## $150 W$ Open Frame Switching Power Supplies For Industrial Equipment Description:

The IBU151 series of compact, open frame constructed, AC/DC switching mode power supplies provide 150 Watts of continuous output power. They are suited for use in based systems, portable equipments and many other applications. All models meet FCC Part-15 class B and CISPR-22 class B emission Limits and are designed to comply with UL/C-UL(UL 60950-1:2 ${ }^{\text {nd }}$ Edition) ,TUV/Bauart(EN 60950-1:2 ${ }^{\text {nd }}$ Edition) and new CE requirements. All units are 100\% burned in and tested.

## Features:

■ Wide Operating Voltage 90 to 260 VAC, 47 to 63 Hz

- Internal EMI filter
- Single Output
- Input connector mates with Molex housing 09-52-4034 and Molex 2478 series crimp terminal
- Output connector mates with Molex housing09-51-4134 and Molex 2478 series crimp terminal
- Active Power Factor Correction
- Power Fail Detect(Optional)
- Class I
- Synchronous Rectification
- Operating temperature $-20 \sim 70^{\circ} \mathrm{C}$
- 3 year warranty


## Electrical Characteristics:

| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vin | Safety Approvals Input Voltage Range |  | 100 |  | 240 | VAC |
|  | Operate Voltage Range |  | 90 |  | 260 | VAC |
| fin | Input Frequency |  | 47 |  | 63 | Hz |
| PF | Power Factor Correction | Io=Full load, Vin=90~260VAC | 0.95 | 0.97 | 1.0 |  |
| Po | Output Power Range | Vin=90 to 260 VAC | 0 |  | 150 | W |
| Vo | Output Voltage Range |  | See rating Chart |  |  | V |
| Io | Output Current Range |  | See rating Chart |  |  | A |
| Iil | Input Current (Low Line) | Io=Full load, Vin=115VAC |  |  | 2.0 | A |
| Iih | Input Current (High Line) | Io=Full load, Vin=230VAC |  |  | 0.8 | A |
| I rl | Low Line Inrush Current | $\begin{aligned} & \text { Io=Full load, } 25^{\circ} \mathrm{C}, \text { Cool start, } \\ & \text { Vin=115VAC } \end{aligned}$ |  | 48 | 54 | A |
| I rh | High Line Inrush Current | $\begin{aligned} & \text { Io=Full load, } 25^{\circ} \mathrm{C}, \text { Cool start, } \\ & \text { Vin=230VAC } \end{aligned}$ |  | 96 | 108 | A |
| Eff | Efficiency | Io=Full load, Vin=230VAC | See rating Chart |  |  | \% |
| REG-i | Line Regulation | Io=Full load |  | 0.5 | 1 | \% |
| REG-0 | Load Regulation | Vin $=230 \mathrm{VAC}$ |  | 3 | 5 | \% |
| OVP | Over Voltage Protection |  | 112 |  | 132 | \% |
| OCP | Over Current Protection |  | 110 |  | 150 | \% |
| Ttr | Time of Transient Response | Io=Full load to Half Load, Vin=100VAC |  |  | 4 | mS |
| Thold | Hold-Up Time | Io=Full load, Vin=110VAC | 16 |  |  | mS |
| Ts | Start Up Time | Io=Full load, Vin=100VAC | 0.3 | 1 | 2 | S |
| Vp-p | Ripple \& Noise (Peak to Peak) | Io=Full load, Vin=90VAC |  | 0.5 | 1 | \% |
| Ilk | Safety Ground Leakage Current | Io=Full load, Vin=240VAC |  | 0.5 | 0.75 | mA |
| TC | Temperature Coefficient | All output | -0.04 |  | 0.04 | $\% /{ }^{\circ} \mathrm{C}$ |
| Pno | No-Load Power Consumption | No load, Vin=230VAC | See rating Chart |  |  | W |

## Environmental :

| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| Toper | Operating Temperature |  | -20 | 50 | 70 | ${ }^{\circ} \mathrm{C}$ |
| Tstg | Storage Temperature |  | -40 |  | 85 | ${ }^{\circ} \mathrm{C}$ |
| Ho | Operating Humidity |  | 0 |  | 95 | $\%$ |
| Hr | Storage Humidity |  | 0 |  | 95 | $\%$ |
| MTBF | Operating Temperature at $25^{\circ} \mathrm{C}$, Calculated per MIL-HDBK-217F | 0.1 M |  |  |  |  |
| Pd | Derate linearly from $100 \%$ load at $50^{\circ} \mathrm{C}$ to $50 \%$ load at $70^{\circ} \mathrm{C}$ |  |  |  |  |  |

150w Open Frame Switching Power Supplies For Industrial Equipment
Safety Specifications:

| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. |
| :---: | :--- | :--- | :--- | :--- | :--- |
| Ups | Dielectric Withstanding Voltage <br> for Primary to secondary | Primary to secondary | 4242 |  |  |
| Vpg | Dielectric Withstanding Voltage <br> for Primary to Ground | Primary to ground | 2121 |  | VDC |
| Ris | Isolation Resistance | Test Voltage=500VDC | 50 |  | VDC |
| CISPR | EMI requirements for CISPR-22 | Vin=220VAC | M $\Omega$ |  |  |
| FCC | EMI requirements for FCC PART-15 | Vin=120VAC | B |  |  |

## Output Voltage And Current Rating Chart (Single Output) :

| Model Number | Output Voltage | Output Current | Total Regulation | Efficiency (min.) | Maximum <br> Output Power | Pno (max.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

PIN CHART


## Mechanical Specifications:

## Note:

1. Dimensions are shown in inches or mm .
2. Weight: 390gs approx.
3. Input connector mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal.

