



# ETA-USA

## HIGH QUALITY SWITCHING POWER SUPPLIES

**AC/DC SWITCHING POWER SUPPLY**  
**AC INPUT 85~264**  
**DUAL CHANNEL OUTPUT**  
**120 WATTS**

### PFDJ21FWX-B-U1

Dimension: 95Wx200Lx57H



#### General Description

"PF"-Series AC/DC Switching power supplies has been designed to meet harmonic current distortion. PF series has the 75 W PFC with the peak of 150 W, the 120W PFD with peak of 240W and 240 W PFE with peak of 480 W. They are suitable for motor drive.

#### Application

Motor drive

#### Input

Input Voltage:	AC100-230V
Input Voltage Range:	AC85-264V
Input Current:	2.1-0.9 A
Frequency:	50/60Hz
Input Frequency Range:	47-63Hz
Phase:	Single
Inrush Current: *1	22A(max.) at AC100V 50A(max.) at AC230V
Leakage Current:	1mA(maximum) at 25°C

#### Features

1. Chassis Mount
2. Frameless, Connector Type
3. Low Line Distortion
4. Pulse Load response
5. Designed for peak loads(Doubled for rate output)
6. Power factor correction
7. Harmonic current complies to:  
IEC 1000-3-2, EN6 1000-3-2
8. Universal input 85-264V
9. EMI designed to meet :  
FCC part 15-B Class B, EN 5502 Class B,  
VCCI Class B
10. CE-marked acc. To LVD
11. Cost Effective

#### Options

1. Remote Control(add suffix "-R" or "-RR")
2. Cover(add suffix "-P") : \*"-P" model dimension of chassis mount model is the same as "Open Frame " model
3. 40 cm long wire harness

Output Characteristic	Unit	PFDJ21FWX-B-U1	
		V1	V2
Output Voltage	Vdc	24	5
Output Current *6	A	4 / ①14	5
Voltage Adjust Range	V	± 10% of Rated Output Voltage(at no load within the input range)	
Ripple&Noise(max)*2	mVpp	250	150
Rise up time	mS	1000mS(maximum) at [+24Vdc] 85Vac	
Hold up time	mS	20mS(minimum) at [+24Vdc] 85Vac	
<b>Regulation</b>			
a.Line Regulation max.	mV	120	25
b.Load Regulation max.	mV	240	50
c. Temperature Coefficient *3	°C	0.03%/°C	
d. Drift(maximum) *4	mV	135	40
e. Dynamic Load Regulation (typ.) *5	mV	720	150
f. Recovery Time *5	mS	1mS(typical)	

Efficiency *2	%	77% Typ.AC100 [V] / 80% Typ.AC230 [V]
Power Factor		0.95 Typ. AC100 [V] / 0.89 Typ. AC230 [V]



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Environmental Specification	
Operating Temperature	-10 to +50C(without cover)/ -10 to +45C(enclosed type)
Operating Humidity	20 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 at 25mA for 1minute Primary-Frame Ground AC2,500V at 25mA for 1minute Secondary-Frame Ground AC500V at 50mA for 1minute
Isolation Resistance	Primary-Secondary-Frame Ground 50M ohm(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
Environmental Agencies	
Line Conducted Noise	Built to meet FCC Part15-B Class B Built to meet VCCI Class B Built to meet EN55022 Class B
Line Harmonic Distortion	Built to meet IEC61000-3-2
Safety	Built to UL: UL60950-1 2 <sup>nd</sup> edition Built to C-UL: CSA C22.2 No.60950 Built to VDE EN60950-1 2006
MTBF [H]	229000
Switching Frequency[kHz]	140fix (V1:+24V)/ 70fix (V2:+5V)
Function/Protection	
Over current Protection	automatic recovery
Over voltage Protection	output shutdown(to reset,leave 3minutes after shut-off)
Remote Sense	not available
Remote On/Off	not available
Power Fail Detection	not available
Series Operation	not available
Parallel Operation	not available
Mechanical	
Dimension [mm]	95Wx200Lx57H
Weight [g](typical)	800g/enclosed type:900g

Conditions:

\*1 at cold start

\*2 measured by a bayonet probe at the end of a pair of 15cm long wires terminated with a 47uF electrolytic capacitor

\*3 at -10 to +50°C

\*4 for 7hour period after 1hour warm-up at 25°C and rated input/output

\*5 when output current changed from 25% to 75% of rated output current rapidly at rated input

\*6 peak current is less than 10seconds



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