

# PSS30/5/6



**connectwell**  
THE RIGHT CONNECTION

## PSS30/5/6,30W Single Phase Din Rail Mountable Switching Power Supplies

- Full Range Input selection from 85 to 264VAC
- Typical efficiency of 79%
- Compact design with a width of only 40.5mm
- Two years product warranty

### GENERAL SPECIFICATION

|  |  |
|--|--|
| Switching Frequency (typ.)                         | 80-135 KHz                                   |
| Min. Isolation Voltage -AC (Input-FG)              | 1500 VAC                                     |
| Min. Isolation Voltage -AC (Input-Output)          | 3000 VAC                                     |
| Min. Isolation Voltage -DC (Input-FG)              | 2121 VDC                                     |
| Min. Isolation Voltage -DC (Input-Output)          | 4242 VDC                                     |
| Isolation Resistance (Input-Output @500VDC)        | 100 MΩ                                       |
| Ambient Temperature Range (Operational at Vi norm) | -40 to +71 deg.C                             |
| Derating from +61°C to +71°C (see derating curve)  | 2.5%/ °C                                     |
| Ambient Temperature Range (Storage)                | -40 to +85 deg.C                             |
| Relative Humidity Range                            | 20 to 95 %RH                                 |
| Temperature Coefficient Range                      | +/- 0.03 % per deg. C                        |
| MTBF (Bellcore Issue 6 @40°C, GB)                  | 551000 hr                                    |
| Altitude During Operation (IEC 60068-2-13)         | 4850 m                                       |
| Dimension  | Spring Terminal Type , L90 X W40.5 X D114 mm |
| Cooling  | Free Air Convection                          |
| Pollution Degree                                   | 2  |

### ORDERING INFORMATION

|                      |              |
|----------------------|--------------|
| Cat. No.             | PSS30/5/6    |
| Output Voltage       | 5 VDC        |
| Output Current       | 6000 mA      |
| Output Wattage       | 30 W         |
| Efficiency (min.)    | 77%          |
| Efficiency (typ.)    | 79%          |
| Input Voltage Range  | 85 - 264 VAC |
| Standard Packing Qty | 1            |

### PHYSICAL SPECIFICATIONS

|                        |                                      |
|------------------------|--------------------------------------|
| Dimensions (H x W x D) | 90 X 40.5 X 114 mm                   |
| Weight                 | 270 G                                |
| Case Material          | Plastic                              |
| Packing                | 0.35 kg ; 40 pcs / 15 kg / 2.16 CUFT |

### APPROVALS



### ACCESSORIES

| IMAGES | CAT. NO.      | DESCRIPTION  | STD. PACK |
|--------|---------------|--|-----------|
|        | CA501-1M      | Din 32 Rail unslotted 1 meter  | 50        |
|        | CA501-1M-S    | Din 32 Rail slotted 1 meter  | 50        |
|        | CA501-2M      | Din 32 Rail unslotted 2 meter  | 50        |
|        | CA501-2M-S    | Din 32 Rail slotted 2 meter  | 50        |
|        | CA701-1M      | Din 35 Rail unslotted 1 meter  | 50        |
|        | CA701-2M      | Din 35 Rail unslotted 2 meter  | 50        |
|        | CA701-2M-S    | Din 35 Rail slotted 2 meter  | 50        |
|        | CA701-1M-S    | Din 35 Rail slotted 1 meter  | 50        |
|        | CA701-15-1M   | Din 35 Rail 15 deep unslotted 1 meter                                    | 50        |
|        | CA701-15-1M-S | Din 35 Rail 15 deep slotted 1 meter                                      | 50        |
|        | CA701-15-2M   | Din 35 Rail 15 deep unslotted 2 meter                                    | 50        |
|        | CA701-15-2M-S | Din 35 Rail 15 deep slotted 2 meter                                      | 50        |
|        | CA202         | End Clamp in Polyamide suitable for Din 35 / Din 35-15 Rails             | 25        |
|        | CA702         | End Clamp in Polyamide 66 suitable for Din 32 / Din 35 / Din 35-15 Rails | 50        |
|        | SCS0.5/3      | Electricians Screwdriver for slotted screws                              | 10        |

### STANDARD USED FOR TESTING

|                      |  |
|----------------------|--|
| UL/cUL               | UL 508 Listed UL 60950-1, UL 1310 Class 2 Power (only 5V w/o Class 2) Recognized ISA 12.12.01(Class I, Division 2, Groups A, B, C and D)   |
| TUV                  | EN 60950-1, CB scheme , EN 61558-1, EN 61558-2-17 (meet EN 60204)  |
| CE                   | EN 61000-6-3, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3 E N 61000-6-2, EN 55024, EN 61000-4-2 Level 4, EN 61000-4-3 Level 3 EN 61000-4-4 Level 4, EN 61000-4-5 L-N Level 3, L / N-FG Level 4 EN 61000-4-6 Level 3, EN 61000-4-8 |
| CCC                  | GB4943, GB9254, GB17625.1  |
| Vibration Resistance | meet IEC 60068-2-6 (Mounting by rail : 10-500 Hz, 2G, along X, Y, Z each Axis, 60 min for each Axis )  |
| Shock Resistance     | meet IEC 60068-2-27 (15G, 11ms, 3 Axis, 6 Faces, 3 times for each Face)  |

### INPUT SPECIFICATIONS

|             |        |
|-------------|--------|
| Input Phase | Single |
|-------------|--------|

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## INPUT SPECIFICATIONS

|  |           |
|--|-----------|
| AC Input Voltage Range                   | 85 to 264 |
| DC Input Voltage Range                   | 90 to 375 |
| Rated Max. Input Voltage                 | 240 VAC   |
| Rated Min. Input Voltage                 | 100 VAC   |
| Line Frequency-Max.                      | 63 Hz     |
| Line Frequency-Min.                      | 47 Hz     |
| Max. Inrush Current (Vi: 115 VAC)        | 20 A      |
| Max. Inrush Current (Vi: 230 VAC)        | 40 A      |
| Rated Input Current -Typ. (Vi : 115 VAC) | 560 mA    |
| Rated Input Current -Typ. (Vi : 230 VAC) | 330 mA    |
| Rated Input Current -Max. (Vi : 115 VAC) | 800 mA    |
| Power Dissipation (Vi: 230 VAC, Io norm) | 8.5 W     |
| Leakage Current (Input-Output)           | 0.25 mA   |

## OUTPUT SPECIFICATIONS

|  |                         |
|--|-------------------------|
| Output Voltage                                     | 5 VDC                   |
| Output Current                                     | 6000 mA                 |
| Output Voltage Accuracy (Adjusted before shipment) | 0 to +1 %               |
| Minimum Load                                       | 0 %                     |
| Line Regulation                                    | +/- 0.5 %               |
| Load Regulation                                    | +/- 0.5 %               |
| Output Voltage Trim Range                          | 5 to 5.5 VDC            |
| Rated Continuous Loading                           | 6A @5Vdc / 5.4A @5.5Vdc |
| Hold Up Time ( Vi: 115VAC)                         | 20 msec                 |
| Hold Up Time ( Vi: 230VAC)                         | 30 msec                 |
| Turn On Time                                       | 1000 ms                 |
| Turn On Time With 3500 µF                          | 2000 msec               |
| Rise Time  | 150 ms                  |
| Rise Time With 3500 µF                             | 500 ms                  |
| Fall Time  | 150 msec                |
| Transient Recovery Time                            | 2 ms                    |
| Ripple and Noise (BW = 20MHz)                      | 50 mV                   |
| Power Back Immunity                                | 7.5 VDC                 |
| Capacitor Load                                     | 3500 µF                 |
| DC ON Indicator Threshold at start up (Green LED)  | 3.5 to 4.5 VDC          |
| Efficiency   | 86%                     |

## CONTROL AND PROTECTION SPECIFICATIONS

|   |                       |
|---|-----------------------|
| Input fuse                                      | T2A / 250VAC internal |
| Internal surge voltage protection: IEC61000-4-5 | Varistor              |
| Rated over load protection                      | 110 to 140 %          |
| Over voltage protection                         | 6.0 to 6.8 VDC        |
| Output short circuit                            | Fold Forward          |

## CONTROL AND PROTECTION SPECIFICATIONS

|                      |      |
|----------------------|------|
| Degree of protection | IP20 |
|----------------------|------|

## PIN CONFIGURATION

| PIN NO | POSITION | DESIGNATION | DESCRIPTION  |
|--------|----------|-------------|--|
| 1      | OUT      | RDY         | DC OK output for relay (not connect except 24V model)        |
| 2      | OUT      | +           | Positive output terminal                                     |
| 3      | OUT      | +           | Positive output terminal                                     |
| 4      | OUT      | -           | Negative output terminal                                     |
| 5      | OUT      | -           | Negative output terminal                                     |
| 6      | IN       | Ground      | Ground this terminal to minimize high frequency emissions    |
| 7      | IN       | N           | Input terminals (neutral conductor, no polarity at DC input) |
| 8      | IN       | L           | Input terminals (phase conductor, no polarity at DC input)   |
|        | OTHER    | Vout ADJ.   | Trimmer-potentiometer for Vout adjustment                    |
|        | OTHER    | DC ON       | Operation indicator LED                                      |

## CONNECTION DETAILS

Spring terminal: 2 AWG24-14 (0.2~2mm<sup>2</sup>) flexible / solid cable, 10 m/m stripping at cable end recommends. Use copper conductors only, 60 / 75 C

## INSTALLATION DETAILS

Cooling Normal convection. All sides 25mm free space. For cooling recommended connector size range spring terminal : AWG24-14 (0.2-2 sq.mm) flexible/solid cable, 10m/m stripping at cable end recommends. Use Cu conductors only, 60/75 deg.C