

Elegant & Flare Series

Off-Grid Solar Inverter



About

Servotech is dedicated to creating value through transformative change, with a commitment to advancing a green future through sustainable development and relentless innovation. Our eco-friendly products are designed to lead the way in renewable energy and electric mobility. With an extensive presence spanning over two decades we have curated high value solutions.

Our green product portfolio features comprehensive solar solutions, including solar panels, inverters, and batteries. Our Elegant & Flare Series Off-Grid Solar Inverters are a notable addition to our robust lineup of efficient solar products, reflecting our forward-thinking approach. Recognizing the importance of integrating cutting-edge technology, we have developed these advanced Off-Grid Solar Inverters. Servotech continues to push the boundaries of solar technology, ensuring we deliver superior performance and innovation to our customers.

Solar, Simplified with Elegant & Flare Off-Grid Series

Servotech's Off-Grid Series Inverters with their new and improved advanced technology redefine the concept of renewable power. Crafted with sincerity, built on reliability, our Elegant & Flare Series are a reflection of Servotech's long lasting legacy of technology driven reliable and durable products.

Here is why you should choose us :

- **Industry Leader:** As a pioneering solar solutions provider, Servotech leads innovation in the renewable energy sector, with products trusted by customers globally.
- **Precision Engineering:** Our off-grid solar inverter are expertly crafted for efficient energy conversion, ensuring maximum power output from your solar panels.
- **High Efficiency:** Designed with a focus on optimal performance, Servotech inverters provide high energy conversion rates, lowering electricity costs and maximizing your solar investment.
- **User-Friendly Design:** Featuring easy-to-use interfaces and simple installation, our inverters offer a seamless experience, making solar power accessible and convenient for all households.

Elegant Unik

PWM Series PCU



CORE FEATURES



- Big Display for Data
- Maximized Solar Usage through Intelligent modes.
- Incorporated with Microchip and ST DSP Engines
- Safety and Protections
- 5 Stage Battery Charging
- Multiple Battery Selection
- Sleek & Aesthetic design
- Works as standalone Solar Inverter in case of No-Grid

Elegant Unik

PWM Series PCU

Technical Specifications

Elegant Unik – PWM Series PCU					
Parameters			Rating		Adjustable Range
Model			EU-PCU0GP-2012/S11		
Capacity			1600VA		3000VA
Operating DC Voltage			12V		24V
Typical Efficiency			≥80%		≥82%
Switching Element			MOSFET		
Charger Topology			Boost MOSFET		
Parameters (Grid)					
Nominal Grid Voltage			230V		
Nominal Frequency			50Hz		
Frequency Range			45-55Hz		
Output PF:			0.8		
Battery Charging Method (5 Stage)			Soft Start/Bulk/Absorption/Float/Equalize		
Grid-Battery Charging	TUB (Default)	Boost	14.4V ± 0.2V (Each Battery)		13.8V - 15V
		Float	13.8V ± 0.2V (Each Battery)		13V - 14.2V
Grid-Battery Charging	SMF	Boost	14.2V ± 0.2V (Each Battery)		13.5V - 14.2V
		Float	13.8V ± 0.2V (Each Battery)		13.5V - 14.2V
Grid-Battery Charging Current	Enable	Default	15A ± 1A		5A - 18A
		Maximum	18A ± 1A		
Grid Reconnect @Battery Voltage	Disable	Normal/Boost	Charging Current 0.0A		
			11.7V ± 0.2V (Each Battery)		11V - 12.5V
Grid Low Cut Voltage	UPS Mode Enable	170V ± 10V			
		100V ± 10V			
Grid Low Cut Recovery	UPS Mode Disable	180V ± 10V			
		110V ± 10V			
Grid High Cut Voltage	UPS Mode Enable	265V ± 10V			
		290V ± 10V			
Grid High Cut Recovery	UPS Mode Disable	255V ± 10V			
		280V ± 10V			
Changeover (Batt. to Mains)	UPS Mode Enable/Disable		<6ms		
Changeover (Mains to Batt.)	UPS Mode Enable/Disable		<25ms		
DG Mode	Enable/Disable		Disable		
Parameters (Battery Mode)					
Output Phase			Single Phase		
Output Waveform			Sinewave		
Nominal Output Voltage			220V ± 5%		
Max. Output Wattage (Bulb Load)			4.2A	8.5A	
Nominal Frequency			50Hz ± 1		50Hz
Battery Low Buzzer			10.8V ± 0.02V (Each Battery)		10.5V - 11.1V
Battery Low Cut			10.5V ± 0.02V (Each Battery)		10V - 11.5V
Battery High Cut			16.5V ± 0.02V (Each Battery)		16.5V - 17.5V
Voltage THD			<3% (Linear Load)		
Overload Capacity	UPS Mode Disable		>110% 3-Times Auto Reset with 30sec. Delay and 4th Time Shut Down.		
	UPS Mode Enable		>110% 1st Time Shut Down after 30sec. Delay		
			>150% Output Goes Down, Shut Down with 10 sec. delay		
Protection			Overload, Battery Low, Battery High, Over Temperature, Short Circuit, PV Reverse, PV High, Mains Fuse Trip, Grid Overload, Wiring Fault		
Switches and LED Indication	S.No.	Switch	Function(s)	Switch LED Status	
	1	POWER	ON/OFF UPS Output	SYSTEM ON - LED ON , SYSTEM OFF - LED OFF	
	2	Inverter/UPS	When it is Short Pressed it Enable UPS/Inverter Mode Selection. When it is long Pressed Enables the UPS Parameter Setting.	UPS Mode ON - LED ON , UPS Mode OFF - LED OFF	
	3	SMF/TUB	When it is Pressed it Enables TUBULAR/SMF Battery Selection	TUBULAR Battery - LED ON , SMF Battery - LED OFF	
	4	Hybrid/PCU	When it is short pressed it enables Hybrid/PCU Mode Selection	PCU Mode - LED ON, Hybrid Mode - LED OFF	
	5	Only LED	Solar Status Green/Red	Green LED ON - Full Solar used , Green LED Blinking - Partial Solar used , Green LED OFF - No Solar used , Red LED ON - PV Reverse Protection, Red LED OFF - No Protection Selected	
Display			Battery Voltage, Solar Charging Current, Grid Charging Current, Solar Load Current, Grid Voltage, Grid Frequency, Output Voltage, Output Frequency, Load in % on Battery, Load in % on Solar, Charging Mode, Protection, Charging Mode, Solar Kwh(Saving), Solar Availability Status, Solar Working Mode (Hybrid/PCU Lite/PCU Ultra), UPS ON/OFF		
Parameters (Solar)					
Switching Element			MOSFET		
Operating Mode			HYBRID/PCU LITE/PCU ULTRA		
Type of charger			Hybrid PWM		
SPV Charging Voltage	TUB	Boost	15V ± 0.02V (Each Battery)		14.2V - 15.5V
		Float	14.2V ± 0.02V (Each Battery)		13.8V - 14.5V
SPV Charging Voltage	SMF	Boost	14.3V ± 0.02V (Each Battery)		13.5V - 14.5V
		Float	13.9V ± 0.02V (Each Battery)		13.5V - 14V
Efficiency			≥97%		
Solar Current Min.			>1A (Below 1A, System will act like Solar Absent)		
Solar Current Max.			50A		
Input Voltage Range (Min - Max) Voc			17V - 25V	31V - 45V	
Maximum PV Power Recommended			1000W	2000W	
Parameters (Environment)					
Operating Temperature			0 - 50°C		
Cooling			Fan		
Max. Relative Humidity@25°C (Non-condensing)			95%		
Noise @1metre			50dB		
Standard Compliance			IP20		
Weight(Kg) Gross			12kg	21.5kg	
Dimension LxWxH (mm)			395X335X225	395X385X270	
Note:- Elegant Unik_ 2012/S11 model support to 1HP branded Tullu_ pumps. Elegant Unik 4024/S11 model support to 1HP any make submersible pump					

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Elegant Plus

PWM Series PCU



CORE FEATURES



- Big Display for Data
- Maximized Solar Usage through Intelligent modes.
- Incorporated with Microchip and ST DSP Engines
- Safety and Protections
- 5 Stage Battery Charging
- Multiple Battery Selection
- Sleek & Aesthetic design
- Works as standalone Solar Inverter in case of No-Grid

Elegant Plus

PWM Series PCU

Technical Specifications

Elegant Plus-PWM Series PCU									
Parameters			Rating				Adjustable Range		
Model			EP-PCUOGP-1112/S11	EP-PCUOGP-1512/S11	EP-PCUOGP-2224/S11	EP-PCUOGP-2724/S11	EP-PCUOGP-3524/S11		
Capacity			800VA	1150VA	1715VA	2150VA	2850VA		
Operating DC Voltage			12V		24V				
Typical Efficiency			≥80%		≥82%				
Switching Element			MOSFET						
Charger Topology			Boost MOSFET						
Parameters (Grid)									
Nominal Grid Voltage			230V						
Nominal Frequency			50Hz						
Frequency Range			45-55Hz						
Output PF:			0.7						
Battery Charging Method (5 Stage)			Soft Start/Bulk/Absorption/Float/Equalize						
Grid-Battery Charging	TUB (Default)	Boost	14.4V ± 0.2V (Each Battery)					13.8V - 15V	
		Float	13.8V ± 0.2V (Each Battery)					13V - 14.2V	
Grid-Battery Charging	SMF	Boost	14.2V ± 0.2V (Each Battery)					13.5V - 14.2V	
		Float	13.8V ± 0.2V (Each Battery)					13.5V - 14.2V	
Grid-Battery Charging Current	Enable	Default	15A ± 1A					5A - 18A	
		Maximum	18A ± 1A						
Grid Reconnect @Battery Voltage	Disable	Normal/Boost	Charging Current 0.0A						
			11.7V ± 0.2V (Each Battery)					11V - 12.5V	
Grid Low Cut Voltage	UPS Mode Enable		170V ± 10V						
		UPS Mode Disable	100V ± 10V						
Grid Low Cut Recovery	UPS Mode Enable		180V ± 10V						
		UPS Mode Disable	110V ± 10V						
Grid High Cut Voltage	UPS Mode Enable		265V ± 10V						
		UPS Mode Disable	290V ± 10V						
Grid High Cut Recovery	UPS Mode Enable		255V ± 10V						
		UPS Mode Disable	280V ± 10V						
Changeover (Batt. to Mains)	UPS Mode Enable/Disable		<6ms						
Changeover (Mains to Batt.)	UPS Mode Enable/Disable		<25ms						
DG Mode	Enable/Disable		Disable						
Parameters (Battery Mode)									
Output Phase			Single Phase						
Output Waveform			Sinewave						
Nominal Output Voltage			220V ± 5%						
Max. Output Current			2A	2.7A	4.20A	5.1A	7A		
Nominal Frequency			50Hz ± 1						
Battery Low Buzzer			10.8V ± 0.02V (Each Battery)						
Battery Low Cut			10.5V ± 0.02V (Each Battery)						
Battery High Cut			16.5V ± 0.02V (Each Battery)						
Voltage THD			<3% (Linear Load)						
Overload Capacity	UPS Mode Disable		>110% 3-Times Auto Reset with 30sec. Delay and 4th Time Shut Down.						
	UPS Mode Enable		>110% 1st Time Shut Down after 30sec. Delay						
			>150% Output Goes Down, Shut Down with 10 sec. delay						
Protection			Overload, Battery Low, Battery High, Over Temperature, Short Circuit, PV Reverse, PV High, Mains Fuse Trip, Grid Overload, Wiring Fault						
Switches and LED Indication	S.No.	Switch	Function(s)		Switch LED Status				
	1	POWER	ON/OFF UPS Output		SYSTEM ON - LED ON , SYSTEM OFF - LED OFF				
	2	Inverter/UPS	When it is Short Pressed it Enable UPS/Inverter Mode Selection. When it is long Pressed Enables the UPS Parameter Setting.		UPS Mode ON - LED ON , UPS Mode OFF - LED OFF				
	3	SMF/TUB	When it is Pressed it Enables TUBULAR/SMF Battery Selection		TUBULAR Battery - LED ON , SMF Battery - LED OFF				
	4	Hybrid/PCU	When it is short pressed it enables Hybrid/PCU Mode Selection		PCU Mode - LED ON, Hybrid Mode - LED OFF				
	5	Only LED	Solar Status Green/Red		Green LED ON - Full Solar used , Green LED Blinking - Partial Solar used , Green LED OFF - No Solar used , Red LED ON - PV Reverse Protection, Red LED OFF - No Protection Selected				
Display			Battery Voltage, Solar Charging Current, Grid Charging Current, Solar Load Current, Grid Voltage, Grid Frequency, Output Voltage, Output Frequency, Load in % on Battery, Load in % on Solar, Charging Mode, Protection, Charging Mode, Solar Kwh(Saving), Solar Availability Status, Solar Working Mode (Hybrid/PCU Lite/PCU Ultra), UPS ON/OFF						
Parameters (Solar)									
Switching Element			MOSFET						
Operating Mode			HYBRID/PCU LITE/PCU ULTRA						
Type of charger			Hybrid						
			PWM						
SPV Charging Voltage	TUB	Boost	15V ± 0.02V (Each Battery)					14.2V - 15.5V	
		Float	14.2V ± 0.02V (Each Battery)					13.8V - 14.5V	
SPV Charging Voltage	SMF	Boost	14.3V ± 0.02V (Each Battery)					13.5V - 14.5V	
		Float	13.9V ± 0.02V (Each Battery)					13.5V - 14V	
Efficiency			≥97%						
Solar Current Min.			>1A (Below 1A, System will act like Solar Absent)						
Solar Current Max.			30A	17V - 25V		50A		31V - 45V	
Input Voltage Range (Min - Max) Voc			550W		1000W	1800w		2000w	
Maximum PV Power Recommended			550W		1000W	1800w		2000w	
Parameters (Environment)									
Operating Temperature			0 - 50°C						
Cooling			Fan						
Max. Relative Humidity@25°C (Non-condensing)			95%						
Noise @1metre			50dB						
Standard Compliance			IP20						
Weight (Kg) Gross			9.4kg	10.0kg	12.0kg	16.0kg	18.0kg		
Dimension LxWxH (mm)			390X335X225		395X385X270				
Note:- Elegant plus 3524 model support to 1HP branded submersible pumps									

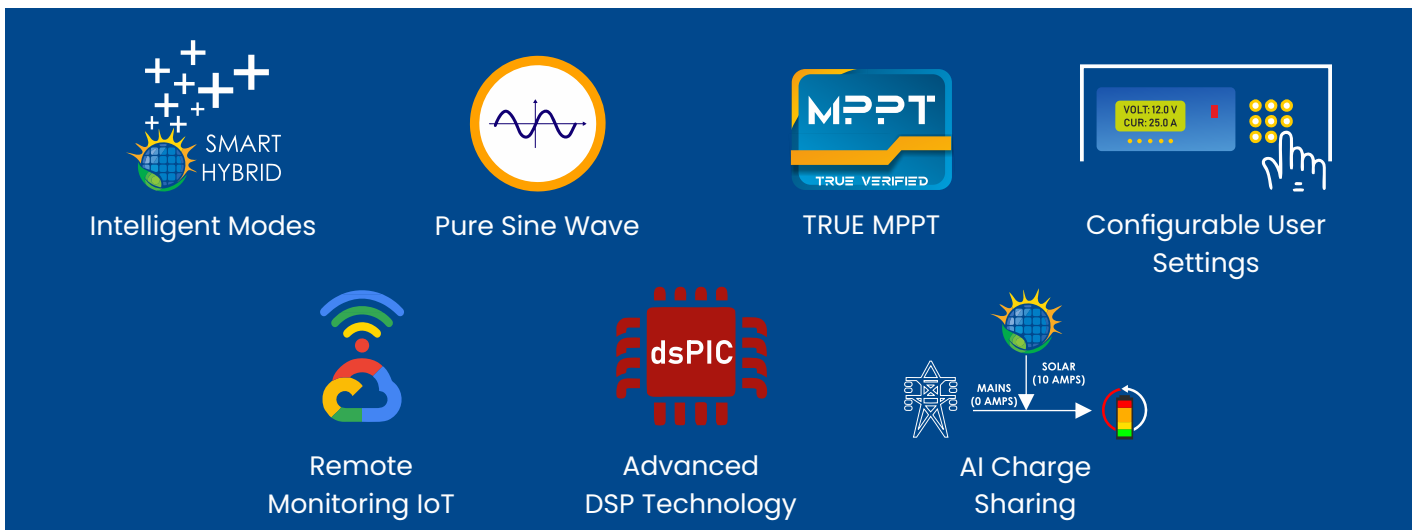
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Flare

MPPT Series PCU



CORE FEATURES



- Big Data Big Display
- Built-in Energy Meter
- Maximized Solar Usage through Intelligent modes.
- 40% less panel required than other PCUs
- RS-232 (Industrial Standard MODBUS)
- Incorporated with Microchip and ST DSP Engines
- Safety and Protections
- IGBT based design and Fast Charging
- Wide range MPPT Input
- 6 Stage Battery Charging
- Multiple Battery Selection
- Sleek & Aesthetic design
- Works as standalone Solar Inverter in case of No-Grid

Elegant Plus

PWM Series PCU

Technical Specifications

Flare Series MPPT Solar PCU						
Parameters		Rating				
System Model Name		STF-PCUOGP-3548/S11	STF-PCUOGP-5748/S11	STF-PCUOGP-7548/S11	STF-PCUOGP-8596/S11	STF-PCUOGP-10120/S11
Capacity		3000VA	4000VA	5500VA	7500VA	10000VA
Operating DC Voltage		48V			96V	120V
Switching Element		Mosfet			IGBT	IGBT
Charger Topology		Boost Mosfet				
Parameter (Grid)		Default Value				Variable Range
Nominal Grid Voltage		230V				
Nominal Frequency		50Hz.				
Frequency Range		45-55 Hz ± 1 Hz.				
Battery Charging Method 4 Stage		Bulk/Absorption/Float/Equalize				
Grid - Battery Charging	TUB (Default)	Boost	14.4V ± 0.2V (Each Battery)			13.8V-15V
		Float	13.8V ± 0.2V (Each Battery)			13V-14.2V
Grid - Battery Charging	SMF	Boost	14.2V ± 0.2V (Each Battery)			13.5V-14.2V
		Float	13.8V ± 0.2V (Each Battery)			13.5V-14.2V
Grid - Battery Charging Current	Enable	Default	15A ± 1A			5A-18A
		Maximum	18A ± 1A			
		Disable	Normal/Boost			
Grid Reconnect @ Battery Voltage		11.7V ± 0.2V (Each Battery)				11V-12.5V
Grid Low Cut Voltage		UPS Mode Enable	170V ± 10V			
		UPS Mode Disable	100V ± 10V			
Grid Low Cut Recovery		UPS Mode Enable	180V ± 10V			
		UPS Mode Disable	110V ± 10V			
Grid High Cut Voltage		UPS Mode Enable	265V ± 10V			
		UPS Mode Disable	290V ± 10V			
Grid High Cut Recovery		UPS Mode Enable	255V ± 10V			
		UPS Mode Disable	280V ± 10V			
Changeover (Batt. To Mains)	UPS Mode Enable/Disable		<6ms/<6ms			
Changeover (Mains To Batt.)	UPS Mode Enable/Disable		<6ms/<30ms			
DG Mode	Enable/Disable		Disable			
Parameter (Battery Mode)						
Output Phase		1 Phase				
Output Waveform		Sinewave				
Nominal Output Voltage		220V ± 5%				
Max. Output Current		9.5A	13.5A	17.5A	27A	35A
Discharging Current		50A ± 2A	75A ± 2A	105A ± 2A	50A ± 2A	70A ± 2A
Nominal Frequency		50Hz ± 1%				
Battery Low Buzzer		10.8V ± .02V (Each Battery)				
Battery Low Cut		10.5V ± .02V (Each Battery)				
Battery High Cut		16.5V ± .02V (Each Battery)				
Typical Efficiency		≥ 84%				
Voltage Harmonic		< 3% (Linear Load)				
Over Load Capacity	UPS Mode Disable	>110% 3-Times Auto Reset with 30Sec. Delay and 4th Time Shut Down				
	UPS Mode Enable	>110% 1st Time Shut Down after 30 Sec Delay.				
		>150% Output Goes Down				
Protection		Overload, Battery Low, Battery High, Over Temperature, Short Circuit, PV Reverse, PV High, Mains Fuse Trip, Grid Overload				
Switches and LED Indication	S.No.	Switch	Function(s)		Switch Led Status	
	1	POWER	ON/OFF the UPS Output		SYSTEM ON - Led ON SYSTEM OFF - Led OFF	
	2	INV/UPS	When it is short pressed it enables UPS/Inverter Mode Selection. When it is Long pressed Enables the UPS Parameter Setting. The LCD Displays : "Edit Parameters Setting". The Switches function now change to: POWER - Enter/OK Switch.		UPS Mode ON - Led ON UPS Mode OFF - Led OFF	
	3	SMF/TUB	When it is short pressed it enables TUBULAR or SMF Battery Selection.		TUBULAR Battery - Led ON SMF Battery - Led OFF	
	4	HYBRID/PCU	When it is Short pressed it Enables the Hybrid or PCU Mode Selection.		PCU Mode - Led ON HYBRID Mode - Led OFF	
Display	5	ONLY LED	Solar status Green/Red		Green LED ON - Full Solar Used Green LED Blinking – Partial Solar Used Green LED OFF - No Solar Used Red LED ON – PV Reverse Protection Red LED OFF – No Protection Selected	
	Battery Voltage, Solar Charging current, Grid Charging current, Solar Load Current, Grid Voltage, Grid Frequency, Output Voltage, Output Frequency, Load in % on Battery, Load in % on Solar, Charging Mode, Protection, Charging Mode, Solar Kwh(Saving), Solar availability Status, Solar Working Mode(HYBRID/PCU LITE/ PCU ULTRA), UPS ON/OFF.					
	Photovoltaic Input					
	Input Voltage Range (Min - Max)		80 - 260 VDC		140 - 360 VDC	200 - 360 VDC
	Maximum PV Power Recommended		3.0 KW	4.0KW	5.5 KW	7.5 KW
MPPT Based Charging Controller						
Switching Element		Mosfet				
Controller		ARM- Cortex				
Type of Charger		MPPT				
Efficiency		95%				
Parameter (Environment)						
Operating Temperature		0 - 50°C				
Cooling		Fan				
Max. Relative Humidity @25°C (Non Condensing)		95%				
Noise @ 1 Meter		50dB				
Standard Compliance		IP20				
Weight (kg)		28.34	31.2	45	45.8	68.1
Dimension L x W x H (mm)		430X400X500		520X400X640		

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Safiabad Plant: Killa No. 14/6/1/2 (0-3), 6/2/3 (5-13) Village-Safiabad, Pana Paposhian, Rai, Sonipat, Haryana-131029

