# SUU61 SERIES

## 63W U-bracket Switching Power Supplies For I.T.E.

### Description:

The SUU61 series of compact, open frame constructed, AC/DC switching mode power supplies provide 63 Watts of continuous output power .They are ideally suited for use in CRT terminals ,disc drive systems, microprocess or 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),ITS/GS(EN 60950) and new CE requirements. All units are 100% burned in and tested.



### Features:

- Wide Input Voltage 90 to 264 VAC,47 to 63 Hz
- Internal EMI filter
- Single to Quad Output
- Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal
- Output connector mates with Molex housing 09-50-3061 (or 09-50-3081) and Molex 2878 series crimp terminal
- Output Voltage Available From 3 VDC Thru 50 VDC
- Input Surge Current, Over Voltage and Over Load protection
- Class I Insulation
- Two Years Warranty

### Safety Approvals :

c UL us ITS Testing & Certification Bauart geprüft CE CB

### Electrical Characteristics:

| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Vin | Input Voltage | Operating Voltage | 90 | | 264 | VAC |
| Fin | Input Frequency | | 47 | | 63 | Hz |
| Wo | Output Power Range | Vin=90 to 264VAC | 0 | | 63 | 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 | | | 1.6 | A |
| Iih | Input Current (High Line) | Io=Full load, Vin=230VAC | | | 1.0 | A |
| Irl | Low Line Inrush Current | Io=Full load, 25 c, Cool start, Vin=115VAC | | 12 | 15 | A |
| Irh | High Line Inrush Current | Io=Full load, 25 c, Cool start, Vin=230VAC | | 26 | 30 | A |
| Eff | Efficiency | Io=Full Load, Vin=230VAC | 70 | 80 | 88 | % |
| REG-i | Line Regulation | Io=Full Load | | 0.5 | 1 | % |
| REG-o | Load Regulation | Vin=230VAC | | 3 | 6 | % |
| OVP | Over Voltage Protection | | 112 | | 132 | % |
| OCP | Over Current Protection | | 110 | | 150 | % |
| Ttr | Transient Response | Io=Full Load to Half Load, Vin=100VAC | | | 4 | mS |
| Thold | Hold-Up Time | Io=Full Load, Vin=110VAC | 12 | | | mS |
| Ts | Start Up Time | Io=Full Load, Vin=100VAC | 0.3 | 1 | 2 | S |
| Vrn | Ripple & Noise (Peak to Peak) | Full Load, Vin=90VAC | | 1 | 2 | % |
| Ilk | Safety Ground Leakage Current | Io=Full Load, Vin=240VAC | | 0.4 | 0.45 | mA |
| Tc | Temperature Coefficient | All output | -0.04 | | 0.04 | %/ c |

### Environmental :

| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Toper | Operating Temperature | | 0 | | 70 | °C |
| Tstg | Storage Temperature | | -40 | | 85 | °C |
| Hr | Relative Humidity | | 5 | | 95 | % |
| Pd | Derate linearly from 100% load at 40°C to 50% load at 70°C | | | | | |

### Safety Specifications:

| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Vps | Dielectric Withstanding Voltage for Primary to secondary | Primary to secondary | 4242 | | | VDC |
| Vpg | Dielectric Withstanding Voltage for Primary to Ground | Primary to ground | 2121 | | | VDC |
| Ri | Isolation Resistance | Test Voltage=500VDC | 50 | | | MΩ |
| CISPR | EMI requirements for CISPR-22 | Vin=220VAC | B | | | CLASS |
| FCC | EMI requirements for FCC PART-15 | Vin=110VAC | B | | | CLASS |

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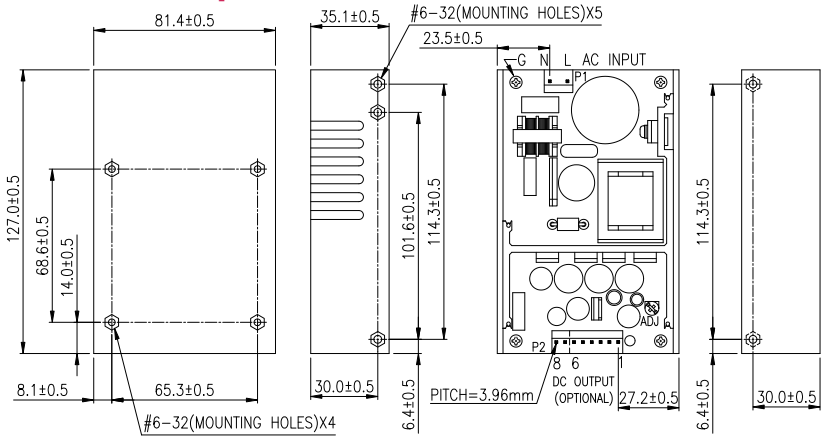
### Output Voltage And Current Rating Chart (Single Output) :

| Model Number | Output Voltage | Output Current | Total Regulation | Maximum Output Power |
|---|---|---|---|---|
| SUU61-101 | 3 ~ 5 VDC | 16.6 ~ 10.0 A | 5% | 50W |
| SUU61-102 | 5 ~ 6 VDC | 11.0 ~ 9.16 A | 5% | 55W |
| SUU61-103 | 6 ~ 8 VDC | 10.0 ~ 7.50 A | 4% | 60W |
| SUU61-104 | 8 ~ 11 VDC | 7.87 ~ 5.72 A | 3% | 63W |
| SUU61-105 | 11 ~ 13 VDC | 5.72 ~ 4.84 A | 3% | 63W |
| SUU61-106 | 13 ~ 16 VDC | 4.84 ~ 3.93 A | 3% | 63W |
| SUU61-107 | 16 ~ 21 VDC | 3.93 ~ 3.00 A | 3% | 63W |
| SUU61-108 | 21 ~ 27 VDC | 3.00 ~ 2.33 A | 2% | 63W |
| SUU61-109 | 27 ~ 33 VDC | 2.33 ~ 1.90 A | 2% | 63W |
| SUU61-110 | 33 ~ 40 VDC | 1.90 ~ 1.57 A | 2% | 63W |
| SUU61-111 | 40 ~ 50 VDC | 1.57 ~ 1.26 A | 2% | 63W |

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

| Model Number | Output #1 | | | | Output #2 | | | | Output #3 | | | | Output #4 | | | | Maximum Output Power |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | |
| SUU61-200 | +3.3V | 1.4A | 7A | 7% | +12V | 0.6A | 3A | 5% | | | | | | | | | 59.1W |
| SUU61-201 | +5V | 0.7A | 7A | 5% | +12V | 0.3A | 3A | 5% | | | | | | | | | 63W |
| SUU61-202 | +5V | 0.7A | 7A | 5% | +15V | 0.3A | 3A | 5% | | | | | | | | | 63W |
| SUU61-203 | +5V | 0.7A | 7A | 5% | +24V | 0.4A | 2A | 5% | | | | | | | | | 63W |
| SUU61-204 | +3.3V | 1.4A | 7A | 7% | +5V | 0.5A | 5A | 5% | | | | | | | | | 48.1W |
| SUU61-215 | +5V | 0.7A | 7A | 5% | -24V | 0.2A | 2A | 5% | | | | | | | | | 63W |
| SUU61-218 | +3.3V | 0.5A | 5A | 7% | +48V | 0.1A | 1.25A | 5% | | | | | | | | | 63W |
| SUU61-219 | +5V | 0.1A | 5A | 5% | +28V | 0.2A | 2A | 5% | | | | | | | | | 63W |
| SUU61-220 | +5V | 0.5A | 5A | 5% | +35V | 0.1A | 1.5A | 5% | | | | | | | | | 63W |
| SUU61-221 | +5V | 0.5A | 5A | 5% | +36V | 0.1A | 1.5A | 5% | | | | | | | | | 63W |
| SUU61-300 | +3.3V | 1.2A | 6A | 7% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | | | | | 63W |
| SUU61-300-1 | +3.3V | 1.2A | 6A | 7% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | | | | | 63W |
| SUU61-301 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | -5V | 0A | 0.8A | 5% | | | | | 63W |
| SUU61-301-1 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | +5V | 0A | 0.8A | 5% | | | | | 63W |
| SUU61-302 | +5V | 0.6A | 6A | 5% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | | | | | 63W |
| SUU61-302-1 | +5V | 0.6A | 6A | 5% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | | | | | 63W |
| SUU61-303 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | -15V | 0A | 0.8A | 5% | | | | | 63W |
| SUU61-303-1 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | +15V | 0A | 0.8A | 5% | | | | | 63W |
| SUU61-304 | +5V | 1.2A | 6A | 5% | +24V | 0.4A | 2A | 5% | -24V | 0A | 0.5A | 5% | | | | | 63W |
| SUU61-304-1 | +5V | 1.2A | 6A | 5% | +24V | 0.4A | 2A | 5% | +24V | 0A | 0.5A | 5% | | | | | 63W |
| SUU61-305 | +5V | 1.2A | 6A | 5% | +24V | 0.4A | 2A | 5% | -12V | 0A | 0.8A | 5% | | | | | 63W |
| SUU61-305-1 | +5V | 1.2A | 6A | 5% | +24V | 0.4A | 2A | 5% | +12V | 0A | 0.8A | 5% | | | | | 63W |
| SUU61-306 | +3.3V | 1.2A | 6A | 7% | +12V | 0.6A | 3A | 5% | -5V | 0A | 0.8A | 5% | | | | | 59.8W |
| SUU61-306-1 | +3.3V | 1.2A | 6A | 7% | +12V | 0.6A | 3A | 5% | +5V | 0A | 0.8A | 5% | | | | | 59.8W |
| SUU61-307 | +5V | 0.6A | 6A | 5% | +10V | 0.2A | 2A | 5% | -10V | 0A | 1A | 5% | | | | | 60W |
| SUU61-307-1 | +5V | 0.6A | 6A | 5% | +10V | 0.2A | 2A | 5% | +10V | 0A | 1A | 5% | | | | | 60W |
| SUU61-308 | +3.3V | 0.5A | 5A | 7% | +5V | 0.5A | 5A | 5% | +12V | 0A | 1A | 5% | | | | | 53.5W |
| SUU61-308-1 | +3.3V | 0.5A | 5A | 7% | +5V | 0.5A | 5A | 5% | -12V | 0A | 1A | 5% | | | | | 53.5W |
| SUU61-400 | +3.3V | 1.2A | 6A | 7% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W |
| SUU61-400-1 | +3.3V | 1.2A | 6A | 7% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W |
| SUU61-400-2 | +3.3V | 1.2A | 6A | 7% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W |
| SUU61-400-3 | +3.3V | 1.2A | 6A | 7% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W |
| SUU61-401 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | -12V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W |
| SUU61-401-1 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | -12V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W |
| SUU61-401-2 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | +12V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W |
| SUU61-401-3 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | +12V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W |
| SUU61-402 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | +12V | 0A | 0.8A | 5% | 63W |
| SUU61-402-1 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | +12V | 0A | 0.8A | 5% | 63W |
| SUU61-402-2 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | -12V | 0A | 0.8A | 5% | 63W |
| SUU61-402-3 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | -12V | 0A | 0.8A | 5% | 63W |
| SUU61-403 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | +24V | 0A | 0.8A | 5% | 63W |
| SUU61-403-1 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | +24V | 0A | 0.8A | 5% | 63W |
| SUU61-403-2 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | -24V | 0A | 0.8A | 5% | 63W |
| SUU61-403-3 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | -24V | 0A | 0.8A | 5% | 63W |
| SUU61-404 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | -15V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W |
| SUU61-404-1 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | -15V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W |
| SUU61-404-2 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | +15V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W |
| SUU61-404-3 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | +15V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W |
| SUU61-423 | +5V | 0.1A | 1A | 5% | +24V | 0.18A | 1.8A | 5% | -15V | 0A | 0.1A | 5% | +12V | 0A | 0.8A | 5% | 59.3W |

### Mechanical Specifications :




### PIN CHART

| MODEL \ PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| SUU61-1XX | OUT | OUT | OUT | RTN | RTN | RTN | | |
| SUU61-2XX | Vo2 | Vo1 | Vo1 | COM | COM | N/C | | |
| SUU61-3XX | Vo2 | Vo1 | Vo1 | COM | COM | Vo3 | | |
| SUU61-4XX | Vo2 | Vo1 | Vo1 | COM | COM | Vo3 | Vo4 | Vo4 |

Note: Vo1:Output#1 Vo2:Output#2 Vo3:Output#3 Vo4:Output#4

Note:
1. Dimensions are shown in mm.
2. Weight: 385gs approx.
3. Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3061 (or 09-50-3081) and Molex 2878 Series crimp terminal.