



PrismaBox

2x400(480) / 2x750

Presentation

PrismaBox 400 – 1DC/1AC – 750/400 is a bidirectional AC-DC power converter based on PCA (Port-Configurable Assembly) technology.

It features two configurable ports for flexible input or output operation.

PrismaBox can be integrated into any Power Conversion System (PCS) or delivered as Power Conversion Kit (PCK) to create your own system.

It always operates with Inview X+ supervision software.

Key features

- High efficiency for AC-DC and DC-AC conversion
- Compact design with high power density
- Hot-swappable for easy maintenance
- Wide AC and DC voltage operating ranges

Compatible with systems used in the following applications:



Storage



Conversion

Technical specifications

General	
Part Number (Module / Shelf)	P10033 / P30021
Dimensions (WxDxH)	493 x 692 x 88 mm
Weight	30 kg
Ingress Protection	IP20
Cooling type	Fan forced cooling
RoHS / Material (casing)	Compliant / Aluminium
Operating T° / Relative Humidity (RH) non-condensing	-40 to 70°C, power de-rating from 50 to 70°C / Max RH 95% for 96 hours per year
Storage T° / Relative Humidity (RH) non-condensing	-40 to 70°C / Max RH 95% for 96 hours per year
Public transport T° / Relative Humidity (RH) non-condensing	-40 to 70°C / Max RH 95% for 96 hours per year
Vibration	GR63 office vibration 0 to 100 Hz-0.1g / transport vibration 5-100 Hz 0.5g 100 to 500 Hz-1.5g / Drop test
Altitude above sea without de-rating of power	< 1500 m (derating > 1500 m – 0.8 % per 100 m / max 4000 m)
AC 1 In/Out	
Nominal voltage (Power)	3 x 400 Vac (42.5 kW) 3 x 480 Vac (50 kW) DELTA Neutral connected at Prisma System level
Voltage range (Line-Line)	205 – 310 Vac (derating from 150 to 205 Vac)
Power factor / THDi	> 0.99 above 50% load / < 3% (IEC61000-3-2)
Frequency (Synchronization range)	50 Hz or 60 Hz (45 – 65 Hz)
Peak Efficiency AC to DC	> 98.5% at 50% load & nominal voltage
Short time overload capacity	150% (15 seconds)
Short circuit current A / duration (Inverter mode)	130 A per phase / 500 ms
Static / Dynamic voltage regulation (inverter mode)	±1% between 10% and 100% load
DC 2 In/Out	
Nominal voltage (Power)	750 Vdc (50 kW)
Voltage range	300 – 900 Vdc (power derating between 300 to 660 Vdc)
Reverse polarity protection	Yes
Peak efficiency DC to AC	> 98.5% at 50% load & nominal voltage
Signaling & Supervision	
Display	LEDs on modules and 7 inch touchscreen with Inview X
Remote ON/OFF	At rear terminal of the shelf
Standard Compliance	
Safety	IEC 62477-1, IEC 62109-1, IEC 62109-2, UL1741
EMC/EMI	IEC61000-6-X class A FCCPart15 / IEC61000-4-X
Grid-Code (ongoing)	EN50549 VDE-AR-4105 AS4777 UL1741-SB IEEE1547
Pollution Degree	Level 2
Over Voltage Category (location)	OVC III

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