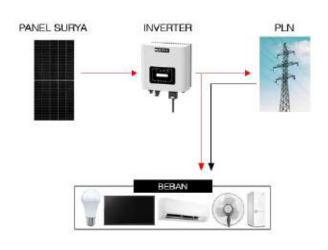
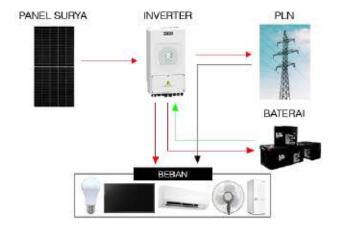
# Jenis Jenis Teknologi Solar Cell



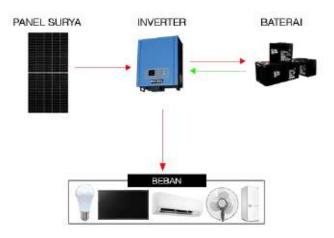
## ONGRID Tanpa Baterai

- ✓ Terhubung dengan jaringan PLN
- ✓ Mengurangi tagihan PLN dengan KWh Exim
- ✓ Bila listrik PLN padam PLTS ikut padam



## ONGRID dengan Battery (Hybrid)

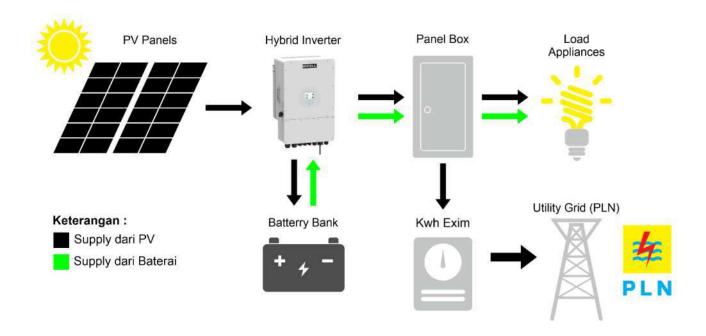
- ✓ Terhubung dengan jaringan PLN
- ✓ Mengurangi tagihan PLN dengan KWh Exim
- ✓ Menggunakan energi baterai saat listrik padam



## OFFGRID (Stand Alone)

- ✓ PLTS tetap berjalan walau tanpa PLN
- ✓ Baterai sebagai wadah sumber listrik utama.





### Cara Kerja Sistem Hybrid

- 1. Solar Panel merubah sinar matahari menjadi arus listrik DC.
- 2. Inverter merubah arus listrik DC menjadi arus listrik AC.
- 3. Inverter mengirim kelebihan listrik yang dihasilkan solar panel ke baterai
- 4. Listrik AC dikirim ke panel listrik utama yang terhubung langsung ke jaringan.
- 5. Ketika baterai penuh, kelebihan listrik dikirim ke jaringan listrik dan otomatis mengurangi beban listrik tertagih.

## **HYBRID Inverter**

## 1 phase



## HYBRID Inverter 3,6 kW – 5 kW

1 phase

#### **Feature Highlights:**

- 6 time periods for battery charging/discharging
- ✓ IP65 Protection Degree
- ✓ DC couple & AC couple to retrofit existing solar system.
- Max. charging/discharging current of 135A
- Support storing energy from diesel generator
- ✓ Frequency droop control, Max.16pcs parallel

Model	HI-3.6K-1PH	HI-5K-1PH
Battery Input Data		
Battery Type	Lead-acid or Lithium-ion	
Battery Voltage Range (V)	40~60	
Max. Charging Current (A)	90	120
Max. Discharging Current (A)	90	120
Charging Curve	3 Stages / Equalization	
External Temperature Sensor	Yes	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	
PV String Input Data		
Max. DC Input Power (W)	4680	6500
PV Input Voltage (V)	370 (125~500)	
MPPT Range (V)	150~425	
Full Load DC Voltage Range (V)	300~425	
Start-up Voltage (V)	125	
PV Input Current (A)	13+13	
Max. PV ISC (A)	17+17	
No.of MPPT Trackers	2	
No.of Strings Per MPPT Tracker	1+1	

Note: Model, varian, harga dan spesifikasi dapat berubah sewaktu-waktu tanpa pemberitahuan.



## HYBRID inverter, 1 Phase 3,6 kW - 5 kW

Model	HI-3.6K-1PH	HI-5K-1PH
AC Output Data		
Rated AC Output and UPS Power (W)	3600	5000
Max. AC Output Power (W)	3960	5500
Peak Power (off grid)	2 times of rated power, 10 S	
AC Output Rated Current (A)	15.7	22.7
Max. AC Current (A)	18	25
Max. Continuous AC Passthrough (A)	35	
Power Factor	0.8 leading to 0.8 lagging	
Output Frequency and Voltage	50/60Hz; 220/230 Vac (single phase)	
Grid Type	Single Phase	
Current Harmonic Distortion	THD<3% (Linear load<1.5%)	
Efficiency	mint on person of the property of the propert	
Max. Efficiency	97.60%	
Euro Efficiency	96.50%	
MPPT Efficiency	99.90%	
Protection		
PV Input Lightning Protection	Integrated	
Anti-islanding Protection	Integrated	
PV String Input Reverse Polarity Protection	Integrated	
Insulation Resistor Detection	Integrated	
Residual Current Monitoring Unit	Integrated	
Output Over Current Protection	Integrated	
Output Shorted Protection	Integrated	
Output Over Voltage Protection	Integrated	
Surge protection	DC Type II / AC Type II	
General Data		
Operating Temperature Range (°C)	-45~60°C, >45°C Derating	
Cooling	Natural cooling	
Noise (dB)	<30 dB	
Communication with BMS	RS485; CAN	
Weight (kg)	20.5	
Size (mm) (WxHxD)	330×580×232	
Protection Degree	IP65	
Installation Style	Wall-mounted	
Warranty	5 years	

Note: Model, varian, harga dan spesifikasi dapat berubah sewaktu-waktu tanpa pemberitahuan.

### HYBRID inverter, 3 Phase 8 kW - 10 kW

Model	HI-8K-3PH	HI-10K-3PH	
Battery Input Data			
Battery Type	Lead-acid or Li-lon		
Battery Voltage Range (V)	40~60		
Max. Charging Current (A)	190	210	
Max. Discharging Current (A)	190	210	
Charging Curve	3 Stages / Equalization		
External Temperature Sensor	Yes		
Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
PV String Input Data			
Max. DC Input Power (W)	10400	13000	
Rated PV Input Voltage (V)	550		
Max. PV Input Voltage (V)	800		
Min. PV Input Voltage (V)	150		
Start-up Voltage (V)	160		
MPPT Range (V)	200-650		
Full Load DC Voltage Range (V)	350-650		
PV Input Current (A)	13+13	34+17	
Max. PV ISC (A)	17+17	34+17	
Number of MPPT / Strings per MPPT	2/1+1	2/2+1	
AC Output Data			
Rated AC Output and UPS Power (W)	8000	10000	
Max. AC Output Power (W)	8800	11000	
Peak Power (off grid)		ed power, 10 S	
AC Output Rated Current (A)	12.1	15.2/14.5	
Max. AC Current (A)	18.2	22.7/21.7	
Max. Continuous AC Passthrough (A)	4	<b>1</b> 5	
Output Frequency and Voltage	50/60Hz; 220/380, 230/400Vac		
Grid Type	Three Phase		
Current Harmonic Distortion		ear load<1.5%)	
Efficiency	(		
Max. Efficiency	97.0	60%	
Euro Efficiency	97.00%		
MPPT Efficiency	99.90%		
Protection		T-7.15.79	
PV Input Lightning Protection	Inted	grated	
Anti-islanding Protection	Integrated		
PV String Input Reverse Polarity	450 8 W - 70 8		
Protection	Integrated		
Insulation Resistor Detection	Integrated		
Residual Current Monitoring Unit	Integrated		
Output Over Current Protection	Integrated		
Output Shorted Protection	Integrated		
Output Over Voltage Protection	Integrated		
Surge protection	DC Type II / AC Type II		
General Data	Бо турс п	туролг	
Operating Temperature Range (°C)	-45~60°C >4	45°C Derating	
Cooling	-45~60°C, >45°C Derating Smart cooling		
Noise (dB)	<45 dB		
Communication with BMS	RS485; CAN		
Weight (kg)			
Size (mm) (WxHxD)	33.6 422×699.2×279		
Protection Degree	422×699.2×279 IP65		
Installation Style	Wall-mounted		
Warranty	5 years		

Note: Model, varian, harga dan spesifikasi dapat berubah sewaktu-waktu tanpa pemberitahuan.