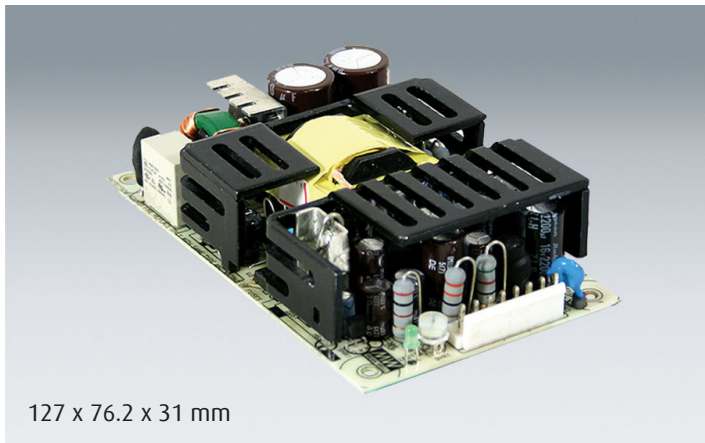


# RPT-75 Series

72W Reliable Triple Output Medical Grade Power Supply



127 x 76.2 x 31 mm

## Features

- 5" X 3" compact size
- Medical Safety approved (2x MOPP)  
According to ANSI/AAMI ES60601-1 and IEC/EN60601-1
- Suitable for BF application with appropriate system consideration
- 72W convection, 100W force air
- EMI Class B for Class I configuration
- Extremely low leakage current
- Protections: Short circuit / Overload / Over voltage
- Lifetime >140K hours
- 3 years warranty



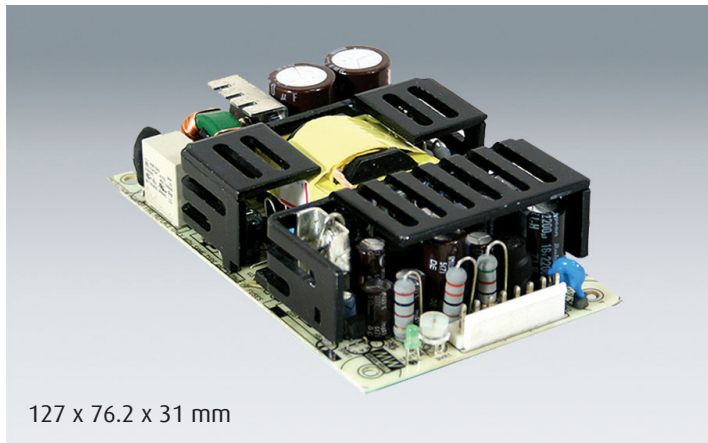
## Specification

|                    |  |  |          |                 |                                 |          |         |         |          |         |
|--------------------|--|--|----------|-----------------|---------------------------------|----------|---------|---------|----------|---------|
| INPUT              | Voltage  | 90 ~ 264VAC  |          | 127VDC ~ 370VDC |                                 |          |         |         |          |         |
|                    | Frequency  | 47 ~ 63 Hz   |          |                 |                                 |          |         |         |          |         |
|                    | AC Current   | 1.5A/115VAC  |          | 1A/230VAC       |                                 |          |         |         |          |         |
|                    | Inrush Current (Typ.)  | Cold start 25A/115VAC  |          | 50A/230VAC      |                                 |          |         |         |          |         |
|                    | Leakage Current  | Earth leakage current <150 µA/264VAC, Touch current <100 µA/264VAC   |          |                 |                                 |          |         |         |          |         |
| OUTPUT             | MODEL No.  | RPT-75A  |          |                 | RPT-75B                         |          |         | RPT-75C |          |         |
|                    | Output Number  | CH1  | CH2      | CH3             | CH1                             | CH2      | CH3     | CH1     | CH2      | CH3     |
|                    | Voltage  | 5V   | 12V      | -5V             | 5V                              | 12V      | -12V    | 5V      | 15V      | -15V    |
|                    | Rated Current  | 6A   | 3A       | 0.5A            | 6A                              | 3A       | 0.5A    | 6A      | 2.3A     | 0.5A    |
|                    | Current Range  | 0.6~8A   | 0.2~4A   | 0.1~1A          | 0.6~8A                          | 0.2~4A   | 0.1~1A  | 0.6~8A  | 0.1~3A   | 0.1~1A  |
|                    | Rated Power  | 68.5W  | 68.5W    | 68.5W           | 72W                             | 72W      | 72W     | 72W     | 72W      | 72W     |
|                    | Peak Load (10 sec.)  | 93W  | 93W      | 93W             | 100W                            | 100W     | 100W    | 100W    | 100W     | 100W    |
|                    | R&N  | 80mVp-p  | 120mVp-p | 80mVp-p         | 80mVp-p                         | 120mVp-p | 80mVp-p | 80mVp-p | 120mVp-p | 80mVp-p |
|                    | Voltage Adjustment Range   | CH1: 4.75 ~ 5.5V   |          |                 |                                 |          |         |         |          |         |
|                    | Efficiency   | 76%  | 76%      | 76%             | 77%                             | 77%      | 77%     | 77%     | 77%      | 77%     |
|                    | Voltage Tolerance  | ±2.0%  | ±6.0%    | ±5.0%           | ±2.0%                           | ±6.0%    | ±5.0%   | ±2.0%   | ±8.0%    | ±5.0%   |
|                    | Line Regulation  | ±0.5%  | ±1.0%    | ±1.0%           | ±0.5%                           | ±1.0%    | ±1.0%   | ±0.5%   | ±1.0%    | ±1.0%   |
|                    | Load Regulation  | ±1.5%  | ±3.0%    | ±1.0%           | ±1.5%                           | ±3.0%    | ±1.0%   | ±1.5%   | ±3.0%    | ±1.0%   |
|                    | Setup Rise Time  | 500ms, 30ms/230VAC   |          |                 | 500ms, 30ms/115VAC at full load |          |         |         |          |         |
|                    | Hold Up Time   | 500ms, 30ms/230VAC   |          |                 | 500ms, 30ms/115VAC at full load |          |         |         |          |         |
| PROTECTION         | Over Load  | 140 ~ 180% rated output power<br>Protection Type: Hiccup mode, recovers automatically after fault condition is removed       |          |                 |                                 |          |         |         |          |         |
|                    | Over Voltage   | CH1: 5.7~6.8V<br>Protection type: Shut down o/p voltage, re-power on to recover  |          |                 |                                 |          |         |         |          |         |
| ENVIRONMENT        | Working Temperature  | -20 ~ +70 °C (Refer to "Derating Curve" section)   |          |                 |                                 |          |         |         |          |         |
|                    | Working Humidity   | 20 ~ 90% RH non-condensing   |          |                 |                                 |          |         |         |          |         |
|                    | Storage Temperature  | -40 ~ +85 °C, 10 ~ 95% RH non-condensing   |          |                 |                                 |          |         |         |          |         |
|                    | Temp Coefficient   | ±0.03%/°C (0 ~ 45°C)   |          |                 |                                 |          |         |         |          |         |
|                    | Vibration  | 10 ~ 500Hz, 2G 10 min./1cycle, period for 60 min. each along X, Y, Z axes  |          |                 |                                 |          |         |         |          |         |
| Operating Altitude | 3000 Metres  |  |          |                 |                                 |          |         |         |          |         |
| SAFETY & EMC       | Safety Standards   | IEC60601-1, UL ANSI/AAMI ES60601-1, CAN/CSA-C22.2 No. 60601-1:14 - Edition 3 approved, EAC TP TC 004, TUV EN60601-1 approved |          |                 |                                 |          |         |         |          |         |
|                    | Isolation Level  | Primary-Secondary:2xMOPP, Primary-Earth:1xMOPP   |          |                 |                                 |          |         |         |          |         |
|                    | Withstand Voltage  | I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC  |          |                 |                                 |          |         |         |          |         |
|                    | Isolation Resistance   | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH  |          |                 |                                 |          |         |         |          |         |
|                    | EMC Emission   | Compliance to EN55011 (CISPR11) Class B, EN61000-3-2 Class A   |          |                 |                                 |          |         |         |          |         |
| EMC Immunity       | Compliance to EN60601-1-2, EN61000-4-2,3,4,5,6,8,11, Level 4, 15KV air: Level 4, 8KV contact; Line to Earth 4KV, Line to Line 2KV) |  |          |                 |                                 |          |         |         |          |         |
| OTHERS             | M.T.B.F.   | 521.2K hrs min. MIL-HDBK-217F (25°C)   |          |                 |                                 |          |         |         |          |         |
|                    | Packing  | 0.25Kg; 63pcs/17.3Kg/1.46CUFT  |          |                 |                                 |          |         |         |          |         |

1. All parameters NOT specially mentioned are measured at 347VAC input, rated load and 25°C of ambient temperature.
2. Ripple and Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with 0.1µf & 47µf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. Touch Current was measured from primary input to DC output.
5. The ambient temperature of 5°C/1000m is needed for operating altitude greater than 3000m (6500ft).
6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to the increase of the set up time.
7. Heatsink HS1, HS2 & HS3 can not be shorted.
8. The power supply is considered as a component that will be operated in combination with final equipment. All the EMC test have been executed by mounting the unit on a 360mm\*360mm metal plate with 1mm thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to 'EMI testing of component power supplies'

# RPT-75 Series

72W Reliable Triple Output Medical Grade Power Supply



127 x 76.2 x 31 mm

## Features

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- Medical Safety approved (2x MOPP)  
According to ANSI/AAMI ES60601-1 and IEC/EN60601-1
- Suitable for BF application with appropriate system consideration
- 72W convection, 100W force air
- EMI Class B for Class I configuration
- Extremely low leakage current
- Protections: Short circuit / Overload / Over voltage
- Lifetime >140K hours
- 3 years warranty



## Specification

|              |                          |  |  |   |          |          |          |
|--------------|--------------------------|--|--|---|----------|----------|----------|
| INPUT        | Voltage                  | 90 ~ 264VAC  |  | 127VDC ~ 370VDC   |          |          |          |
|              | Frequency                | 47 ~ 63 Hz   |  |   |          |          |          |
|              | AC Current               | 1.5A/115VAC  |  | 1A/230VAC   |          |          |          |
|              | Inrush Current (Typ.)    | Cold start 25A/115VAC  |  | 50A/230VAC  |          |          |          |
|              | Leakage Current          | Earth leakage current <150 µA/264VAC, Touch current <100 µA/264VAC   |  |   |          |          |          |
| MODEL No.    |                          | RPT-75D  |  |   | RPT-7503 |          |          |
| OUTPUT       | Output Number            | CH1  | CH2  | CH3   | CH1      | CH2      | CH3      |
|              | Voltage                  | 5V   | 24V  | 12V   | 3.3V     | 5V       | 12V      |
|              | Rated Current            | 5A   | 1.5A   | 1A  | 6A       | 6A       | 1A       |
|              | Current Range            | 0.6~7A   | 0.1~2A   | 0.1~1A  | 0.7~7A   | 0~8A     | 0~1.5A   |
|              | Rated Power              | 73W  | 73W  | 73W   | 61.8W    | 61.8W    | 61.8W    |
|              | Peak Load (23.5CFM)      | 95W  | 95W  | 95W   | 81.1W    | 81.1W    | 81.1W    |
|              | R&N                      | 80mVp-p  | 200mVp-p   | 120mVp-p  | 80mVp-p  | 120mVp-p | 120mVp-p |
|              | Voltage Adjustment Range | CH1: 4.75 ~ 5.5V   |  |   |          |          |          |
|              | Efficiency               | 79%  | 79%  | 79%   | 74%      | 74%      | 74%      |
|              | Voltage Tolerance        | ±2.0%  | ±8.0%  | ±8.0%   | ±4.0%    | ±6.0%    | +10, -6% |
|              | Line Regulation          | ±0.5%  | ±1.0%  | ±1.0%   | ±1.0%    | ±1.0%    | ±1.5%    |
|              | Load Regulation          | ±1.5%  | ±3.0%  | ±3.0%   | +3, -4%  | +5, -4%  | ±6.0%    |
|              | Setup Rise Time          | 500ms, 30ms/230VAC 500ms, 30ms/115VAC at full load   |  |   |          |          |          |
|              | Hold Up Time             | 90ms/230VAC 20ms/115VAC at full load   |  |   |          |          |          |
|              | PROTECTION               | Over Load  | 140 ~ 180% rated output power<br>Protection Type: Hiccup mode, recovers automatically after fault condition is removed |   |          |          |          |
| Over Voltage |                          | CH1: 5.7~6.8V  |  | CH1: 3.8~4.5V<br>Protection type: Shut down o/p voltage, re-power on to recover |          |          |          |
| ENVIRONMENT  | Working Temperature      | -20 ~ +70 °C (Refer to "Derating Curve" section)   |  |   |          |          |          |
|              | Working Humidity         | 20 ~ 90% RH non-condensing   |  |   |          |          |          |
|              | Storage Temperature      | -40 ~ +85 °C, 10 ~ 95% RH non-condensing   |  |   |          |          |          |
|              | Temp Coefficient         | ±0.03%/°C (0 ~ 45°C)   |  |   |          |          |          |
|              | Vibration                | 10 ~ 500Hz, 2G 10 min./1cycle, period for 60 min. each along X, Y, Z axes  |  |   |          |          |          |
|              | Operating Altitude       | 3000 Metres  |  |   |          |          |          |
| SAFETY & EMC | Safety Standards         | IEC60601-1, UL ANSI/AAMI ES60601-1, CAN/CSA-C22.2 No. 60601-1:14 - Edition 3 approved, EAC TP TC 004, TUV EN60601-1 approved       |  |   |          |          |          |
|              | Isolation Level          | Primary-Secondary:2xMOPP, Primary-Earth:1xMOPP   |  |   |          |          |          |
|              | Withstand Voltage        | I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC  |  |   |          |          |          |
|              | Isolation Resistance     | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH  |  |   |          |          |          |
|              | EMC Emission             | Compliance to EN55011 (CISPR11) Class B, EN61000-3-2 Class A   |  |   |          |          |          |
| OTHERS       | EMC Immunity             | Compliance to EN60601-1-2, EN61000-4-2,3,4,5,6,8,11, Level 4, 15KV air: Level 4, 8KV contact; Line to Earth 4KV, Line to Line 2KV) |  |   |          |          |          |
|              | M.T.B.F.                 | 521.2K hrs min. MIL-HDBK-217F (25°C)   |  |   |          |          |          |
|              | Packing                  | 0.25Kg; 63pcs/17.3Kg/1.46CUFT  |  |   |          |          |          |

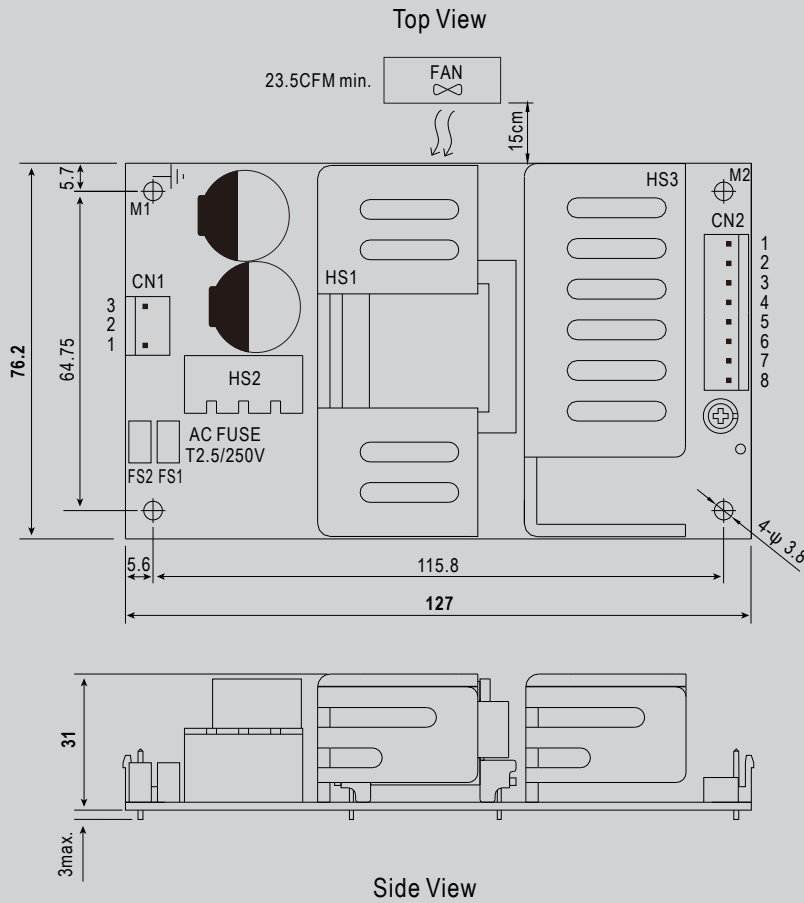
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5. Tolerance: includes set up tolerance, line regulation and load regulation.
6. Touch Current was measured from primary input to DC output.
7. The ambient temperature of 5°C/1000m is needed for operating altitude greater than 3000m (6500ft).
8. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to the increase of the set up time.
9. Heatsink H51, H52 & H53 can not be shorted.
10. The power supply is considered as a component that will be operated in combination with final equipment. All the EMC test have been executed by mounting the unit on a 360mm\*360mm metal plate with 1mm thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to 'EMI testing of component power supplies'

# RPT-75 Series

72W Reliable Triple Output Medical Grade Power Supply



## Mechanical Diagram



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

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

DC Output Connector (CN2) : JST B8P-VH or equivalent

| Pin No. | Assignment | Mating Housing           | Terminal                          |
|---------|------------|--------------------------|-----------------------------------|
| 1,2     | V1         | JST VHR<br>or equivalent | JST SVH-21T-P1.1<br>or equivalent |
| 3,4,5   | COM        |                          |                                   |
| 6,7     | V2         |                          |                                   |
| 8       | V3         |                          |                                   |

⊕ : Grounding Required

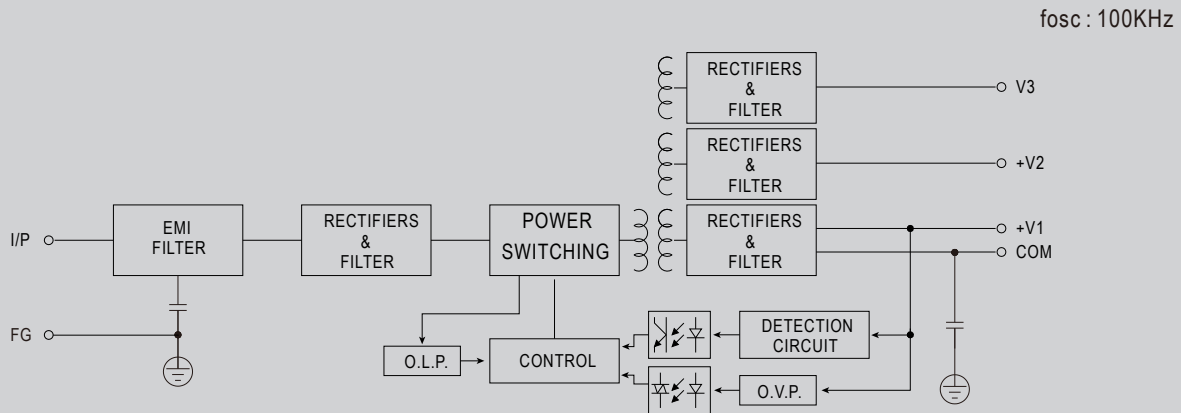
- ⚠ 1.HS1,HS2,HS3 cannot be shorted.  
2.M1 is safety ground. For better EMC performance,Please secure an electrical connection between M1,M2 and chassis grounding.

# RPT-75 Series

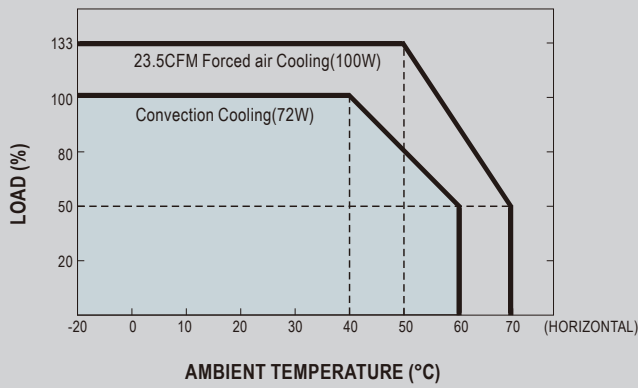
72W Reliable Triple Output Medical Grade Power Supply



## Block Diagram



## Derating Curve



## Output Derating vs Input Voltage

