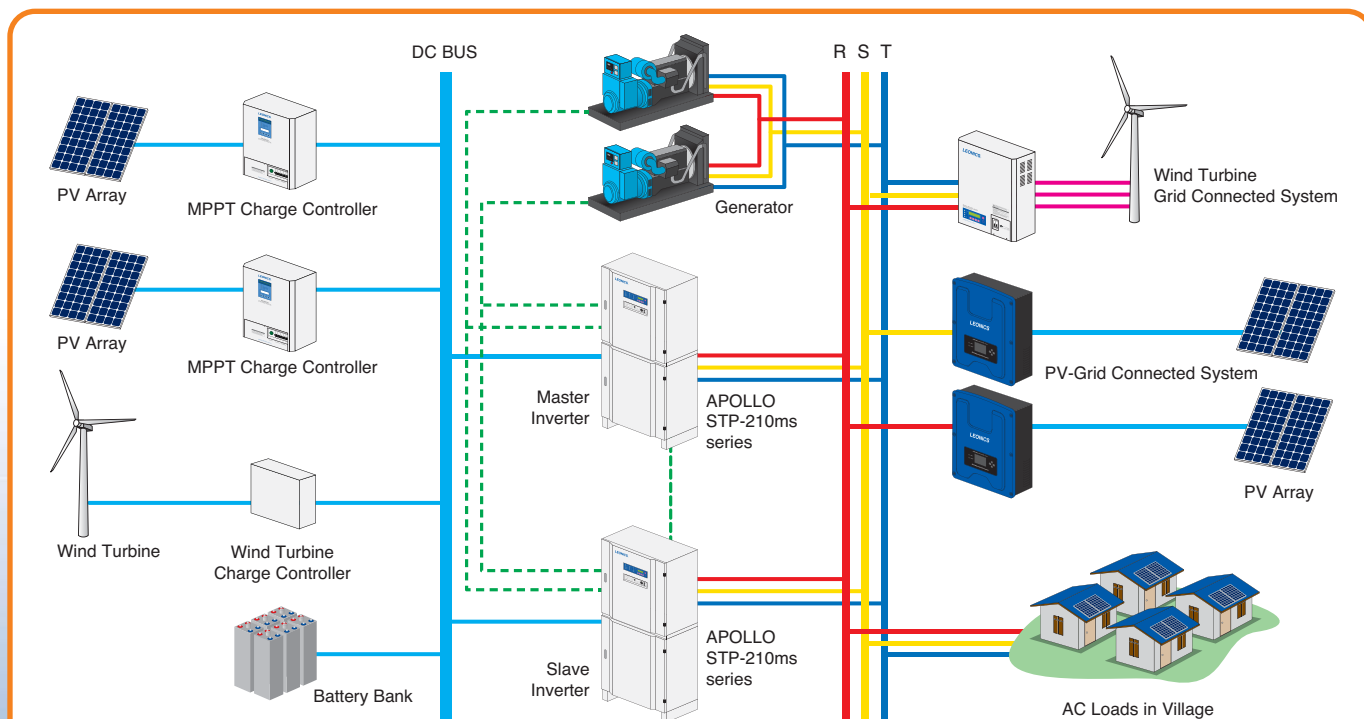


APOLLO STP-210ms

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



- Three 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 (DC) 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 Hybrid System Control Command Unit (HCCU) (option)
- IP65 protection outdoor enclosure (option)
- ISO 9001 and ISO 14001 certified factory



APOLLO STP-210ms series is a Three 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 STP-210ms series Three Phase Bidirectional Hybrid Inverter

MODEL		STP-219Cms	STP-2110Cms	STP-2111Cms
RATED POWER	At 25°C cos ϕ = 1	15 kVA / 15 kW	18 kVA / 18 kW	22.5 kVA / 22.5 kW
AC POWER	At 25°C for 30 min / 5 min / 3 sec	16 kW / 22 kW / 30 kW	20 kW / 26.3 kW / 36 kW	24 kW / 33 kW / 45 kW
BATTERY	Nominal Voltage	48 Vdc		
	Maximum charging current	200 A	240 A	300 A
	Maximum battery current	390 A	460 A	575 A
AC SOURCE (GRID LINE OR GENERATOR)	Recommended generator power	23 kVA	27 kVA	34 kVA
	Voltage	380 / 400 / 415 Vac (L-L), 220 / 230 / 240 Vac (L-N)		
	Phase	Three phase		
	Frequency	50 / 60 Hz $\pm$ 3 Hz		
	Maximum AC current	22.7 A	27.3 A	34 A
	Start / stop generator	Relay dry contact 10 A (ACC contact)		
AC OUTPUT	Voltage	380 / 400 / 415 Vac (L-L), 220 / 230 / 240 Vac (L-N)		
	Voltage regulation	$\pm$ 3% (steady load), < 7% at 100% step load within 0.1 sec.		
	Phase	Three 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		
	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), AC Bus (voltage, frequency), Battery (voltage, current, state of charge (%)), External DC charging current, Charging status, Battery charging voltage set points, Equalization charge date, Heat sink temperature, 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, Load transfer switch signal status, Digital input signal status, Time, Date, Data and Event log		
AUDIABLE 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	IP65 (option)		
DIMENSION (W x H x D in cm)	Control unit	70 x 67 x 55		
	Transformer unit	70 x 83 x 55		
WEIGHT Approximate in kg	Control unit	68 kg	81 kg	81 kg
	Transformer unit	176 kg	198 kg	217 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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