

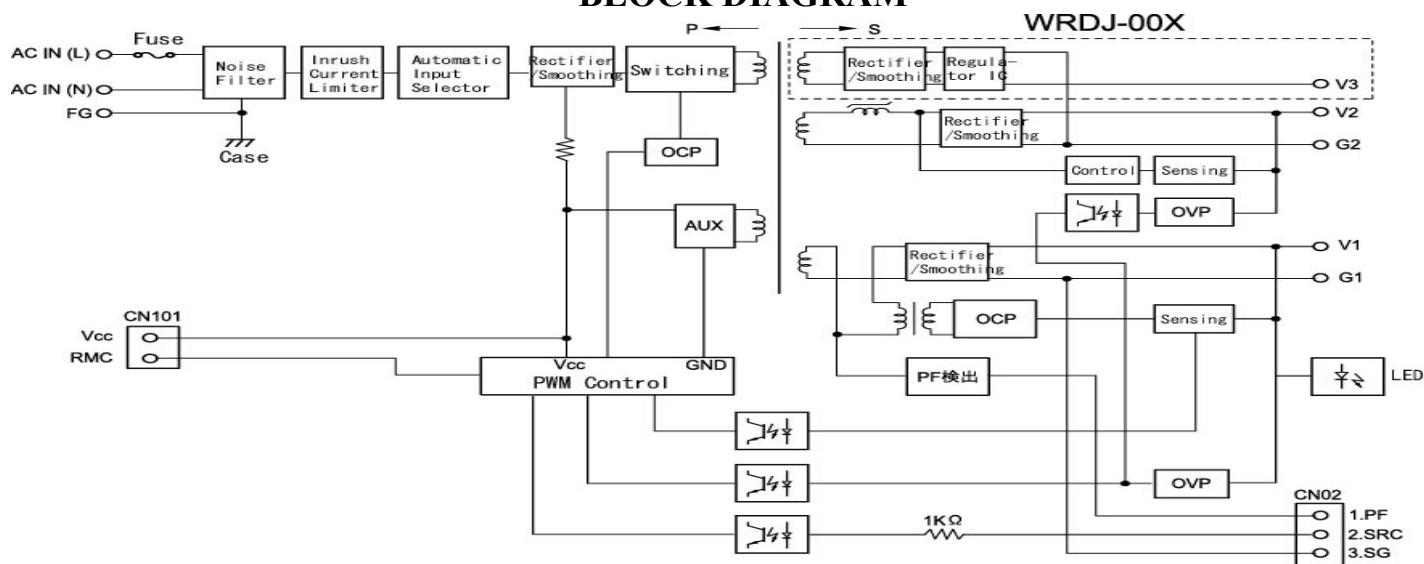
# 110 WATT AC-DC CONVERTER

# WRDJ-00X Series

## 3 CHANNEL

| Specifications<AC/DC>           | Model                                        |           |           |           |
|---------------------------------|----------------------------------------------|-----------|-----------|-----------|
| WRDJ**X-U<br>110WATTS/3 OUTPUTS | WRDJ01X-U                                    | WRDJ03X-U | WRDJ04X-U | WRDJ06X-U |
| Input Characteristic            |                                              |           |           |           |
| Input Voltage                   | AC115/230V                                   |           |           |           |
| Input Current                   | 2.4A at AC115V/1.4A at AC230V                |           |           |           |
| Input Range    *1               | AC85-132/170-264V(DC220-350V)                |           |           |           |
| Input Frequency                 | 50/60Hz                                      |           |           |           |
| Input Frequency Range           | 47-440Hz                                     |           |           |           |
| Phase                           | Single                                       |           |           |           |
| Inrush Current *2               | 23A(maximum) at AC115/46A(maximum) at AC230V |           |           |           |
| Efficiency [%] (typical) *3     | 72                                           | 72        | 72        | 72        |

## BLOCK DIAGRAM



| Specifications<AC/DC>                                     | Model                                                                                                                          |      |     |           |      |     |           |     |     |           |      |     |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------|-----|-----------|------|-----|-----------|-----|-----|-----------|------|-----|
| WRDJ**X-U<br>110WATTS/3 OUTPUTS                           | WRDJ01X-U                                                                                                                      |      |     | WRDJ03X-U |      |     | WRDJ04X-U |     |     | WRDJ06X-U |      |     |
| Output Voltage [V]                                        | 5                                                                                                                              | +12  | -12 | 5         | +12  | -5  | 5         | +15 | -15 | 5         | +24  | +12 |
| Output Current [A]                                        | 1.0-15.0                                                                                                                       | 4.2  | 1.2 | 1.0-15.0  | 4.2  | 1.5 | 1.0-15.0  | 3.6 | 1.0 | 1.0-15.0  | 2.1  | 1.2 |
| Power [W]                                                 | 110(maximum)                                                                                                                   |      |     |           |      |     |           |     |     |           |      |     |
| Voltage Adjust Range                                      | V1:+5%/-0% of Rated Output Voltage(at no load within the input range)                                                          |      |     |           |      |     |           |     |     |           |      |     |
|                                                           | V2:+/-5% of Rated Output Voltage(at no load within the input range)                                                            |      |     |           |      |     |           |     |     |           |      |     |
|                                                           | V3:fixed with tolerance of +/-3%(at no load within the input range)                                                            |      |     |           |      |     |           |     |     |           |      |     |
| Ripple and Noise [mVp-p](maximum) *4                      | 150                                                                                                                            | 220  | 220 | 150       | 220  | 150 | 150       | 250 | 250 | 150       | 340  | 220 |
| Regulation                                                |                                                                                                                                |      |     |           |      |     |           |     |     |           |      |     |
| a.Statistic Line Regulation [mV](maximum)                 | 25                                                                                                                             | 60   | 60  | 25        | 60   | 25  | 25        | 75  | 75  | 25        | 120  | 60  |
| b.Statistic Load Regulation [mV](maximum)                 | 50                                                                                                                             | 120  | 240 | 50        | 120  | 100 | 50        | 150 | 300 | 50        | 240  | 240 |
| c.Temperature Coefficient *5                              | 0.03%/°C                                                                                                                       |      |     |           |      |     |           |     |     |           |      |     |
| d.Drift[mV](maximum) *6                                   | 50                                                                                                                             | 120  | 120 | 50        | 120  | 50  | 50        | 150 | 150 | 50        | 240  | 120 |
| e.Dynamic Load Regulation [mV](typical) *7                | not specified                                                                                                                  |      |     |           |      |     |           |     |     |           |      |     |
| f.Recovery Time *7                                        | not specified                                                                                                                  |      |     |           |      |     |           |     |     |           |      |     |
| Rise up time                                              | 500mS(maximum) at 25°Cand rated input/output                                                                                   |      |     |           |      |     |           |     |     |           |      |     |
| Hold up time                                              | 20mS(minimum) at 25°Cand rated input/output                                                                                    |      |     |           |      |     |           |     |     |           |      |     |
| Functions                                                 |                                                                                                                                |      |     |           |      |     |           |     |     |           |      |     |
| Overcurrent Protection [A]                                | V1,V2:Current Limiting with automatic recovery V3:by the regulator I.C's characteristics                                       |      |     |           |      |     |           |     |     |           |      |     |
|                                                           | Please refer to individual spec-sheet                                                                                          |      |     |           |      |     |           |     |     |           |      |     |
| Overvoltage Protection<br>≥20% of Rated Output Voltage[V] | V1,V2:Output shutdown(to reset,leave 1 minute after shut-off) V3:not available                                                 |      |     |           |      |     |           |     |     |           |      |     |
|                                                           | 6.0                                                                                                                            | 14.4 | -   | 6         | 14.4 | -   | 6         | 18  | -   | 6         | 28.8 | -   |
| Remote Sense                                              | not available                                                                                                                  |      |     |           |      |     |           |     |     |           |      |     |
| Remote On/Off                                             | available                                                                                                                      |      |     |           |      |     |           |     |     |           |      |     |
| Power Fail Detection                                      | not available                                                                                                                  |      |     |           |      |     |           |     |     |           |      |     |
| Parallel/series Operation                                 | not available                                                                                                                  |      |     |           |      |     |           |     |     |           |      |     |
| Environmental                                             |                                                                                                                                |      |     |           |      |     |           |     |     |           |      |     |
| Operating Temperature *8                                  | -5 to +40°@open frame type:-5 to +50°C                                                                                         |      |     |           |      |     |           |     |     |           |      |     |
| Operating Humidity                                        | 30 to 85%RH(non-condensing)                                                                                                    |      |     |           |      |     |           |     |     |           |      |     |
| Storage Temperature                                       | -20 to +85°C                                                                                                                   |      |     |           |      |     |           |     |     |           |      |     |
| Storage Humidity                                          | 10 to 85%RH(non-condensing)                                                                                                    |      |     |           |      |     |           |     |     |           |      |     |
| Withstanding Voltage                                      | Primary-Secondary AC3,000V for 1minute                                                                                         |      |     |           |      |     |           |     |     |           |      |     |
|                                                           | Primary-Frame Ground AC2,500V for 1minute                                                                                      |      |     |           |      |     |           |     |     |           |      |     |
|                                                           | Secondary-Frame Ground AC500V for 1minute                                                                                      |      |     |           |      |     |           |     |     |           |      |     |
| Isolation Resistance                                      | Primary-Secondary-Frame Ground 100MΩ(minimum) by DC500V insulation tester                                                      |      |     |           |      |     |           |     |     |           |      |     |
| Vibration                                                 | 5-10Hz:10mm double amplitude,10-55Hz:19.6m/s <sup>2</sup> 20minutes' period for 60minutes each along X,Y,Z axes(non-operating) |      |     |           |      |     |           |     |     |           |      |     |
| Shock                                                     | 294m/s <sup>2</sup>                                                                                                            |      |     |           |      |     |           |     |     |           |      |     |
| Cooling                                                   | Convection                                                                                                                     |      |     |           |      |     |           |     |     |           |      |     |
| Leakage Current                                           | 1mA(maximum) at 25°Crated input/output and rated input frequency                                                               |      |     |           |      |     |           |     |     |           |      |     |
| Line Conducted Noise                                      | Built to meet VDE0871 Class B                                                                                                  |      |     |           |      |     |           |     |     |           |      |     |
|                                                           | Built to meet VCCI Class B                                                                                                     |      |     |           |      |     |           |     |     |           |      |     |
|                                                           | Built to meet FCC Part15-B Class B                                                                                             |      |     |           |      |     |           |     |     |           |      |     |
| Safety                                                    | UL: UL1950 C-UL:CSA C22.2 No234(Level3)                                                                                        |      |     |           |      |     |           |     |     |           |      |     |
|                                                           | C-UL: CSA C22.2 No.234 (Level 3)                                                                                               |      |     |           |      |     |           |     |     |           |      |     |
|                                                           | VDE:EN60950,IEC950,VDE0805                                                                                                     |      |     |           |      |     |           |     |     |           |      |     |
| Weight (typical)                                          | 900g/open frame type:830g                                                                                                      |      |     |           |      |     |           |     |     |           |      |     |
| MTBF [H]                                                  | 280,000                                                                                                                        |      |     |           |      |     |           |     |     |           |      |     |
| Switching Frequency[kHz](typical)                         | 200                                                                                                                            |      |     |           |      |     |           |     |     |           |      |     |

Conditions:

\*1 Automatically selected at AC140V +/-2V

\*2 at cold start

\*3 at DC260V input and output of 110watt

\*4 measured by a bayonet probe at the end of a pair of 20cm long wires terminated with a 22uF electrolytic capacitor and a 0.1uF film capacitor in parallel at a 0 to 100MHz bandwidth

\*5 at -5 to +40°open frame type:-5 to +50°C

\*6 for 7hour period after 1hour warm-up at 25°Cand rated input/output

\*7 when output current changed from 25% to 75% of rated output current rapidly at rated input

\*8 safety approved at 25°C



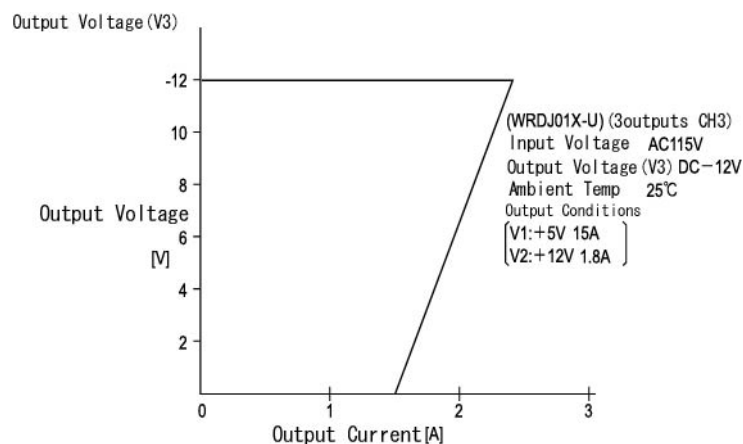
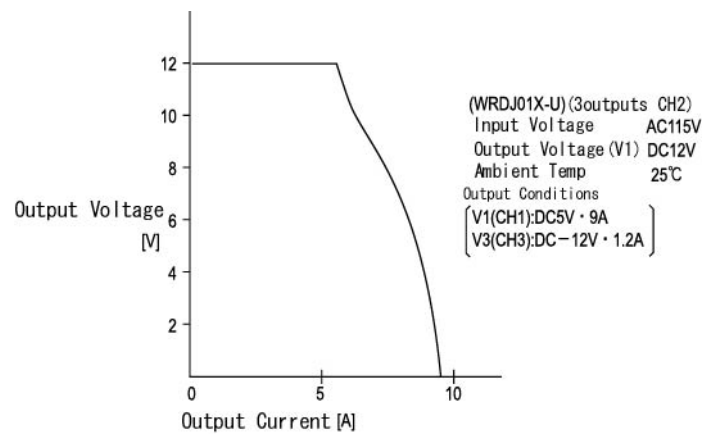
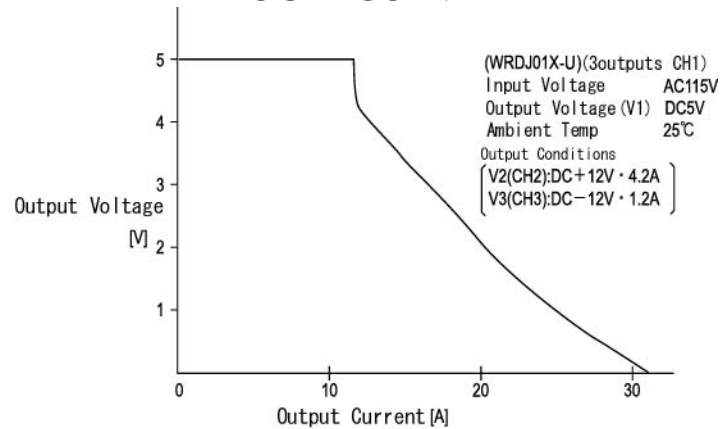
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- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
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