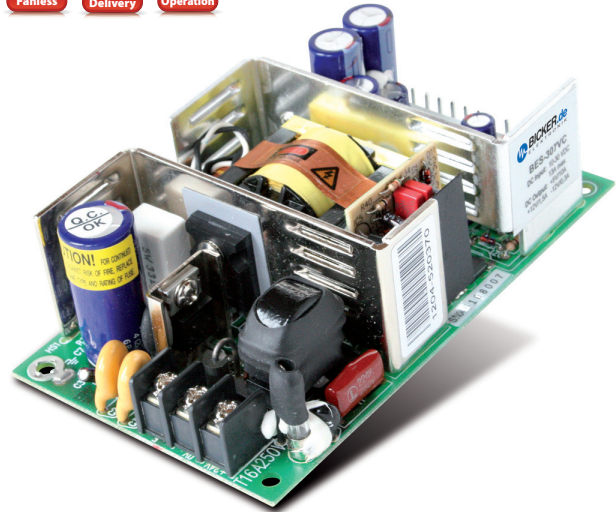


# BES-307VC

70 Watt

- 10...30 V input range
- 50 W continuous fanless power
- Operating temperature up to +50 °C

The DC/DC converter BES-307VC was developed for industrial and mobile computer systems with low power requirements. Due to its input voltage range of 10...30 VDC it can be universally applied, for 24 VDC industrial networks and in the automotive branch. The possible fields of application for the BES-307VC are enlarged further by its compact design and fanless operation.



Technical data	
Input voltage	10...30 VDC
Input current	13 A (10 VDC)
Inrush current	25 A (12 VDC)
Efficiency	>70 % (24 V) / >65 % (12 V), at nominal load
Protection	Short circuit protection: At each output, auto-recovery Overload protection: 110...150 % Overvoltage protection: +5 V (5.7...7 V) Overcurrent protection: 5 VDC / 20 A max. Inverse-polarity protection: diode at input
Insulation voltage	Input / Ground 1000 VDC for 1 sec. Input / Output 2800 VDC for 60 sec.
Cooling	Output power is 50 W without fan, 70 W with 42CFM (67 m³/h) fan. Peak current for +24 V input (+25 °C) can be for 10 sec at +5 V / 14 A or at +12 V / 3 A.
Operating temperature	0...+50 °C
MTBF	262 000 h at +50 °C according to MIL-HDBK-217F
Storage temperature	-20...+85 °C
Operating humidity	10 % to 90 % RH, non-condensing
Dimensions (WxDxH)	76.2 x 127 x 41 mm ±0.8 mm
Weight (net)	0.33 kg

Article No.	Output voltage	Output current		Load regulation	Line regulation	Ripple & Noise
		min	max			
BES-307VC	+5 V	0 A	10 A	±3 % (load step ±40 % related to 60 % load)	±2 % (at rated load and input voltage change of ±10 %)	50 mV
	+12 V*	0 A	1.5 A	±5 % (load step ±40 % related to 60 % load)	at +12 V or +24 V	100 mV
	-12 V*	0 A	0.3 A	+8/-3 % (load step ±40 % related to 60 % load)		100 mV

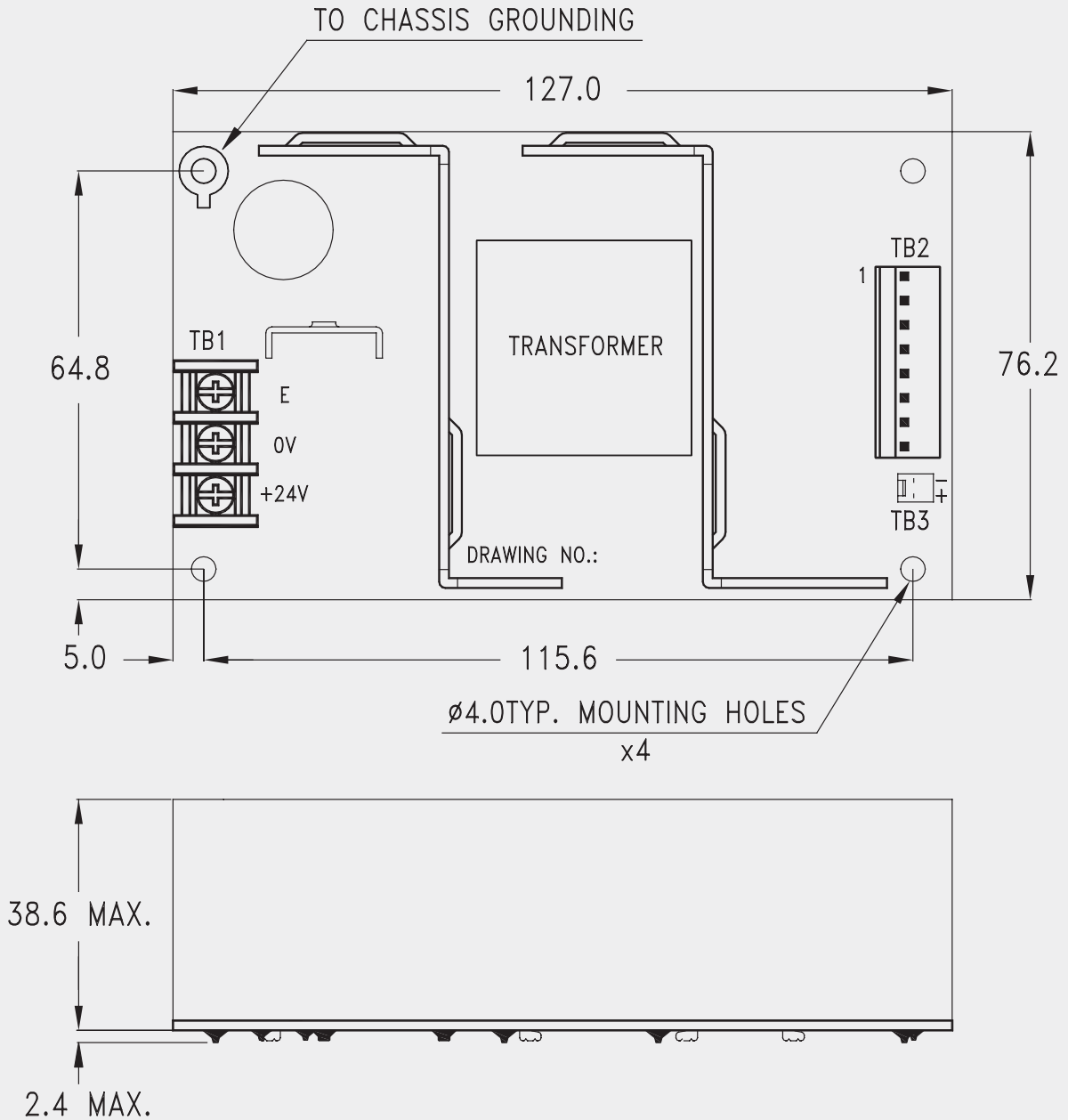
With a load of +5 V/10 A and +12 V/1.5 A a minimum load of -12 V/0.1 A must be connected. With max. load at +5 V/10 A a minimum load of +12 V/>0.2 A and -12 V/0.03 A must be connected.

\* When the minimum load requirements are not observed, the input voltages can rise and damage the connected consumer loads.

Ripple and noise was measured by a 15 MHz bandwidth limited oscilloscope with connected 0.47 µF ceramic capacitor at each output. For connection to a low voltage mains supply an additional input filter may be required.

As a power component this PSU is for assembly purposes only and must not be operated in unassembled condition. The final assembly has to comply with the valid EMC and safety standards.

Drawing BES-307VC



- TB1:** DC input / screw terminal  
Clamp E: Ground, clamp +: 10...30 V: +, clamp 0 V: -  
Note: In case of a polarity reversal at the input the input fuse blows.  
This may cause damage to the power supply.
- TB2:** DC output on main PCB / Molex 5273-08A  
Pin 1-3: +5 V DC, Pin 4-6: GND, Pin 7: +12 V, Pin 8: -12 V
- TB3:** DC output / fan Molex 5045-02A

Tolerance ±0.8 mm

Specification is subject to change without notice. Errors excepted. Status as at: 09.12.2011