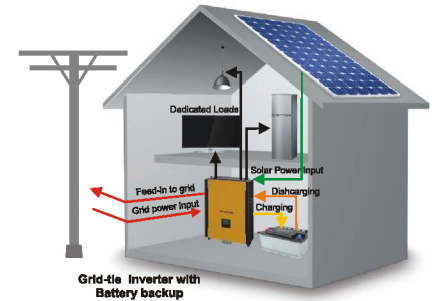


# Grid-tie Inverter (Hybrid Inverter) with Battery backup



- Pure sine wave output
- Local Load Consumption and Export to grid
- Can be programmed supply priority for Solar, Battery or Grid
- User-adjustable charging current and voltage
- Programmable multiple operation modes Like On-Grid, Off-Grid and On-Grid with Battery Backup
- Parallel operation up to 6 units available for 3kw/4kw/5kw & 10kw Models (Optional)
- Communication - RS - 232, Modbus, SNMP & GPRS (Optional)



Power One Hybrid Inverter is a flexible and intelligent inverter which utilizes Solar power, AC Grid and Battery power source to supply continuous power to Load. It's a simple and smart solar power storage system with grid export facility for Customers to either store energy into a battery and can be use in night or use for self-consumption depending on demands. Priority for power source can be programmed and set up through smart software. During night time or power outages, it will automatically extract power from the battery source. In this way, it will reduce dependence on the Grid power.

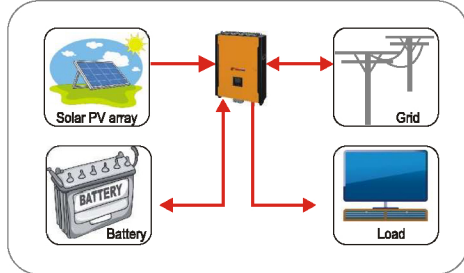
## Exporting is not only choice

In comparison with conventional Grid-tie inverter, Hybrid Inverter is able to export power to the grid & also store solar power to the battery for future usage and directly power to the loads in Off grid mode during grid power failure.

### Conventional Way (Grid-tie Inverter)

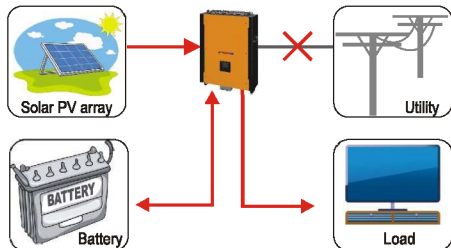


### Innovative Way



## Power backup when AC Grid failed

Hybrid Inverter can work as an Off-grid inverter to provide continuous power even without Grid by using Solar & Battery power. It's a perfect power solution for remote regions.



Technical Specifications of Power-One Hybrid Inverter (On-Grid with Energy Storage)									
Capacity	1 KW	2 KW	3 KW	4 KW	5 KW	10 KW	15 KW	20 KW	30 KW
Model No.	1 KW - SGTU - 101B	2 KW - SGTU - 102B	3 KW - SGTU - 103B - SM	4 KW - SGTU - 104B	5 KW - SGTU - 105B	10 KW - SGTU - 103B	15 KW - SGTU - 153B	20 KW - SGTU - 203B	30 KW - SGTU - 303B
<b>RATED OUTPUT POWER</b>	1000 W	2000 W	3000 W	4000 W	5000 W	10000 W	15000 W	20000 W	30000 W
<b>PV INPUT ( DC )</b>									
Max. PV Power	1000 W	2000 W	4000 W	4000 W	6000 W	10000 W	15000 W	20000 W	30000 W
Max. PV Array Open Circuit Voltage	145 VDC					900 VDC		950 VDC	
MPPT Range at Operating Voltage	15 VDC - 115 VDC	30 VDC - 115 VDC	60 VDC - 115 VDC		400 VDC - 800 VDC		500 VDC - 900 VDC		
Number of MPPT	1			2		2	1	1	1
<b>GRID-TIE OPERATION</b>									
<b>GRID OUTPUT ( AC )</b>									
Nominal Output Voltage	220 / 230 / 240 VAC					230 VAC ( P - N ) / 400 VAC ( P-P )			
Feed-in Grid Voltage Range	184 - 264 VAC OR 195 - 253 VAC ( Settable )					184 - 265 VAC Per Phase			
Feed-in Grid Frequency Range						47.5 Hz - 57.5 Hz			
Nominal Output Current	4.3A	8.7A	13A	17.4A	21.7A	14.5A Per Phase	21.65A Per Phase	29A Per Phase	43.5A Per Phase
Power Factor	> 0.99								
Maximum Conversion Efficiency ( DC/AC )	86%	90%	92.50%	93%	92.50%	93.50%	93%		95%
<b>OFF-GRID OPERATION ( HYBRID MODE )</b>									
<b>GRID INPUT</b>									
Acceptable Input Voltage Range	170 - 280 VAC Per Phase								
Nominal Frequency	50 Hz								
Maximum AC Input Current	30A		40A			40A Per Phase	50A Per Phase		65A Per Phase
<b>BATTERY MODE OUTPUT ( AC )</b>									
Nominal Output Voltage	220/230/240 VAC					230 VAC (P-N) / 400 VAC (P-P)			
Output Waveform	Pure Sine Wave								
<b>BATTERY &amp; CHARGER</b>									
Nominal DC Voltage	12 VDC	24 VDC	48 VDC			384 VDC			
Maximum Charging Current	140A		180A	200A		50A		80A	
<b>INTERFACE</b>									
Parallel Function ( optional )	N/A	N/A	Yes			Yes	N/A	N/A	N/A
Communication ( optional )	USB or RS232 / Dry-Contact / SNMP / GPRS or Modbus								
<b>ENVIRONMENT</b>									
Humidity	0 - 90% RH ( Non-condensing )								
Operating Temperature	-10°C to 55°C ( Power derating above 50°C )								
Installation	Indoor Only								
<b>STANDARDS</b>									
Energy Efficiency	IEC 61683								
Environmental	IEC 60068 - 2 ( 1, 2, 14, 30 )								
Safety	IEC/EN 62109-1 : 2010, IEC/EN 62109.2 : 2011								
Ant Islanding	IEC 62116								
Utility Interface	IEC 61727								
EMC	EN 61000-6-1 : 2007, EN 61000-3-2 : 2006 + A1 : 2009 + A2 : 2009, EN 61000-6-3 : 2007 AND EN 61000-3-3 : 2008								

\* Battery is must for all capacity of inverters.

\* Product specifications are subject to change without prior notice

GRID-TIE INVERTER WITH BATTERY BACKUP