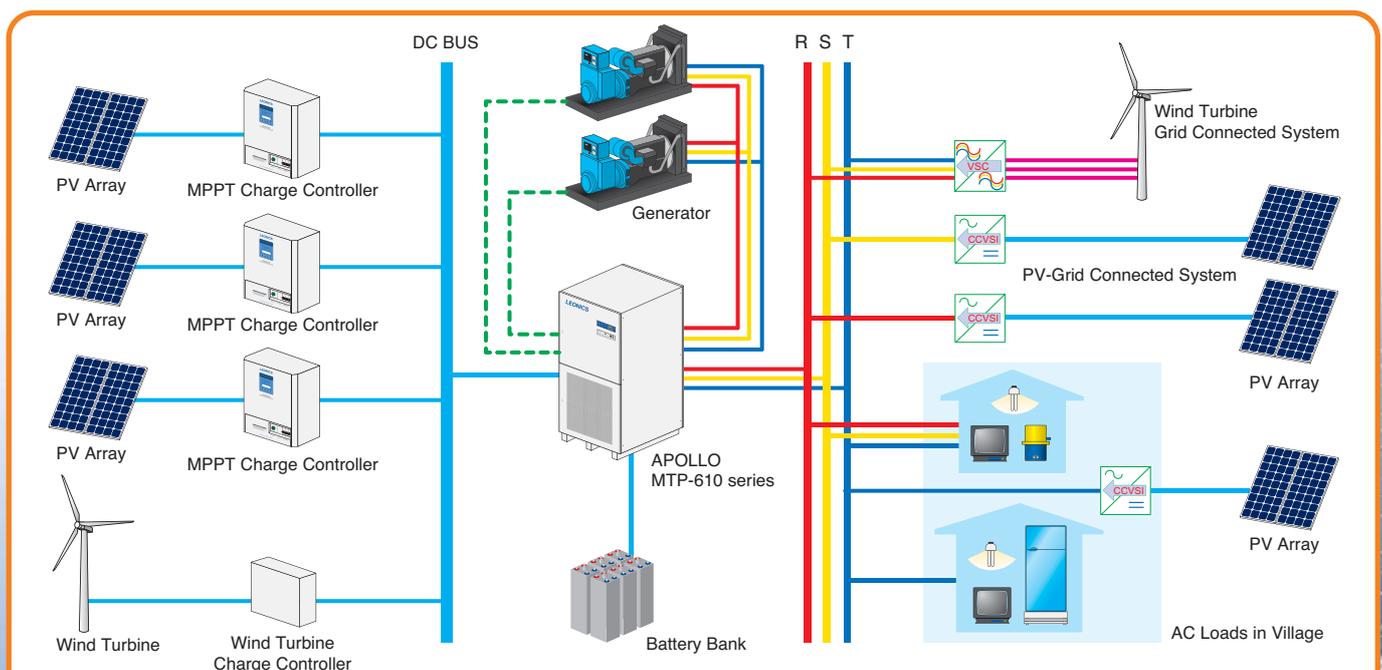


## APOLLO MTP-610

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



- Three phase bidirectional inverter with built-in output transformer
- Low harmonic distortion (less than 3%)
- High efficiency > 95%
- High reliability design for remote area
- Separate DC Bus for multiple source charging
- 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)
- Preset time schedule by System Command Unit (SCU) for automatic controlling the auxiliary power sources such as generators in mini-grid system (option)
- Operate with Hybrid System Control and Command Unit (HCCU)
- IP65 protection outdoor enclosure (option)
- ISO 9001 and ISO 14001 certified factory



APOLLO MTP-610 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. 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 MTP-610 series Three Phase Bidirectional Dual Mode Hybrid Inverter for Mini-Grid System

MODEL	MTP-611E	MTP-612E	MTP-613E	MTP-611F	MTP-612F	MTP-613F	MTP-614F	MTP-615F	MTP-616F	MTP-617F	MTP-618F	MTP-619F	MTP-6110F	MTP-6111H	MTP-6113H	MTP-6115H	MTP-6117H		
RATED POWER	10 kW	15 kW	25 kW	10 kW	15 kW	25 kW	30 kW	45 kW	60 kW	75 kW	90 kW	100 kW	120 kW	150 kW	200 kW	250 kW	300 kW		
BATTERY	Nominal Voltage	120 Vdc						240 Vdc						480 Vdc					
	Max. charging current	56 A	84 A	130 A	28 A	42 A	72 A	84 A	125 A	168 A	200 A	250 A	280 A	335 A	200 A	280 A	350 A	418 A	
	Max. battery current	114 A	170 A	284 A	57 A	85 A	142 A	170 A	255 A	340 A	425 A	510 A	570 A	680 A	425 A	570 A	710 A	850 A	
EXTERNAL DC CHARGER*	Nominal voltage	120 Vdc						240 Vdc						480 Vdc					
	Maximum current	100 A	100 A	200 A	57 A	60 A	100 A	100 A	200 A	300 A	300 A	400 A	400 A	400 A	300 A	400 A	400 A	500 A	
AC INPUT FROM GENERATOR	Recommended generator power	> 20 kW	> 30 kW	> 50 kW	> 20 kW	> 30 kW	> 50 kW	> 60 kW	> 90 kW	> 120 kW	> 150 kW	> 180 kW	> 200 kW	> 240 kW	> 300 kW	> 400 kW	> 500 kW	> 600 kW	
	Voltage	380 / 400 / 415 Vac (L-L), 220 / 230 / 240 Vac (L-N) ± 10%																	
	Phase	Three phase																	
	Frequency	50 / 60 Hz ± 3 Hz																	
	Max. AC current	32 A	48 A	80 A	32 A	48 A	80 A	96 A	144 A	191 A	240 A	287 A	319 A	382 A	478 A	637 A	796 A	955 A	
	Automatic start / stop	Relay dry contact 10 A (2 sets of ACC contact for 2 generators)																	
AC OUTPUT	Voltage	380 / 400 / 415 Vac (L-L), 220 / 230 / 240 Vac (L-N)																	
	Voltage regulation	± 3% (steady load), < 7% at 100% step load within 0.1 sec.																	
	Phase	Three phase																	
	Frequency	50 / 60 Hz ± 0.1% (auto sensing)																	
	Wave form	Pure sine wave																	
	THD	total < 3%																	
	Max. surge current	200%																	
	Max. AC current	15.2 A	22.7 A	37.8 A	15.2 A	22.7 A	37.8 A	45.4 A	68.2 A	90.9 A	113.6 A	136.3 A	151.5 A	181.8 A	227.3 A	303 A	378.8 A	454.5 A	
ISOLATION	Galvanic isolation	yes																	
EFFICIENCY	Inverter peak efficiency	> 94%						> 95%											
PROTECTION		Over current, Over load, Short circuit, Over temperature, Over voltage, Under voltage																	
INDICATOR	LED	External Charging, Bypass, Generator Running, Generator Failure, Stand by/Run, Inverter, Charging, Load on Inverter, Overload, Low Battery, High temperature, Fault																	
	LCD display	Inverter (voltage, current, frequency, power, reactive power), Generator (voltage, current, frequency, power, reactive power), Battery (voltage, current, state of charge(%), charging current), Heat sink temperature, Battery temperature (option), Equalization date, Today DC Inverter Energy (Input, output) Today AC Inverter Energy (input, output), Accumulated DC energy (input, output), Accumulated AC Energy (input, output), System status, Time, Date, Data Log																	
AUDIABLE ALARM		Low battery, Inverter fault, High 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	IP31 (IP65 option)	IP54 (IP65 option)	IP31 (IP65 option)	IP54 (IP65 option)	IP31													
	Control Unit	60 x 188 x 105						90 x 212 x 100			150 x 212 x 82				110 x 205 x 105				
W x H x D (cm)	Transformer Unit	-						-			-				110 x 205 x 105				
WEIGHT (approx. in kg)	Control Unit	490	500	510	490	500	510	540	560	815	860	1,015	1,045	1,215	1,375	1,495	780	780	
	Transformer Unit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,360	1,460	

Continuous product development is our commitment. In that manner, the above specifications may be changed without prior notice. **Note:** \*As specified in the order.

Authorized Distributor

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