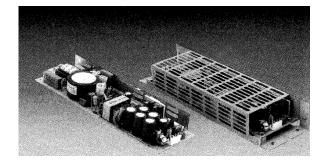
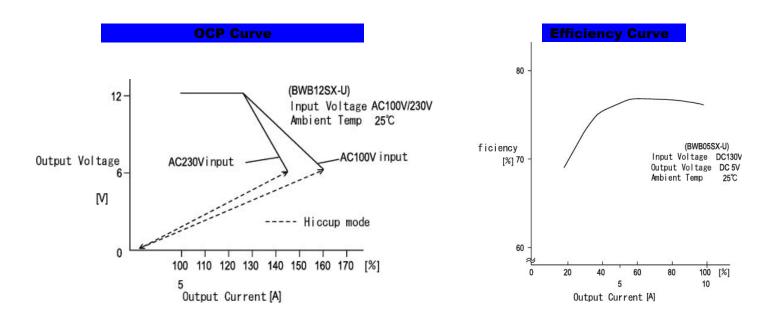


## **50 WATT** AC-DC CONVERTER BWB-SX SERIES



| Specifications <ac dc=""></ac> | Model                         |   |           |           |           |           |           |           |  |  |  |
|--------------------------------|-------------------------------|---|-----------|-----------|-----------|-----------|-----------|-----------|--|--|--|
| BWB**SX-U<br>50WATTS/SINGLE    | BWB3.3SX-U                    | BWB05SX-U                                     | BWB12SX-U | BWB15SX-U | BWB24SX-U | BWB30SX-U | BWB36SX-U | BWB48SX-U |  |  |  |
| Input Characteristic           |                               |   |           |           |           |           |           |           |  |  |  |
| Input Voltage                  | AC100/230V                    |   |           |           |           |           |           |           |  |  |  |
| Input Current                  | 1.2A at AC100V/0.7A at AC230V |   |           |           |           |           |           |           |  |  |  |
| Input Range                    |                               | AC85-264V(DC110-350V)                         |           |           |           |           |           |           |  |  |  |
| Input Frequency                | 50/60Hz                       |   |           |           |           |           |           |           |  |  |  |
| Input Frequency Range          | 47-440Hz                      |   |           |           |           |           |           |           |  |  |  |
| Phase                          | Single                        |   |           |           |           |           |           |           |  |  |  |
| Inrush Current *1              |                               | 20A(maximum) at AC115V/40A(maximum) at AC230V |           |           |           |           |           |           |  |  |  |
| Efficiency [%] (typical) *2    | 71                            | 75  | 81        | 82        | 85        | 85        | 86        | 87        |  |  |  |



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## **BWB\*\*SX Specification**

| Specifications <ac dc=""></ac>                           | Model   |            |              |                |               |              |            |            |  |  |
|--|---|------------|--------------|----------------|---------------|--------------|------------|------------|--|--|
| BWB**SX-U  | BWB3 35Y II   | BWB059Y II | BWB12SY II   | BWB15SX-U      | BWB24SY U     | BWB30SY II   | BWB36SY II | BWB48SY II |  |  |
| 50WATTS/SINGLE   | BVB5.55X-0  | BWB033X-0  | BWB123A-0    | BWB133X-0      | BV/B243A-0    | DVD303X-0    | BWB303A-0  | BWB403A-0  |  |  |
| Output Characteristic                                    |   |            |              |                |               |              |            |            |  |  |
| Output Voltage [V]                                       | 3.3   | 5          | 12           | 15             | 24            | 30           | 36         | 48         |  |  |
| Output Current [A]                                       | 10.0  | 10.0       | 5.0          | 4.0            | 2.5           | 2.0          | 1.7        | 1.3        |  |  |
| Voltage Adjust Range                                     |   | +/- 5% 0   | f Rated Outp | out Voltage(a  | at no load wi | thin the inp | ut range)  |            |  |  |
| Ripple and Noise [mVp-p](maximum) *3                     | 120   | 120        | 170          | 200            | 290           | 350          | 410        | 530        |  |  |
| Regulation   |   |            |              |                |               |              |            | •          |  |  |
| Statistic Line Regulation [mV](maximum)                  | 26.4  | 40         | 96           | 120            | 192           | 240          | 288        | 384        |  |  |
| Statistic Load Regulation [mV](maximum)                  | 29.7  | 45         | 108          | 135            | 216           | 270          | 324        | 432        |  |  |
| Temperature Coefficient *4                               | 0.03%/°C  |            |              |                |               |              |            |            |  |  |
| Drift[mV](maximum) *5                                    | 31.5  | 40         | 75           | 90             | 135           | 165          | 195        | 255        |  |  |
| Dynamic Load Regulation [mV](typical) *6                 | 99  | 150        | 360          | 450            | 720           | 900          | 1080       | 1440       |  |  |
| Recovery Time *6   |   |            | •            | 10mS(          |               |              | 8          |            |  |  |
| Rise up time   | 200mS(maximum) at 25°C and rated input/output   |            |              |                |               |              |            |            |  |  |
| Hold up time   | 20mS(typical) at 25°C and rated input/output  |            |              |                |               |              |            |            |  |  |
| Functions  |   |            |              |                |               |              |            |            |  |  |
| Overcurrent Protection≧115% of Rated Output Current[A]   |   |            | Current      | Limiting with  | nautomatic    | recovery     |            |            |  |  |
|  | 11.5  | 11.5       | 5.75         | 4.6            | 2.88          | 2.3          | 1.96       | 1.5        |  |  |
| Overvoltage Protection ≧ 115% of Rated Output Voltage[V] |   |            |              | vn(to reset,le |               |              | ,          |            |  |  |
|  | 3.8   | 5.75       | 13.8         | 17.3           | 27.6          | 34.5         | 41.4       | 55.2       |  |  |
| Remote Sense   | not available   |            |              |                |               |              |            |            |  |  |
| Remote On/Off  | not available   |            |              |                |               |              |            |            |  |  |
| Environmental  |   |            |              |                |               |              |            |            |  |  |
| Operating Temperature                                    |   | oper       |              | :-10 to +50°C  |               |              | 40°C       |            |  |  |
| Operating Humidity                                       |   |            | 20 t         | o 85%RH(n      |               | ing)         |            |            |  |  |
| Storage Temperature                                      |   |            |              | -20 to         |               |              |            |            |  |  |
| Storage Humidity   |   |            |              | o 85%RH(n      | on-condens    | ing)         |            |            |  |  |
| Withstanding Voltage                                     | Primary-Secondary AC3,000V for 1 minute   |            |              |                |               |              |            |            |  |  |
|  | Primary-Frame Ground AC2,500V for 1 minute  |            |              |                |               |              |            |            |  |  |
|  | Secondary-Frame Ground AC500V for 1 minute  |            |              |                |               |              |            |            |  |  |
| Isolation Resistance                                     | Primary-Secondary-Frame Ground 50M $\Omega$ (minimum) by DC500V insulation tester   |            |              |                |               |              |            |            |  |  |
| Vibration  | 5-10Hz:10mm double amplitude,10-55Hz:19.6m/s <sup>2</sup> ,20minutes' period for 60minutes each along X,Y,Z axes(non-operating) |            |              |                |               |              |            |            |  |  |
| Shock  | 196m/s <sup>2</sup>   |            |              |                |               |              |            |            |  |  |
| Cooling  | Convection  |            |              |                |               |              |            |            |  |  |
| ? Leakage Current  | 0.6m A(maximum) at 25°C, rated input/output and rated input frequency   |            |              |                |               |              |            |            |  |  |
| ? Line Conducted Noise                                   | Built to meet FCC Part15-B Class B  |            |              |                |               |              |            |            |  |  |
|  | Built to meet VCCI Class B  |            |              |                |               |              |            |            |  |  |
|  | Built to meet with EN55022 Class B  |            |              |                |               |              |            |            |  |  |
| ? Safety   | UL: UL1950  |            |              |                |               |              |            |            |  |  |
|  | C-UL: CSA C22.2 No.950  |            |              |                |               |              |            |            |  |  |
|  | VDE: EN60950, IEC950, VDE0805   |            |              |                |               |              |            |            |  |  |
| ? Weight (typical)                                       | open board type:240g/enclosed type:450g   |            |              |                |               |              |            |            |  |  |
| ? MTBF [H]   | 470.000   |            |              |                |               |              |            |            |  |  |
| ? Switching Frequency[kHz](typical)                      | 55 60 60 60 60 60 60 60 60  |            |              |                |               |              |            |            |  |  |
| Conditions:  |   |            |              |                |               |              |            |            |  |  |
| *1at cold start  |   |            |              |                |               |              |            |            |  |  |
|  |   |            |              |                |               |              |            |            |  |  |

\*2 at DC260V input/rated output

\*3 measured by a bayonet probe at the end of a pair of 15cm long wires terminated with a 100uF electrolytic

capacitor and 0.1uF film capacitor in parallel at a 0 to 100MHz bandwidth

\*4 open board type: at -10 to +50°C/enclosed type: at -10 to +40°C

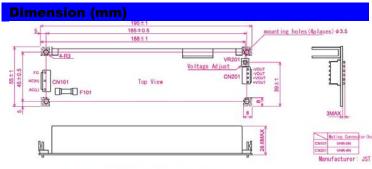
\*5 for 7hour period after 1hour warm-up at 25°C and rated input/output

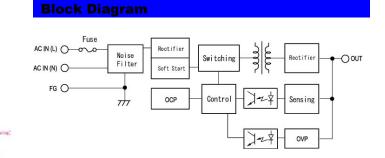
\*6 when output current changed from 25% of rated output current to 75% rapidly at rated input



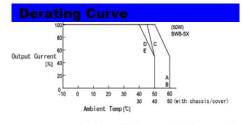
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cover comes in touch when installed(dimensions in maximum)



■For safety specification, contact ETA Sales Representative

