



# CBM100S SERIES

## 100 WATT AC-DC POWER SUPPLY WITH PFC



### Features

- \* Universal Input Range 90~264Vac
- \* Full Load with Baseplate Cooled and no fan required
- \* Wide Operating Temperature Range
- \* 17mm Ultra Low Profile Package
- \* Safety Meets EN60950-1
- \* Built-in EN55022 Class B Filter
- \* Active PFC Meets EN61000-3-2
- \* High Efficiency Up to 90% Typical
- \* No Load Input Power Consumption <0.5W
- \* Over Temperature Protection
- \* Over Voltage Protection
- \* Over Current Protection



| MODEL      | VOLTAGE OUTPUT | OUTPUT CURRENT | RIPPLE & NOISE NOTE1 | VOLTAGE ACCURACY NOTE2 | LINE REG. NOTE3 | LOAD REG. NOTE4 | %EFF. (Typ) NOTE5 |
|------------|----------------|----------------|----------------------|------------------------|-----------------|-----------------|-------------------|
| CBM100S120 | +12V           | 8.4A           | 1.0%                 | ±1.0%                  | ±0.5%           | ±1%             | 90%               |
| CBM100S240 | +24V           | 4.2A           | 1.0%                 | ±1.0%                  | ±0.5%           | ±1%             | 91%               |
| CBM100S280 | +28V           | 3.6A           | 1.0%                 | ±1.0%                  | ±0.5%           | ±1%             | 91%               |
| CBM100S360 | +36V           | 2.8A           | 1.0%                 | ±1.0%                  | ±0.5%           | ±1%             | 91%               |
| CBM100S480 | +48V           | 2.1A           | 1.0%                 | ±1.0%                  | ±0.5%           | ±1%             | 90.5%             |

# Specifications

## INPUT SPECIFICATIONS:

AC Input Voltage ..... 90~264Vac  
 Frequency ..... 47 to 63Hz  
 Inrush Current ..... 100A max. @240Vac  
 Leakage Current @ 264Vac ..... 3.5mA max.

## OUTPUT SPECIFICATIONS:

Isolation ..... Input to output = 4242VDC  
 Total Rated Output Power ..... 100W  
 Hold-up Time ..... 12ms typ.  
 Over Voltage Protection ..... Recycle AC input to restart  
 Short Circuit Protection ..... Hiccup mode(Auto Recovery)  
 Over Current Protection ..... Auto Recovery  
 Over Temperature Protection ..... Auto Recovery  
 Temperature Coefficient .....  $\pm 0.05\%/^{\circ}\text{C}$

## GENERAL SPECIFICATIONS:

Operating Ambient Temperature ..... see derating  
 Storage Temperature .....  $-40\sim 100^{\circ}\text{C}$   
 Humidity ..... 93% RH max. Non condensing  
 Switching Frequency ..... 130KHz Typical  
 MTBF ..... MIL-HDBK-217F, GB,  $25^{\circ}\text{C}/115\text{VAC}$  ..... 100Khrs min.  
 No Load Input Power Consumption..... $<0.5\text{W}$   
 Altitude ..... 2000M  
 Dimensions.....4.60x2.40x0.67 Inches (116.80x61.00x17.00mm)  
 Weight ..... 236g(0.52Pounds)

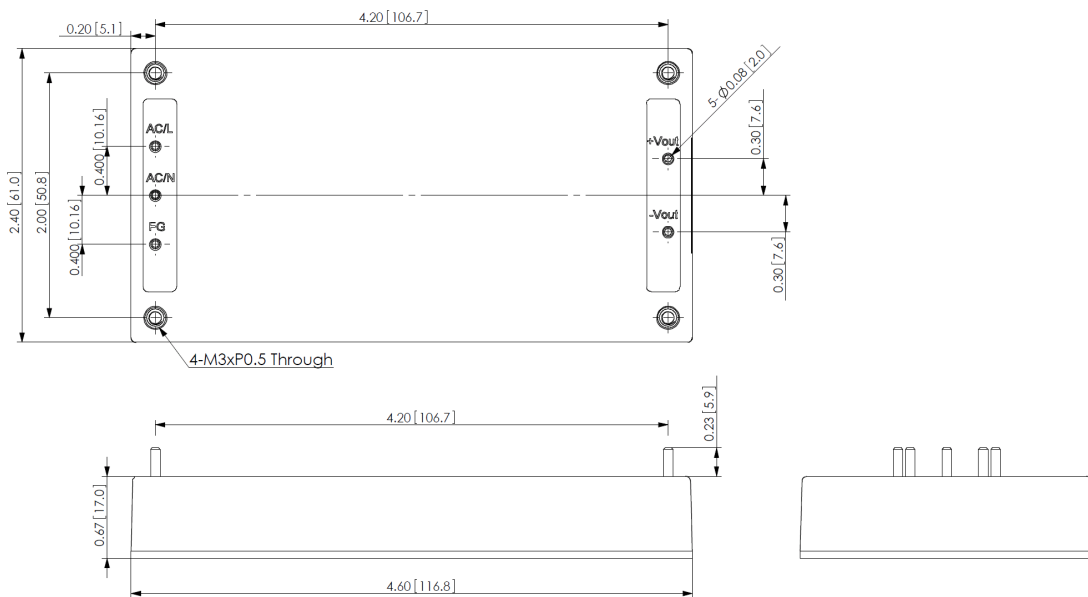
## SAFETY AND EMC:

Emission and Immunity ..... EN55022 Class B, FCC Part 15 Class B  
 EN61000-6-3, EN61000-3-2, EN61000-3-3  
 EN55024, EN61000-6-1, EN61204-3  
 Safety ..... IEC60950-1, EN60950-1, UL60950-1

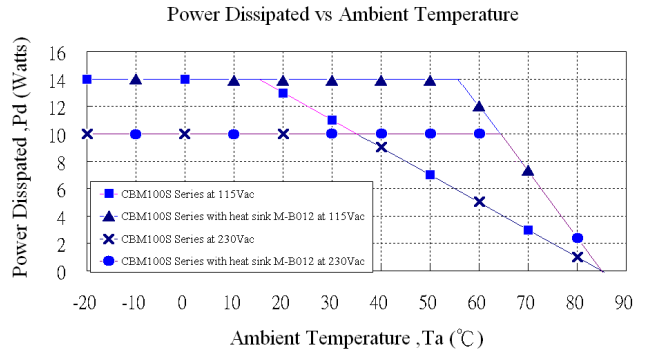
# Mechanical Specification

All Dimensions In Inches[mm]

Tolerance: Inches:x.xx =  $\pm 0.02$  , x.xxx= $\pm 0.010$   
 Millimeters:x.x =  $\pm 0.5$  , x.xx $\pm 0.25$



# CBM100S Series Derating Curve



## NOTE:

1. CBM100S Series: Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for Ripple & Noise measuring @20MHz BW.
2. Voltage accuracy is set at 60% rated load.
3. Line regulation is measured from High Line to Low Line with rated load.
4. Load regulation is measured at 60%±40% rated.
5. Typical efficiency with 230Vac and full load at 25°C
6. Power dissipation ( $P_d$ ):  $P_d = P_i - P_o = P_o(1-\eta)$

Typical at 25°C, 230Vac and 75% rated load, unless otherwise Specified