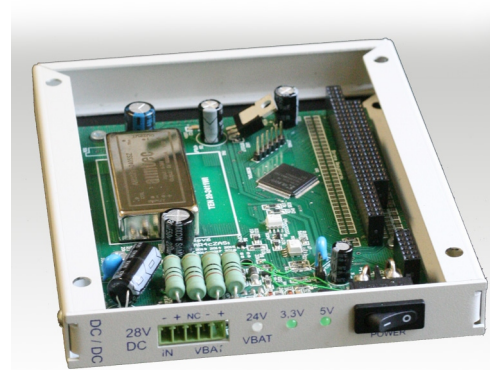


DC/DC

PC/104 power supply



1 FEATURES

- PC/104 24 V DC Isolated Power Supply
- 5 V output, 5 A, 25 W
- 24 V battery backup
- Diagnostics and monitoring

2 TECHNICAL SPECIFICATIONS

Bus interface	PC/104
Form factor	AR4C
Power supply voltage	20 V to 28 V
with battery backup	28 V \pm 1%
Power pin to PE voltage	up to 50 V
Power supply current	up to 2.0 A ¹
Power-off input current	up to 20 mA
Power-off battery current	up to 400 μ A
Efficiency	typ. 83%
Power consumption	up to 40 W ²
Operating temperature	5°C to 50°C
Storage temperature	-40°C to 85°C
Dimensions [mm]	151 \times 125 \times 19
Isolation	\geq 50 V

¹at 19 V with battery charging

²with battery charging, 32 W without

2.1 ABSOLUTE MAXIMUM RATINGS

Parameter	Min	Max	Unit
Power supply voltage	-30	30	V
Battery voltage	-30	30	V
Power pin to PE voltage	-50	50	V

2.2 DIAGNOSTICS AND MONITORING

Variable	Accuracy	Resolution
DC input voltage	1%	10 bit
Battery voltage	1%	10 bit
Charging current	10%	8 bit

2.3 OUTPUTS

Voltage	Tolerance	Max. current
+5 V	2%	5 A ³
-5 V	-	Not available
+12 V	-	Not available
-12 V	-	Not available
+3.3 V	2%	1 A

³The +3.3 V voltage is generated from +5 V. The total +3.3 V and +5 V current must be smaller than 5 A.

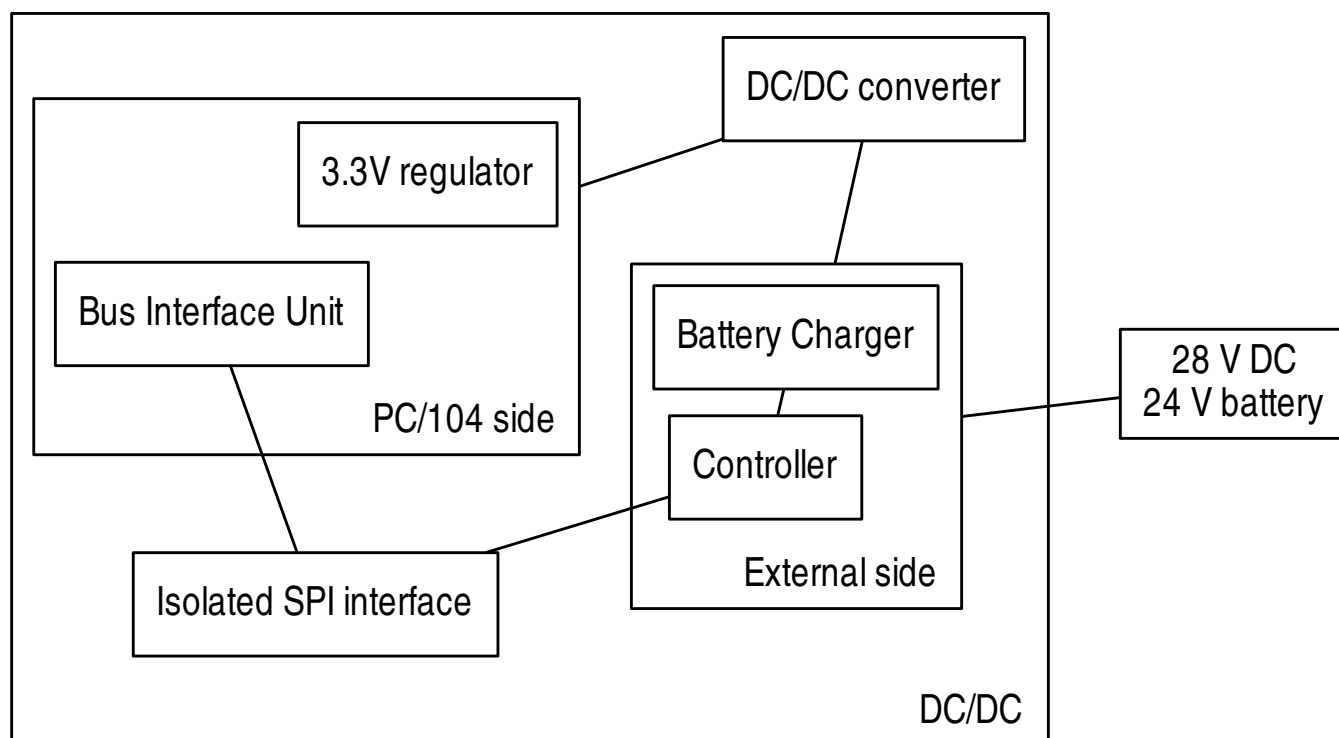


Figure 1: DC/DC card block diagram

3 BATTERY BACKUP

Parameter	Value
Battery type	VRLA
Battery voltage	24 V
Battery capacity	2.5 Ah to 10 Ah
Charge current	0.25 A
Temperature	15°C to 30°C
Cut-off voltage	21.8 V
Cut-off battery current	up to 10 mA ⁴
Critical voltage	22.8 V
Low battery voltage	23.6 V
Recharging voltage	25.2 V
Charging voltage	27.4 V

⁴15 mA for older models

4 ORDERING GUIDE

DCDC power supply is available in the following versions:

Model	Bus Interface
DCDC	PC/104
DCDC-3.3	PC/104-AR4C

The DCDC-3.3 version provides additional 3.3 V power supply required for some older AR-4c cards.

4.1 ACCESSORIES

Model	Description
AKU-3.4	pbq 3.4-12 3.4 Ah 12 V VRLA AGM battery