



ALLIS ELECTRIC CO.,LTD.

**SOLAR
POWER**



Photovoltaic Inverter

Renewable Energy -
Environmentally Friendly and Low Cost Energy Solutions



Since 1968

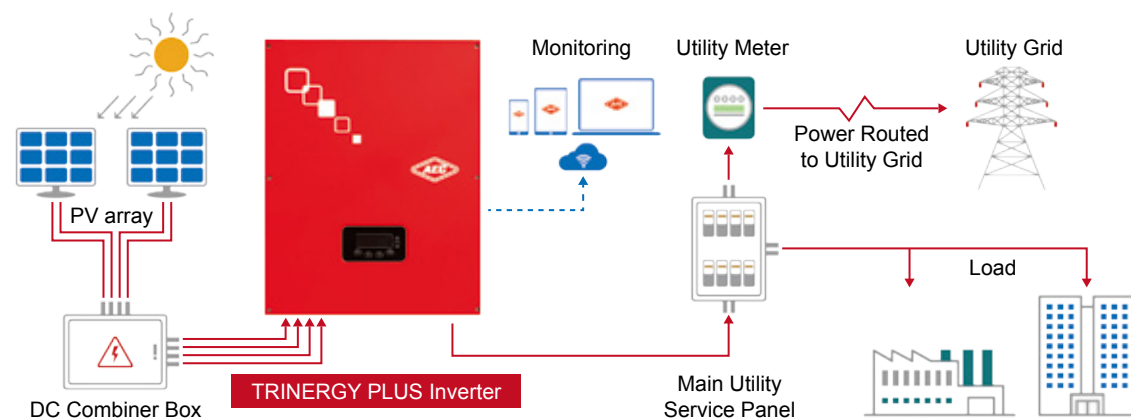
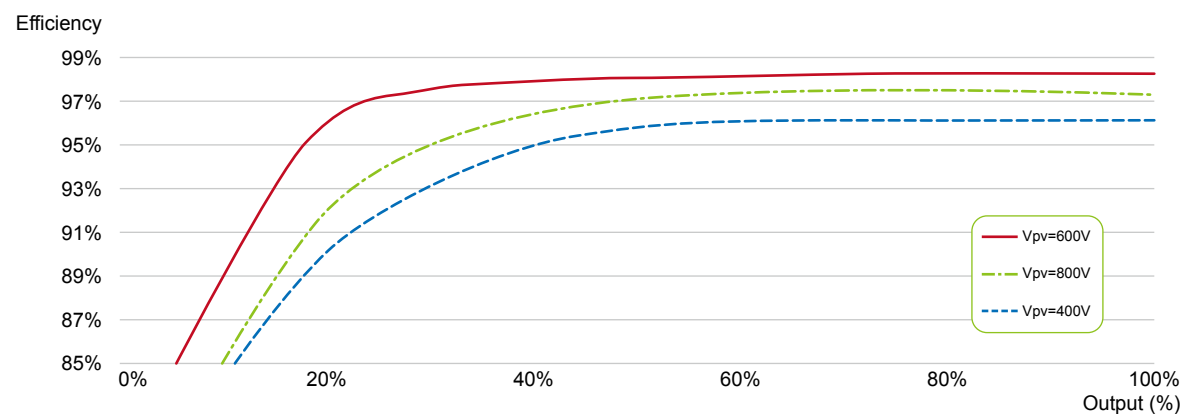


TRINERGY PLUS SERIES

Three phase Grid-Tide
10 kW – 70kW

Features :

- Dual independent MPPTs(10kw-30kw), each MPPT can work up to 60% of maximum DC power
- High efficiency and stable performance at entire input voltage and output power range
- Maximum efficiency is up to 98.5%
- Wide input voltage range gives more possibilities for applying wild range of PV modules
- BUS capacitor adopts advanced film capacitor, designed with the advanced thermal simulation technology for longer lifespan
- RS485 communication modes are optional for realizing multiple monitoring solutions via PC, mobile phones, internet etc. platforms
- Horizontal air flow design, easy for maintenance



Specification :

Model	Trinergy Plus-10kW	Trinergy Plus-20kW	Trinergy Plus-30kW	Trinergy Plus-40kW	Trinergy Plus-50kW	Trinergy Plus-60kW	Trinergy Plus-70kW
Output Data (AC)							
Rated power	10,000W	20,000W	30,000W	40,000W	50,000W	60,000W	66,000W
Maximum AC Output Current	14 a.c.A	32 a.c.A	48 a.c.A	64 a.c.A	80 a.c.A	96 a.c.A	96 a.c.A
Rated AC Voltage Range	3/PE,230/400V,(320~460V) ; 3/PE,220/380V,(320~460V)	3/N/PE, 230/400V , (320~460V) ; 3/N/PE, 220/380V , (320~460V)		3/N/PE,230/400V, (310~460V)			
Grid AC Frequency	50Hz (47 ~ 51.5Hz) / 60Hz (57 ~ 61.5Hz)						
Power Factor	- 0.8 ~ + 0.8 (Adjustable)						
Total Harmonic Distortion	< 3% (at rated power)						
AC connection / Grid forms	Three-phase (L1, L2, L3, PE) or (L1, L2, L3, N, PE)						
Input Data (DC)							
Maximum DC Voltage	1,000 d.c.V			1,100 d.c.V			
Starting voltage	220 d.c.V	300d.c.V		200d.c.V			
Min. operation voltage	150 d.c.V	280 d.c.V		570d.c.V			
MPPT Operating voltage range/Rated voltage	200~800 d.c.V/ 580 d.c.V	280~800 d.c.V / 610d.c.V		570~950 d.c.V/ 740d.c.V			
Maximum DC Power	11,000 W	20,800 W	33,000 W	55,000 W	66,000 W	72,000 W	77,000 W
Number of MPPT/ String per MPPT	2/1	2/3		1/10	1/12	1/14	
Number of MPPT × Maximum DC Current Per MPPT	2× 12.5 d.c.A	2×25 d.c.A	2×33 d.c.A	1×74 d.c.A	1×90 d.c.A	1×120 d.c.A	1×120 d.c.A
DC Switch	Optional	Integrated					
Efficiency							
MPPT Efficiency	99.9%						
Maximum Efficiency	98.3%	98.4%	98.5%	98.9%	98.9%	99.0%	99.0%
Euro. Efficiency	97.8%	98.0%	98.0%	98.5%	98.5%	98.5%	98.5%
Consumption at Night	< 0.5W						
General Specification							
Dimensions (H xW x D) in mm	575 × 360 × 150	660 × 520 × 250		810 × 645 × 235			
Weight	23kg	52kg		53kg			
Cooling Concept	Smart Cooling method						
Acoustic Noise Level	< 50dB			< 60dB			
Operating Temperature	-25 °C to +60 °C, > +45 °C derating						
Relative Humidity	0 to 95%, non-condensing						
Protection Degree	IP65						
Topology	Transformerless						
Features							
Display	LCD display, support backlit display						
Keyboard	Integrated						
Communication Interface	RS485 (Standard)						
Safety	IEC2109-1, IEC62109-2, IEC61000, VDE-AR-N4105:2011, DIN VDE V 0124-100:2012, DIN VDE 0126-1-1:2013	IEC62109-1, IEC62109-2, IEC61000, IEC61727, IEC62116 , IEC60068, IEC61683, VDE-AR-N4105:2011, DIN VDE V 0124-100:2012, DIN VDE 0126-1-1:2013		IEC2109-1, IEC62109-2, VDE-AR-N4105:2011, DIN VDE V 0124-100:2012, DIN VDE 0126-1-1:2013			
Warranty	5 years						

*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



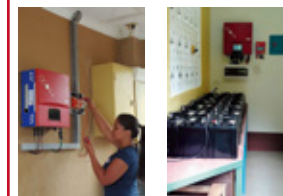
- Project: 10kW net metering
- Model: Tough Series
- Location: Cebu, Philippines



- 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



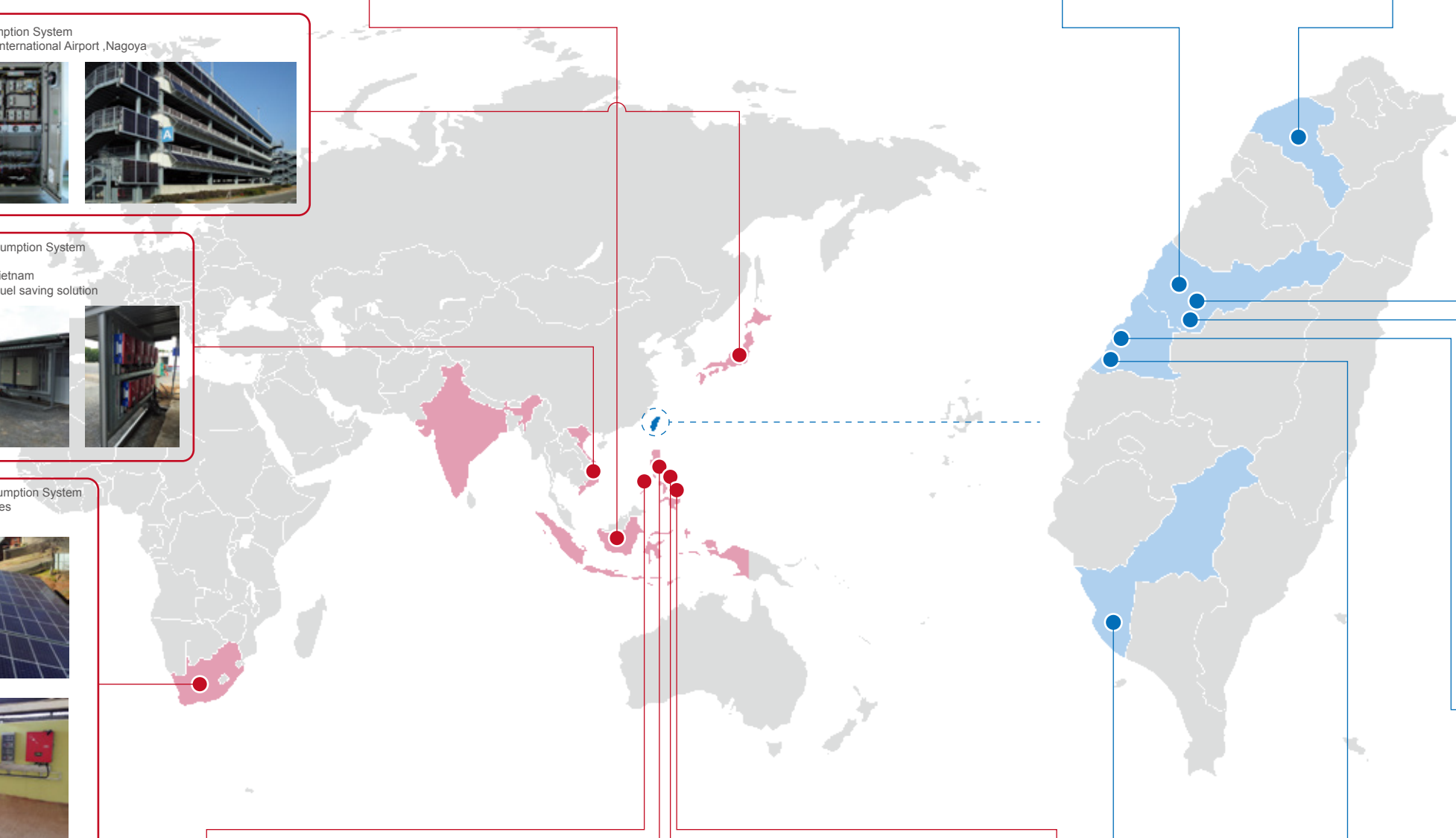
- Project: 70kW Grid-tide System (FIT)
- Model: Tough Series
- Location: Taichung
- Application: Roof top PV site of a Motor Factory



- 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

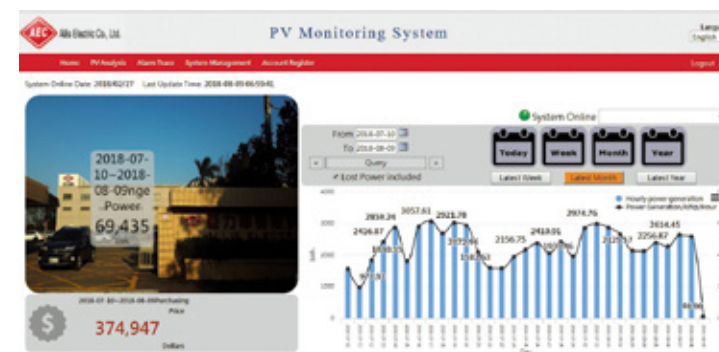
- System Capacity : 498 kW
- PV Modules : 295W × 1,961 pieces
- Inverter Model : Trinergy plus 30 kW × 14 units and 20 kW × 2 units
- Average power generation estimated by year: ≒ 492,104 kWh
(about 2.9 kWh/day/kW × 498 kW × 365days)



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	



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