



DD11XX Series HEPFC-DC Power Supply

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DD11XX series

v2.0

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DD11XX HEPFC- DC Power Supply

1 General

Divadesam Technologies DD1100 HEPFC-DC power supply provides you high performance DC output with two level of voltage selection and draws high power factor and low Harmonic Distortion current from the input grid. They provide stable output voltage and current with built in measurement. These supplies provide system ready features for validation of design for automotive, communication and defense industries.

2 Features

- 500 to 10000 W
- Active Front End
- Low Harmonic Distortion (below 5%)
- Designed to Drive DC loads (such as DC motors) upto 3.5kW
- Two level voltage selection
- Input current at unity power factor

- Built in voltage and current measurement
- Full over voltage and current protection
- Flexible AC input option

3 Key Components

- Small size, high density package
- Available from 500 to 10,000 w
- Multi step voltage selection
- digital display of build in measurements
- THD improvement as per IEC 61000-3



4 Functional Block Diagram

A simplified block diagram is presented in Fig. 1. In Fig 2 & 3 input current waveform is shown with and without PFC converter operation.

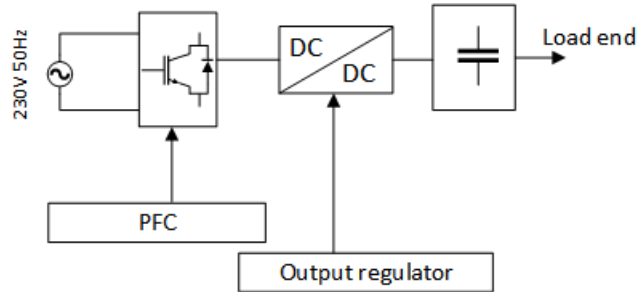


Fig.1 : Blcok Diagram (Simplified)

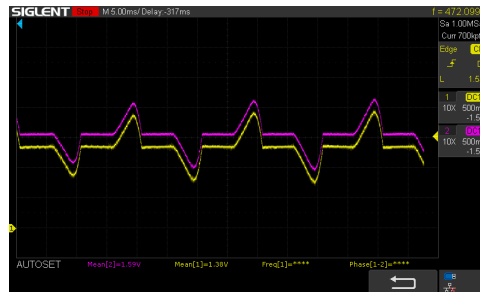


Fig.2 : Primary current without PFC-OFF(THD>36%)

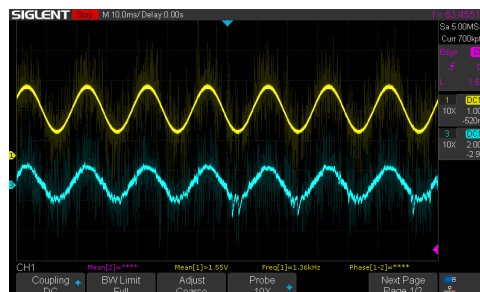


Fig.1 : Primary current with PFC-ON (THD<3%)

4.1 Absolute Maximum Ratings**

Sr.No.	Parameter	Description	Unit
1	output voltage	140/250/450	V
2	output current	1.5% of nominal current rating	A
3	Power	1.5% of nominal power rating	W
4	input voltage	285/480	V
5	input current	1.5% of nominal rated current	A
6	maximum temperature	120	°C
7	minimum temperature	-30	°C

4.2 Recommended Operating Conditions

Sr.No.	Parameter	Description	Unit
1	output voltage	110/220/400	V
2	output current	5-100	A
3	Power	3	kW
4	input voltage (rms)	230@50/60 Hz	V
5	input current(rms)	2.3-105	A
6	operating temperature	25	°C

5 Detailed Description

5.1 Overview

DD11xx series high efficiency DC power supplies provide highly reliable operation over wide range of power ratings, with drawing input current at almost unity power factor which make them highly efficient. These DC supplies has application for design engineer for design validations, development of R&D laboratories, and DC machine driving etc. These supplies are provided with full range of over voltage and current protection, hence enabling the robust performance over the entire range of operation.

5.2 Feature description

The supply is considered to be running at 100% rating when a DC electric load equivalent to its rated power is connected at its output terminals. The supply is considered to be running at no load when no external load is applied to output terminals. The recommended output voltages are nominal value of output voltage. The recommended output currents are maximum load current which the supply can drive.

6 Ordering Information

6.1 DD11XX HEPFC-DC Power Supply

Part No.	Input voltage	Output voltage range	Rated Power(kW)	Operating f(Hz)	η (%)	Standards
DD1100	230	110/220	3 kW	50/60	90	N/A
DD1300	230/440	110/350	5 kW-	50/60	90	N/A
DD1500	230/440	110/400	10 kW	50/60	85	N/A

7 Contact

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