



FAC P

DC ENERGY SYSTEMS

► FAC P: DC energy systems for medium and high powers

The DC energy systems from **FAC P** series of **SALICRU** are rectifiers specially designed to supply direct current to the most varied equipment of medium and high power. Manufactured in power rates of 1000, 2000, 2700 and 5000 W, allow being connected in parallel and built in 19" cabinets, where each cabinet can also include a monitoring and management unit (MS-102), batteries and DC outgoing distribution, as well as load priority systems. Besides, each rectifier module can be hot swapped for its connection and removing, with all the advantages that it means in the system operating.

On the other hand, thanks to the high quantity of rectifier modules that can be connected to one system only, allow having power rates higher than 170 kW.

The monitoring and management unit (MS-102) controls the complete system, also it stores and manages the input, output and battery data; and allows setting all the parameters on it. The rectifier modules communicates with it through the RS-485 port, and permanently it is controlling the output voltage, current sharing among the modules, battery charging current, critical and non-critical load contactors, the end of autonomies, etc. The external communication can be done in local or remote modes (GSM / TCP-IP).

► FAC 1000 P



► FAC 2700 P



► FAC 2000 P



► QUALITY PERFORMANCES

- Able for single or three phase inputs.
- High power density.
- Easy installation and maintenance.
- Low operating and maintenance cost.
- High MTBF.
- High efficiency.
- Battery charging current limit.
- Unit power factor.
- Plug-in modules (hot swapping).
- Monitoring and management unit (MS-102).



► MS-102

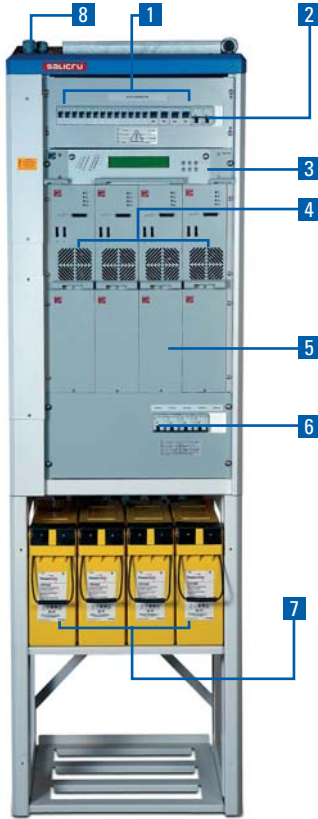
► APPLICATIONS: DC power systems always available

The DC energy systems from **FAC P** series of **SALICRU** provide a power supply of high level to the always critical telecommunication systems, guaranteeing its perfect operating without any unexpected break. Besides, thanks to its modular nature, the system can be upgraded according to your needs, by optimising the investment.



► EQUIPMENT connectivity

1. Outgoing distribution.
2. Input protection.
3. MS-102.
4. FAC P modules.
5. Slots to upgrade the power.
6. Battery protection.
7. Batteries.
8. Input entry cable.



► OPTIONALS

- Monitoring and management unit MS-102.
- Outgoing distribution.
- Positive, negative and floating output voltages.
- Earth fault detector.
- Any kind of batteries: Sealed, Ni-Cd, wet, etc.
- Lighting arrestor.
- Output voltage reducer.
- Others IP.

► COMMUNICATIONS & services

- RS-232 and RS-485 serial ports.
- Relay interface.
- MODBUS communication protocol.
- Before and after sales advice service.
- Multiple maintenance and telemaintenance formulas.



► TECHNICAL SPECIFICATIONS

MODEL		FAC 1000P	FAC 2000P	FAC 2700P	FAC 5000P	
INPUT	AC voltage	230 V			230 V or 3 x 400 V	
	Voltage range	± 15%				
	Power factor	> 0,99 ⁽¹⁾				
	Nominal current	5,0 A	10,7 A	13,5 A	24,8 A	
	Maximum current	5,9 A	12,6 A	15,8 A	29,2 A	
	Efficiency	> 87%	> 82%	> 90%		
	Frequency	50 / 60 Hz				
	Protection	Electronic				
	OUTPUT	DC nominal voltage	12, 24, 36, 48, 60, 110, 125, 216, 220 V		48, 110, 125 V	12, 24, 36, 48, 60, 110, 125, 216, 220 V
		Voltage adjustment range	- 15% + 25%			
Accuracy		± 0,1% (with charged batteries)				
Nominal power		1000 W ⁽²⁾	2000 W ⁽³⁾	2700 W	5000 W ⁽³⁾	
Nominal current		25, 25, 24, 18, 14, 8, 7, 4, 4 A	75, 75, 48, 36, 29, 16, 14, 8, 8 A	49, 22, 20 A	181, 181, 121, 91, 72, 40, 36, 20, 20 A	
Psophometric noise		< 3 mV		< 1 mV	< 3 mV	
Load sharing		Active parallel				
STRUCTURE		Power factor corrector (PFC)	Yes ⁽¹⁾			
		Protection	Against 5 kV peaks (8 / 20 μs)			
BATTERY		Type	Pb-Ca or Ni-Cd			
	Charging curve	I / U constant				
	Charging current	0,1 to 0,3 C adjustable				
	Recharging time	Up to 80% in 4 hours (0,2 C)				
	Protections	Against overvoltages and undervoltages				
GENERALS	Dielectric strength	2000 V at 1 minute				
	Protection degree according with the standards	IP20				
	Insulation	> 20 MΩ				
	Acoustic noise at 1 metre	< 50 dB				
	Cooling	Forced	Controlled and forced	Forced		
	Operating temperature	0° C + + 40° C				
	Storage temperature ⁽⁴⁾	- 20° C + + 70° C				
	Relative humidity	Up to 95%, non-condensing				
	Maximum operating altitude	2400 m.a.s.l.				
	Mean Time Between Failures (MTBF)	100.000 hours	150.000 hours	100.000 hours		
	Mean Time To Repair (MTTR)	15 minutes				
	INDICATORS	LCD panel	Yes	NA	Yes	
		General alarm	Yes			
Equipment On		Yes				
Batteries on discharge / float		Yes	NA	Yes		
COMMUNICATIONS	Ports	RS-232 / RS-485 / relays				
STANDARDS	Safety	EN 60950-1				
	Electromagnetic compatibility (EMC)	EN 61204-3; ETS 300 386-2				
	Marking	CE				
	Manufacturing	ISO 9001 TÜV				

- (1) Single phase input only.
 (2) Except 12 V and 24 V output voltages.
 (3) Except 12 V output voltage.
 (4) No batteries.

Data liable to changes without prior notice.

► RANGE

RECTIFIER MODULE	DIMENSIONS (D x W x H mm)	WEIGHT (Kg)
FAC 1000P	425 x 483 x 2U	12
FAC 2000P	525 x 483 x 3U ⁽⁵⁾	15
FAC 2700P	450 x 73 x 6U	6
FAC 5000P	525 x 483 x 4U	28

(5) 2U for 48V models.

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