



GAMATRONIC

Our Power, Your Confidence



## Power System 1UDC<sup>+</sup>

### Up to 38 rectifiers & a controller, 1266A

The Gamatronic **1U DC+** power system provides clean DC power to sensitive equipment while simultaneously charging the battery bank, and supplies backup power during mains failure.

The **1U DC+** contains a 19" 1 U subrack that can house up to 3 hot-plugged rectifiers, or 2 rectifiers + controller and an LVD device.

Max system capacity: Up to 13 subrack (38 rectifiers + controller), 1266 A with height of 13 U.

#### Basic shelf:

1U DC+ **type I** - includes a 19" 1U shelf (subrack) with up to 3 rectifiers.

#### Electronic Basic shelf:

1U DC+ **type II** - includes a 19" 3U shelf with up to 2 rectifiers + SC 1UDC+ controller and an Electronic LVD device.

## Features

- 100A for each 1U shelf
- Intelligent power module, digitally controlled
- One to three hot-swap rectifiers in each shelf
- Active current sharing among rectifiers
- Universal input voltage
- A built-in dual 70 A Electronic Low Voltage Disconnect device (ELVD) for battery protection
- Option to connect 2 external LVD contactors up to 1600 A
- A high-performance, hot-swap system controller (SC 1UDC+) to measure, monitor and control voltages, current, power, battery, temperature, etc.
- USB (SC1U DC+) or TCP/IP+USB communication (SC 1UDC+ NET)
- Temperature compensation enhances battery life
- Battery current limit
- Up to two battery sets handled in one system
- Automatic and pre-programmed battery test (for each battery set)
- Automatic and pre-programmed equalize charging mode
- Comprehensive remote control and monitoring of the system using a dedicated graphical user interface (GeMSi, PSM-1UDC+)
- Breaking alert by modem (option)



## 1UDC+ Specifications

<b>INPUT</b>	
Nominal Voltage (-15%÷+12%)	100Vac ÷ 240Vac
Voltage Range	85Vac ÷ 285Vac, with derating
Maximum Current <sup>1</sup> (@ full load)	Nx10A
Frequency	47Hz ÷ 63Hz
Power Factor (@ Full Load)	≥0.99
Protection	Varistors against transients, fuses in both lines
<b>OUTPUT</b>	
Voltage (default)	54±0.2Vdc
Adjustable Range	47Vdc ÷ 58Vdc
Regulation (line & load)	±1%,±0.25% with controller
Nominal Current <sup>1</sup>	Nx33.3A (Vin>195V) Nx16A (Vin=110V) (max 38 modules)
Ripple & Noise @ BW=30MHz	200mVp/p, 20mVrms
Psophometric Noise	-52dbm over 600Ω(<2mV)
Efficiency (nominal load)	92% @ 230Vac 88% @ 115Vac
Overload Current <sup>1</sup> (Short circuit current, Vo=0)	Nx35A (Vin>200V) Nx14A (Vin=230V)
Over-voltage Protection	59.5V
Protection	Current limited, short circuit proof, output fuses
Walk-in Time	10s
Hold-up Time	20ms (90% load, output decays to 46V)
Output Current Indication	4 LEDs bar-graph on the front panel
Active Current Sharing	10% accuracy @ full load
<b>GENERAL</b>	
Withstand Voltage (1 min) <sup>2</sup>	3000VacINPUT/OUTPUT, 1500vAC INPUT/GND, 700Vdc OUTPUT/GND
Operating ambient Temperature	-10° ÷ 70°C, output de-rated above 50°C by 5%°C
Storage Temperature	-20° ÷ 80°C
Humidity	<95% non-condensing, equipped with standard 1U DC+ rack
EMC	EN300 386-2 V1.1.1.3 (1997), EN55022, EN61000-4-2,3,4,5,6,11, EN61000-3-2, EN61000-3-3
Safety	Conforms to IEC950, EN60950
Dimensions (1 module)	146mm (W) x 44mm (H) x 260mm (D)
Weight (1 module)	1.2Kg

Notes:

1. "N" denotes the number of power modules

2. Equivalent DC test voltage is applied to overcome Y-capacitors leakage current to ground. Output is floating (not grounded during test).

- All specifications are subject to change without prior notice

- All images are for illustration only