

P R B X

POWERBOX Industrial Line
OFI700A Series
700W Single Output
AC/DC Baseplate Power Supply

OFI700A – 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)
Redundancy operation
Vibration/shock according MIL-STD-810H
Cover (optional)
Low EMI
DC-OK
Remote sense
Remote On/Off
OCP, OVP, OTP, SCP
AUX voltage 12Vdc

Input

Input voltage range	85-264VAC
Nominal input voltage	100-240VAC
Input voltage DC ¹⁾	120-350VDC
Input frequency	47-63Hz
Protection class	I (with ground)
Power factor	0.95/0.92 (110VAC/230VAC)
Inrush current	30A typ.
Input current	8.2A@110VAC, 3.9A@230VAC
Hold up time	20ms (230VAC, Full load)
Input fuse	Yes
Turn on time	600ms typ. (Remote on 500ms)
Leakage current	<0.75mA at 264VAC/60Hz

Output

Output volt./Cur./Power	See table
Output peak power	See table
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% (2% below 0°C)
Output voltage adj.	potentiometer, see table



Environmental

Operating temperature	-40°C to +95°C
Baseplate assembly	
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: 126x40x250mm Without cover: 126x38x250mm
IP class	IPX0
Weight	0.95kg (1.1kg with cover)
Connectors	Input: Phoenix GMKDS 1,5/ 3-7,62 (1717732) Output: Studs/M6 Screw Signals: Molex 818311041
Connector placement	Input and Output on each side

General

MTBF Telcordia	>789000h @ 25°C, full load
Life time expectations	See manual

Model Number	Output Voltage	Output Current	Output Voltage adj.	Efficiency 110VAC/230VAC
OFI700A12	12VDC	58.4A	9.6-14.4VDC	82% / 85.5%
OFI700A28	28VDC	25A	22.4-33.6VDC	85% / 88.5%
OFI700A48	48VDC	14.6A	38.4-57.6VDC	86% / 89.5%

Note

- DC input is not UL certified. For DC input external fuse shall be used, see manual.

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Protection Circuit and Others

Over current protection	Yes, works over 105% of rating auto recovery
Type of current limit	Hiccup
Over voltage protection	Yes
Over temp. protection	Yes
Remote sensing	Yes
Remote ON/OFF	Yes
Output LED	Yes, green
Active ORing	Yes (optional)
AUX Voltage	12Vdc/0.1A (regulation 10-14Vdc)

Control and Communication

DC OK	Yes
IOG	Yes

Isolation

Input -Output, RC, AUX	3000VAC
Input-FG	2000VAC
Output, RC, AUX-FG	500VAC
Output - RC, AUX	100VAC

Safety Standards

UL certificate	UL 62368-1 2 nd ed. 2014, UL 62368-1 3 rd ed. 2020 CSA/CSA-22.2 No. 62368-1
CB certificate	IEC 62368-1:2014, IEC62368-1:2018 evaluated to EN 62368-1:2014 + A11:2017 EN IEC 62368-1:202+A11:2020 BS EN 62368-1:2014 + A11:2017 BS EN IEC 62368-1:2020+A11:2020 AS/NZS 62368.1:2018 AS/NZS 62368.1:2020 J62368-1 (2020)
Certification mark	CE, UKCA, cURus
RoHS	Yes, Directive 2011/65/EU (2015/863)

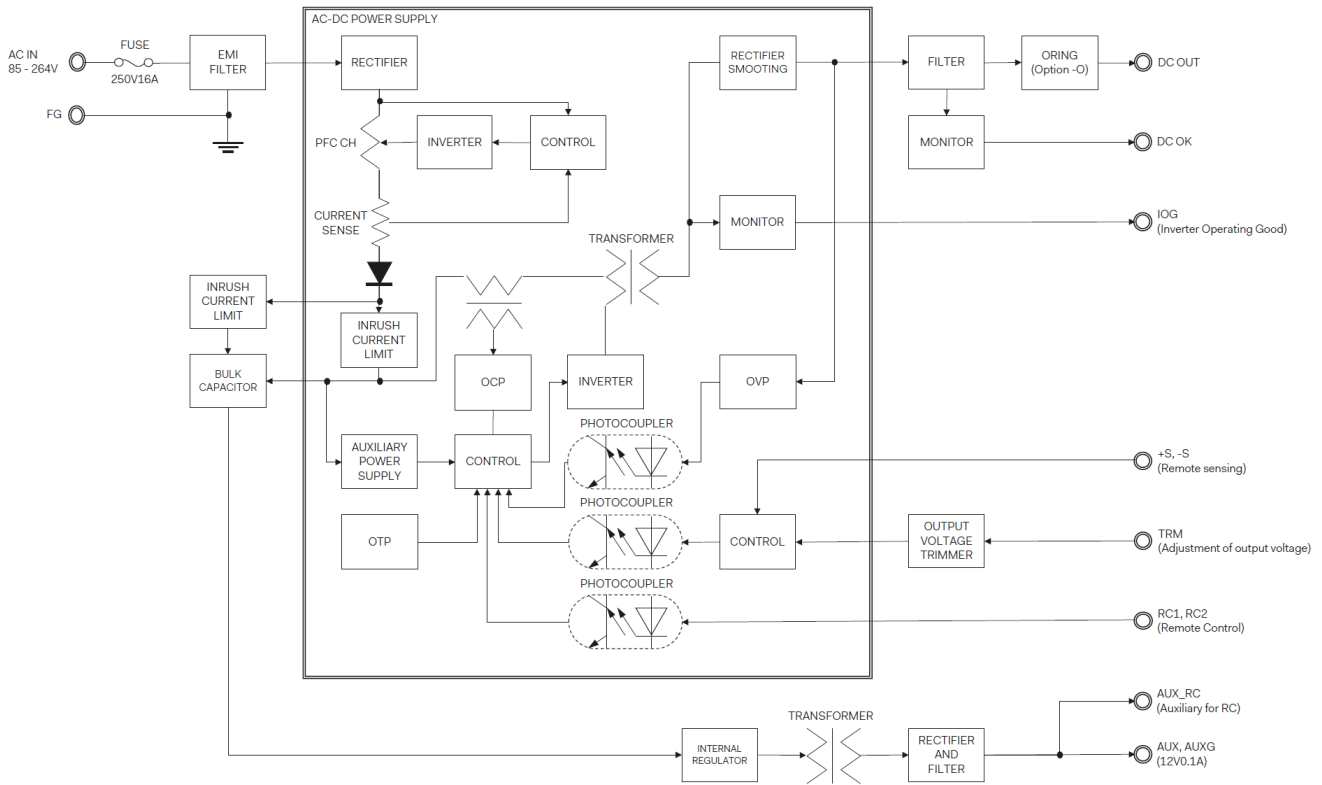
EMC

Harmonic attenuator	EN61000-3-2 class A
Flicker	EN61000-3-3
Conducted noise	EN55032 class B
Radiated noise	EN55032 class A, models with cover: Class B
EMS immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11

Part numbers and options

OFI700A	12	-	NO
	O/p Voltage		Option
	12: 12VDC		N: Cover
	28: 28VDC		O: ORing
	48: 48VDC		

Block diagram



Mechanical dimensions

