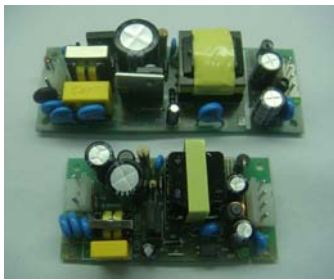


15Watt, Single & Dual Output, AC-DC Open Frame Converter

**FEATURES:**



- Universal Input 90~264VAC
- High Efficiency Up To 85%
- Protection: Short Circuit /Overload/Over voltage
- Meet EMI EN55022 & EMS EN55024 standard
- Internal Input Filter
- ROHS Compliant

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

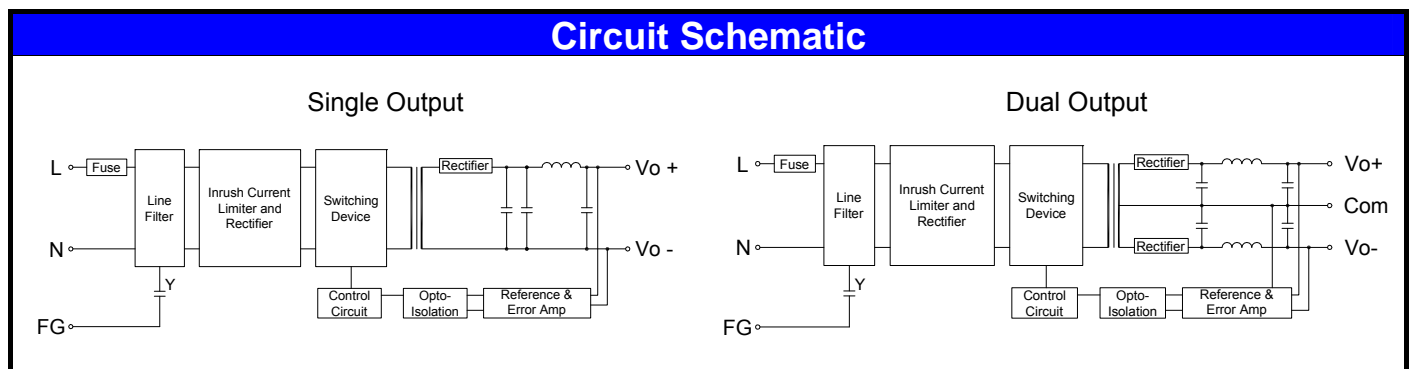
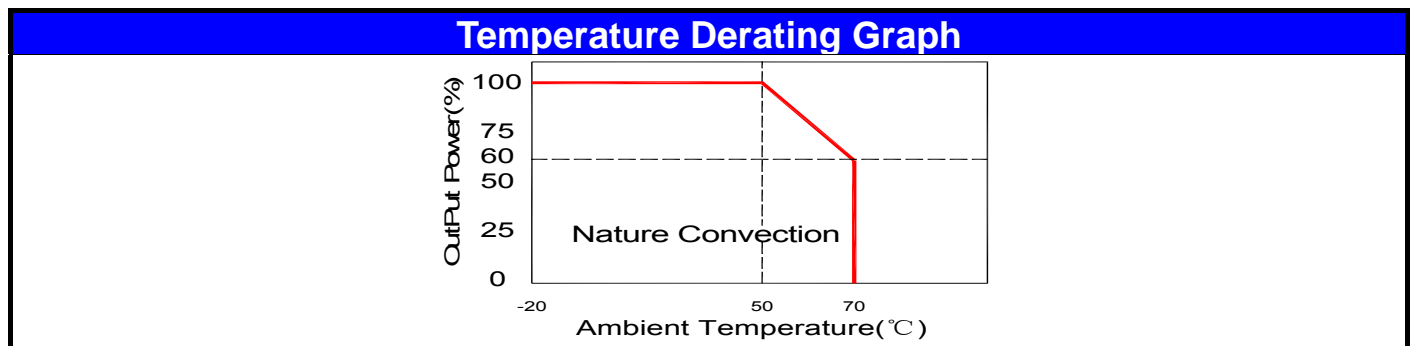
| Part Number | Output Wattage | Output Voltage | Output Current | Efficiency | Ripple & Noise | Package Style |
|-------------|----------------|----------------|----------------|------------|----------------|---------------|
|             | (W)            | (VDC)          | (mA)           | (TYP %)    | (mV) max(note) |               |
| BRS15-S03   | 10             | 3.3            | 3000           | 70         | 100            | 0             |
| BRS15-S05   | 15             | 5              | 3000           | 75         | 100            | 0             |
| BRS15-S12   | 15             | 12             | 1250           | 80         | 100            | 0             |
| BRS15-S15   | 15             | 15             | 1000           | 82         | 150            | 0             |
| BRS15-S24   | 15             | 24             | 625            | 83         | 240            | 0             |
| BRS15-D05   | 15             | ±5             | ±1500          | 70         | 100            | 1             |
| BRS15-D12   | 15             | ±12            | ±625           | 78         | 150            | 1             |
| BRS15-D15   | 15             | ±15            | ±500           | 79         | 150            | 1             |
| BRS15-D24   | 15             | ±24            | ±320           | 80         | 240            | 1             |

| Input Specifications |                                       |           |     |         |     |       |
|----------------------|---------------------------------------|-----------|-----|---------|-----|-------|
| Parameters           | Conditions                            |           | Min | Typ     | Max | Units |
| Rated Input Voltage  | Vo,lo nom                             |           |     | 100~240 |     | Vac   |
| Voltage Range        | Vo,lo nom                             | AC in     | 90  |         | 264 | Vac   |
|                      |                                       | DC in     | 120 |         | 370 | Vdc   |
| Line frequency       | Vi nom,lonom                          |           | 47  | 50/60   | 63  | Hz    |
| Inrush Current       | lo nom                                | Vi:115VAC |     |         | 10  | A     |
|                      |                                       | Vi:230VAC |     |         | 20  | A     |
| Input Fuse           | VDE/UL/CCC FUSE 2.5A/250V (Slow blow) |           |     |         |     |       |

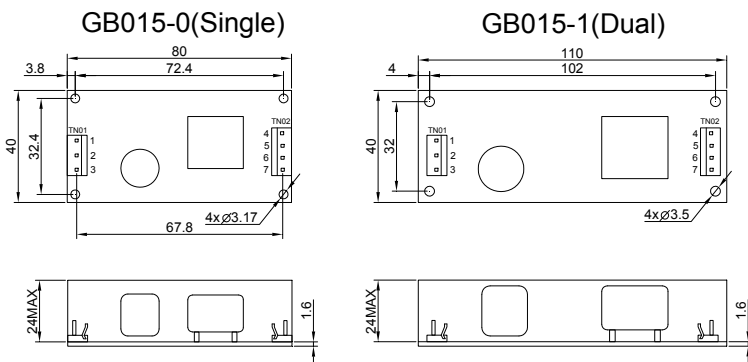
| Output Specifications   |                               |                                 |   |       |     |       |
|-------------------------|-------------------------------|---------------------------------|---|-------|-----|-------|
| Parameters              | Conditions                    |                                 | Min   | Typ   | Max | Units |
| Output Voltage Accuracy | Vi nom,lo nom (Single output) | 3.3V,5V Models                  |   |       | ±3  | %     |
|                         |                               | 12....48V Models                |   |       | ±2  | %     |
|                         | Dual Output                   |                                 |   |       | ±5  | %     |
| Minimum Load            | Vi nom                        | Single Output Models            | 0   |       |     | %     |
|                         |                               | Dual Output Models(each output) | 20  |       |     | %     |
| Line Regulation         | lo nom,Vi min...Vi max        |                                 |   | ±1    |     | %     |
| Load Regulation         | lo min~lo nom                 | Single Output Models            |   | ±2    |     | %     |
|                         |                               | Dual Output Models              |   | ±5    |     | %     |
| Transient Recovery Time | Vi nom,lo nom = ↔ 0.5 lo nom  |                                 |   | 1,000 |     | uS    |
| Protection              | Overload                      |                                 | Above 110% rated output power<br>Protection type: Recovers automatically after fault condition is removed |       |     |       |
|                         | Over Voltage                  |                                 | 120%-150% rated output Voltage<br>Protection type: Zener diode clamp                                      |       |     |       |
|                         | Short circuit                 |                                 | Recovers automatically after fault condition is removed   |       |     |       |

Note. Ripple & noise is measured by using 20 MHz bandwidth, measured with a 47uf paralleled with a high-frequency 0.47uf capacitor across each output by full load.

| General Specifications |                             |                  |     |     |       |
|------------------------|-----------------------------|------------------|-----|-----|-------|
| Parameters             | Conditions                  | Min              | Typ | Max | Units |
| Switching Frequency    | Vi nom, lo nom              |                  | 65  |     | KHz   |
| Isolation Voltage      | Input / Output              | 3KVac/ 5mA/5Secs |     |     |       |
| Isolation Resistance   | Input / Output, @500 Vdc    | 100              |     |     | MΩ    |
| Operating Temperature  | Operating at Vi nom, lo nom | -20              |     | +70 | °C    |
| Derating               | Vi nom, lo nom +51 to 71°C  |                  |     | 2   | %/°C  |
| Storage Temperature    | Non Operational             | -40              |     | +85 | °C    |
| Relative Humidity      | Vi nom, lo nom              |                  |     | 95  | % RH  |
| Dimension TYPE0        | L80 x W40 x H24MAX          |                  |     |     | mm    |
| Dimension TYPE1        | L110 x W40 x H24MAX         |                  |     |     | mm    |
| Cooling                | Free air convection         |                  |     |     |       |



### Markings and dimensions



#### Notes:

- Input connector mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal.
- Output connector mates with Molex housing 09-50-3041 and Molex 2478 series crimp terminal.

| TN01 | Model  |        |        |
|------|--------|--------|--------|
| PIN  | Single | Dual   | Dual   |
| 1    | ACL    | ACL    | ACL    |
| 2    | No PIN | No PIN | No PIN |
| 3    | ACN    | ACN    | ACN    |
| TN02 |        |        |        |
| 4    | +Vo    | +Vo    | +Vo1   |
| 5    | +Vo    | Com    | +Vo2   |
| 6    | -Vo    | Com    | Com    |
| 7    | -Vo    | -Vo    | Com    |

Unit: mm Unless otherwise specified, all tolerances are  $\pm 0.50$