



**Sparkle Power Inc.**  
A Leading Power Supply Manufacturer  
Web site: [www.sparklepower.com](http://www.sparklepower.com)



## HUP472/82UDX

**(RoHS Compliant)**

### **470 Watts TFX12V Switching Power Supply**

#### Features

- Complied with TFX12V standard
- Active Power Factor Correction (PFC) meet EN61000-3-2
- High efficiency and reliability
- Compatible with European Union Directive 2002/95/EC (Restriction on Hazardous Substances).
- Remote ON/OFF function
- Internal 12V DC fan included
- Noise Killer (thermal fan speed control function)
- Low noise and ripple
- Output over voltage, short circuit, and over current protection
- 100% Hi-pot, ATE, and burn-in tested
- Re-settable power shut down
- Complies with FCC part 15 subpart J class B 115Vac operation, and CISPR 22 class B at 230Vac operation
- Approved by CUL/UL60950-1, FIMKO EN60950-1, TUV EN60950-1 (CB Report), CE

#### Input Characteristics

**Input Range:** 90 ~ 264Vac (RMS), Full Range Input

**Frequency:** 47 ~ 63Hz

**Input Current:** Max 4A (RMS) @ 115Vac, 2A (RMS) @ 230Vac

**Inrush Current:** No damage

#### Output Characteristics

	MINIMUM LOAD	NORMAL LOAD	MAXIMUM LOAD	LOAD REG.	LINE REG.	RIPPLE & NOISE
<b>+3.3V</b>	<b>0.1A</b>	<b>7.0A</b>	<b>14A</b>	<b>±5%</b>	<b>±1%</b>	<b>50mV P-P</b>
<b>+5V</b>	<b>0.2A</b>	<b>7.5A</b>	<b>15A</b>	<b>±5%</b>	<b>±1%</b>	<b>50mV P-P</b>
<b>+12V1</b>	<b>0.1A</b>	<b>5.5A</b>	<b>13A</b>	<b>±5%</b>	<b>±1%</b>	<b>120mV P-P</b>
<b>+12V2</b>	<b>0.5A</b>	<b>4.0A</b>	<b>13A</b>	<b>±5%</b>	<b>±1%</b>	<b>120mV P-P</b>
<b>-12V</b>	<b>0A</b>	<b>0.15A</b>	<b>0.3A</b>	<b>±10%</b>	<b>±2%</b>	<b>120mV P-P</b>
<b>+5Vsb</b>	<b>0A</b>	<b>1.0A</b>	<b>2.0A</b>	<b>±5%</b>	<b>±1%</b>	<b>50mV P-P</b>

\*+3.3V and +5V total output not exceed 103W

When +5V is loaded to 15A, then +3.3V maximum load is 8.48A.

When +3.3V is loaded to 14A, then +5V maximum load is 11.36A.

\*+12V1 & +12V2 total output not exceed 204W

#### Specification

- **Temperature Range:** Operating: 0°C ~ +35°C ; storage & shipping: -40°C ~ +70°C
- **Humidity:** 5 ~ 85% on operating, 5 ~ 95% on storage
- **Dielectric Withstand:** Primary frame ground 1800V AC for 1 second
- **Efficiency:** 82% minimum
- **Rise time:** Less than 20ms
- **Hold-up Time:** 16ms minimum at nominal input voltage
- **Power Good Signal:** Power on delay time 100 ~ 500ms, off delay 1ms minimum (TTL and CMOS compatible)
- **Leakage Current:** Less than 3.5mA .
- **MTBF:** 100,000 hours on maximum load at +25°C
- **Dimensions (LxWxH):** 175x85x70mm / 6.9x3.4x2.8inch

**Sparkle Power Inc.**  
**Main Office**  
1000 Rock Avenue  
San Jose, CA 95131  
TEL: 408-519-8888  
FAX: 408-519-9999  
E-MAIL: [info@sparklepower.com](mailto:info@sparklepower.com)

**Sparkle Power Inc.**  
**Los Angeles Office**  
17071 Green Drive  
City of Industry, CA 91745  
TEL: 626-839-7180  
FAX: 626-839-3395