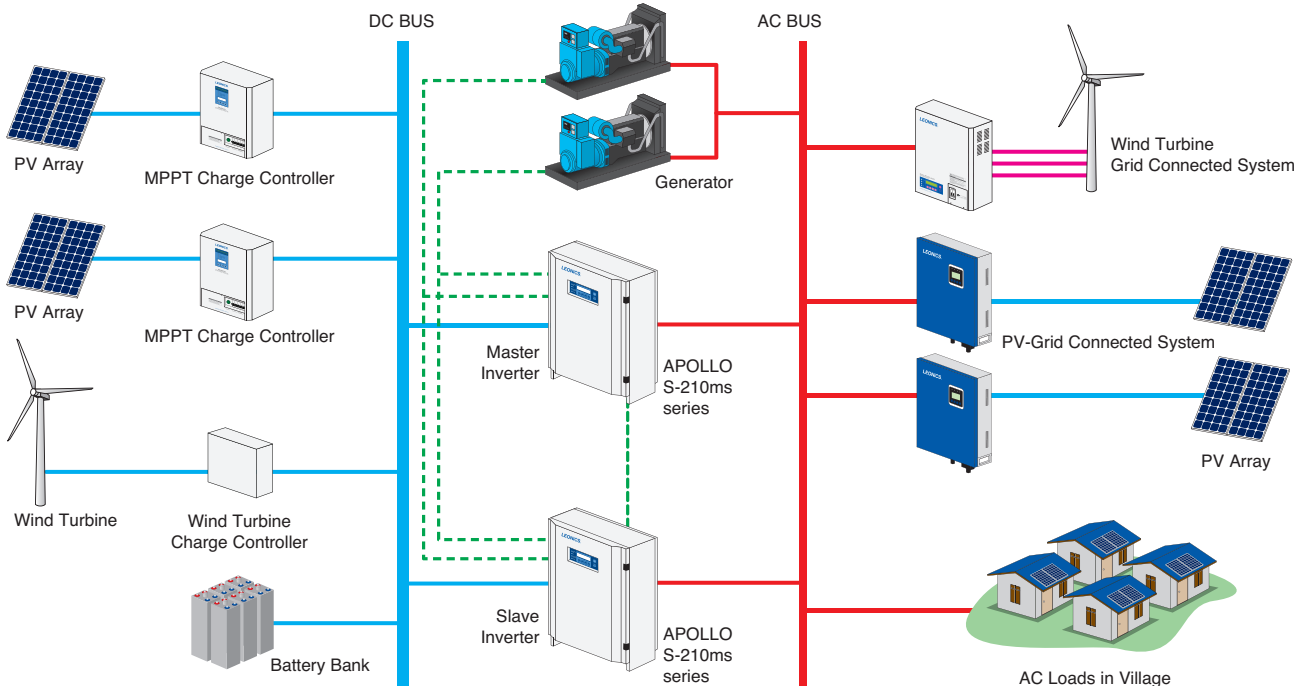


APOLLO S-210ms

Single Phase Bidirectional Dual Mode Hybrid Inverter for Mini-grid System



- Single phase bidirectional inverter with built-in output transformer
- Master-slave operation
- Share both real power and reactive power
- High reliability design for remote area
- Capable to use with multiple renewable energy sources in both DC coupling and AC coupling such as solar (PV) panel, wind turbine generator and micro hydro generator
- Monitor energy available from the renewable energy sources and minimize the charging current from the diesel generator
- Automatic / Manual generator control
- Automatic battery equalization (option) to prevent battery capacity loss and prolong battery life
- Battery temperature compensation (Temperature sensor is not included)
- Optic fiber communication between master and slave inverters
- Operate with System Control Unit (SCU) for using with Li-Ion battery and SoNick battery
- IP65 protection outdoor enclosure (option)
- ISO 9001, ISO 14001 and ISO 45001 certified factory



APOLLO S-210ms series is a single phase bidirectional dual mode hybrid inverter capable of functioning as a main supply power source as well as providing automatic control and management of a generator and battery bank. It can operate master-slave function which have the advantages to improve output power and reliability. The master inverter can control power sharing for slave inverter to make the system can run continuously. The inverter features very high efficiency in both charger and inverter modes with maximum efficiency of 95%. It is suitable for hybrid power system with supplement diesel generator in off-grid areas.

APOLLO S-210ms series Bidirectional Dual Mode Hybrid Inverter

MODEL		S-219Cms	S-2110Cms	S-2111Cms
RATED POWER	At 25°C cos ϕ = 1	5 kVA / 5 kW	6 kVA / 6 kW	7.5 kVA / 7.5 kW
AC POWER	At 25°C for 30 min / 5 min / 3 sec	5.3 kW / 7.3 kW / 10 kW	6.4 kW / 8.8 kW / 12 kW	8 kW / 11 kW / 15 kW
BATTERY	Nominal voltage	48 Vdc		
	Voltage range	40 - 58 Vdc		
	Maximum charging current	70 A	84 A	105 A
	Maximum battery current	167 A	200 A	250 A
AC SOURCE (GRID LINE OR GENERATOR)	Recommended generator power	20 kVA	24 kVA	30 kVA
	Voltage	220 / 230 / 240 Vac (L-N)		
	Phase	Single phase		
	Frequency	50 / 60 Hz $\pm$ 3 Hz		
	Maximum AC current	50 A	60 A	75 A
	Start / stop generator	Relay dry contact 10 A (ACC contact)		
AC OUTPUT	Voltage	220 / 230 / 240 Vac (L-N)		
	Voltage regulation	$\pm$ 3% (steady load), < 7% at 100% step load within 0.1 sec.		
	Phase	Single phase		
	Frequency	50 / 60 Hz $\pm$ 0.1% (auto sensing)		
	Wave form	Pure sine wave		
	Total harmonic distortion	total < 3%		
	Maximum surge current	200%		
	Maximum AC current	22.7 A	27.3 A	34 A
ISOLATION	Galvanic isolation	yes		
EFFICIENCY	Inverter peak efficiency	> 95%		
PROTECTION		Over current, over load, short circuit, over temperature, over voltage, under voltage		
FEATURES	Battery temperature sensor	option		
	External DC interface	DC-CT (option)		
	Manual bypass selector switch	yes		
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, Battery temperature (option), Today AC inverter energy (input / output), Today DC inverter energy (input / output), Accumulated AC inverter energy (input / output), Accumulated DC inverter energy (input / output), System status, Time, Date, Data and Event log		
AUDIBLE ALARM	Buzzer	Low battery, inverter fault, overload, short circuit, over temperature		
COOLING		Automatic cooling fan		
ENVIRONMENT	Temperature	0 - 45°C		
	Relative humidity	0 - 95 % (Non - condensing)		
DESIGN	Standard	AS/NZ 3100:2002, IEC 61683 (for efficiency test)		
REGULATION	Enclosure	IP30		
DIMENSION (W x H x D)	Master inverter	54.6 x 100 x 70 cm		
	Slave inverter	54.6 x 100 x 70 cm		
WEIGHT	Master / Slave inverter (approx. in kg)	70 kg / 70 kg	75 kg / 75 kg	85 kg / 85 kg

Continuous product development is our commitment. In that manner, the above specifications may be changed without prior notice.

Authorized Distributor

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