

PBI3H Series

100 WATTS DC/DC SWITCHING POWER SUPPLY

FEATURES

- Light weight, compact size
- Din Rail Mountable
- High efficiency, high reliability
- Input under voltage protection
- Over current, over voltage, thermal protection
- UL, cUL, CE



SPECIFICATIONS

INPUT	
Input voltage	12VDC (9.6-16) 24VDC (19-32) 48VDC (38-63) 110VDC (85-140)
Inrush current	12VDC (6.18A - 8.26A) 24VDC (3.3A - 5.4A) 48VDC (1.65A - 2.64A) 110VDC (0.725A - 1.16A)
Efficiency (typical) *1	89% - 94%
Switching Frequency	125kHz fix
OUTPUT	
Output voltage	3.3Vdc - 24Vdc
Output Current	22.0A - 5.0A
Voltage adjustment	±10% of Rated Output Voltage
Ripple & noise(max.) *2	150mV - 350mV
Line regulation	26mV - 190mV
Load regulation	30mV - 216mV
Temperature coefficient *3	0.03 % / °C
Drift *4	32mV - 135mV
Dynamic Load Regulation *5	±150mV - ±720mV
Recovery Time *5	20mS
Rise Time	200mS(500mS for NVDxSD Series)(maximum) at 25C and rated input/output

NOTE:

- *1 at DC 12, 24, 48, 110V and rated output
- *2 measured by a bayonet probe at the output connector at a 0 to 100MHz bandwidth
- *3 at -10 to +71C
- *4 for 7hour period after 1hour warm-up at 25C and rated input/output
- *5 when output current changed between 25% and 75% of rated output current rapidly at rated input
- *6 Latch timer type (for 110V input models). Output turns to hiccup mode when output drops after over-load)

OPERATING

Over current Protection *6	Current Limiting
Over voltage Protection	Latch Type (output shutdown)
Input Voltage Protection	Output shutdown when input voltage remains under the input range for 3 seconds (typ.)
Thermal Protection	Output shutdown when input voltage remains under the input range for 3 seconds (typ.)

ENVIRONMENTAL

Operating temperature	-10 to 71°C
Temperature derating	3.5%/C(50C to 71C)
Operating Humidity	20-80%/RH (non-condensing)
Storage temperature	-20 to +85°C
Humidity	20 to 90%/RH
Withstanding Voltage	Primary-Secondary AC2,000V at 10mA for 1minute/Primary-Frame Ground AC2,000V at 10mA for 1minute/Secondary-Frame Ground AC1,000V at 10mA for 1minute
Isolation Resistance	Primary-Secondary-Frame Ground 50M ohm(minimum) by DC500V insulation tester
Vibration	5-10Hz:10mm double amplitude,10-55Hz:19.6m/s ² ,20minutes' period for 30minutes each along X,Y,Z axes(non-operating)
Shock	196m/s ²

STANDARDS AND APPROVALS

Safety	UL60950,C-UL(CSA60950),CE
MECHANICAL	
Dimension [mm]	65(W)x101(D)x34(H) mm(Not include output terminal)
Weight	250g

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SELECTION TABLE

12 VOLT MODEL NO	INPUT	OUTPUT VOLTAGE	OUTPUT CURRENT
PBI3H-1205M-U1	9.6-16V	5Vdc	18.0A
PBI3H-1212M-U1	9.6-16V	12V	7.5A
PBI3H-1215M-U1	9.6-16V	15V	6.0A
PBI3H-1224M-U1	9.6-16V	24V	3.8A

48 VOLT MODEL NO	INPUT	OUTPUT VOLTAGE	OUTPUT CURRENT
PBI3H-4805M-U1	38-63V	5Vdc	20.0A
PBI3H-4812M-U1	38-63V	12V	9.0A
PBI3H-4815M-U1	38-63V	15V	7.0A
PBI3H-4824M-U1	38-63V	24V	5.0A

24 VOLT MODEL NO	INPUT	OUTPUT VOLTAGE	OUTPUT CURRENT
PBI3H-2405M-U1	19-32V	5Vdc	20.0A
PBI3H-2412M-U1	19-32V	12V	9.0A
PBI3H-2415M-U1	19-32V	15V	7.0A
PBI3H-2424M-U1	19-32V	24V	5.0A

110V MODEL NO	INPUT	OUTPUT VOLTAGE	OUTPUT CURRENT
PBI3H-11005M-U1	85-140V	5Vdc	20.0A
PBI3H-11012M-U1	85-140V	12V	9.0A
PBI3H-11015M-U1	85-140V	15V	7.0A
PBI3H-11024M-U1	85-140V	24V	5.0A

TECHNICAL ILLUSTRATIONS

(100W), Single output

