VDL RENA ELECTRONICA

90519037-240A48600S20

BITS2POWER® POWER DATA CONTROLLER

Product description

- 48V Bits2Power constant voltage power supply
- Wide voltage range AC input
- Cooling by free air convection
- Class1 power unit
- 4 Status LEDs
- 3 Year Warranty
- CE certified
- IP20

Applied Standards

EN55022

EN55024

Technical notes

Dimensions	350x137x93mm
Weight	3 kg.
Housing	Stainless steel 430
Color	Blanc

Electrical Characteristics

Input voltage range	100 -240Vac
Frequency ②	50/60Hz
Output voltage ①	48 Vdc
Output current max ①	12,5 A
Output power max ②	600 W
Standby power ②	2,3 W

Ordering information

Type	Article number
PDC600	90519037-240A48600S20

Protections

Input current	Unrecoverable fuse
Output current	Automatic recovery
Overheating Protection	Automatic recovery

Connections

Input voltage		AWG16 … 10
Output voltage		AWG16 … 10
I/O	USB	Firmware update
I/O slots	Protocol data key	Optional modules

Indication LEDs

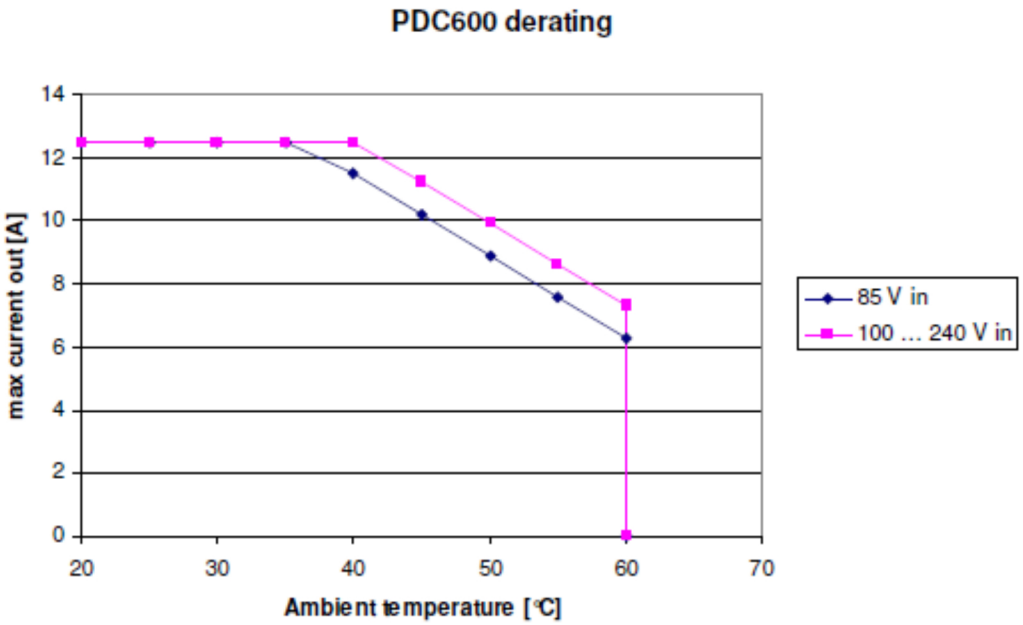
Multi color LED1	Signal strength	Green…Yellow	
Multi color LED2	Load check	Green…Red	0…100%
Single color LED1	Power on	Green	
Single color LED2	Error code	Red	see user manual

① Tolerance of 5%
② Nominal value
③ Tolerances of 5% and for each circuit
④ Percentage of output current
⑤ To be determined
⑥ Rating @ full load

Technical details

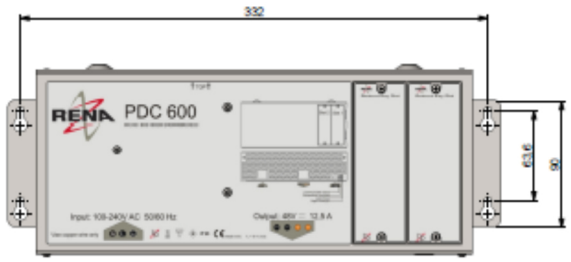
Model		90519037-240A48600S20			
DC Output	Number of outputs	1			
	Connections	AWG20…10	2*2 screw terminals		
	Voltage	48	Vdc		
	Voltage tolerance	5	%		
	Rated current	12,5	A		
	Current tolerance	5	%		
	Ripple & Noise(max)	⑤	mVp-p		
Mains Input	Voltage Range	85 … 264	Vac		
	Frequency	47 …63	Hz		
	Standby power ②	2,3	W		
	Current ②	6,0	A @ 115V/60Hz	2,8	A @ 230V/50Hz
	Leakage current	0,3	mA @ 115V/60Hz	0,6	mA @ 230V/50Hz
	Inrush current	54	A @ 115V/60Hz (10usec peak)	97	A @ 230V/50Hz (10usec peak)
		4,0	Arms @ 115V/60Hz (10ms)	3,2	Arms @ 230V/50Hz (10ms)
	Efficiency ⑥	92,2	% @ 115V/60Hz	90,3	% @ 230V/50Hz
	Power factor ⑥	0,995	@ 115V/60Hz	0,952	@ 230V/50Hz
	Connections	AWG16…10			
Output Protection	Short circuit	Recovers automatically after short is removed			
	Over Voltage	Recovers automatically after over (or reverse) voltage is removed			
Input Protection	Over current	Input protected by unrecoverable fuse			
	Over voltage	Input protected by TVS diode			
Safety & EMC	Withstand Voltage	I/P-FG: 1,5 kVac			
	Isolation Resistance	I/P-FG: >100MΩ / 500VDC / 25°C / 70% RH			
	Safety standards	EN-61024-7, EN60950-1			
	EMI	EN55022 (CISPR22)			
	EMS immunity	EN55024, EN61000-4-2, 3, 4, 5, 6, 11			
	Harmonic Curent	EN61000-3-2, 3			
	Safety Class	1			
Status LEDs	Red	Overload indication			
	Green	Communication indication			
	Multi-Color	Signal strength			
	Multi-Color	Load check			
USB	Input	Firmware update			

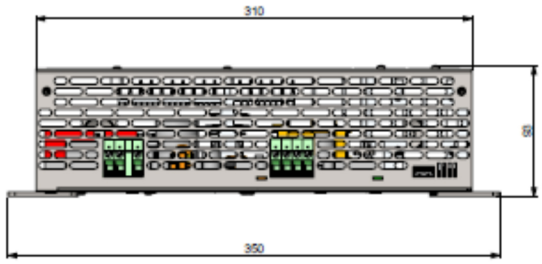
Output derating

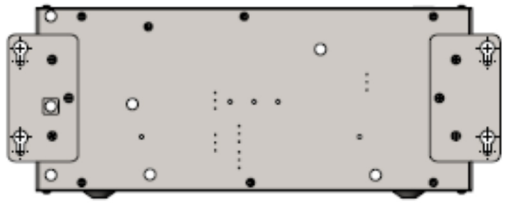


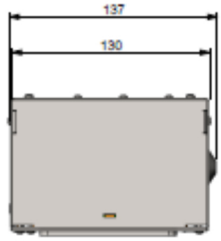
Mechanical Dimensions

Overall dimensions	L = 350 x W = 137 mm Height = 93 mm









Thermal Characteristics

The controller can only operate under proper environmental conditions and the operating ambient air temperature must NOT exceed the maximum given temperature.

For an optimal lifetime performance the controller must be placed in an environment where a sufficient heat transport is guaranteed.
The heat transport is done by natural convection. It's not recommended to expose the module to direct sunlight or any other heat source.

Environmental characteristics

Storage temperature	-20 – +85°C
Operating temperature	-5 – +40°C
Operating humidity	10-95% RH
IP classification	IP20

Tc point

For an optimal lifetime performance the Tc point of the device must never exceed [⑤] degrees Celsius.
The maximum value must be determined under operating conditions in a thermally stable state and under worst-case conditions for the current application

Installation and Safety Information

Installation must be performed in accordance to the relevant regulations and standards. The following advice must be followed:

- See PDC600 controller manual for system installation details.
- The device contains components that are sensitive to electrostatic discharge and may only be installed in the factory and on site if appropriate EOS/ESD protection measures have been taken.
- Use wire size of minimum AWG 20 for connecting the B2P system.
- Use wire size of minimum AWG 14 for connection to mains.
- Please ensure the correct polarity of the leads.
- For outdoor or damp locations, be aware of the IP classification.

All above specifications must be met in order to qualify for the 3 year warranty.

Packaging

Box size (mm)	370x170x125 mm
Quantity each Box	1
Weight each box (kg)	3,2 kg

Module installation

Use screwdriver type PH1 for mounting optional modules into slot 1 and slot 2.