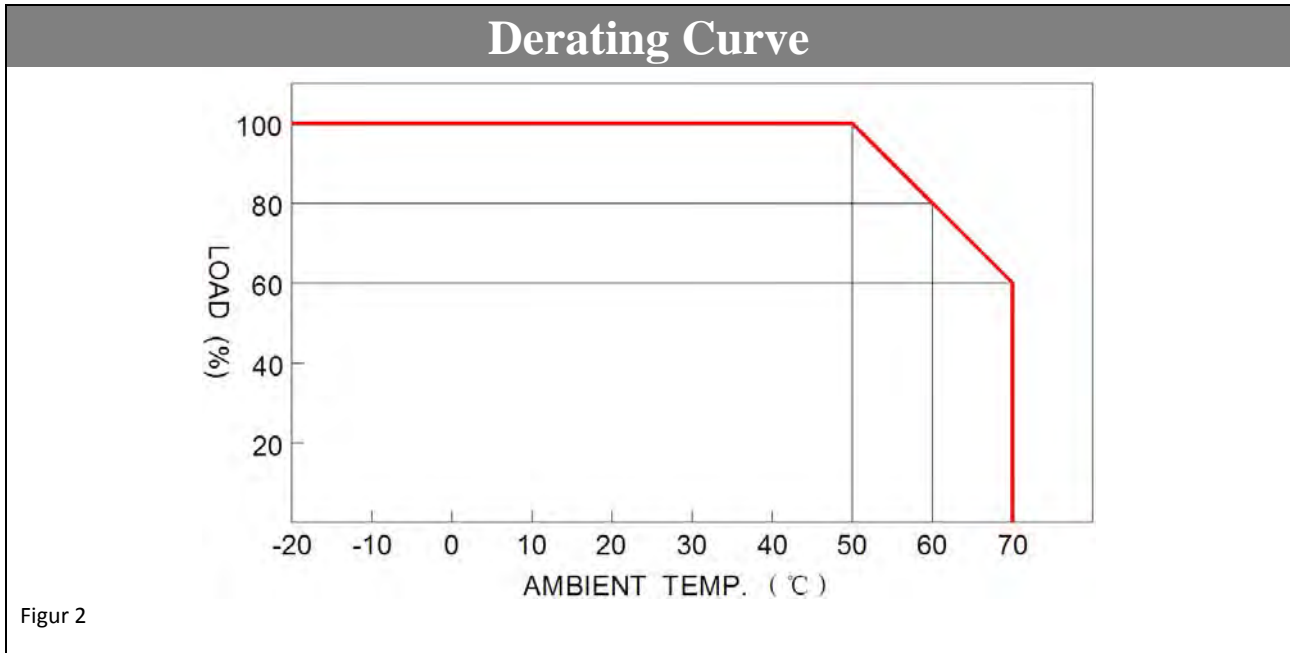


Mechanical Layout



Figur 1

Pin No.	Assignment
1	AC/L
2	AC/N
3	PE
4,7	COMMON "-" of DC & BATTERY OUTPUT
5	DC OUTPUT +V
6	BATTERY "+" POLE
8	Not Used
1,2	Battery low signal, see figure 3
3,4	AC mains failure signal see figure 3



Figur 3