



ALLIS ELECTRIC CO.,LTD.

**SOLAR
POWER**



Photovoltaic Inverter

Renewable Energy -
Environmentally Friendly and Low Cost Energy Solutions



Since 1968



Three Phase Grid-tied Solar Inverter

40KW
50KW
60KW
70KW



Description

TRINERGY PLUS three-phase grid-tied solar inverters adopt the latest technologies combination of T Topology three level topology and SVPWM, provide flexible system configuration and monitoring solutions for household, commercial and power plant systems.

Features

- Dual MPPTs work independently and allow unbalanced input power. One MPPT maximum input is up to 60% of Max. DC power.
- High efficiency and stable performance at entire input voltage and output power range.
- Max efficiency is up to 98.6%.
- Wide input voltage range gives more possibilities for accepting different string configuration and different Topology of PV modules.
- Bus capacitors consist of advanced film capacitors, designed with the latest thermal simulation technology for longer lifespan.
- Integrated intelligent DC combiner and surge protection improve system's flexibility and lower the cost.
- 5V 200mA auxiliary DC power interface is optional for system expansion.
- AC output power is adjustable between 1-100%.
- Reactive power control and Power factor adjustable: 0.8 leading ~ 0.8 lagging.
- RS485, Ethernet, WiFi, GPRS Communication modes are optional for realizing multiple monitoring solutions via local or internet by PC, smart phone, etc.

Specification

	40KW	50KW	60KW	70KW
Input (DC)				
Max. DC input power (W)	55000	66000	72000	77000
Max. DC input voltage (V)	1100			
Starting voltage (V) / Min. operation voltage (V)	200/570			
MPPT Range(V) / Rated input voltage(V)	570-950/740			
Number of MPPT / String per MPPT	1/10	1/12	1/14	1/14
Max. DC current (A) Per MPPT x Number of MPPT	74x1	90x1	120x1	120x1
DC switch	Integrated			
Output (AC)				
Rated output power (W)	40000	50000	60000	66000
Max. AC output current(A)	64	80	96	96
Grid voltage range	3/N/PE,230/400,310-480Vac			
Grid frequency range	50Hz (47~51.5Hz) / 60Hz (57~61.5Hz)			
Power factor	-0.8~+0.8 (adjustable)			
THDi	< 3% (at rated power)			
AC output	Three-phase (L1, L2, L3, N, PE)/(L1, L2, L3, PE)			
System				
Cooling method	Smart cooling			
Max. efficiency	98.90%	98.90%	99.00%	99.00%
Euro-efficiency	98.50%	98.50%	98.50%	98.50%
MPPT efficiency	99.90%			
Protection degree	IP65			
Self-consumption(at night)	<0.5 (W)			
Topology	Transformerless			
Operating temperature range	-25℃~+60℃(derate after 45℃)			
Relative humidity	0~95%, no condensation			
Protection	PV array insulation protection, PV array leakage current protection, Ground fault monitoring,Grid monitoring, Island protection, DC monitoring, Short current protection etc.			
Noise (dB)	< 60			
Display and communication				
Display	3.5 inches LCD display, support backlit display			
LCD language	English, Chinese, German, Dutch			
Keyboard	Integrated			
Communication interface	RS485 (standard) ; WiFi, GPRS200(optional) , PLC carrier communication(optional)			
Mechanical parameters				
Dimension (H x W x D mm)	810X645X235			
Weight (kg)	53			
Installation	Wall mounting			
Others				
DC terminal	Waterproof terminals, PC(optional)			
Grid qualification	NB/T 3200-2013,TUV,CE,VDE0126-1-1,VDE-AR-N4105,G59/3,C10/11,TF3.2.1,AS/NZS, 4777.2:2015,EN61000-6-1:4,EN61000-6-1:4,EN61000-11:12,IEC62109-1:2010,PEA,ZVRT			
Safe certificates / EMC certificates	VDE-AR-N4105, AS4777/3100, CQC			
Factory warranty	5 years(standard)			

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



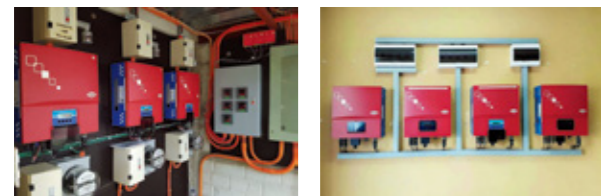
- Project: 45 kW Self-Consumption System
- Model: Selfnergy Series
- Location: Ho Chi Minh, Vietnam
- Application: PV-Genset Fuel saving solution



- 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



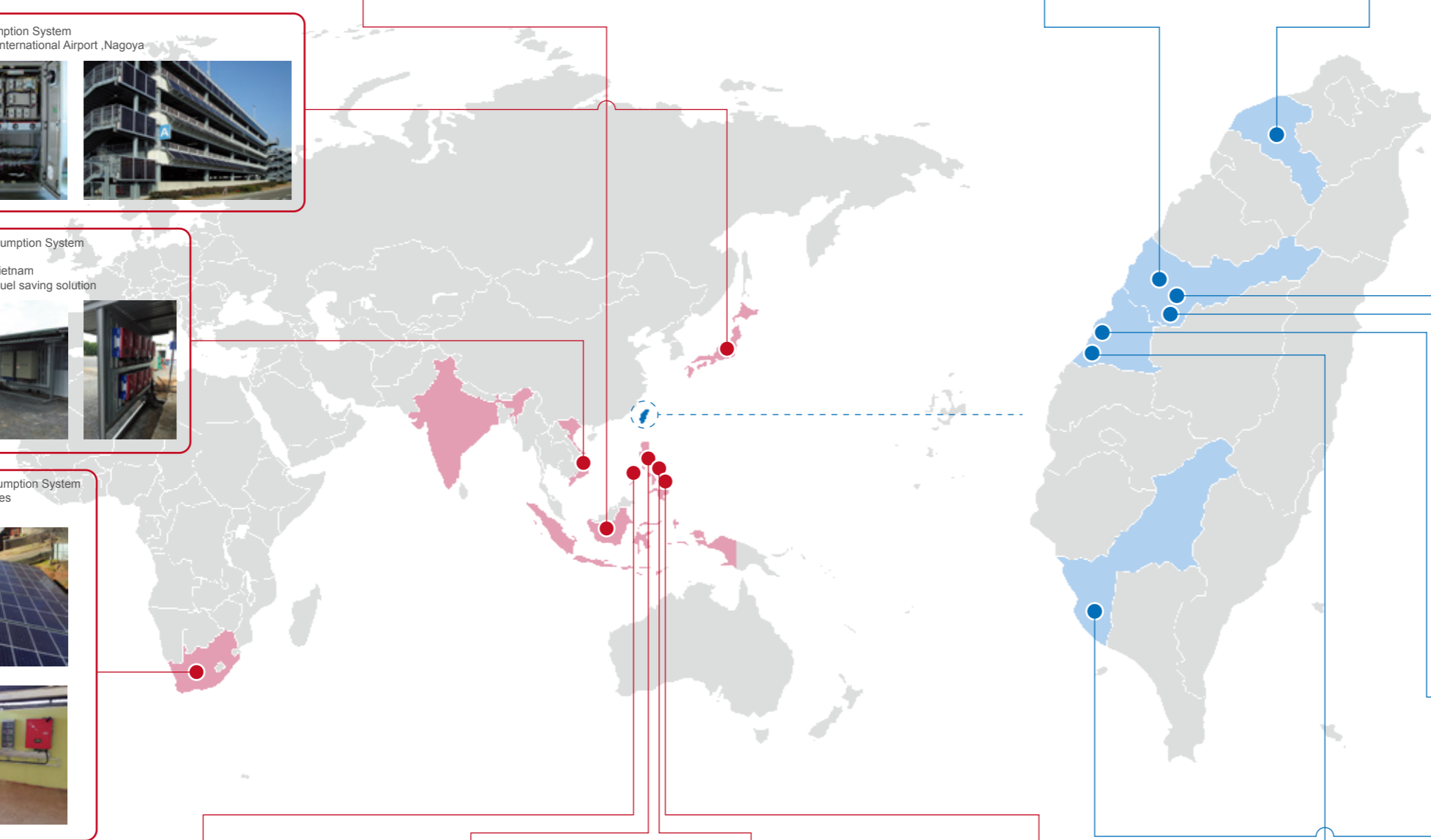
- Project: 70kW Grid-tide System (FIT)
- Model: Tough Series
- Location: Taichung
- Application: Roof top PV site of a Motor Factory



- 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

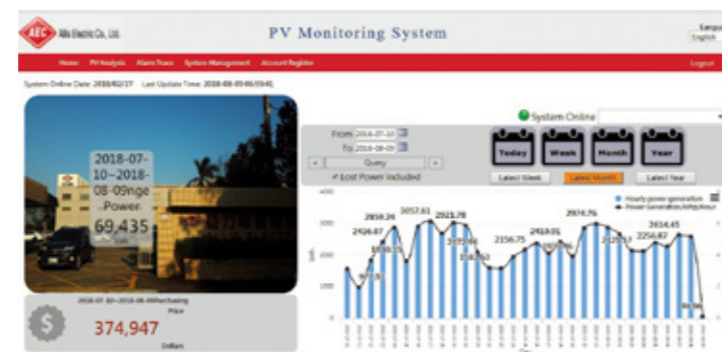
- System Capacity : 498 kW
- PV Modules : 295W × 1,961 pieces
- Inverter Model : Trinergy plus 30 kW × 14 units and 20 kW × 2 units
- Average power generation estimated by year: ≒ 492,104 kWh
(about 2.9 kWh/day/kW × 498 kW × 365days)



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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