

# GB2-120 SERIES

DC/DC Industrial Converters 120W



- **Wide range of input options**
- **Convection cooled: No fans**
- **Low profile 40mm**
- **Fully encapsulated, ideal for harsh environments**
- **Fully isolated input – output**
- **Over voltage protection**
- **Overload and short circuit protection**
- **Suitable for a wide range of applications**
- **MTBF > 200,000hrs**
- **Specials input / output combinations on request**
- **Battery Charging options: Consult office**

## SPECIFICATIONS

### DESCRIPTION

The *GB2-120 series DC/DC converter* is a highly integrated DC/DC converter designed for DC/DC conversion. This series is rated at 120W. With various combinations of input and output voltages, the converters are ideal of any standalone operation.

The unit is encapsulated into an aluminium U-channel as the heatsink surface for the converter. Utilising the latest planar magnetic and high integration ceramic technology, the unit has a small footprint.

Input and Output to the unit are screw terminal block. A green LED indicates the presense of output voltage.

The GB2-120 units can withstand high temperature operation. The maximum surface temperature rise of the heatsink would be around 45°C (55°C for 5V model) above ambient. (Direct skin contact with the heatsink surface should be avoided.)

### PHYSICAL

Input Voltage	12VDC ( 10.8 ~ 16 ) 24VDC ( 20 ~ 36 ) 48VDC ( 36 ~ 72 ) 110VDC ( 80 ~ 140 ) Other voltages on request
Input Protection	By external fuse
Input Current	12V 16A ( nominal 10A ) Recommend Fuse: 20A 24V 8A ( nominal 5A ) Recommend Fuse: 10A 48V 4A ( nominal 2.5A ) Recommend Fuse: 5A 110V 2A ( nominal 1A ) Recommend Fuse: 2.5A
Input Surge Protection	Designed to meet IEC61000-4-4, -5
Efficiency	Model dependent typically 86%

### ELECTRICAL

Voltage Accuracy	Voltage setting within 2%
Output Voltage	Refer to table
Output Voltage Adjustment	Fixed Voltage Output
Output Protection	
Current Limiting	constant current with hiccup mode
Thermal Protection	Automatic recovery after over temperature condition subsides: typically 105°C case temp.
Over Voltage Protection	Unit latch off, reset by recycling input after 2minutes
Isolation	Input – Output: 1000vdc, Input – Chassis: 1000vdc , Output – Chassis: 500vdc
Line Regulation	±0.25%
Load Regulation	±0.5%
Output Ripple & Noise	Switching frequency ripple 0.25% of V out High frequency spike ( 30MHz BW ) 0.5% of V out
Operating Temp	-20°C to +55°C at full load Convection cooled
Humidity	5 ~ 95% RH Non Condensing
Shock & Vibration	Fully encapsulated, designed to meet MIL-STD 810E
MTBF	>200khrs
Indicator	Green LED
Terminals	Input and Output pluggable terminal block
Dimensions	90 x 150 x 40mm ( W.L.H ) 500g

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STANDARD PREFERRED MODEL TABLE				
MODELS	Input Voltage	Output V	Output I	Power
GB2-120-1212	12V	12V	10A	120W
GB2-120-1213.8	12V	13.8	8.7A	120W
GB2-120-1215	12V	15V	8A	120W
GB2-120-1224	12V	24V	5A	120W
GB2-120-1248	12V	48V	2.5A	120W
GB2-120-2412	24V	12V	10A	120W
GB2-120-2413.8	24V	13.8	8.7A	120W
GB2-120-2415	24V	15V	8A	120W
GB2-120-2424	24V	24V	5A	120W
GB2-120-2448	24V	48V	2.5A	120W

STANDARD PREFERRED MODEL TABLE				
MODELS	Input Voltage	Output V	Output I	Power
GB2-120-4812	48V	12V	10A	120W
GB2-120-4813.8	48V	13.8	8.7A	120W
GB2-120-4815	48V	15V	8A	120W
GB2-120-4824	48V	24V	5A	120W
GB2-120-4848	48V	48V	2.5A	120W
GB2-120-11012	110V	12V	10A	120W
GB2-120-11013.8	110V	13.8	8.7A	120W
GB2-120-11015	110V	15V	8A	120W
GB2-120-11024	110V	24V	5A	120W
GB2-120-11048	110V	48V	2.5A	120W

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MOUNTING DETAILS / DIMENSIONS

