

Features :

- Universal AC input/Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508(industrial control equipment)approved
- LED indicator for power on
- $100 \%$ full load burn-in test
- Fix switching frequency at 100 KHz

SPECIFICATION

| MODEL |  | DR-4505 | DR-4512 | DR-4515 | DR-4524 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| OUTPUT | DC VOLTAGE | 5 V | 12 V | 15 V | 24 V |
|  | RATED CURRENT | 5A | 3.5A | 2.8 A | 2A |
|  | CURRENT RANGE | 0~5A | $0 \sim 3.5 \mathrm{~A}$ | 0~2.8A | 0~2A |
|  | RATED POWER | 25W | 42W | 42W | 48W |
|  | RIPPLE \& NOISE (max.) Note. 2 | 100 mVp -p | 200 mVp -p | 240 mVp -p | 480mVp-p |
|  | VOLTAGE ADJ. RANGE | $4.75 \sim 5.5 \mathrm{~V}$ | $10.8 \sim 13.2 \mathrm{~V}$ | 13.5 ~ 16.5V | $21.6 \sim 26.4 \mathrm{~V}$ |
|  | VOLTAGE TOLERANCE Note. 3 | $\pm 2.0 \%$ | $\pm 1.0 \%$ | $\pm 1.0 \%$ | $\pm 1.0 \%$ |
|  | LINE REGULATION | $\pm 1.0 \%$ | $\pm 1.0 \%$ | $\pm 1.0 \%$ | $\pm 1.0 \%$ |
|  | LOAD REGULATION | $\pm 1.0 \%$ | $\pm 1.0 \%$ | $\pm 1.0 \%$ | $\pm 1.0 \%$ |
|  | SETUP, RISE TIME | $800 \mathrm{~ms}, 60 \mathrm{~ms} / 230 \mathrm{VAC}$ at full load |  |  |  |
|  | HOLD UP TIME (Typ.) | $60 \mathrm{~ms} / 230 \mathrm{VAC}$ at full load |  |  |  |
| INPUT | VOLTAGE RANGE | $85 \sim 264 V A C \quad 120 \sim 370 V D C$ |  |  |  |
|  | FREQUENCY RANGE | $47 \sim 63 \mathrm{~Hz}$ |  |  |  |
|  | EFFICIENCY (Typ.) | 72\% | 77\% | 77\% | 80\% |
|  | AC CURRENT (Typ.) | 1.5A/115VAC 0.75A/230VAC |  |  |  |
|  | INRUSH CURRENT (Typ.) | COLD START 28A/115VAC 56A/230VAC |  |  |  |
|  | LEAKAGE CURRENT | <1mA/240VAC |  |  |  |
| PROTECTION | OVERLOAD | 105 ~ 150\% rated output power |  |  |  |
|  |  | Protection type : Constant current limiting, recovers automatically after fault condition is removed |  |  |  |
|  | OVER VOLTAGE | $5.75 \sim 6.75 \mathrm{~V}$ | $13.8 \sim 16.2 \mathrm{~V}$ | $17.25 \sim 20.25 \mathrm{~V}$ | $27.6 \sim 32.4 \mathrm{~V}$ |
|  |  | Protection type : Shut off o/p voltage, clamping by zener diode |  |  |  |
|  | OVER TEMPERATURE | Tj $135^{\circ} \mathrm{C}$ typically (U1) detect on heat sink of power transistor |  |  |  |
|  |  | Protection type : Shut down o/p voltage, re-power on to recover |  |  |  |
| ENVIRONMENT | WORKING TEMP. | $-10 \sim+50^{\circ} \mathrm{C}$ (Refer to "Derating Curve") |  |  |  |
|  | WORKING HUMIDITY | $20 \sim 90 \%$ RH non-condensing |  |  |  |
|  | STORAGE TEMP., HUMIDITY | $-20 \sim+85^{\circ} \mathrm{C}, 10 \sim 95 \% \mathrm{RH}$ |  |  |  |
|  | TEMP. COEFFICIENT | $\pm 0.03 \%{ }^{\circ} \mathrm{C}$ ( $0 \sim 50^{\circ} \mathrm{C}$ ) |  |  |  |
|  | VIBRATION | $10 \sim 500 \mathrm{~Hz}$, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6 |  |  |  |
|  <br> EMC <br> (Note 4) | SAFETY STANDARDS | UL508, TUV EN60950-1 approved |  |  |  |
|  | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC |  |  |  |
|  | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / $25^{\circ} \mathrm{C} / 70 \%$ RH |  |  |  |
|  | EMC EMISSION | Compliance to EN55011,EN55022 (CISPR22) Class B, EN61000-3-2,-3 |  |  |  |
|  | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2 (EN50082-2), heavy industry level, criteria A |  |  |  |
| OTHERS | MTBF | 364.6 K hrs min. MIL-HDBK-217F ( $25^{\circ} \mathrm{C}$ ) |  |  |  |
|  | DIMENSION | 93*78*67mm (L*W* ${ }^{*}$ ) |  |  |  |
|  | PACKING | $0.31 \mathrm{Kg} ; 48 \mathrm{pcs} / 17.5 \mathrm{Kg} / 1.3 \mathrm{CUFT}$ |  |  |  |
| NOTE | 1. All parameters NOT specially mentioned are measured at 230 VAC input, rated load and $25^{\circ} \mathrm{C}$ of ambient temperature. <br> 2. Ripple \& noise are measured at 20 MHz of bandwidth by using a $12^{\prime \prime}$ twisted pair-wire terminated with a 0.1 uf \& 47 uf parallel capacitor. <br> 3. Tolerance : includes set up tolerance, line regulation and load regulation. <br> 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. |  |  |  |  |



Install DIN rail TS35/7.5 or TS35/15

Terminal Pin No. Assignment

| Pin No. | Assignment | Pin No. | Assignment |
| :---: | :--- | :---: | :--- |
| 1 | AC/L | 6,7 | DC OUTPUT+V |
| 2 | AC/N | 8 | LED |
| 3 | FG $\uparrow$ 个 | 9 | + VADJ. |
| 4,5 | DCOUTPUT -V |  |  |

