



ALLIS ELECTRIC CO.,LTD.

**SOLAR  
POWER**



# Photovoltaic Inverter

Renewable Energy -  
Environmentally Friendly and Low Cost Energy Solutions



Since 1968



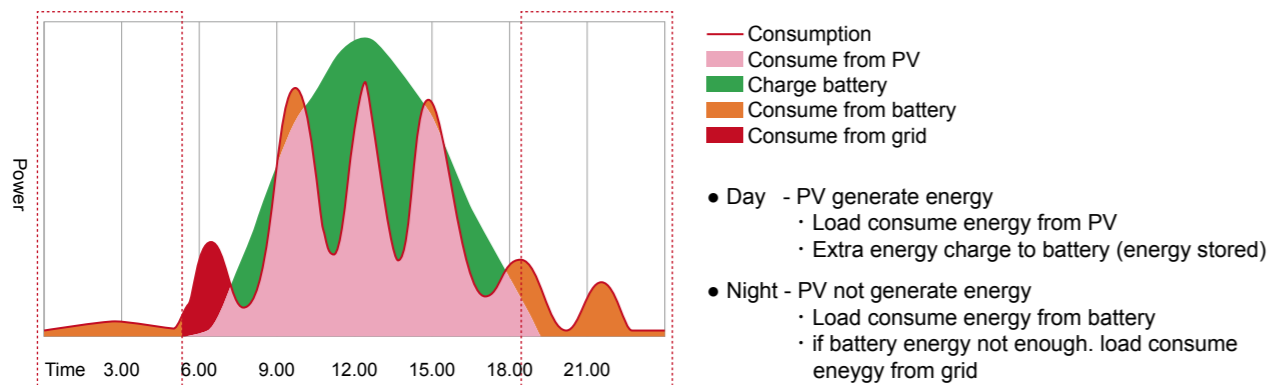
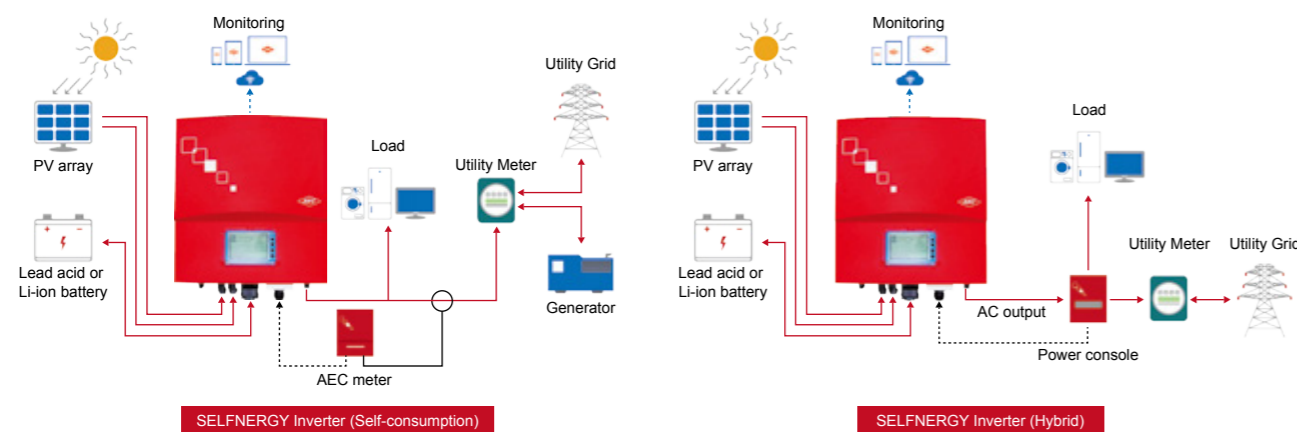


# SELFNERGY SERIES

Single phase Self-Consumption Management  
3.3 kW - 5kW

**Features :**

- Self consumption application of solar power energy storage system
- User-friendly-interface to monitor energy flow easily
- Intelligent load management with smart meter and split-core CT
- Special external capacitor modular design extends life span
- IP65 fan-less nature cooling design
- Work up to 50°C without derating
- High battery discharge power (5.3kW), charge/ discharge efficiency > 95%
- Applicable to connect with Genset to maximize fuel efficiency and reduce fuel cost



**Specification :**

Model	Selfnergy-3300	Selfnergy-5000
<b>Output Data (AC)</b>		
Maximum AC Output	3,300W	5,000W*
Maximum AC Output Current	16.5 a.c.A	24.5 a.c.A
Nominal AC Voltage	220 a.c.V-240 a.c.V	
Grid AC Frequency	50/60Hz, auto-selection	
Power Factor	> 0.99 @ 20% load	
Reactive Power Factor	1 or adjustable from -0.9 to +0.9**	
Total Harmonic Distortion	< 3%	
AC connection / Grid forms	Single-Phase / TN-C, TN-S, TN-C-S	
<b>Input Data (DC)</b>		
Maximum DC Power	3,600W	5,300W
Maximum DC Input Current	18 d.c.A	26.5 d.c.A
Max. number of MPP Trackers	1	
Maximum DC Voltage	650 d.c.V	
MPP Tracking Voltage Range	150 d.c.V - 500 d.c.V	
Peak Power Tracking Voltage Range	200 d.c.V - 460 d.c.V	
<b>Input Data (Battery)</b>		
Maximum Discharging Power	3,600W	5,300W
Maximum Discharging Current	18 d.c.A	24.5 d.c.A
Maximum Charging Current	20 d.c.A	
Maximum Battery Voltage	400 d.c.V	
Configurable Battery Voltage Range	198 d.c.V - 400 d.c.V	
Charge Control	Contant Current (CC), Constant Voltage (CV)	
<b>Efficiency</b>		
MPPT Efficiency	>99.9%	
Maximum Efficiency	96.5%	96.9%
Euro. Efficiency	96.1%	96.6%
Consumption: Standby / Night	<12.5W / <0.5W	
<b>General Specification</b>		
Dimensions (W x H x D) in mm	405 x 442 x 165	
Weight	25.8kg	
Cooling Concept	Natural Cooling	
Acoustic Noise Level	< 35dB(A)	
Maximum Operating Temperature Range without derating	-20 °C to +55 °C	-20 °C to +50 °C
Ambient Temperature Range	-25 °C to +60 °C	
Relative Humidity	0 to 95%, non-condensing	
Protection Degree	IP65	
Topology	Transformerless	
<b>Features</b>		
DC Connection	PV4 , MC4	
DC Disconnect	yes	
AC Connection	AC connectors	
Display	Graphic LCD screen	
Communication Interface	RS485 ; Ethernet (Option), WIFI (Option)	
Safety	VDE-AR-N 4105 ; IEC 62109-1 / -2	
Warranty	1 year	

\* For VDE-AR-N4105, the inverter is rated 4,600VA

\*\* Adjustable from 0.95 over-excited to 0.95 under-excited with VDE-AR-N 4105

\*\*\* Specifications are subject to change without prior notice.

# Success Applications

## Oversea

- Project: 50kW Off-Grid System
- Model: Central Inverter Series
- Location: Indonesia
- Application: Micro grid for no utility island



- Project: 300kW Grid-tide System
- Model: Tough Series
- Location: Taichung
- Application Environment: Install on the roof of railway stations



- Project: 2MW Grid-tide System (FIT)
- Model: Trinergy Plus Series
- Location: Taoyuan



## Taiwan

- Project: 6kw Self-Consumption System
- Location: Central Japan International Airport, Nagoya



- Project: 45 kW Self-Consumption System
- Model: Selfnergy Series
- Location: Ho Chi Minh, Vietnam
- Application: PV-Genset Fuel saving solution



- Project: 30kW Self-Consumption System
- Model: Trinergy plus Series
- Location: South Africa



- Project: 15kW Self-Consumption System
- Model: Tough Series
- Location: Philippines
- Application: Home power saving solution



- Project: 10kW net metering
- Model: Tough Series
- Location: Cebu, Philippines



- Project: 5kW Self-consumption system
- Model: Selfnergy Series
- Location: Cebu, Philippines



- Project: 5kW Self-Consumption System
- Model: Selfnergy Series
- Location: Philippines
- Application : Home power storage solution



- Project: 499kW Grid-tide System (FIT)
- Model: Trinergy Plus Series
- Location: Changhua Coastal Industrial Park
- Application: Roof top PV site at a Belt Factory



- Project: 100kW Grid-tide System (FIT)
- Model: Tough Series
- Location: Gangshan District, Kaohsiung
- Application Environment: Piggery



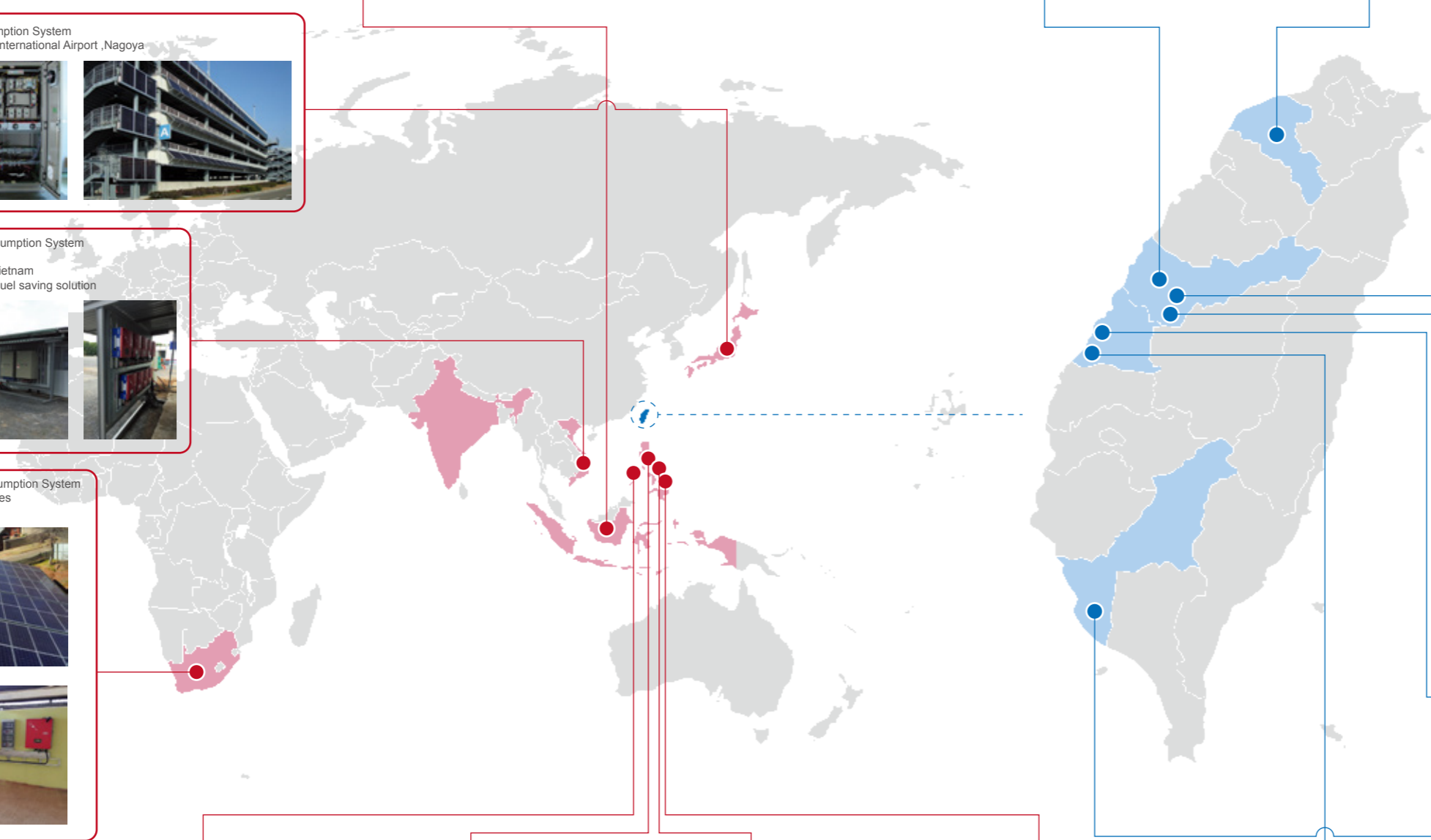
- Project: 70kW Grid-tide System (FIT)
- Model: Tough Series
- Location: Taichung
- Application: Roof top PV site of a Motor Factory



- Project: 850kW Grid-tide System (FIT)
- Model: Trinergy Plus Series
- Location: Wufeng Industrial Park, Taichung
- Application: Roof top PV site at a Steel Factory



- Project: 1MW Grid-tide System (FIT)
- Model: Trinergy Plus Series
- Location: Changhua Coastal Industrial Park
- Application: land mount PV site



Have installed more than 200MW PV sites since 2011...



# Solar Power System Demonstration

## Feed-in Tariff Application at Yangmei Factory

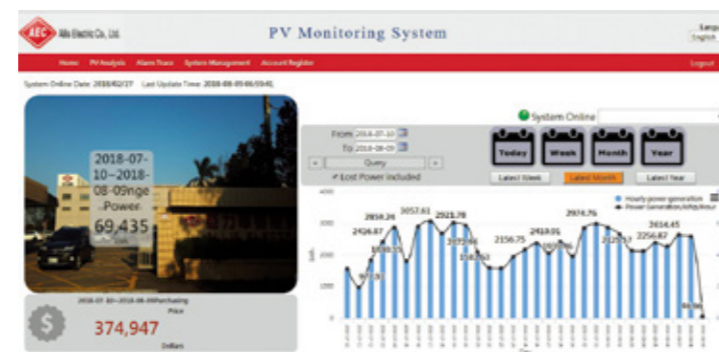
- System Capacity : 498 kW
- PV Modules : 295W × 1,961 pieces
- Inverter Model : Trinergy plus 30 kW × 14 units and 20 kW × 2 units
- Average power generation estimated by year: ≒ 492,104 kWh  
( about 2.9 kWh/day/kW × 498 kW × 365days)



Rooftop Mounting PV System



Trinergy plus PV Inverter



Advanced Web Monitoring System

## Why Solar Power...

- Electrical bill saving
- Safe, reliable and efficient power generator
- Reduce carbon footprint and emit no pollution
- Versatile and convenient
- Customized design

## Why Allis' Inverter...

- Optimum productivity
- Wide range of MPPT voltage
- Full range product line from 3.3kW to 1,260kW, single to three phase
- 50 years stable operation company with professional experience in power electricity

## Product Catalog

Model	Max. DC Voltage (d.c.V)	Max. Input Current (d.c.A)	Max. DC Input Power (W)	MPPT	Battery
Tough-3300	650	10 × 2	3,600	2	No
Tough-5000		15 × 2	5,300	2	
Trinergy Plus-10kW	1,000	12.5 × 2	11,000	2	
Trinergy Plus-20kW		25 × 2	20,800	2	
Trinergy Plus-30kW		33 × 2	33,000	2	
Trinergy Plus-40kW		74 × 1	55,000	1	
Trinergy Plus-50kW	1,100	90 × 1	66,000	1	
Trinergy Plus-60kW		120 × 1	72,000	1	
Trinergy Plus-70kW		120 × 1	77,000	1	
Selfnergy-3300	650	18 × 1	3,600	1	
Selfnergy-5000		24.5 × 1	5,300	1	
Selfnergy-L 3.6K	550	11 × 2	4,000	2	
Selfnergy- L 5K		11 × 2	5,500	2	
AEC500K-B	1,000	1,200 × 1	560,000	1	No
AEC630K-B		1,350 × 1	710,000	1	
AEC1000K-B	1,000	2 × 1,200 × 2	1,120,000	2	
AEC1260K-B		2 × 1,350 × 1	1,420,000	2	





ALLIS ELECTRIC CO.,LTD.  
<http://www.allis.com.tw>



**Address** : 12F, NO.19-11, Sanchong Rd., Nangang Dist., Taipei City 11501, Taiwan, R.O.C.

**Telephone** : 886-2-26553456

**Fax** : 886-2-26553388

**E-Mail** : [tonychang@allis.com.tw](mailto:tonychang@allis.com.tw) / [sales@allis.com.tw](mailto:sales@allis.com.tw)