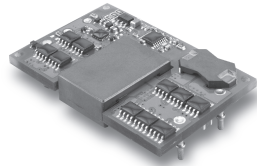


# IBQ

S E R I E S

## 180-300 WATT BUS CONVERTERS



### Features

- 180-300W Isolated Output
- Quarter Brick Package
- Efficiency to 95%
- Input Under Voltage Protection
- Over Current Protection
- Over Temperature Protection
- Remote On/Off Control
- 2250VDC Isolation

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	SIZE
				NO LOAD	FULL LOAD		
IBQ300-48S12	42.0-53.0 VDC	12VDC	0 - 25A	100mA	6578mA	95	Quarter-Brick
IBQ180-48S12	36.0-75.0 VDC	12VDC	0 - 15A	70mA	3947mA	95	Quarter-Brick

NOTE: 1. Nominal Input Voltage 48 VDC

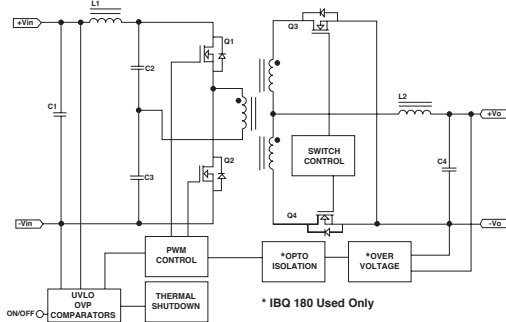
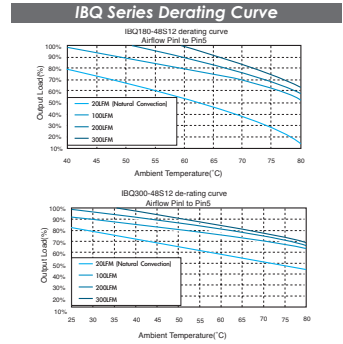


Figure 1. Electrical Block Diagram

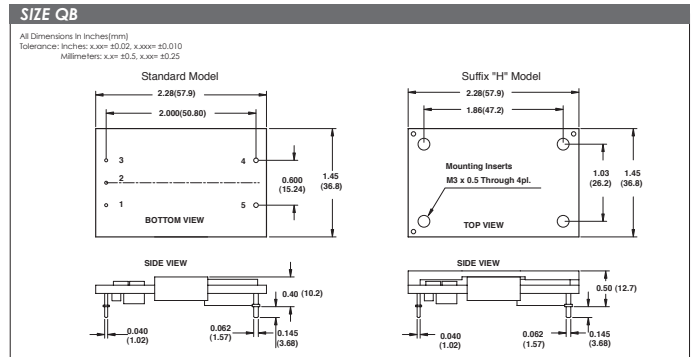
Specifications	
<b>INPUT SPECIFICATIONS:</b>	
Input Voltage Range:	IBQ300.....42 - 53V IBQ180.....36 - 75V
Under voltage lockout:	42-53Vin power up.....40V typ. power down.....38.5V typ. 36-75Vin power up.....34V typ. power down.....32.5V typ.
Over Voltage lockout:	IBQ300.....Turn-off Voltage Threshold.....57V typ.
Input Filter:	PI Type
Positive Logic Remote on/off Control:	Module ON.....Open Circuit Module OFF.....<-0.8VDC
<b>OUTPUT SPECIFICATIONS:</b>	
Voltage Accuracy:	±1.0% max.
Transient Response 25% Step Load Change:	<200u sec.
Ripple and Noise, 20MHz BW:	.60mV RMS max. 120mV p-p max.
Temperature Coefficient:	±0.03%/C max.
Short Circuit Protection:	Continuous
Line Regulation:	IBQ300.....±13.0% max. IBQ180.....±10.0% max.
Load Regulation:	±6.0% max.
Over Voltage Protection Trip Range, %Vo nom:	IBQ180.....120%-140%
Current Limit:	110% - 140% Nominal Output
<b>GENERAL SPECIFICATIONS:</b>	
Efficiency:	See Table
Isolation Voltage:	2250 VDC min.
Isolation Resistance:	>10' Ohms min.
Switching Frequency:	IBQ300.....300kHz typ. IBQ180.....340kHz typ.
Over Temperature Protection:	120°C typ.
Power Derating Curve:	Refer to Application Note.
Operating Ambient Temperature Range:	-40°C to +85°C
Storage Temperature Range:	-40°C to +125°C
Dimensions:	Standard Model.....2.28 x 1.45 x 0.40 inches (57.9 x 36.8 x 10.2 mm) Suffix "H" Model.....2.28 x 1.45 x 0.50 inches (57.9 x 36.8 x 12.7 mm)
Weight:	42g



### NOTE:

1. Voltage Accuracy is Measured at Vin=48V, I<sub>o</sub>=No Load
2. Measured From High Line to Low Line, I<sub>o</sub>=No Load
3. Measured at Vin=48V, I<sub>o</sub>=Full Load to No Load
4. The output noise is measured with 10uF tantalum capacitor and 1uF ceramic capacitor across output.
5. Suffix "H" to the Model Number with Negative Logic Remote on/off Module ON.....<0.8VDC  
Module OFF.....Open Circuit
6. Suffix "H" to the Model Number with Heat Sink

PIN CONNECTION	
Pin	Function
1	+Vin
2	ON/OFF
3	-Vin
4	-Vout
5	+Vout



All Specifications Typical At Nominal Line, Full Load and 25°C Unless Otherwise Noted.