



- Input voltage options: 12V, 24V and 48VDC
- Other inputs on request
- Low profile, fully encapsulated module
- Ideal for harsh environments
- Adjustable output
- Overcurrent protection
- High operating temperature range +70°C
- Input - output isolation
- Low cost non-isolated units on request
- Suitable for a wide range of industrial applications
- Wide DC Input available upon request
- EMC COMPLIANCE TO AS/NZS CISPR 11:2002

SPECIFICATIONS

DESCRIPTION

The GB series DC/DC converter is a highly integrated DC/DC converter designed for DC/DC conversion. This series comprises of two output power range, 30W and 60W. With the combinations of input and output voltages, the converters are ideal for 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 footprint is measured only 65x100mm, with the total height of 18mm. Mounting centres on 59x70mm corners.

Input and Output to the unit are screw terminal block. A green LED indicates the presence of output voltage. Output voltage trimming can be made via an adjustment pot located on the output side of the module.

The GB 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

HUMIDITY:	5~95% RH non-condensing
COOLING:	Convection cooled
OPERATING TEMP:	<p>GB60 Vout = 12V or higher -20°C to 50°C at 100% load +60°C at 75% load +70°C at 50% load</p> <p>GB30 Vout = 12V or higher -20°C to 60°C at 100% load 70°C at 75% load, (GB30, Vout>12V)</p> <p>For 5V output models reduce above temperatures by 10°C</p>
DIMENSIONS:	GB30 & GB60: 110 x 65 x 13mm 1 Weight: 185g
CONNECTOR:	Screw terminal block

ELECTRICAL

INPUT :	12 VDC (10.5~16V) 24 VDC (20~30V) 48 VDC (40~60V) 110VDC (85~140V)
INPUT PROTECTION:	By external fuse, Fuse ratings as follows: 30W : 12V [5AF], 24V [2AF], 48V [1.5AF] 60W : 12V [10AF], 24V [5AF], 48V [2.5AF]
EFFICIENCY:	Model dependent 78-85%
VOLTAGE ACCURACY:	Voltage settings accuracy within 2%
OUTPUT VOLTAGE:	Refer to table
VOLTAGE ADJUSTMENT:	Typically ±10%
OUTPUT POWER:	30~60 watts
OUTPUT PROTECTION:	Output current limiting with auto recovery. Thermal shutdown with auto restart
ISOLATION: GB30 & GB60	Input - output 500 VDC Input - case 500 VDC Output - case 500 VDC
ISOLATION: GB30 (HV Version)	Input - output 1500 VAC Input - case 1500 VAC Output - case 500 VAC
LINE REGULATION:	±0.4%
LOAD REGULATION:	±0.4%
OUTPUT RIPPLE & NOISE:	Model dependent typically 1% of V out
SWITCHING FREQUENCY:	60W model: 300KHz 30W model: 400KHz
MTBF:	MTBF (Gb, Tamb=25°C): 720K hours (estimated MIL-SPEC 217K)

GB Series

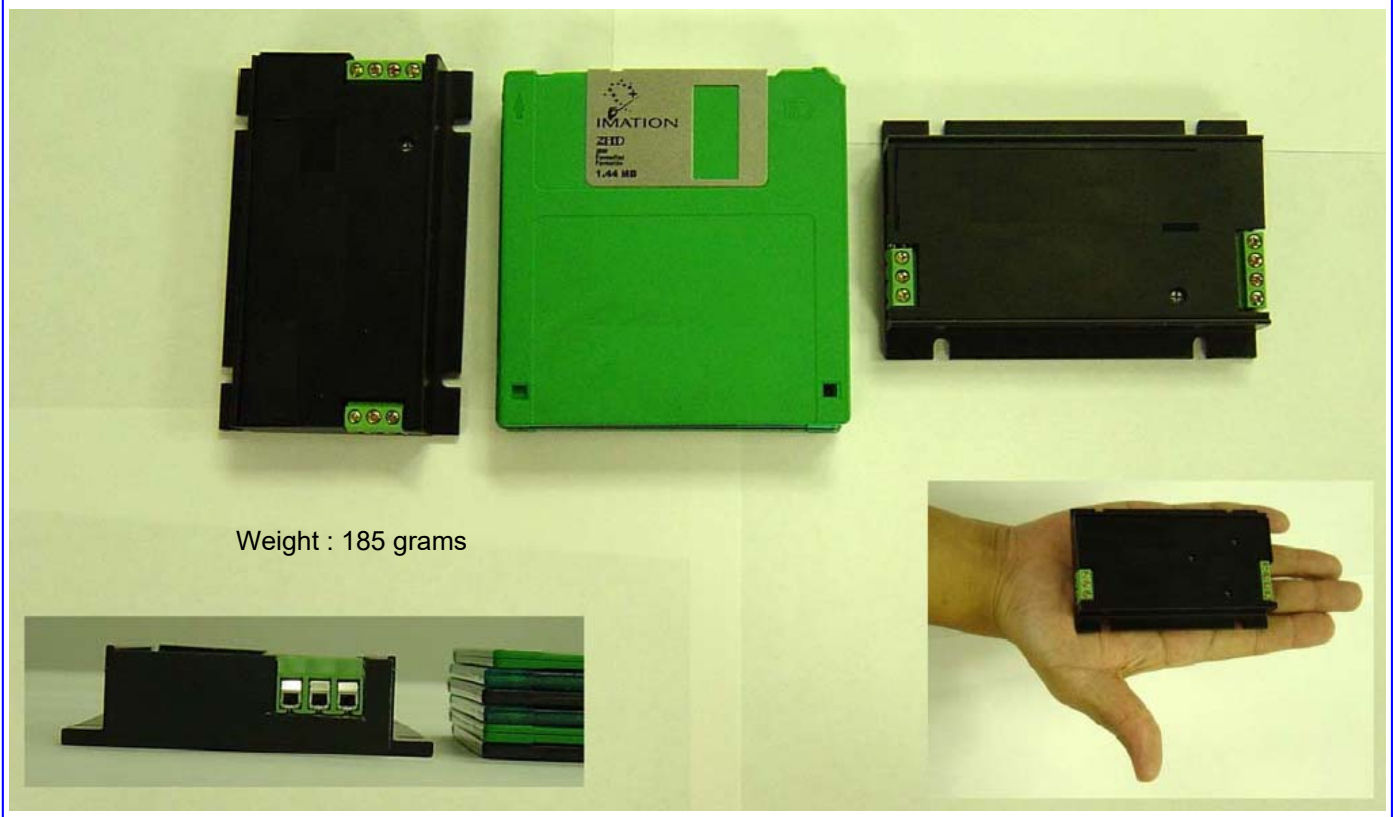
DC/DC Single Output: 30-60 Watts



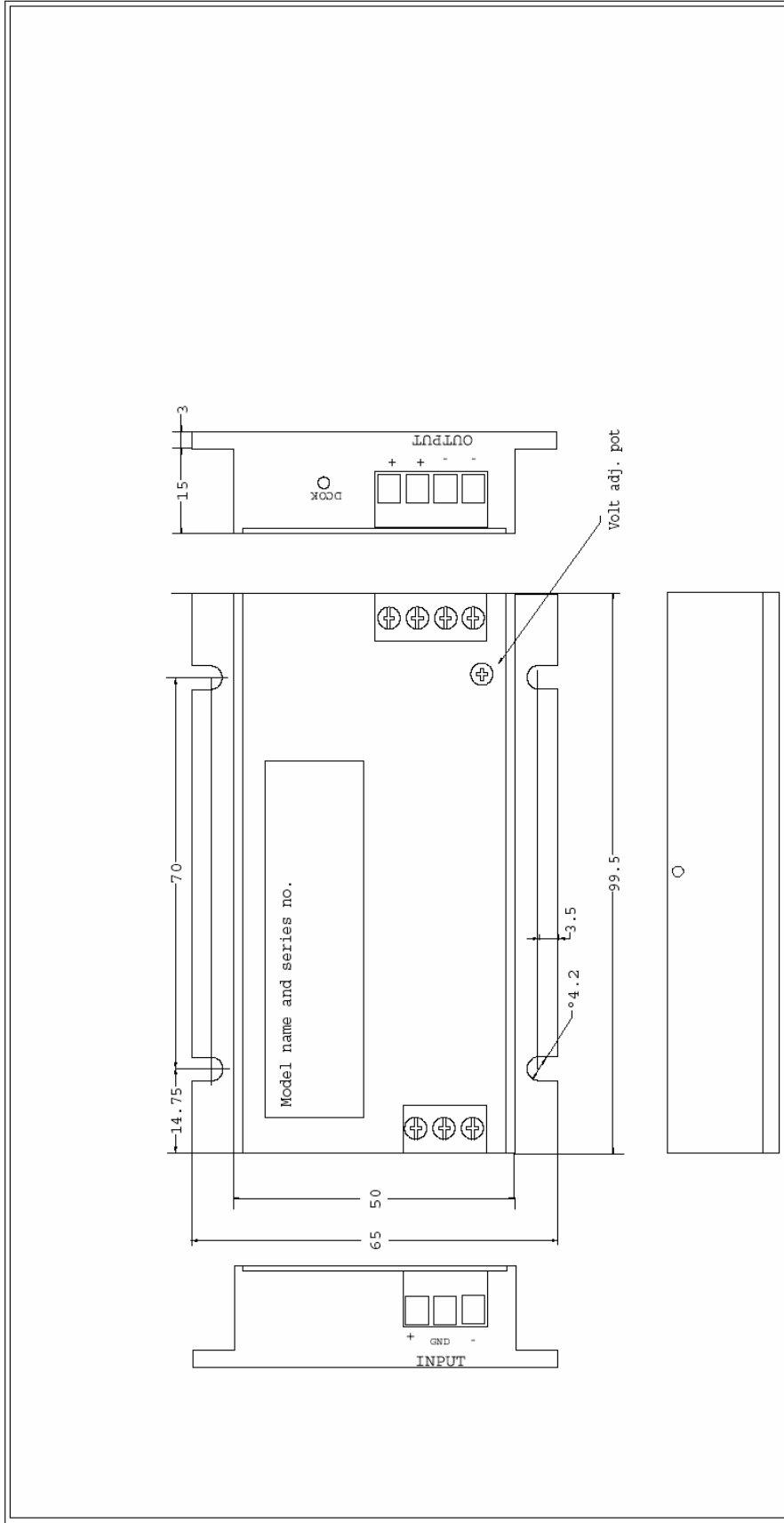
STANDARD PREFERRED MODEL TABLE				
MODELS	Input Voltage	Output V	Output I	Power
GB30 - 1205	12V	5V	6A	30W
GB30 - 1212	12V	12V	2.5A	30W
GB30 - 1215	12V	15V	2A	30W
GB30 - 1224	12V	24V	1.25A	30W
GB30 - 1248	12V	48V	0.62A	30W
GB30 - 2405	24V	5V	6A	30W
GB30 - 2412	24V	12V	2.5A	30W
GB30 - 2415	24V	15V	2A	30W
GB30 - 2424	24V	24V	1.25A	30W
GB30 - 2448	24V	48V	0.62A	30W
GB30 - 4805	48V	5V	6A	30W
GB30 - 4812	48V	12V	2.5A	30W
GB30 - 4815	48V	15V	2A	30W
GB30 - 4824	48V	24V	1.25A	30W
GB30 - 4848	48V	48V	0.62A	30W

STANDARD PREFERRED MODEL TABLE				
MODELS	Input Voltage	Output V	Output I	Power
GB60 - 1205	12V	5V	12A	60W
GB60 - 1212	12V	12V	5A	60W
GB60 - 1215	12V	15V	4A	60W
GB60 - 1224	12V	24V	2.5A	60W
GB60 - 1248	12V	48V	1.25A	60W
GB60 - 2405	24V	5V	12A	60W
GB60 - 2412	24V	12V	5A	60W
GB60 - 2415	24V	15V	4A	60W
GB60 - 2424	24V	24V	2.5A	60W
GB60 - 2448	24V	48V	1.25A	60W
GB60 - 4805	48V	5V	12A	60W
GB60 - 4812	48V	12V	5A	60W
GB60 - 4815	48V	15V	4A	60W
GB60 - 4824	48V	24V	2.5A	60W
GB60 - 4848	48V	48V	1.25A	60W

Photograph



MOUNTING DETAILS / DIMENSIONS



Doc No		Issue	
GB-outline			
Drawn By	Chkd :	Appvd :	
BH			
Date :	Date :	Date :	Sheet
20th Sept 2002			1 of 1

Finish: Black anodised.
 Note: Remove all burr and shape edges
 All dimensions in mm unless otherwise stated.