



**Features:**

- Universal AC input / Full range
- Refer to medical safety EN60601-1(2XMOPP)
- Protections: Short circuit /Over load /Over voltage
- Cooling by free air convection
- 3" x 2" compact size
- LED indicator for power on
- No load power consumption <0.1W
- Operating altitude up to 4000 meters
- 3 years warranty

**Specification**

| MODEL       |                         | SOH-65-5  | SOH-65-12  | SOH-65-15  | SOH-65-24  | SOH-65-36  | SOH-65-48  |
|-------------|-------------------------|---|------------|------------|------------|------------|------------|
| INPUT       | VOLTAGE RANGE           | 80 ~ 264VAC(refer to 'static characteristic')   |            |            |            |            |            |
|             | FREQUENCY RANGE         | 47~63Hz   |            |            |            |            |            |
|             | EFFICIENCY(Typ.)        | 84%   | 88%        | 89%        | 90%        | 90%        | 90%        |
|             | AC CURRENT(Typ.)        | 1.5A / 115VAC 1A / 230VAC   |            |            |            |            |            |
|             | INRUSH CURRENT(Typ.)    | 30A/115VAC 60A/230VAC (cold start)  |            |            |            |            |            |
|             | LEAKAGE CURRENT(max.)   | Touch current< 100µA/240VAC   |            |            |            |            |            |
| OUTPUT      | DC VOLTAGE              | 5V  | 12V        | 15V        | 24V        | 36V        | 48V        |
|             | RATED CURRENT           | 10A   | 5.42A      | 4.34A      | 2.71A      | 1.8A       | 1.36A      |
|             | CURRENT RANGE           | 0~11A   | 0~5.96A    | 0~4.77A    | 0~2.98A    | 0~1.8A     | 0~1.49A    |
|             | RATED POWER             | 50W   | 65W        | 65.1W      | 65W        | 64.8W      | 65.3W      |
|             | PEAK LOAD(10sec.)       | 55W   | 71.5W      | 71.6W      | 71.5W      | 71.5W      | 71.5W      |
|             | RIPPLE & NOISE (max.)   | 80mVp-p   | 100mVp-p   | 100mVp-p   | 120mVp-p   | 120mVp-p   | 120mVp-p   |
|             | VOLTAGE ADJ.RANGE       | 4.7-5.5V  | 11.4-13.2V | 13.5-16.5V | 22.8-27.6V | 32.4-39.6V | 45.6-52.8V |
|             | VOLTAGE TOLERANCE       | ±2%   | ±2%        | ±2%        | ±1%        | ±1%        | ±1%        |
|             | LINE REGULATION         | ±0.5%   | ±0.5%      | ±0.5%      | ±0.5%      | ±0.5%      | ±0.5%      |
|             | LOAD REGULATION         | ±2%   | ±1%        | ±1%        | ±1%        | ±1%        | ±1%        |
|             | SETUP, RISE TIME        | 500ms, 30ms / 230VAC 500ms, 30ms / 115VAC at full load  |            |            |            |            |            |
|             | HOLD UP TIME (Typ.)     | 30ms / 230VAC 12ms / 115VAC at full load  |            |            |            |            |            |
| PROTECTION  | OVER LOAD               | 115 ~ 150% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |            |            |            |            |            |
|             | OVER VOLTAGE            | 5.7-6.8V  | 13.8-16.2V | 17.2-20.3V | 28.4-32.4V | 39.7-46.8V | 55.2-64.8V |
|             |                         | Protection type: Shunt down, recovers after repower on  |            |            |            |            |            |
| ENVIRONMENT | WORKING TEMP.           | -20 ~ +70°C (Refer to "Derating Curve")   |            |            |            |            |            |
|             | WORKING HUMIDITY        | -20% ~ 90% RH non-condensing  |            |            |            |            |            |
|             | STORAGE TEMP., HUMIDITY | -40 ~ +85°C , 10 ~ 95% RH non-condensing  |            |            |            |            |            |
|             | TEMP. COEFFICIENT       | ±0.03% /°C(0 ~ 50°C)  |            |            |            |            |            |
|             | VIBRATION               | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes   |            |            |            |            |            |
|             | OPERATING ALTITUDE      | 4000 meters   |            |            |            |            |            |

|  |  |   |  |   |
|--|--|---|--|---|
| Safety and electromagnetic compatibility | Safety standards   | Refer to UL62368-1,TUV EN62368-1,CCC GB4943.1,EN60601-1(2XMOPP) |  |   |
|  | Withstand voltage and isolation resistance   | I/P-O/P: 4KVac; 100MΩ / 500Vdc / 25°C / 70%RH                   |  |   |
|  | Electromagnetic  | Parameter   | Standard   | Test Level / Note   |
|  |  | Conducted emission  | BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1 | Class B   |
|  |  | Radiated emission   | BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1 | Class B   |
|  |  | Harmonic current  | BS EN/EN61000-3-2,GB17625.1                            | Class A   |
|  |  | Voltage flicker   | BS EN/EN61000-3-3                                      | ----  |
|  |  | BS EN/EN55035   |  |   |
|  |  | Parameter   | Standard   | Test Level /Note  |
|  |  | ESD   | BS EN/EN61000-4-2                                      | Level 4, 8KV air, Level 2, 4KV contact, criteria A                        |
| Electromagnetic compatibility immunity   |  | RF field susceptibility   | BS EN/EN61000-4-3                                      | Level 3, criteria A   |
|  |  | EFT bursts  | BS EN/EN61000-4-4                                      | Level 3, criteria A   |
|  |  | Surge susceptibility  | BS EN/EN61000-4-5                                      | Level 3, 1KV/L-N, criteria A  |
|  |  | Conducted susceptibility  | BS EN/EN61000-4-6                                      | Level 3, criteria A   |
|  |  | Magnetic field immunity   | BS EN/EN61000-4-8                                      | Level 4, criteria A   |
|  |  | Voltage dips and interruptions                                  | BS EN/EN61000-4-11                                     | >95% dip 0.5 periods, 30% dip 25 periods , >95% interruptions 250 periods |
| OTHERS                                   | MTBF   | ≥650Khrs MIL-HDBK-217F(25°C)                                    |  |   |
|  | DIMENSION  | PCB: 76.2*50.8*24mm(L*W*H)                                      |  |   |
|  | PACKING  | 0.09Kg; 108pcs/10.7Kg/ 1CUFT                                    |  |   |
| NOTE                                     | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12” twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor.</p> <p>3. Tolerance: includes set up tolerance, line regulation and load regulation.</p> <p>4. Line regulation is measured from low line to high line at rated load.</p> <p>5. Load regulation is measured from 0% to 100% rated load</p> <p>6. Length of set up time is measured at cold first start, Turning ON/OFF the power supply very quickly may lead to increase of the set up time.</p> <p>7. The ambient temperature derating of 5°C/1000m is needed for operating altitude great than 2000m(6500ft).</p> <p>8. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives.</p> <p>9. Peak load 33% duty cycle maximum within every 30 seconds. Average output power should not be exceed the rated power.</p> |   |  |   |

**Mechanical specification**

**Top View**

**Front View**

NOTE:  
Unit: mm  
SVR1: Output adjustable resistor  
TOL: ±1.00

AC Input Connector (CN1) : JST B3P-VH or equivalent

| Pin No. | Assignment | Mating Housing        | Termina                        |
|---------|------------|-----------------------|--------------------------------|
| 1       | AC/N       | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 2       | No Pin     |                       |                                |
| 3       | AC/L       |                       |                                |

DC Output Connector (CN2) : JST B4P-VH or equivalent

| Pin No. | Assignment | Mating Housing        | Termina                        |
|---------|------------|-----------------------|--------------------------------|
| 1-2     | +V         | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 3-4     | -V         |                       |                                |

**Block diagram**

