



Zenone Elettronica

AL3000R Series Cycler / Batteries simulator



- Regulation and control of power through a 32bit DSP.
- Modular architecture for a large configuration flexibility (5 to 1000 V, 5 to 5000A) and up over 500kW.
- Works in supply and load power input is fed back to the mains.
- Parallel up to 4 power supplies and ability to have multiple outlets in the same cabinet.
- Excellent performance including feedback entered through a floor specially designed to combine performance, robustness and low pollution.
- Access to the control law (PID settings).
- 2 analog inputs to regulate in voltage, current, power and control the simulation of internal resistance.
- Specifically designed for cycling and simulation batteries.

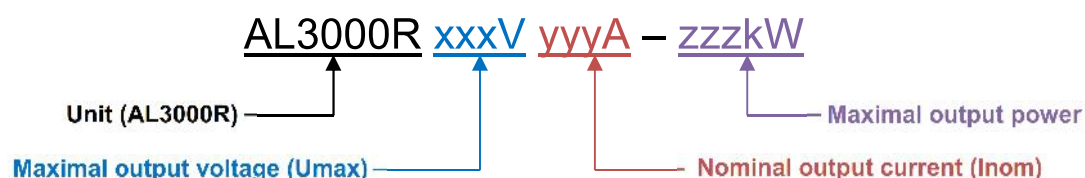
AL3000R.

Cycler / Batteries simulator

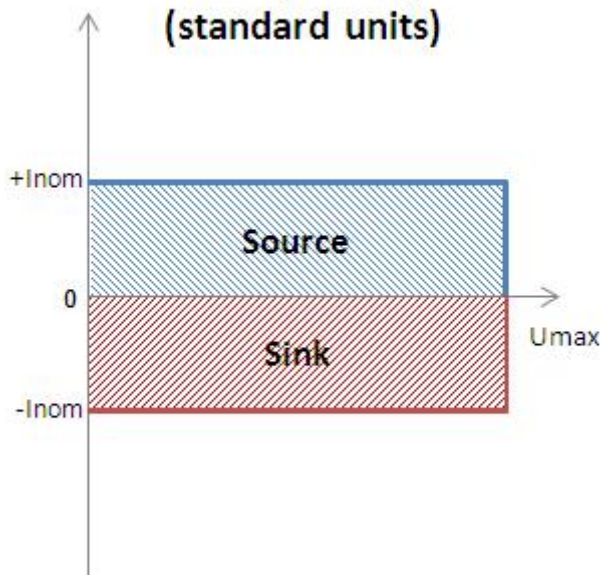
Input specifications							
Nominal input voltage:	400V L-L 3W + GND						
Voltage tolerance:	+/- 15%						
Line frequency:	45-60Hz						
Input current:	Max power	5kW	10kW	15kW	20kW	25kW	30kW
	I (AL3000R)	10A	20A	30A	40A	51A	61A
	Max power	40kW	50kW	60kW	80kW	100kW	120kW
	I (AL3000R)	81A	102A	122A	163A	204A	244A
	Max power	160kW	200kW	250kW	300kW	400kW	500kW
	I (AL3000R)	326A	408A	510A	612A	816A	1020A
<i>Intermediate configurations are available.</i>							
Line connection:	Internal clamps						
Power factor:	>0.95						

Operating area (standard units)

Reference description of standard units:



AL3000R operating area (standard units)

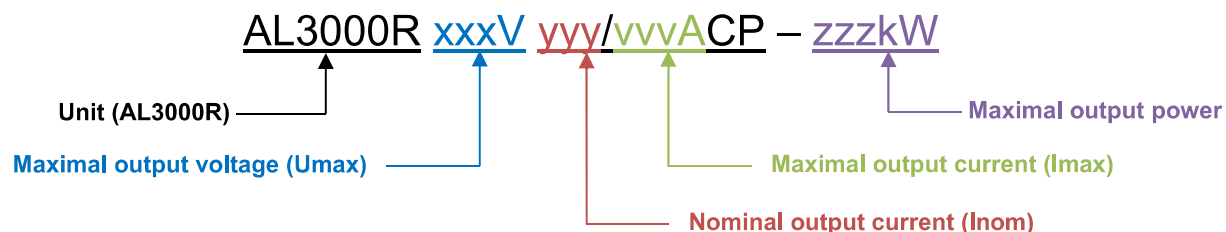


AL3000R.

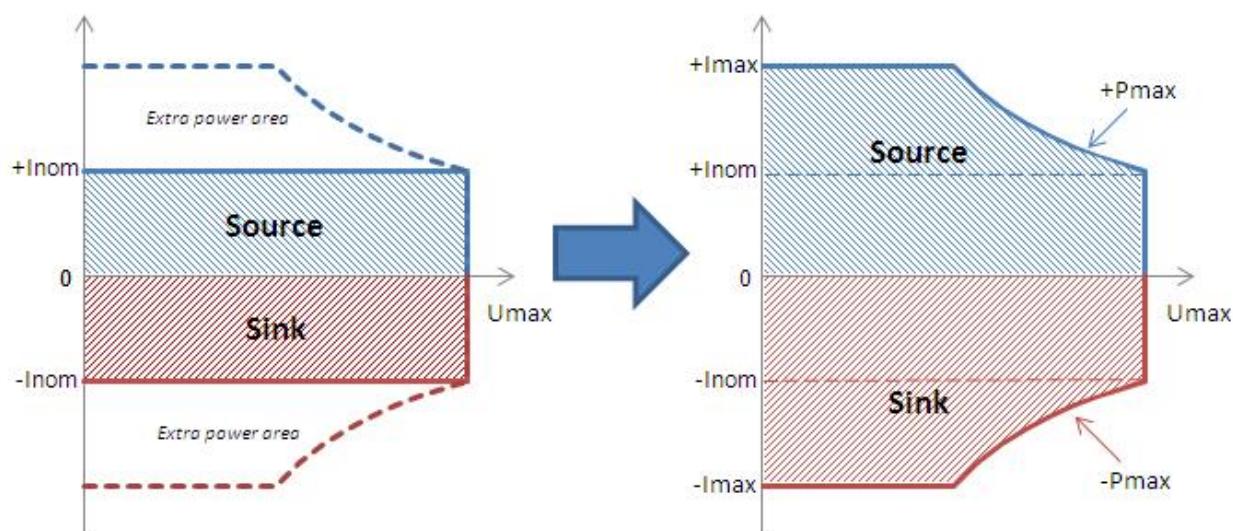
Cycler / Batteries simulator

Operating area (constant power units)

Reference description of constant power units:



AL3000R operating area (Constant Power units)



Output specifications (valid for both standard and constant power units)

Output voltage configurations:	0-5 to 0-1000V ; configurations up to 1400V are available with extra specifications
Output current configurations:	0-22A to 0-5000A
Operating modes:	Voltage source, Current source, Power source.
Voltage accuracy:	0.2% of F.S.
Current accuracy:	0.2% of F.S.
Line regulation:	0.1% of F.S.
Load regulation:	0.2% of F.S.
Linearity:	0.2% of F.S.
Max offset:	0.2%
Max ripple:	0.2% of F.S.
Transient response time:	200μs typ. for a 50% load variation
Maximal compensated voltage:	$U_{max} / 10$ (i.e. for a 400V unit, the maximal voltage drop compensated by the sense line is 40V)
Simulated output resistance	Range = 0 to 1000Ω ; resolution = 1mΩ

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Interfaces	
Front panel:	Voltage control though a 10 turns potentiometer Current control though a 10 turns potentiometer 3.5 digit digital voltage display 3.5 digit digital current display Emergency stop switch Line main circuit breaker
Communication interface:	RS-485
Digital inputs / outputs and safety interlock:	1x Normally opened no voltage contact for remote Run/Stop 1x PNP digital output signalling the output status (ON/OFF) 1x PNP digital output for alarm/fault signal. 1x Normally closed no voltage contact for safety interlock. Opening this contact disengage the MCB in order to disconnect the equipment from the mains (Emergency switch)
Analog inputs	2x 0-10V analog inputs. Analog inputs can be assigned to control U, I, P or the simulated resistance. Additional analog inputs can be installed, please consult your sales engineer for more information.
Built-in measurements:	16 bits Voltage measurement 16 bits Current measurement

Physical info					
Dimensions and weight:	Dimensions (W x D x H mm - approx.):				
	Up to 15kW:	600x600x1200		Up to 100kW:	1000x800x1800
	Up to 30kW:	600x600x1800		>100kW	Please consult.
	Up to 60kW:	800x800x1800			
	Dimensions above are given for reference only, cabinets sizes can vary according to the AL3000R maximal current, voltage and power.				
Temperature:	Operating: 5 to 40°C ; storage: -5 to 60°C.				

For more information, contact us

info@a-powergroup.com



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