POWERBOX Industrial Line
OFI1200A Series
1200W Single Output
AC/DC Baseplate Power Supply

OFI1200A – a powerful a powerful baseplate cooling power supply for demanding applications. The design of transfer heat to the baseplate makes it suitable for none ventilated applications as in sealed enclosures. A product that is suitable for wide application areas in industrial and others. Ruggedized construction makes it ideal for harsh environmental applications.

Features
Conductive cooling
Output active ORing (optional only 28Vdc & 48Vdc)
Paralleling & Redundancy operation
Voltage & Current, wide range adjustable (see manual)
Active current share
Vibration/shock according MIL-STD-810H
Power Good
Remote sense
Remote On/Off
OCP, OVP, OTP, SCP

Input	
Input voltage range	85-305VAC
Nominal input voltage	100-277VAC
Input voltage DC	No
Input frequency	47-63Hz
Protection class	I (with ground)
Power factor	0.98/0.95 (110VAC/230VAC)
Inrush current	40A typ.
Input current @110/230VAC	12V: 10.9A/ 5.1A 28V & 48V: 12.5A/ 5.8A
Hold up time	20ms (230VAC, Full load)
Input fuse	Yes
Turn on time	600ms typ. (Remote on 100ms) @-40°C deg. [1]
Leakage current	<1.5mA at 277VAC/60Hz

Output	
Output volt./Cur./Power	See table
Output peak power	N/A
Minimum load	0A
Line regulation	0.5% mV max
Load regulation	0.5% mV max. 10-90% load change
Temp. coefficient	± 0.02%/°C
Ripple & noise (20MHz BW)	1%, :1,5% for 12Vdc. (2% below 0°C)
Output voltage adj.	Potentiometer & ext. voltage. [2]
Paralleling	Yes, up to 9 units

Environmental	
Operating temperature Baseplate assembly	-40°C to +95°C
Derating	See manual
Operating humidity	20-95%RH (Non condensing)
Altitude operation	max. 5000m
Storage temperature	-40°C to +85°C
Storage humidity	20-95%RH (Non condensing)
Vibration	MIL-STD-810H, Cat. 4 Fig. 514.8C-3
Shock	MIL-STD-810H, Procedure 1, 20G 11ms, Ground material

Mechanical	
Size WxHxD	With cover option: 142x40x260mm Without cover: 142x39x260mm
IP class	IPX0
Weight	1.2kg (1.4kg with cover)
Connectors	Input: Phoenix MKDS 5/ 3-9,5 (1714984) Output: Studs/M6 Screw Signals: Molex 818311041
Connector placement	Input and Output on each side
General	
MTBF Telcordia	>1,990,000h @ 25°C, full load
Life time expectations	See manual

Model Number	Output Voltage	Output Current	Output Voltage adj. [2]	Efficiency 110VAC/230VAC
OFI1200A12	12VDC	~0-84A	~0-14.4VDC	84% / 86.5%
OFI1200A28	28VDC	~0-43A	~0-33.6VDC	88% / 90.5%
OFI1200A48	48VDC	~0-25A	~0-57.6VDC	89% / 92%

Note

1. For startup below -20°C see manual.
2. Wide output adj. see manual. Full adj. range only when use external voltage VTRM. On board potentiometer adj. range 35% to 120% of nominal o/p voltage. For option -O: o/p adj. range 5V to 120% of nominal voltage, if need below <5VDC contact Powerbox.
3. See manual

Protection Circuit and Others	
Over current protection	Yes, works over 105% of rating auto recovery
Type of current limit	Hiccup [3)]
Constant current mode	Yes (when current level adjusted otherwise hiccup)
Over voltage protection	Yes
Over temp. protection	Yes
Remote sensing	Yes
Remote ON/OFF	Yes
Output LED	Yes, green (operate only at nominal o/p voltage)
Active ORing	Only for 28V & 48V version (optional)

Control and Communication	
Power Good	Yes, Normal operation: Low
VTRM, ITRM	Yes

Isolation	
Input -Output, RC	3000VAC
Input-FG	2000VAC
Output-FG	500VAC
Output - RC, PG	100VAC

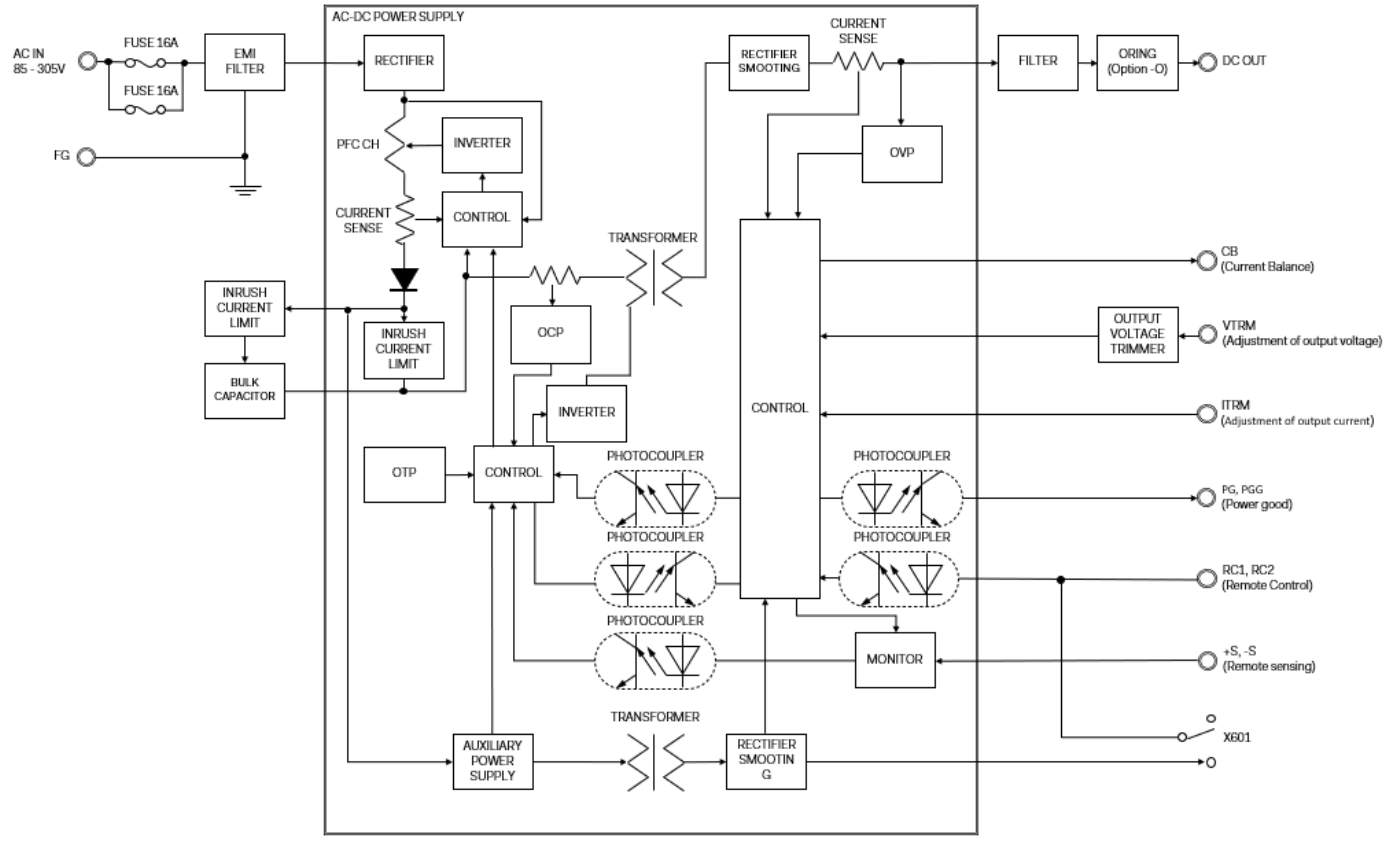
Safety Standards	
UL certificate	UL62368-1 3rd ed. 2019 CSA 22.2 No. 62368-1:19 3rd ed.
CB certificate evaluated to	IEC 62368-1:2018 EN62368-1:2020+A11:2020 BS EN62368-1:2020+A11:2020
Certification mark	CE, UKCA, cURus
RoHS	Yes, Directive 2011/65/EU (2015/863)

EMC	
Harmonic attenuator	EN61000-3-2 class A, (C >50% load)
Flicker	EN61000-3-3
Conducted noise	EN55032 class B with/without cover
Radiated noise	EN55032 class A with/without cover
EMS immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11

Part numbers and options

OFI1200A	XX	-	YY
	O/p Voltage		Option
	12: 12VDC		N: Cover
	28: 28VDC		O: Oring (only for 28 & 48)
	48: 48VDC		

Block diagram



Mechanical dimensions