

APOLLO S-210pH

Bidirectional Parallel Inverter

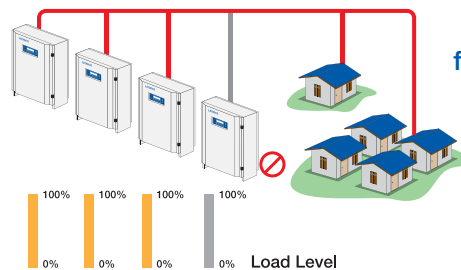
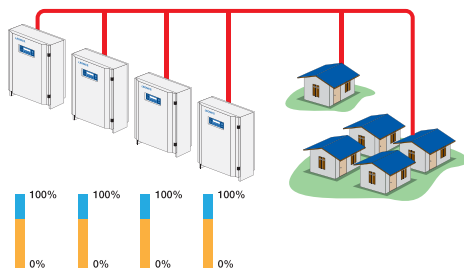


Tower



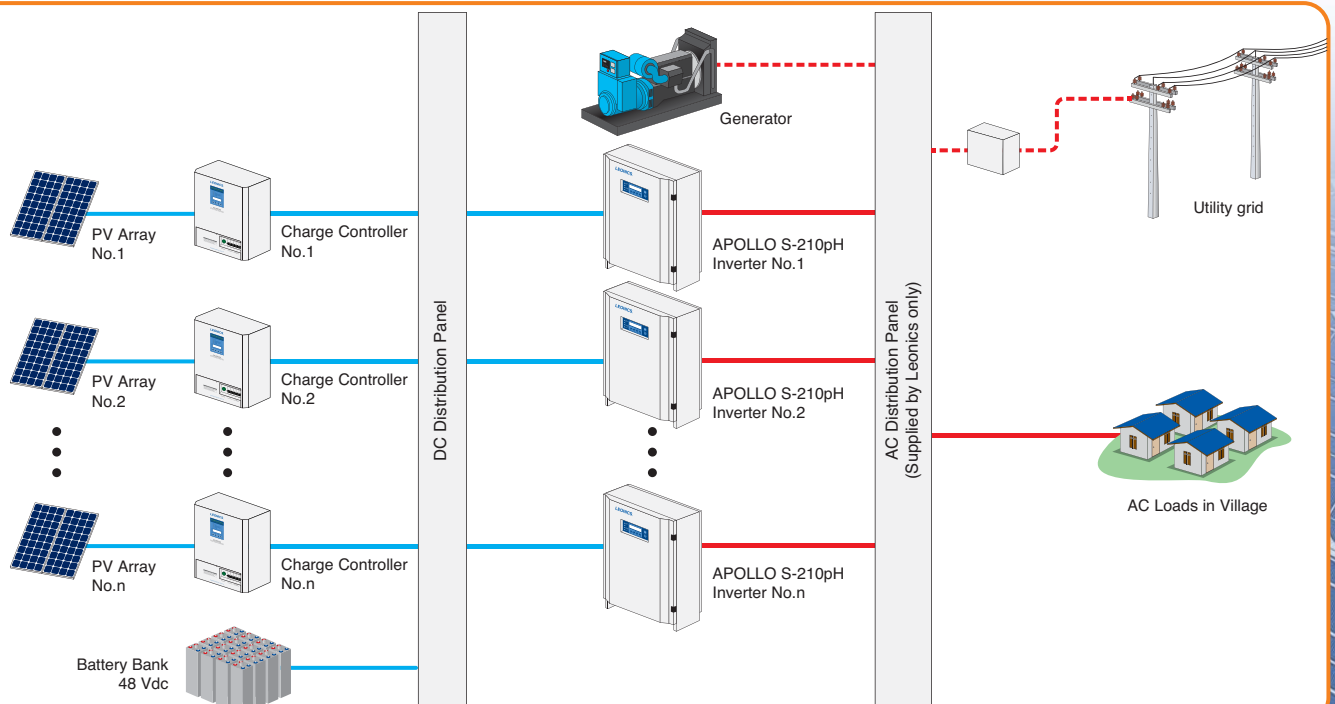
Rack Mount

- Parallel output capability
- Capable to operate in N+1 redundancy configuration for very high reliability in remote area
- High efficiency bidirectional inverter with built-in output transformer
- Capable to use with multiple renewable energy sources in both DC coupling and AC coupling such as PV panel, wind turbine generator and micro hydro generator
- Frequency shift energy management control
- Separate DC Bus for multiple source charging
- Multi-master PCU operation (No master unit required)
- Expandable power without master controller
- Digital input to select operation between inverter mode or charge mode
- Compatible with sealed lead acid (default), lead acid, lithium-ion and SoNick batteries
- Capable to interact with utility grid line (option)
- Capable to make in 3 phase configuration (option)
- Battery / PV ground fault detection (option)
- IP31 protection indoor enclosure (IP44 is optional)
- ISO 9001, ISO 14001 and ISO 45001 certified factory



N+1 Configuration
for village with stable load
power

The system demands for
high reliability of operation



APOLLO S-210pH series Bidirectional Parallel Inverter

MODEL		S-218CpH	S-219CpH	S-2110CpH		
		S-218CpH (L)	S-219CpH (L)	S-2110CpH (L)		
		S-218CpH/RM	S-219CpH/RM	S-2110CpH/RM	S-2111CpH/RM	S-2112CpH/RM
POWER	Rated power	3.5 kVA / 3.5 kW	5.0 kVA / 5.0 kW	6.0 kVA / 6.0 kW	7.5 kVA / 7.5 kW	10 kVA / 10 kW
	Max. power at 25°C for 1 hour	4 kW	5.5 kW	6.5 kW	8 kW	11 kW
BATTERY	Nominal voltage	48 Vdc				
	Voltage range	40 - 58 Vdc				
	Maximum charging current	40 A	60 A	70 A	85 A	120 A
	Maximum battery current	100 A	142 A	170 A	213 A	284 A
AC SOURCE (UTILITY GRID OR GENERATOR)	Recommended generator power	6 kVA	8 kVA	9 kVA	12 kVA	16 kVA
	Voltage	220 / 230 / 240 Vac (L-N) ± 10%				
	Phase	Single phase				
	Frequency	50 / 60 Hz ± 3 Hz				
	Max. AC current (for charge mode)	15.9 A	22.7 A	27.3 A	34.1 A	45.4 A
	Start / stop generator	Relay dry contact 10 A (ACC contact)				
AC OUTPUT	Voltage	220 / 230 / 240 Vac (L-N)				
	Voltage regulation	± 2% (steady load), < 7% at 100% step load within 0.1 sec.				
	Phase	Single phase				
	Frequency	50 / 60 Hz ± 0.5%				
	Wave form	Pure sine wave				
	Total harmonic distortion	total < 3%				
	Power factor	1				
	Maximum surge current	200%				180%
	Max. ouput over current protection	250%				200%
	Current (inrush) and duration	40 A @1 sec.	57 A @1 sec.	68 A @1 sec	85 A @ 1 sec.	91 A @ 1 sec.
	Maximum AC current	15.9 A	22.7 A	27.3 A	34.1 A	45.4 A
	Maximum output fault current	39.7 A	56.7 A	68.2 A	85.2 A	91 A
ISOLATION	Galvanic isolation	yes				
EFFICIENCY	Inverter peak efficiency	> 94%	> 96.5%			
PROTECTION		Over current, over load, short circuit, over temperature, over voltage, under voltage, battery reverse polarity				
	Battery temperature sensor	option				
DIGITAL INPUT SIGNAL		Auxillary inverter circuit breaker, Auxillary generator circuit breaker, Auxillary Bypass circuit breaker / Load transfer switch				
INDICATOR	LED	Stand by/Run, AC, Full battery/Low battery, Alarm				
	LCD display	Inverter (voltage / current / frequency / power / reactive power), Load (voltage / frequency), Battery (voltage / current / state of charge (%)), Equalization charge date, Heat sink temperature, Battery temperature (option), Today AC inverter energy (input / output), Today DC inverter energy (input / output), Accumlated AC inverter energy (input / output), Accumlated DC inverter energy (input / output),System status, Load transfer switch signal status, Digital input signal status, Time, Date, Data log				
AUDIBLE ALARM	Buzzer	Low battery, inverter fault, overload, short circuit, over temperature				
COOLING		Automatic cooling fan				
ENVIRONMENT	Temperature	0 - 50°C (Extended range: 0 - 70°C) (Output characteristic derate above 50°C)				
	Relative humidity	0 - 95 % (Non - condensing)				
	Pollution degree classification	III				
	Maximum operating altitude	2,000 m / 6,560 feet (without derating)				
DESIGN REGULATION	Standard	IEC 61683, IEC 62109-1, IEC 62109-2				
	Ingress protection	Tower: IP31 (IP44 is optional), Rack mount: IP30				
	Protective class	I				
	Overvoltage category	II (input and output) (in accordance with IEC 62109-1)				
	Isolation level	Isolation transformer (reinforced)				
DIMENSION (W x H x D)	Tower	53.9 x 72.4 x 31.4 cm				
	Rack mount with cabinet				54.6 x 100 x 70 cm	
	Rack mount for NODEX	49.8 x 26.8 x 55 cm			49.8 x 26.8 x 60 cm (Control unit) 49.8 x 26.8 x 60 cm (T/F unit)	
WEIGHT (Approx. in kg)	Tower	69 kg	72.6 kg			
	Rack mount with cabinet				180 kg	225 kg
	Rack mount (total weight)	63.5 kg	67 kg	68 kg	110 kg	130 kg

Continuous product development is our commitment. In that manner, the above specifications may be changed without prior notice.
Note: For APOLLO S-210pH (L) series, it has only input and output terminal blocks.

Authorized Distributor

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