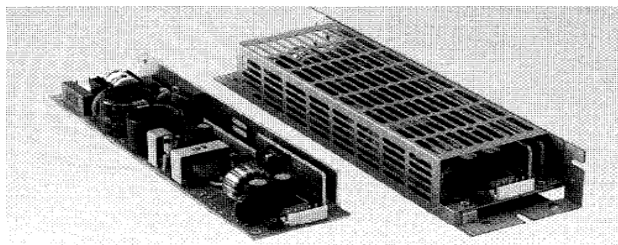
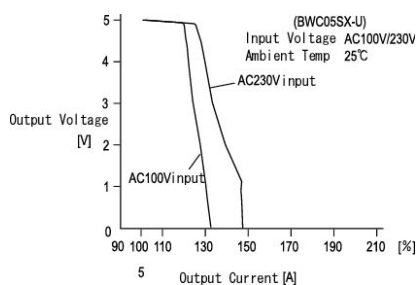


# 75 WATT AC-DC CONVERTER BWC-SX SERIES

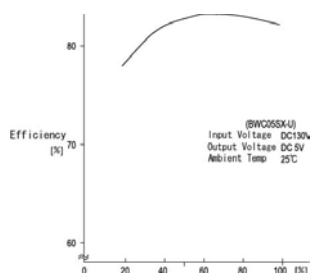


| Specifications<AC/DC>                      | Model                                         |           |           |           |           |           |           |           |
|--------------------------------------------|-----------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>BWC**SX-U</b><br><b>75W ATTS/SINGLE</b> | BWC3.3SX-U                                    | BWC05SX-U | BWC12SX-U | BWC15SX-U | BWC24SX-U | BWC30SX-U | BWC36SX-U | BWC48SX-U |
| <b>Input Characteristic</b>                |                                               |           |           |           |           |           |           |           |
| Input Voltage                              | AC100/230V                                    |           |           |           |           |           |           |           |
| Input Current                              | 1.7A at AC100V/0.9A at 230V                   |           |           |           |           |           |           |           |
| 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                | 77                                            | 81        | 84        | 84        | 86        | 86        | 88        | 87        |

**OCP Curve**



**Efficiency Curve**



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## BWC Specification

| Specifications<AC/DC>                                  | Model                                                                                                                           |           |           |           |           |           |           |           |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| BWC**SX-U<br>75WATTS/SINGLE                            | BWC3.3SX-U                                                                                                                      | BWC05SX-U | BWC12SX-U | BWC15SX-U | BWC24SX-U | BWC30SX-U | BWC36SX-U | BWC48SX-U |
| Output Characteristic                                  |                                                                                                                                 |           |           |           |           |           |           |           |
| Output Voltage [V]                                     | 3.3                                                                                                                             | 5         | 12        | 15        | 24        | 30        | 36        | 48        |
| Output Current [A]                                     | 15.0                                                                                                                            | 15.0      | 6.3       | 5.0       | 3.2(P4.5) | 2.5       | 2.1       | 1.6       |
| Voltage Adjust Range                                   | +/- 10% of Rated Output Voltage(at no load within the input range)                                                              |           |           |           |           |           |           |           |
| Ripple and Noise [mVp-p](maximum) *3                   | 120                                                                                                                             | 150       | 220       | 250       | 340       | 400       | 460       | 580       |
| 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                                       | 0.5mS(typical)                                                                                                                  |           |           |           |           |           |           |           |
| Rise up time                                           | 300mS(maximum) at 25°Cand rated input/output                                                                                    |           |           |           |           |           |           |           |
| Hold up time                                           | 20mS(typical) at 25°Cand rated input/output                                                                                     |           |           |           |           |           |           |           |
| Functions                                              |                                                                                                                                 |           |           |           |           |           |           |           |
| Overcurrent Protection ≥10% of Rated Output Current[A] | Current Limiting with automatic recovery                                                                                        |           |           |           |           |           |           |           |
|                                                        | 16.5                                                                                                                            | 16.5      | 6.93      | 5.5       | ≥Peak     | 2.75      | 2.31      | 1.76      |
| Overvoltage Protection ≥15% of Rated Output Voltage[V] | Output shutdown(to reset,leave 1minute after shut-off)                                                                          |           |           |           |           |           |           |           |
|                                                        | 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                                  | open board type:-10 to +50°Cenclosed type:-10 to +40°C                                                                          |           |           |           |           |           |           |           |
| Operating Humidity                                     | 20 to 85%/RH(non-condensing)                                                                                                    |           |           |           |           |           |           |           |
| Storage Temperature                                    | -20 to +85°C                                                                                                                    |           |           |           |           |           |           |           |
| Storage Humidity                                       | 20 to 85%/RH(non-condensing)                                                                                                    |           |           |           |           |           |           |           |
| Withstanding Voltage                                   | Primary-Secondary AC3,000V for 1minute                                                                                          |           |           |           |           |           |           |           |
|                                                        | Primary-Frame Ground AC2,500V for 1minute                                                                                       |           |           |           |           |           |           |           |
|                                                        | Secondary-Frame Ground AC500V for 1minute                                                                                       |           |           |           |           |           |           |           |
| Isolation Resistance                                   | Primary-Secondary-Frame Ground 50MΩ(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                                      | 0.75mA(maximum) at 25°Cated 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 EN55022 Class B                                                                                                   |           |           |           |           |           |           |           |
| ? Safety                                               | UL: UL1950                                                                                                                      |           |           |           |           |           |           |           |
|                                                        | C-UL: CSA C22.2 No.950                                                                                                          |           |           |           |           |           |           |           |
|                                                        | VDE: EN60950, IEC950, VDE0805                                                                                                   |           |           |           |           |           |           |           |
| Weight (typical)                                       | open board type:280g/enclosed type:520g                                                                                         |           |           |           |           |           |           |           |
| ? MTBF [H]                                             | 500,000                                                                                                                         |           |           |           |           |           |           |           |
| ? Switching Frequency[kHz](typical)                    | 140                                                                                                                             |           |           |           |           |           |           |           |

Conditions:

\*1at cold start

\*2 at DC130V 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°Cenclosed type: at -10 to +40°C

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

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

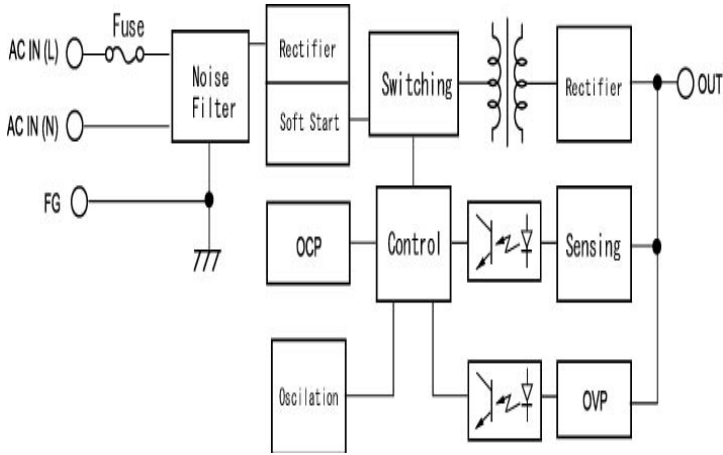


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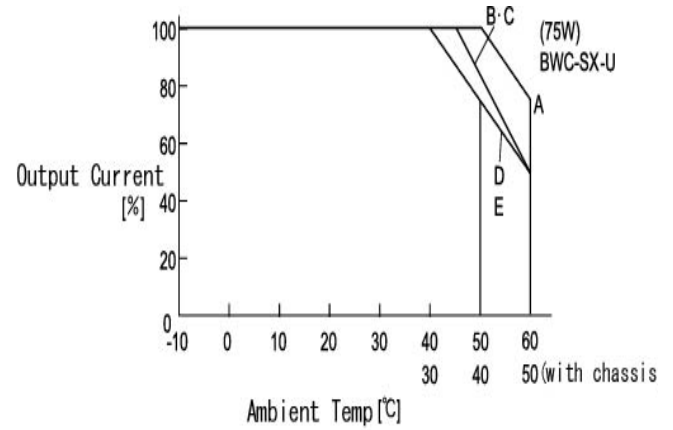
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## Block Diagram

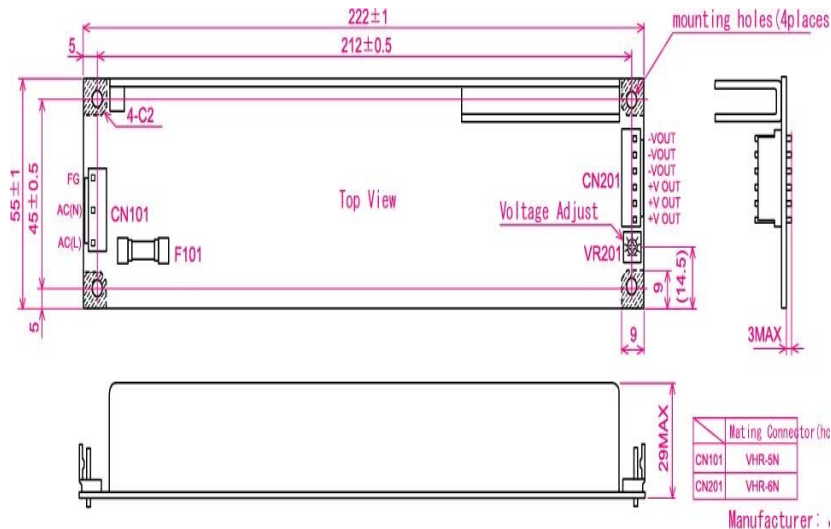


## Derating Curve



For safety specification, contact ETA Sales Representative

## Dimension (mm)



cover comes in touch when installed (dimensions in maximum)

# Mouser Electronics

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