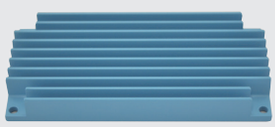
BTU SERIES

80～100W DC/DC CONVERTERS
Single Output

H12.8×W50×L98 (mm)

■ Features

- ●Low Profile 12.8mm
- ●Built-in Input Filter
- ●Input-Output Isolation
- ●High Efficiency 88～91%
- ●Wide Input Voltage Range
- ●High Reliability
- ●6 Sided Metal Shielding
- ●Remote ON/OFF Control
- ●Adjustable Output Voltage ±5%
- ●Input Low Voltage Protection
- ●Input Over Voltage Protection
- ●Output Over Voltage Protection 115～140% Operation
- ●Thermal Protection +110℃～+120℃
- ●Operating Ambient Temperature −40℃～+85℃
- ●Max. Case Temperature +105℃
- ●Conformity to RoHS2 Directive
- ●Not built-in aluminum and tantalum electrolytic capacitor

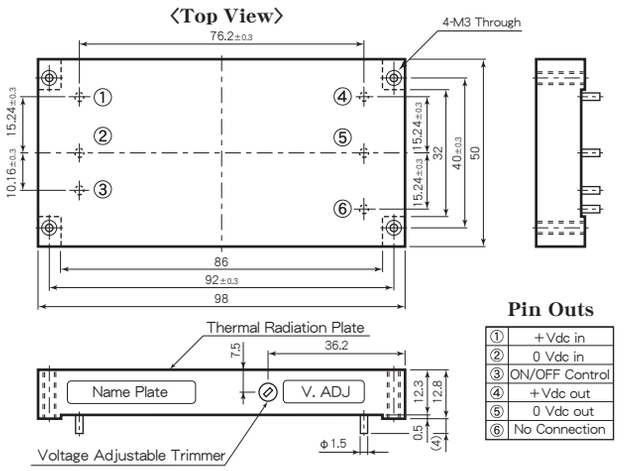
- ●薄型 12.8mm
- ●入力フィルタ内蔵
- ●入出力間絶縁
- ●高効率 88～91%
- ●広範囲な入力電圧
- ●高信頼性
- ●６面メタルシールド
- ●ﾘﾓｰﾄON/OFFｺﾝﾄﾛｰﾙ
- ●可変出力電圧 ±5%
- ●入力低電圧保護回路内蔵
- ●入力過電圧保護回路内蔵
- ●出力過電圧保護回路内蔵 115～140% 動作
- ●過熱保護回路内蔵 +110℃～+120℃
- ●動作周囲温度 −40℃～+85℃
- ●最大ケース温度 105℃
- ●RoHS2指令対応
- ●アルミ電解コンデンサ及びタンタルコンデンサ不使用

■ General Characteristics

(at Ta : 25℃, Full Load, Nominal Vin)

●Input Voltage, Range	DC12, 24, 48, 100V (See Table 1)
●Output Voltage, Current	See Table 1
●Output Voltage Range	±5% Adjustable
●Efficiency	See Table 1
●Line Regulation	±0.3% max. (at Vin Range)
●Load Regulation	±0.5% max. (0～100% Load)
●Reflected Input Ripple, Noise	(3% Vin)Vp-p max.
●Output Ripple	40mVp-p max.
●Output Noise	100mVp-p max.
●Short Circuit Protection	Built-in, Auto-restart (See Fig. 2)
●Over Voltage Protection	115～140% Output Voltage
●Remote ON/OFF Control	ON : Short or 0～0.8V OFF : Open or 2～10V (Between pin ② ～ ③)
●Temperature Coefficient	0.02%/℃ max.
●Operating Ambient Temp.	−40℃～+85℃ (See Fig. 1)
●Max. Case Temperature	+105℃
●Storage Temperature	−55℃～+125℃
●Isolation Voltage	AC1500V 1 min. AC2000V 1 min. (100V Vin only) (Input−Output−Case)
●Isolation Impedance	100MΩ min. (at DC1000V) (Input−Output−Case)
●Weight	Main Body : 170g max. Heat Sink : 73g max.
●Humidity	20～95% RH
●Shock	490m/s² (11msec 3directions)
●Vibration	10～55Hz 98m/s² (30minutes 3directions)
●Surface Structure	6 Sided Aluminum Case
●Soldering Conditions	
Soldering DIP	260℃, for 15 seconds max.
Soldering iron	360℃, for 5 seconds max.
●MTBF	400,000H (Ta : 25℃, 80% Load, Nominal Vin)
●Warranty	5 years

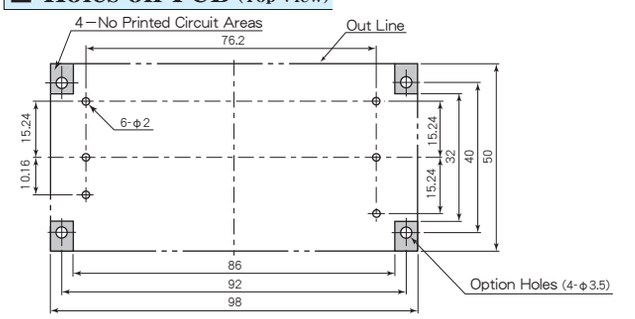
■ Pin Outs & Dimensions (±0.5mm)



Pin Outs

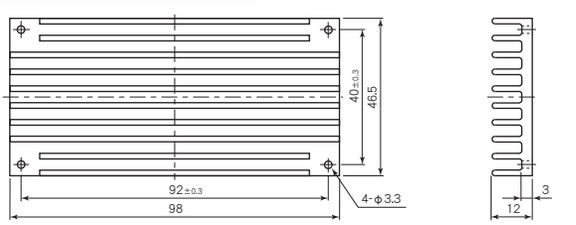
①	+Vdc in
②	0 Vdc in
③	ON/OFF Control
④	+Vdc out
⑤	0 Vdc out
⑥	No Connection

■ Holes on PCB (Top View)



■ Option Heat Sink

＊Option Heat Sink Model : A3-7292



■ Selection Guide

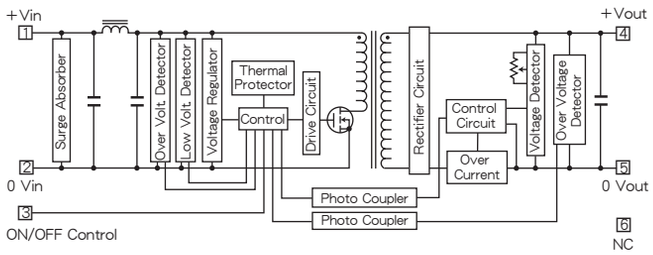
Table 1

Model Number	Input Volt. (Range) (V. DC)	Output Voltage (V. DC)	Output Current (A)	Efficiency (Typical)(%)	
				20% Load	80% Load
BTU 12−3.3S 24A	12 (8～18)	3.3	24	88	88
BTU 12− 5S 20A		5	20	87	89
BTU 12− 6S16.7A		6	16.7	87	89
BTU 12−12S 8.4A		12	8.4	87	89
BTU 12−15S 6.7A		15	6.7	86	89
BTU 12−24S 4.2A		24	4.2	85	89
BTU 24−3.3S 24A	24 (16～36)	3.3	24	88	88
BTU 24− 5S 20A		5	20	88	90
BTU 24− 6S16.7A		6	16.7	88	90
BTU 24−12S 8.4A		12	8.4	86	90
BTU 24−15S 6.7A		15	6.7	86	90
BTU 24−24S 4.2A		24	4.2	86	90
BTU 48−3.3S 24A	48 (32～72)	3.3	24	87	88
BTU 48− 5S 20A		5	20	87	90
BTU 48− 6S16.7A		6	16.7	87	90
BTU 48−12S 8.4A		12	8.4	87	91
BTU 48−15S 6.7A		15	6.7	86	91
BTU 48−24S 4.2A		24	4.2	86	91
BTU100−3.3S 24A	100 (64～144)	3.3	24	85	88
BTU100− 5S 20A		5	20	86	90
BTU100− 6S16.7A		6	16.7	86	90
BTU100−12S 8.4A		12	8.4	86	91
BTU100−15S 6.7A		15	6.7	86	91
BTU100−24S 4.2A		24	4.2	86	89

※ 上記仕様以外にも対応可能ですので お問い合わせ下さい。
Please consult with us about other specification.

アジア電子工業株式会社 ASIA ELECTRONICS IND.CO.,LTD.

■ Block Diagram



■ Characteristic Curves

Fig. 1 Derating Curve

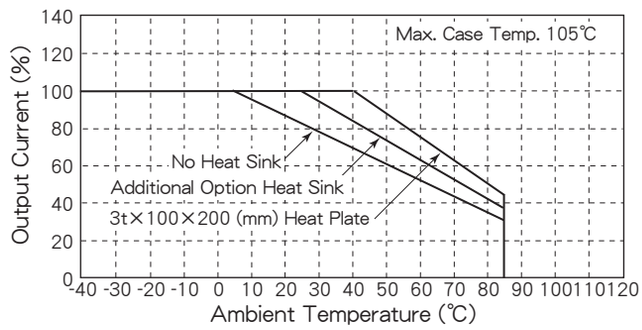


Fig. 2 Short Circuit Operating Area

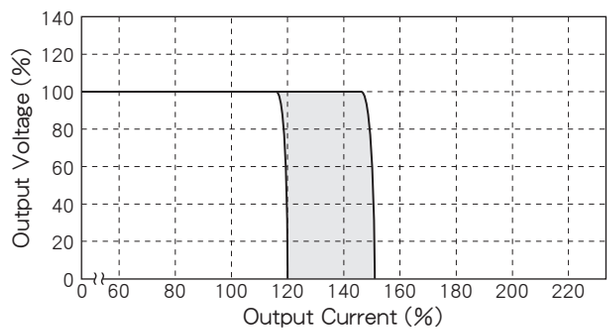


Fig. 3 Temperature Characteristic on Case Surface

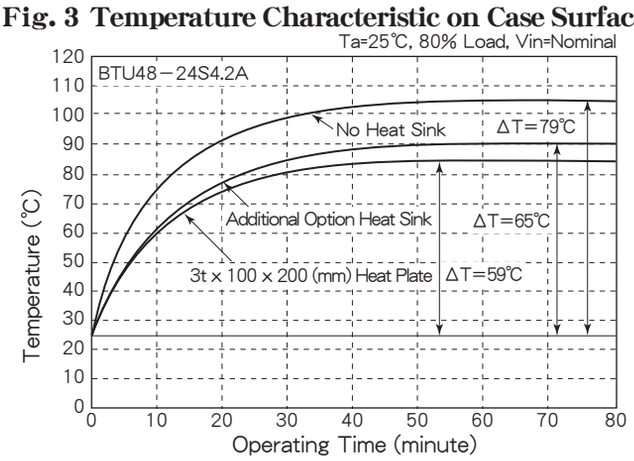


Fig. 4 Efficiency vs. Output Current

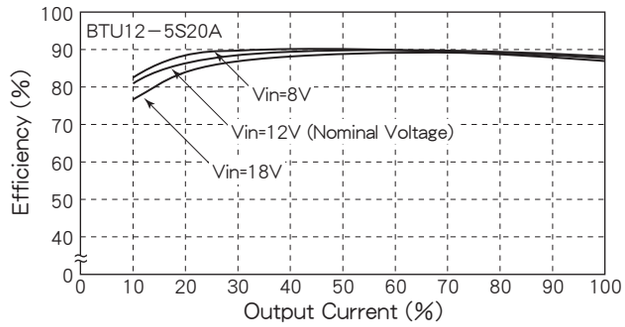


Fig. 5 Efficiency vs. Output Current

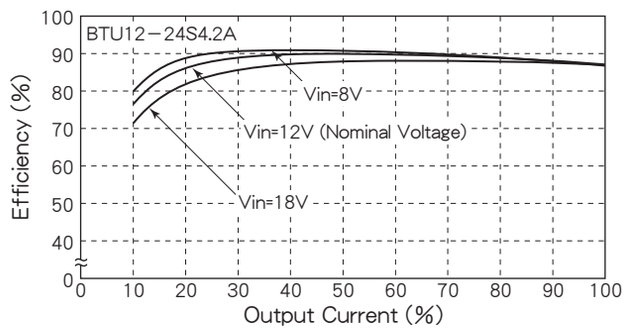


Fig. 6 Efficiency vs. Output Current

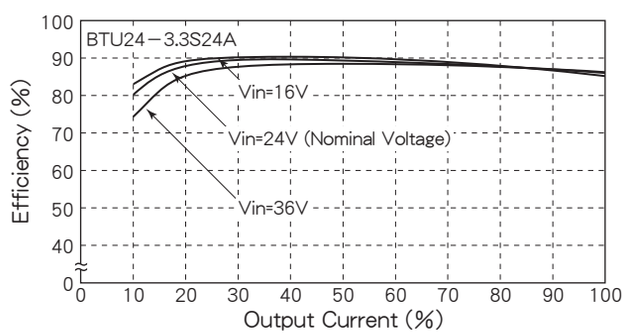


Fig. 7 Efficiency vs. Output Current

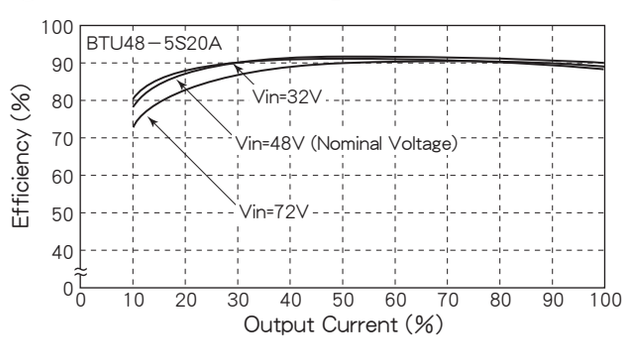


Fig. 8 Efficiency vs. Output Current