



320W Quad Output with PFC Function

QP-320 series



Features:

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- $^{\bullet}$ CH1 & CH2 can be adjusted from -5% $^{\sim}$ +10%
- With power good and fail signal output
- Built-in remote sense function for CH1 & CH2
- LED indicator for power on
- 100% full load burn-in test
- * 20A peak load capability for 24V channel
- 3 years warranty









SPECIFICATION

| MODEL | | QP-320D | | | | QP-320F | | | | | |
|-----------------------|--|--|--|--|-----------------------------|-----------------------------|----------|-----------------|------------|--|--|
| | OUTPUT NUMBER | CH1 | CH2 | CH3 | CH4 | CH1 | CH2 | CH3 | CH4 | | |
| ОИТРИТ | DC VOLTAGE | 5V | 12V | 24V | -12V | 5V | 15V | 24V | -15V | | |
| | RATED CURRENT | 20A | 10A | 3A | 2A | 20A | 8A | 3A | 1.6A | | |
| | CURRENT RANGE | 2.5 ~ 20A | 0 ~ 10A | 0.2 ~ 5A | 0.2 ~ 2A | 2.5 ~ 20A | 0 ~ 10A | 0.2 ~ 5A | 0.2 ~ 1.6A | | |
| | PEAK CURRENT | 20A | 10A | 20A,≦1ms(Note5) | 2A | 20A | 10A | 20A,≦1ms(Note5) | 1.6A | | |
| | RATED POWER | 316W | | | | | | | | | |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 100mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | | |
| | VOLTAGE ADJ. RANGE | CH1,2:+10,-5% | | | | | | | | | |
| | VOLTAGE TOLERANCE Note.3 | ±3.0% | ±3.0% | +10,-6% | ±10% | ±3.0% | ±3.0% | +10,-6% | ±10% | | |
| | LINE REGULATION | ±1.0% | ±2.0% | ±2.0% | ±3.0% | ±1.0% | ±2.0% | ±2.0% | ±3.0% | | |
| | LOAD REGULATION | ±2.0% | ±3.0% | ±6.0% | ±8.0% | ±2.0% | ±3.0% | ±6.0% | ±8.0% | | |
| | SETUP, RISE TIME | 800ms,50ms/230VAC 3000ms,50ms/115VAC at full load | | | | | | | | | |
| | HOLD UP TIME (Typ.) | 16ms at full load | | | | | | | | | |
| INPUT | VOLTAGE RANGE | 90 ~ 264VAC 127 ~ 370VDC | | | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | | | | |
| | POWER FACTOR (Typ.) | PF>0.95/230VAC PF>0.98/115VAC at full load | | | | | | | | | |
| | EFFICIENCY (Typ.) | 83% | | | | | | | | | |
| | AC CURRENT (Typ.) | 4A/115VAC 2A/230VAC | | | | | | | | | |
| | INRUSH CURRENT (Typ.) | 25A/115VAC 45A/230VAC | | | | | | | | | |
| | LEAKAGE CURRENT | <2mA/240VAC | | | | | | | | | |
| PROTECTION | | 105 ~ 150% rated output power | | | | | | | | | |
| | OVERLOAD | Protection type: Fold back current limiting, recovers automatically after fault condition is removed | | | | | | | | | |
| | | CH1:5.75 ~ 6.7 | | .8 ~ 16.2V | | CH1:5.75 ~ 6.7 | | 7.25 ~ 20.25V | | | |
| | OVER VOLTAGE | Protection type : Shut down o/p voltage, re-power on to recover | | | | | | | | | |
| | OVER TEMPERATURE | Shut down o/p voltage, recovers automatically after temperature goes down | | | | | | | | | |
| FUNCTION | POWER GOOD / POWER FAIL | | | | | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +70°C (Refer to "Derating Curve") | | | | | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | | | | | |
| | STORAGE TEMP., HUMIDITY | -20 ~ +85°C, 10 ~ 95% RH non-condensing | | | | | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0~50°C) | | | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | | | | | | | | |
| | | UL60950-1, TUV EN60950-1 approved | | | | | | | | | |
| | SAFETY STANDARDS | 0000000-1, 10 | | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC | | | | | | | |
| SAFFTY & | SAFETY STANDARDS WITHSTAND VOLTAGE | | | O/P-FG:0.5k | CVAC | | | | | | |
| | | I/P-O/P:3KVAC | I/P-FG:2KVA | O/P-FG:0.5k | | | | | | | |
| SAFETY & EMC (Note 4) | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-O/P, I/P-FG, | I/P-FG:2KVA0 O/P-FG:100M 0 | Ohms / 500VDC / | 25°C/70% RH | | | | | | |
| EMC | WITHSTAND VOLTAGE ISOLATION RESISTANCE | I/P-O/P:3KVAC I/P-O/P, I/P-FG Compliance to I | I/P-FG:2KVA0 , O/P-FG:100M (EN55032 (CISPF | | 25°C/70% RH 61000-3-2,-3 | ry level, criteria | Α | | | | |
| EMC | WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION | I/P-O/P:3KVAC I/P-O/P, I/P-FG Compliance to I Compliance to I | I/P-FG:2KVAG O/P-FG:100M (EN55032 (CISPP EN61000-4-2,3,4 | Ohms / 500VDC / R32) Class B, EN I,5,6,8,11, EN550 | 25°C/70% RH 61000-3-2,-3 | y level, criteria <i>i</i> | 4 | | | | |
| EMC | WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY | I/P-O/P:3KVAC I/P-O/P, I/P-FG Compliance to I Compliance to I | I/P-FG:2KVA0 , O/P-FG:100M (EN55032 (CISPP EN61000-4-2,3,4 MIL-HDBK-2 | Ohms / 500VDC / R32) Class B, EN I,5,6,8,11, EN550 | 25°C/70% RH 61000-3-2,-3 | ry level, criteria <i>l</i> | Ą | | | | |

- . Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uf & 47 uf parallel capacitor.
- 3. Tolerance : includes set up tolerance, line regulation and load regulation.
- 4. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of 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." (as available on http://www.meanwell.com)
- 5. Every output channel can provide up to the maximum current, but total load can't exceed the rated output power.
- 6. CH3(24V) peak current 20A, ≦1ms, repeatable in every 100ms. CH3(24V) output must be above 16V in the period of peak current.



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