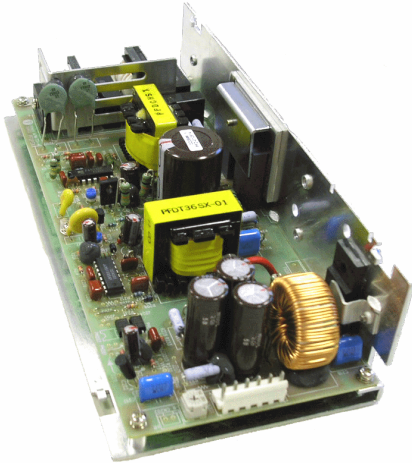


# 240 WATT AC-DC CONVERTER PFE-HSX SERIES



## Features

- Low line distortion
- Power Factor correction
- Pulse load response
- Cost effective
- Designed for peak loads (twice rated output)
- Universal input

## Options

- \*Cover (add suffix "-P")
- \*Wire/harness 40cm
- \*Remote control (add suffix "-R" or "-RR")

Certified:



## 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

Broad needs

## Input

|                             |                      |
|-----------------------------|----------------------|
| <b>Input Voltage:</b>       | AC100-230V           |
| <b>Input Voltage Range:</b> | AC85~264V            |
| <b>Frequency:</b>           | 50/60Hz              |
| <b>Frequency Range:</b>     | 47-63Hz              |
| <b>Phase:</b>               | Single               |
| <b>Inrush Current: *1</b>   | 18A(max) at AC100VAC |
|                             | 40A (Typ.) 230VAC    |

| Specifications<br>PFE**HSX<br>240W ATTS(Peak 400 to 480W)/SINGLE | Model                                                                                                                            |            |               |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------|---------------|
|                                                                  | PFE12HSX                                                                                                                         | PFE24HSX   | PFE36HSX      |
| Input Voltage                                                    | AC100-230V                                                                                                                       |            |               |
| Input Current                                                    | 4.0-1.8A                                                                                                                         |            |               |
| Input Range                                                      | AC85-264V                                                                                                                        |            |               |
| Input Frequency                                                  | 50/60Hz                                                                                                                          |            |               |
| Input Frequency Range                                            | 47-63Hz                                                                                                                          |            |               |
| Phase                                                            | Single                                                                                                                           |            |               |
| Inrush Current *1                                                | 18A(maximum) at AC100V/40A(maximum) at AC230V                                                                                    |            |               |
| Efficiency [%] (typical) *2                                      | 78/81                                                                                                                            | 82/85      | 83/86         |
| Power Factor                                                     | 0.99(typical) at AC100V/0.95(typical) at AC230V                                                                                  |            |               |
| Output Voltage [V]                                               | 12                                                                                                                               | 24         | 36            |
| Output Current [A]                                               | 18(Peak36)                                                                                                                       | 10(Peak20) | 6.7(Peak13.4) |
| Voltage Adjust Range                                             | +/- 10% of Rated Output Voltage(at no load within the input range)                                                               |            |               |
| Ripple and Noise [mVp-p](maximum) *3                             | 300                                                                                                                              | 300        | 300           |
| Regulation                                                       |                                                                                                                                  |            |               |
| a.Line Regulation [mV](maximum)                                  | 60                                                                                                                               | 120        | 180           |
| b.Load Regulation [mV](maximum)                                  | 120                                                                                                                              | 240        | 360           |
| c.Temperature Coefficient *4                                     | 0.03%/°C                                                                                                                         |            |               |
| d.Drift[mV](maximum) *5                                          | 75                                                                                                                               | 135        | 195           |
| e.Dynamic Load Regulation [mV](typical) *6                       | 360                                                                                                                              | 720        | 1080          |
| f.Recovery Time *6                                               | 0.5mS(typical)                                                                                                                   |            |               |
| Rise up time                                                     | 500mS(maximum) at 25°C and rated input/output                                                                                    |            |               |
| Hold up time                                                     | 50mS(minimum) at 25°C and rated input/output                                                                                     |            |               |
| Overcurrent Protection                                           | Current Limiting with automatic recovery                                                                                         |            |               |
| Overvoltage Protection                                           | output shutdown(to reset,leave 3minutes after shut-off)                                                                          |            |               |
| >=115% of Rated Output Voltage[V]                                | 13.8                                                                                                                             | 27.6       | 41.4          |
| Remote Sense                                                     | not available                                                                                                                    |            |               |
| Remote On/Off                                                    | option                                                                                                                           |            |               |
| Power Fail Detection                                             | not available                                                                                                                    |            |               |
| Parallel/series Operation                                        | not available                                                                                                                    |            |               |
| Operating Temperature *7                                         | -10 to +45°C                                                                                                                     |            |               |
| 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 for 1minute<br>Primary-Frame Ground AC2,500V for 1minute<br>Secondary-Frame Ground AC500V for 1minute |            |               |
| Isolation Resistance                                             | Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester                                                         |            |               |
| Vibration                                                        | 5-10Hz:10mm double amplitude,10-55Hz:19.6m/√,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)                |            |               |
| Shock                                                            | 294m/s <sup>2</sup>                                                                                                              |            |               |
| Cooling                                                          | Convection                                                                                                                       |            |               |
| Leakage Current                                                  | 0.75mA(maximum) at 25°C,rated input/output and rated input frequency                                                             |            |               |
| Line Conducted Noise                                             | Built to meet FCC Part15-B Class B<br>Built to meet VCCI Class B<br>Built to meet EN55022 Class B                                |            |               |
| Line Harmonic Distortion                                         | Built to meet IEC1000-3-2                                                                                                        |            |               |
| Safety                                                           | Built to meet UL1950<br>Built to meet CSA C22.2 No.950<br>Built to meet EN60950, IEC950, VDE0805                                 |            |               |
| Weight (typical)                                                 | 1200g/enclosed type:1400g                                                                                                        |            |               |
| MTBF [H]                                                         | 229,000                                                                                                                          |            |               |
| Switching Frequency[kHz](typical)                                | 140                                                                                                                              |            |               |

Conditions:

\*1 at cold start

\*2 at AC100/230V input,rated output and 25°C

\*3 measured by a bayonet probe at the output connector at a 0 to 100MHz bandwidth

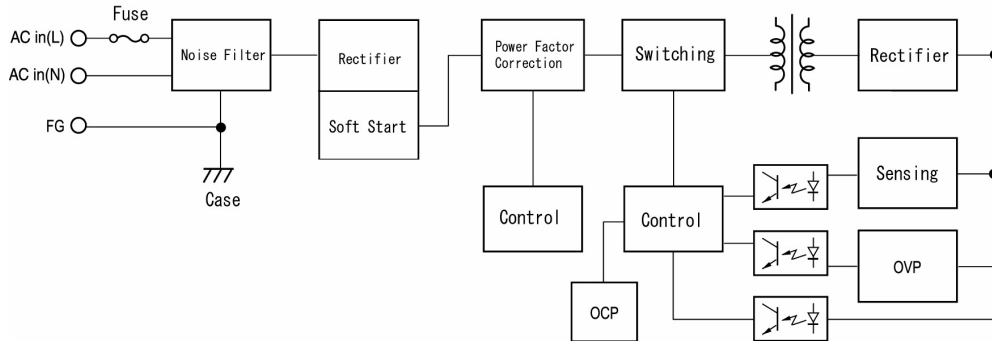
\*4 at -10 to +45°C

\*5 for 7hour period after 1hour warm-up at 25°C and rated input/output

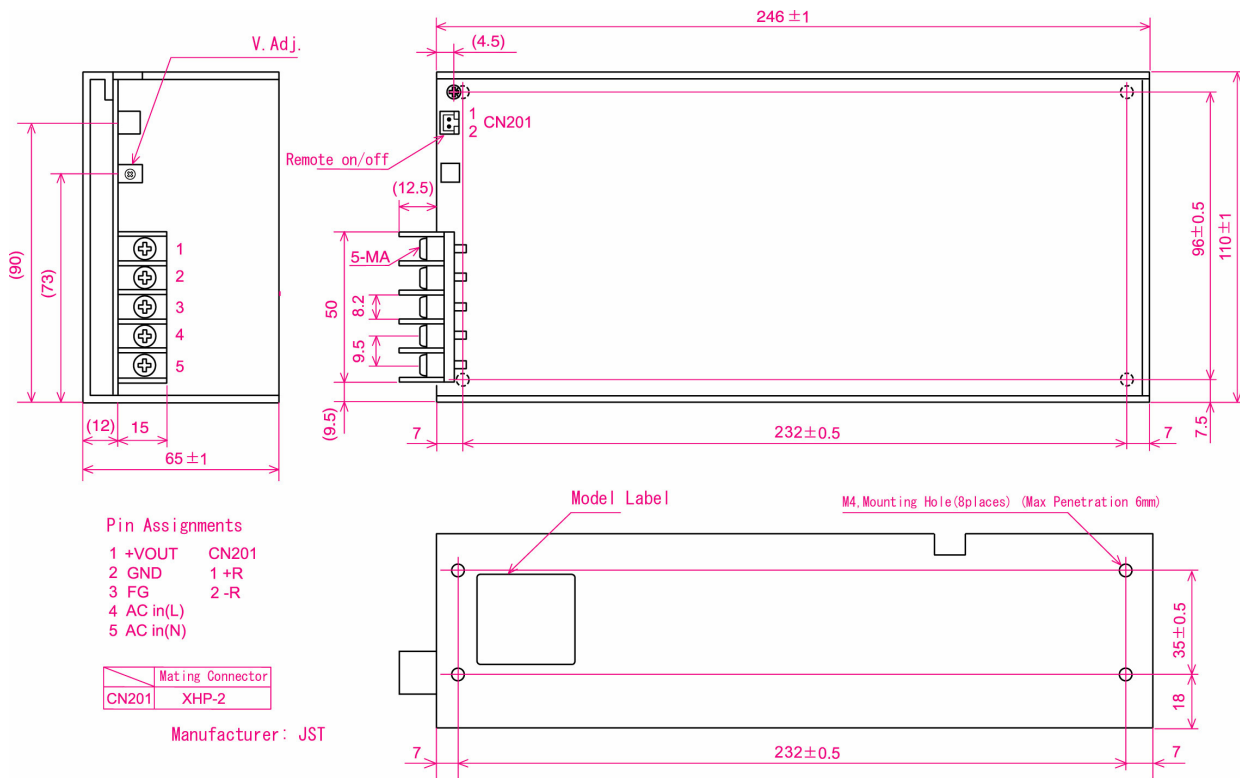
\*6 when output current changed from 50% to 150% of rated output current rapidly at rated input

\*7 safety approved at 25°C

## BLOCK DIAGRAM



## DIMENSION DIAGRAM





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.