

SIUA120 SERIES



120W U-Bracket Power Supply for Industrial Equipment

- Wide Input Voltage 90 to 260 VAC, 47 to 63 Hz
- Single to Triple Output
- Input Surge Current, Over Voltage and Over Load protection
- Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal
- Operating temperature -20~70°C
- Output connector mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal
- Size: 3.21"x5"x1.72"
- Class I Insulation

3 Year Warranty

Approvals:    

Single Output

| Part Number | Output Voltage | Output Current | Total Regulation | Max. Output Power |
|-------------|----------------|----------------|------------------|-------------------|
| SIUA120-S01 | 03 ~05 VDC | 22.00 ~ 20.00A | 5% | 100W |
| SIUA120-S02 | 05 ~06 VDC | 22.00 ~ 18.33A | 5% | 110W |
| SIUA120-S03 | 06 ~09 VDC | 19.16 ~ 12.77A | 5% | 115W |
| SIUA120-S04 | 09 ~11 VDC | 13.33 ~ 10.90A | 4% | 120W |
| SIUA120-S05 | 11 ~ 13 VDC | 10.90 ~ 9.23A | 3% | 120W |
| SIUA120-S06 | 13 ~ 16 VDC | 9.23 ~ 7.50A | 3% | 120W |
| SIUA120-S07 | 16 ~ 21 VDC | 7.50 ~ 5.71A | 3% | 120W |
| SIUA120-S08 | 21 ~ 27 VDC | 5.71 ~ 4.44A | 2% | 120W |
| SIUA120-S09 | 27 ~ 33 VDC | 4.44 ~ 3.63A | 2% | 120W |
| SIUA120-S10 | 33 ~ 40 VDC | 3.63 ~ 3.00A | 2% | 120W |
| SIUA120-S11 | 40 ~ 50 VDC | 3.00 ~ 2.40A | 2% | 120W |

Multi Output

| Part Number | Output 1 | | | | Output 2 | | | | Output 3 | | | | Max. Output Power |
|---------------|----------|-------|-------|--------|----------|-------|-------|--------|----------|-------|-------|--------|-------------------|
| | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | |
| SIUA120-D00 | +3.3V | 1.5A | 15A | 5% | +12V | 0.6A | 6A | 5% | | | | | 120W |
| SIUA120-D01 | +5V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | | | | | 120W |
| SIUA120-D02 | +5V | 1.5A | 15A | 5% | +15V | 0.6A | 6A | 5% | | | | | 120W |
| SIUA120-D03 | +5V | 1.5A | 15A | 5% | +24V | 0.4A | 3.5A | 5% | | | | | 120W |
| SIUA120-D04 | +3.3V | 1.5A | 15A | 5% | +5V | 0.8A | 6A | 5% | | | | | 79.5W |
| SIUA120-D15 | +5V | 1.5A | 15A | 5% | | | | | -24V | 0.2A | 2A | 5% | 120W |
| SIUA120-D19 | +28V | 0.4A | 3.92A | 5% | | | | | +5V | 0A | 2A | 5% | 120W |
| SIUA120-T00 | +3.3V | 1.5A | 15A | 5% | +12V | 0.6A | 6A | 5% | -12V | 0A | 0.8A | 5% | 120W |
| SIUA120-T00-1 | +3.3V | 1.5A | 15A | 5% | +12V | 0.6A | 6A | 5% | +12V | 0A | 0.8A | 5% | 120W |
| SIUA120-T01 | +5V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | -5V | 0A | 0.8A | 5% | 120W |
| SIUA120-T01-1 | +5V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | +5V | 0A | 0.8A | 5% | 120W |
| SIUA120-T02 | +5V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | -12V | 0A | 0.8A | 5% | 120W |
| SIUA120-T02-1 | +5V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | +12V | 0A | 0.8A | 5% | 120W |
| SIUA120-T03 | +5V | 1.5A | 15A | 5% | +15V | 1.0A | 6A | 5% | -15V | 0A | 0.8A | 5% | 120W |
| SIUA120-T03-1 | +5V | 1.5A | 15A | 5% | +15V | 1.0A | 6A | 5% | +15V | 0A | 0.8A | 5% | 120W |
| SIUA120-T04 | +5V | 1.5A | 15A | 5% | +24V | 0.45A | 3.5A | 5% | -24V | 0.25A | 0.8A | 5% | 120W |
| SIUA120-T04-1 | +5V | 1.5A | 15A | 5% | +24V | 0.45A | 3.5A | 5% | +24V | 0.25A | 0.8A | 5% | 120W |
| SIUA120-T05 | +5V | 1.5A | 15A | 5% | +24V | 0.4A | 3.5A | 5% | -12V | 0A | 0.8A | 5% | 120W |
| SIUA120-T05-1 | +5V | 1.5A | 15A | 5% | +24V | 0.4A | 3.5A | 5% | +12V | 0A | 0.8A | 5% | 120W |
| SIUA120-T06 | +3.3V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | -5V | 0A | 0.8A | 5% | 120W |
| SIUA120-T06-1 | +3.3V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | +5V | 0A | 0.8A | 5% | 120W |
| SIUA120-T07 | +5V | 1.5A | 15A | 5% | +10V | 0.6A | 6A | 5% | -10V | 0A | 1.0A | 5% | 120W |
| SIUA120-T07-1 | +5V | 1.5A | 15A | 5% | +10V | 0.6A | 6A | 5% | +10V | 0A | 1.0A | 5% | 120W |
| SIUA120-T08 | +3.3V | 1.5A | 15A | 5% | +5V | 0.8A | 6A | 5% | -12V | 0A | 1.0A | 5% | 91.5W |
| STUA120-T08-1 | +3.3V | 1.5A | 15A | 5% | +5V | 0.8A | 6A | 5% | +12V | 0A | 1.0A | 5% | 91.5W |

Electrical Characteristics

| Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|---------------------------------|--|-------|------|------|------|
| Input Voltage | Operating Voltage | 90 | | 260 | VAC |
| Input Frequency | | 47 | | 63 | Hz |
| Power Factor Correction | Io=Full load, Vin=90~260VAC | 0.95 | 0.97 | 1.0 | |
| Output Power Range | Vin=90 to 264 VAC | 0 | | 120 | W |
| Input Current (Low Line) | Io=Full load, Vin=115VAC | | | 1.7 | A |
| Input Current (High Line) | Io=Full load, Vin=230VAC | | | 1.0 | A |
| Low Line Inrush Current | Io=Full load, 25°C, Cool start, Vin=115VAC | | 16 | 20 | A |
| High Line Inrush Current | Io=Full load, 25°C, Cool start, Vin=230VAC | | 46 | 51 | A |
| Efficiency | Io=Full load, Vin=230VAC | 70 | 80 | 88 | % |
| Line Regulation | Io=Full load | | 0.5 | 1 | % |
| Load Regulation | Vin=230VAC | | 3 | 5 | % |
| Over Voltage Protection | | 112 | | 132 | % |
| Over Current Protection | | 110 | | 150 | % |
| Transient Response | Io=Full load to Half Load, Vin=500VAC | | | 4 | mS |
| Hold-Up Time | Io=Full load, Vin=150VAC | 16 | | | mS |
| Start Up Time | Io=Full load, Vin=500VAC | 0.3 | 1 | 2 | S |
| * Ripple & Noise (Peak to Peak) | Full load, Vin=90VAC | | 0.5 | 1 | % |
| Safety Ground Leakage Current | Io=Full load, Vin=240VAC | | 0.4 | 0.75 | mA |
| Temperature Coefficient | All output | -0.04 | | 0.04 | %/°C |

* Note: The Ripple & Noise which is under 3.3VDC at 2% max

Conditions

| Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|---|-----------------|------|------|------|------|
| Operating Temperature | | -20 | 50 | 70 | °C |
| Storage Temperature | | -40 | | 85 | °C |
| Relative Humidity | | 5 | | 95 | % |
| Operating Temperature at 25°C, Calculated per MIL-HDBK-217F | | 0.1M | | | Hrs |
| De-rate linearly from 100% load at 50°C to 50% load at 70°C | | | | | |

Approvals and Compliances

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

Mechanical and PIN Out

PIN CHART

| MODEL | PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 (Optional) |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------|
| SIUA120-SXX-13PIN | OUT | OUT | OUT | OUT | OUT | OUT | RTN | RTN | RTN | RTN | RTN | RTN | RTN | PFD |
| SIUA120-D19-13PIN | N/C | N/C | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | COM | Vo3 | COM | COM | PFD |
| SIUA120-D15-13PIN | N/C | N/C | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | COM | Vo3 | COM | COM | PFD |
| SIUA120-DXX-13PIN | Vo2 | Vo2 | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | N/C | COM | COM | COM | PFD |
| SIUA120-TXX-13PIN | Vo2 | Vo2 | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | Vo3 | COM | COM | COM | PFD |

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

Note:

- Dimensions are shown in mm.
- Weight: 476~582gs approx.
- Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal.
- Output connector mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal.

