

**JWS 600**

**SPECIFICATIONS**

A162-01-01D

| ITEMS |                                      | MODEL     | JWS600<br>-2  | JWS600<br>-3 | JWS600<br>-5 | JWS600<br>-12 | JWS600<br>-15 | JWS600<br>-24 | JWS600<br>-48 |     |
|-------|--------------------------------------|-----------|---|--------------|--------------|---------------|---------------|---------------|---------------|-----|
| 1     | Nominal Output Voltage               | V         | 2   | 3.3          | 5            | 12            | 15            | 24            | 48            |     |
| 2     | Maximum Output Current               | A         | 120   | 120          | 120          | 53            | 43            | 27            | 13            |     |
| 3     | Maximum Output Power                 | W         | 240   | 396          | 600          | 636           | 645           | 648           | 624           |     |
| 4     | Efficiency (Typ) (*1)                | %         | 61  | 70           | 75           | 80            | 81            | 82            | 83            |     |
| 5     | Input Voltage Range (*2)             | -         | 85 - 265VAC (47-63Hz) or 120 - 330VDC   |              |              |               |               |               |               |     |
| 6     | Input Current (100/200VAC)(Typ) (*1) | A         | 4.0/2.0   | 5.8/2.9      | 8.2/4.1      |               |               |               |               |     |
| 7     | Inrush Current(Typ) (*3)             | -         | 20A at 100VAC, 40A at 200VAC  |              |              |               |               |               |               |     |
| 8     | PFHC                                 | -         | Designed to meet EN61000-3-2  |              |              |               |               |               |               |     |
| 9     | Power Factor (100/200VAC)(Typ) (*1)  | -         | 0.99/0.95   |              |              |               |               |               |               |     |
| 10    | Output Voltage Range                 | V         | 1.80-2.40   | 2.97-3.96    | 4.50-6.00    | 10.8-14.4     | 13.5-18.0     | 21.6-28.8     | 43.2-52.8     |     |
| 11    | Maximum Ripple & Noise (*4)          | 0 - +65°C | mV  | 120          | 120          | 120           | 150           | 150           | 150           | 350 |
|       |                                      | -10 - 0°C | mV  | 180          | 180          | 180           | 200           | 200           | 200           | 400 |
| 12    | Maximum Line Regulation (*5)         | mV        | 20  | 20           | 20           | 48            | 60            | 96            | 192           |     |
| 13    | Maximum Load Regulation (*6)         | mV        | 30  | 30           | 30           | 72            | 90            | 144           | 288           |     |
| 14    | Temperature Coefficient              |           | Less than 0.02%/°C  |              |              |               |               |               |               |     |
| 15    | Over Current Protection (*7)         | A         | 126-  | 126-         | 126-         | 55.6-         | 45.2-         | 28.4-         | 13.7-         |     |
| 16    | Over Voltage Protection (*8)         | V         | 2.50-3.00   | 4.12-4.95    | 6.25-7.25    | 15.0-17.4     | 18.7-21.8     | 30.0-34.8     | 55.2-64.8     |     |
| 17    | Hold-up Time (Typ) (*9)              | -         | 20ms  |              |              |               |               |               |               |     |
| 18    | Leakage Current (*10)                | -         | 0.75mA MAX, 0.25mA(Typ) at 100VAC / 0.57mA(Typ) at 230VAC   |              |              |               |               |               |               |     |
| 19    | Remote Sensing                       | -         | Possible  |              |              |               |               |               |               |     |
| 20    | Remote ON/OFF control                | -         | Possible  |              |              |               |               |               |               |     |
| 21    | Monitoring Signal                    | -         | PF (Open Collector Output)  |              |              |               |               |               |               |     |
| 22    | Parallel Operation                   | -         | Possible  |              |              |               |               |               |               |     |
| 23    | Series Operation                     | -         | Possible  |              |              |               |               |               |               |     |
| 24    | Operating Temperature (*11)          | -         | -10 - +65 ( -10 - +50°C:100%, +60°C:70%,+65°C:55%)  |              |              |               |               |               |               |     |
| 25    | Operating Humidity                   | -         | 10 - 90%RH (No dewdrop)   |              |              |               |               |               |               |     |
| 26    | Storage Temperature                  | -         | -30 - +85°C   |              |              |               |               |               |               |     |
| 27    | Storage Humidity                     | -         | 10 - 95%RH (No dewdrop)   |              |              |               |               |               |               |     |
| 28    | Cooling                              | -         | Forced Air By Blower Fan  |              |              |               |               |               |               |     |
| 29    | Withstand Voltage                    | -         | Input - FG : 2kVAC (20mA), Input - Output : 3kVAC (20mA)<br>Output-FG : 500VAC (100mA), Output-CNT:100VAC (100mA) for 1min. |              |              |               |               |               |               |     |
| 30    | Isolation Resistance                 | -         | More than 100Mohm Output - FG... 500VDC<br>More than 10Mohm Output - CNT... 100VDC at 25°C and 70%RH                        |              |              |               |               |               |               |     |
| 31    | Vibration                            | -         | At no operating, 10-55Hz (Sweep for 1min.)<br>19.6m/s <sup>2</sup> Constant, X,Y,Z 1h each.                                 |              |              |               |               |               |               |     |
| 32    | Shock (In package)                   | -         | Less than 196.1m/s <sup>2</sup>   |              |              |               |               |               |               |     |
| 33    | Safety (*12)                         | -         | Approved by UL60950-1, CSA C22.2 No.60950 & EN60950-1.<br>Designed to meet DENAN.   |              |              |               |               |               |               |     |
| 34    | Conducted Emission                   | -         | Designed to meet EN55011/EN55022-B, FCC-ClassB, VCCI-ClassB.  |              |              |               |               |               |               |     |
| 35    | Radiated Emission                    | -         | Designed to meet EN55011/EN55022-B, FCC-ClassB, VCCI-ClassB.  |              |              |               |               |               |               |     |
| 36    | Weight(Typ.)                         | -         | 3000g   |              |              |               |               |               |               |     |
| 37    | Size (WxHxD)                         | mm        | 160 x 92 x 200 ( Refer to Outline Drawing )   |              |              |               |               |               |               |     |

\*Read instruction manual carefully, before using the power supply unit.

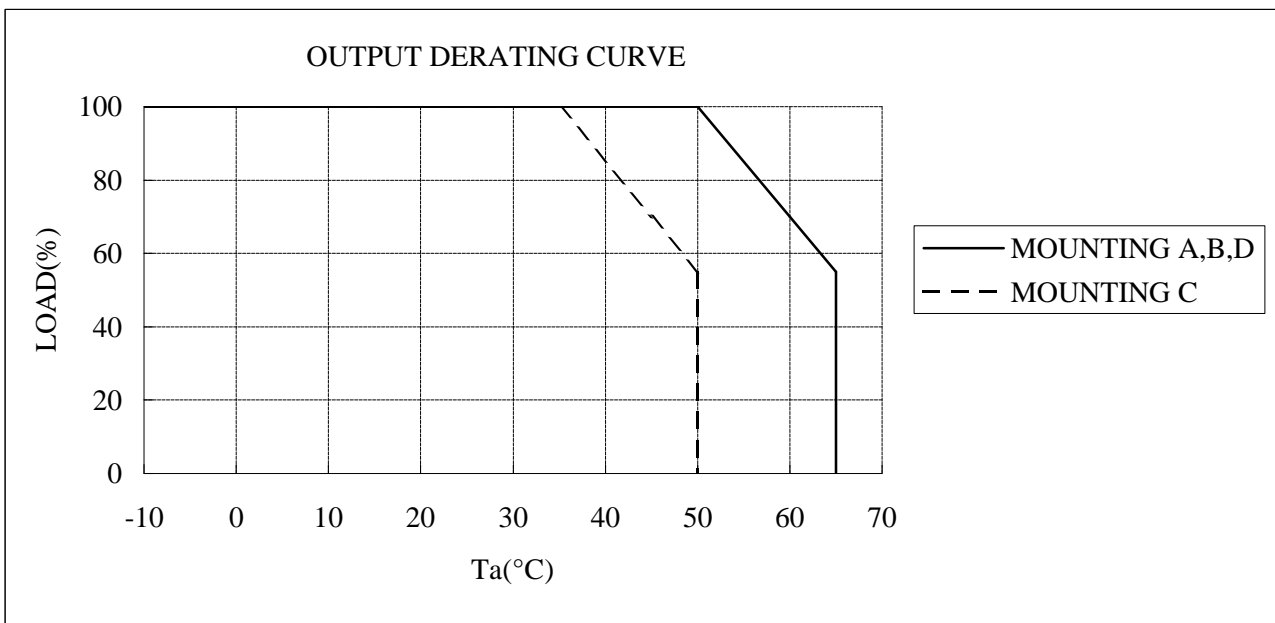
=NOTES=

- \*1. At 100/200VAC, Ta=25°C and maximum output power.
- \*2. For cases where conformance to various safety specs (UL, CSA, EN) are required, input voltage range will be 100-240VAC(50/60Hz).
- \*3. First in-rush current. Not applicable for the in-rush current to Noise Filter less than 0.2ms.
- \*4. Measure with JEITA RC-9131 probe, Bandwidth of scope :100MHz.
- \*5. 85 - 265VAC , constant load.
- \*6. No load-Full load, constant input voltage.
- \*7. Constant current limit with automatic recovery.
- \*8. OVP circuit will shut down output, manual reset (Line recycle).
- \*9. At 100/200VAC nominal output voltage and maximum output current.
- \*10. Measured by the each measuring method of UL,CSA,EN and DENAN (at 60Hz),Ta=25°C.
- \*11. Ratings - Derating at standard mounting.
  - Load (%) is percent of maximum output power or maximum output current, whichever is greater.
  - As for other mountings, refer to derating curve ( A162-01-02\_ ).
- \*12. As for DENAN, designed to meet at 100VAC.

**OUTPUT DERATING**

A162-01-02

| Ta(°C)   | LOAD(%)    |            |            |            |
|----------|------------|------------|------------|------------|
|          | MOUNTING A | MOUNTING B | MOUNTING C | MOUNTING D |
| -10 ~+35 | 100        | 100        | 100        | 100        |
| 45       | 100        | 100        | 70         | 100        |
| 50       | 100        | 100        | 55         | 100        |
| 60       | 70         | 70         | -          | 70         |
| 65       | 55         | 55         | -          | 55         |



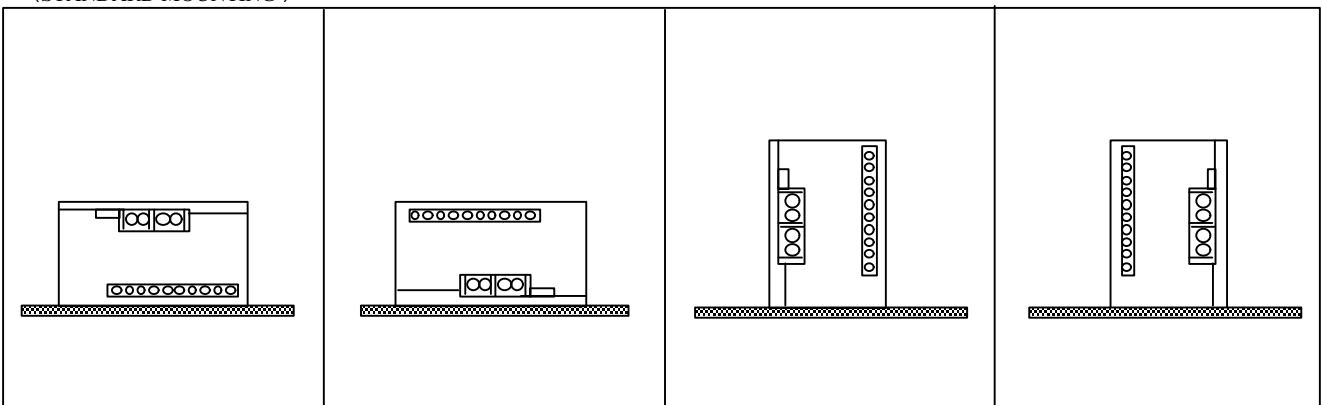
**MOUNTING A**

(STANDARD MOUNTING )

**MOUNTING B**

**MOUNTING C**

**MOUNTING D**



**JWS 600**

**SPECIFICATIONS**

A162-01-03C

| ITEMS |                                      | MODEL     | JWS600<br>-6  | JWS600<br>-8 | JWS600<br>-9 | JWS600<br>-28 |     |
|-------|--------------------------------------|-----------|---|--------------|--------------|---------------|-----|
| 1     | Nominal Output Voltage               | V         | 6   | 8            | 9            | 28            |     |
| 2     | Maximum Output Current               | A         | 100   | 68           | 68           | 23            |     |
| 3     | Maximum Output Power                 | W         | 600   | 544          | 612          | 644           |     |
| 4     | Efficiency (Typ) (*1)                | %         | 75  | 77           | 77           | 82            |     |
| 5     | Input Voltage Range (*2)             | -         | 85 - 265VAC (47 - 63Hz) or 120 - 330VDC   |              |              |               |     |
| 6     | Input Current (100/200VAC)(Typ) (*1) | A         | 8.2/4.1   |              |              |               |     |
| 7     | Inrush Current(Typ) (*3)             | -         | 20A at 100VAC, 40A at 200VAC  |              |              |               |     |
| 8     | PFHC                                 | -         | Designed to meet EN61000-3-2  |              |              |               |     |
| 9     | Power Factor (100/200VAC)(Typ) (*1)  | -         | 0.99/0.95   |              |              |               |     |
| 10    | Output Voltage Range                 | V         | 5.40 - 7.20   | 7.20 - 9.60  | 8.10 - 10.8  | 25.2 - 33.6   |     |
| 11    | Maximum Ripple & Noise (*4)          | 0 - +65°C | mV  | 120          | 150          | 150           | 150 |
|       |                                      | -10 - 0°C | mV  | 180          | 200          | 200           | 200 |
| 12    | Maximum Line Regulation (*5)         | mV        | 24  | 32           | 36           | 112           |     |
| 13    | Maximum Load Regulation (*6)         | mV        | 36  | 48           | 54           | 168           |     |
| 14    | Temperature Coefficient              | -         | Less than 0.02%/°C  |              |              |               |     |
| 15    | Over Current Protection (*7)         | A         | 105-  | 71.4-        | 71.4-        | 24.2-         |     |
| 16    | Over Voltage Protection (*8)         | V         | 7.50 - 8.70   | 10.0 - 11.6  | 11.2 - 13.1  | 35.0 - 40.6   |     |
| 17    | Hold-up Time (Typ) (*9)              | -         | 20ms  |              |              |               |     |
| 18    | Leakage Current (*10)                | -         | 0.75mA MAX, 0.25mA(Typ) at 100VAC / 0.57mA(Typ) at 230VAC   |              |              |               |     |
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| 31    | Vibration                            | -         | At no operating, 10 - 55Hz (Sweep for 1min.)<br>19.6m/s <sup>2</sup> Constant, X,Y,Z 1h each.                               |              |              |               |     |
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| 37    | Size (W x H x D)                     | mm        | 160 x 92 x 200 ( Refer to Outline Drawing )   |              |              |               |     |

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