SERVOTEC
smart power solutions

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

SMART HYBRID
Intelligent Modes

Pure Sine Wave

PWM
TRUE VERIFIED
TRUE CV CC PWM

16X2 LCD SCREEN
LCD DISPLAY

dsPIC
Advanced DSP Technology

SOLAR (10 AMPS)
MAINS (0 AMPS)
AI Charge Sharing

- 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-PCUOGP-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		
	Disable	Normal/Boost	Charging Current 0.0A		
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		
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		Hybrid		
Type of charger			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 - 50ºC		
Cooling			Fan		
Max. Relative Humidity@25ºC (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

SMART HYBRID
Intelligent Modes

Pure Sine Wave

PWM
TRUE VERIFIED
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16X2 LCD SCREEN
LCD DISPLAY

dsPIC
Advanced DSP Technology

SOLAR (10 AMPS)
MAINS (0 AMPS)
AI Charge Sharing

- 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					
	Disable	Normal/Boost	Charging Current 0.0A					
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					
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					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		Hybrid					
Type of charger			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	50A				
Input Voltage Range (Min - Max) Voc			17V - 25V		31V - 45V			
Maximum PV Power Recommended			550W	1000W	1800w		2000w	
Parameters (Environment)								
Operating Temperature			0 - 50ºC					
Cooling			Fan					
Max. Relative Humidity@25ºC (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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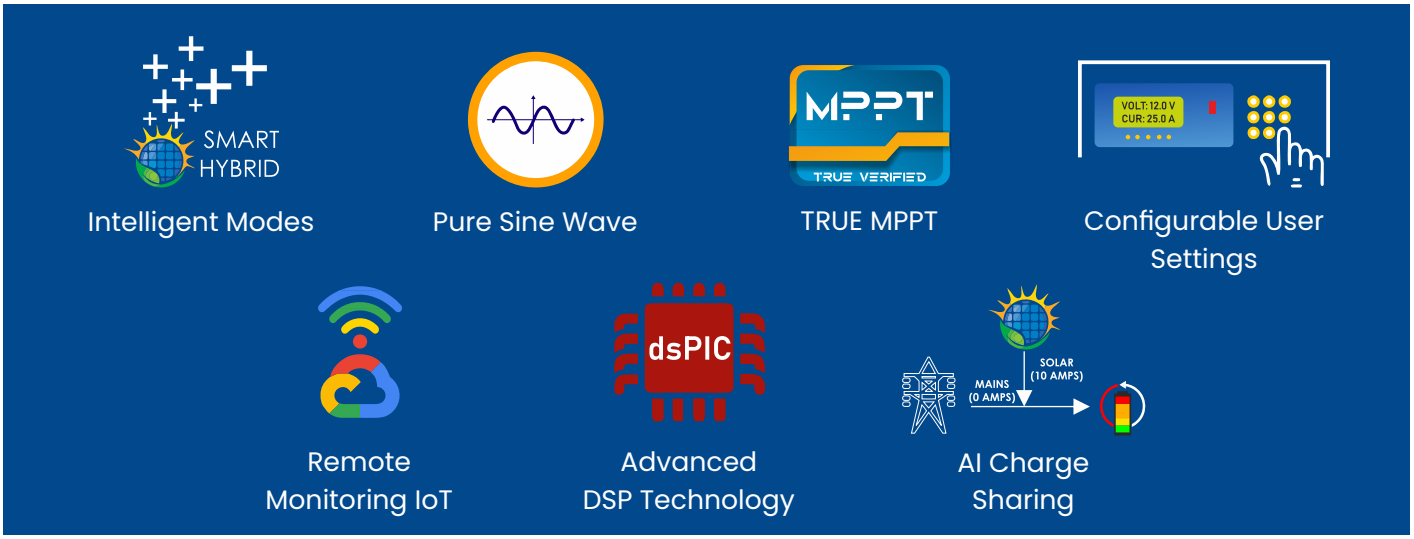
Flare

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	Charging Current 0.0A					
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%					50-60 Hz
Battery Low Buzzer			10.8V ± .02V (Each Battery)					BLC +0.3V
Battery Low Cut			10.5V ± .02V (Each Battery)					10V - 11.5V
Battery High Cut			16.5V ± .02V (Each Battery)					16.5V - 17.5V
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		
			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.					
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	10 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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INDIA'S
TRUSTED
SOLAR BRAND

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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

Warehouse: Khasra No. 8/5, 6, 14/2, 15/1, 16/2 Min & 17, Jakhauli Road, Jhundpur, Sonipat, Haryana - 131021