LIVFAST
SOLAR

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LIVFAST
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BIJLI KE BILL PE 100% TAK* SAVINGS

LivfastSolar.com
7777 8888 92

*Terms and Conditions as applicable to 5 kW GIH Solution with Net Metering.
For Details, visit www.livfastsolar.com.

ABOUT LIVFAST

Livfast is the leading power specialist in India with a widespread portfolio of Power back up solutions such as Automotive Batteries, Inverters, Inverter Batteries, Solar Applications. We listen and understand the needs of the consumers and answer these needs in form of our products. We, at Livfast strive to be constantly innovating to make lives across the country easier for our consumers.

LIVFAST SOLAR PRODUCT RANGE

SOLAR MODULE
40 WATT – 450 WATT

SOLAR MANAGEMENT UNIT
30A - 50A

SOLAR CHARGE CONTROLLER
10A – 50A

SOLAR UPS
900 VA – 2500 VA

PWM POWER CONDITIONING UNIT
3.5 KVA - 10 KVA

MPPT POWER CONDITIONING UNIT
3 KVA – 15 KVA

SOLAR BATTERY
40 AH – 200 AH

SOLAR STREET LIGHT
9 WATT – 12 WATT

SOLAR POWER GENERATING SOLUTIONS

- Light duty home solutions.
- Heavy duty home solutions.
- Existing inverter solarization solution.
- DC solution.

SOLAR PANEL

Livfast Solar Panels are available in Poly-crystalline and Mono PERC PV cells, with IEC compliance ranging for 40Wp - 450Wp panels. Our Panels are ideally suited for rooftop and agricultural applications.

12* **Years Product Warranty**

25 **Years Performance Warranty**

Positive Power Tolerance
- Ensures full energy harvesting
- Ensures better return on investment

Excellent Performance in low light
- High quality transparent glass Glossy EVA to capture maximum solar energy

Suitable for Extreme Weather
- Tempered glass withstands dynamic wind load of 2400 Pa & snow load of 5400 Pa
- Multi EVA capsulation

Potential-Induced Degradation (PID) Resistance Technology
- For longer life and lower degradation

PID FREE

*12 years product warranty is applicable on the 24V Modules with new warranty T&C mentioned. Refer Warranty Card or Visit our website www.livfastsolar.com to know more on warranty T&C.

MODULE 12V

Model Name	LFV12V40	LFV12V50	LFV12V75	LFV12V100	LFV12VS150	LFV12V180M
Power (pm) in Watts (Nominal)	40	50	75	100	150	180
No. of Cells	36	36	36	36	32	32
Rated Module Voltage	12	12	12	12	12	12
Voltage at Maximum Power (Vmp) in Volts	17.5	18	18	18	16.9	18.01
Current at Maximum Power (Imp) in Amps	2.46	2.78	4.17	5.66	8.9	9.99
Open Circuit Voltage (Voc) in Volts	21	22	22	22	21.6	22.12
Short Circuit Current (Isc) in Amps	2.54	3.28	4.67	6.06	9.2	10.37
Maximum System Voltage (V_{DC})	600	600	600	600	1000	1000
Module Efficiency η (%)	>12%	>12%	>14%	>14%	>16%	>18%
STC: Irradiance 1000W/M², Ambient Temperature 25°C, Air Mass 1.5, Measuring Tolerance ± 3%						

MODULE 24V

Model Name	LFV24V330	LFV24V335	LFV24V400M	LFV24V450M
Power (pm) in Watts (Nominal)	330	335	400	450
No. of Cells	72	72	72	144
Rated Module Voltage	24	24	24	24
Voltage at Maximum Power (Vmp) in Volts	38.0	38.3	41.2	41.6
Current at Maximum Power (Imp) in Amps	8.7	8.75	9.72	10.82
Open Circuit Voltage (Voc) in Volts	46.3	46.5	49.79	49.0
Short Circuit Current (Isc) in Amps	9.24	9.35	10.31	11.77
Maximum System Voltage (V_{DC})	1000	1000	1500	1500
Module Efficiency η (%)	>17%	>17%	>20%	>20%
STC: Irradiance 1000W/M², Ambient Temperature 25°C, Air Mass 1.5, Measuring Tolerance ± 3%				

WARRANTY & CERTIFICATION

Product Warranty*	5 years for 12V Modules; 12 Years for 24V Modules
Performance Warranty*	25 Years (90% module efficiency after 10 years, 80% module efficiency after 25 years)
Certificates	IS:14286, IS-61215, IS-61730

***Refer solar module warranty card document**

Technical Parameters are subject to change without any prior notice

SOLAR MANAGEMENT UNIT

Livfast Solar Management Unit (SMU) converts any existing inverter into solar system. It has in-built intelligence to maximize use of solar energy and is ideal for inverter upto 48 V batteries.

1 Years Product Warranty

Auto bypass during fault

LCD Display
- Easy to operate, in-built interactive LCD Display
- Indicates alarm & system status

Maximize Solar Yield
- Engineered to extract maximum power from solar, to reduce the electricity bill.

3 Stage Intelligent Battery Charge Profile
- Designed to track the battery charging profile (Bulk, Absorption, and Float)
- Enhances battery life.

Protections
- In-built short circuit, reverse current & polarity protection
- No risks of electric shocks

SOLAR MANAGEMENT UNIT

Model Name	LFSMU 122430		LFSMU 24-4850		
Solar Management Unit Rating	12/24V @ 30A		24V @ 50A	36V @ 50A	48V@ 50A
Technology	Micro Controller Unit based PWM				
Type	Series Regulator Common Positive				
System Voltage	12V	24V	24V	36V	48V
Setting	Auto Sensing		Settable (Default 48V)		
Maximum Solar Panel (Wp)	500W	1000W	1800W	3600W	
Maximum Solar Panel Voltage	50V		90V		

BATTERY SETTINGS

Bulk Voltage	Range	13.9 - 15.9V	27.9 - 31.8V	41.7 - 47.7V	55.6 - 63.6V
	Default	14.2V	28.4V	42.6V	56.8V
Float Voltage	Range	13.3 - 14.1V	26.6 - 28.2V	39.9 - 42.3V	53.2 - 56.4V
	Default	13.5V	27V	40.5V	54V
Low Battery		10.5 ± 0.2V	21 ± 0.2V	31.5 ± 0.2V	42 ± 0.2V

LOAD CONTROLLER

Grid Disconnect from Inverter (Voltage)	After Battery goes to Bulk Charge Mode & PV Energy Available				
Grid Re-connect to Inverter (Voltage)	12.7V Default Setting Settable Range: 11.4 - 13.3V	25.4V Default Setting Settable Range: 22.8 - 26.6V	25.4V Default Setting Settable Range: 22.8 - 26.6V	38.1V Default Setting Settable Range: 34.2 - 39.9V	50.8V Default Setting Settable Range: 45.6 - 53.2V

PROTECTIONS & USER INTERFACE

Protection		• Reverse Polarity for PV/Battery, Short Circuit, Battery Overcharge & Deep Discharge
User Interface	**LED Indications**	• Faults: Battery Low & High, Reverse Current, Panel Charging Over Current
		• Battery Charging Status
	LCD Display	• PV Current/Voltage
		• Battery Current/Voltage
		• Faults: Battery Low & High, Reverse Current, Charging Over Current
		• KWh Generated from Solar

GENERAL

Operating Temperature	0°C to 50°C	
Dimensions (LxWxH) MM	205 x 113 x70	264 x 183 x 90
Weight (Kg)	0.8	1.57

Technical Parameters are Subject to Change Without Any Prior Notice

SOLAR CHARGE CONTROLLER

Livfast Solar Charge Controller is an advanced micro controller unit based on PWM technology. The charging process has been optimized for longer battery life and improved system efficiency.

1 **Years Product Warranty**

Dusk to Dawn

Increase Battery Life /Gravity Builder
- Designed to remove sulphate build up
- A high equalizing charged battery

Automatic Voltage Selection
- Auto battery selection upto 20A
- Settable battery selection for 50A

USB Port
- USB Port available for mobile charging
- For 20A plug in your DC devices such as fans and lights

Protections
- In-built short circuit, reverse current & polarity protection
- No risk of electric shocks

SOLAR CHARGE CONTROLLER

Model Name	LFSCC 122410	LFSCC 122420	LFSCC 24-4850		
Charge Controller Rating (Amp.)	12/24V @ 10A	12/24V @ 20A	24V @ 50A	36V@ 50A	48V@ 50A
Technology	Micro Controller Unit Based PWM				
Type	Series Regulator Common Positive				
System Voltage	12 / 24 V		24 / 36 / 48V		
Setting	Auto Sensing		Settable (Default 48 V)		
Maximum Solar Panel (Wp)	12V @ 160W 24V @ 335W	12V @ 335W 24V @ 600W	1800W	3600 W	
Maximum Solar Panel Voltage	60V		90V		

BATTERY SETTINGS

Voltage	12V	24V	24V	36V	48V
Bulk Voltage (V)	14.2V	28.4	27.8V - 31.8V	41.7V - 47.7V	55.6V - 63.6V
Default Voltage (Bulk)		28.4V		42.6V	56.8V
Float Voltage (V)	13.5	27V	26.6V - 28.2V	39.9V - 42.3V	53.2V - 56.4V
Default Voltage (Float)		27V		40.5V	54V
Low Battery (V)	10.5V ± 0.2V	21.0V ± 0.2V		31.5V ± 0.2V	42.0V ± 0.2V

PROTECTIONS & USER INTERFACE

Protection		• Reverse Polarity (Panel/battery), Short Circuit, Battery Overcharge & Deep Discharge	
User Interface	Display & Indications	LED	LED & LCD
	LED Indications	• Faults: Battery Low & High, Reverse Current, Panel Charging Over Current	
		• Battery Charging Status	
	LCD Display	NA	• Solar PV power
			• Battery Voltage
			• Charging Mode
			• Load On/Off
			• Faults: Battery Low & High, Reverse Current, Charging Over Current
			• Charging Status

GENERAL

Operating Temperature	0°C to 50°C		
Dimensions (LxWxH) MM	112 x 125 x 25	125 x 100 x 45	264 x 183 x 90
Net Weight (Kg)	0.32	0.45	1.48

Technical Parameters are subject to change without any prior notice

SOLAR UPS

Livfast Solar Hybrid UPS provides power from solar battery and grid as per the load profile. It has the highest rated solar charge controller which extracts maximum power from solar modules and reduces electricity bills.

2 Years Product Warranty

Auto bypass during fault

Highest Rated Solar Charge Controller

Real Time Clock (RTC) Technology
- In-built intelligence RTC to maximize solar energy utilization.
- Optimized solar energy utilization based• on localized power situation

Fast Battery Charging
- In-built 50A solar charge controller Charges the battery in short time

Safety & Protection
- In-built human, panel, & battery protections
- Over voltage/current protection in bypass mode

User Friendly LCD Display
- Easy to operate, in-built interactive LCD display indicates alarm & system status including solar generation

UPS Mode
- Suitable for computer load as well as areas with low voltage

Pure Sine Wave
- Noiseless operations & long life of electrical appliances

SOLAR UPS

Model Name	LFS SO1150	LFS SO1850	LFS SO2250
System Rating	900VA	1500VA	2000VA
Nominal Battery Voltage (Vdc)	12V	24V	
Ouput Waveform	Pure Sine Wave		
Switching Element	MOSFET		

SOLAR PV INPUT

Technology	PWM	
Charge Controller Rating (Amps.)	50A	
Maximum Solar Panel (Wp)	900 Wp	1800 Wp
Input Voltage Range (Vmp)	17.5V	40V
Maximum Input Voltage (Voc)	22V	50V

Grid Input

Input Supply	Single Phase - 230V, 50Hz
Operating Voltage Range (Normal Mode)	90V - 290V
Operating Voltage Range (UPS Mode)	180V - 260V

Output

No Load Output	225 ± 7V	
Output Frequency Battery Mode	50 ± 1Hz	
No Load Current (UPS Switch Off)	≤ 180mA	≤ 200mA

Battery

Battery Charging through Mains + Solar	Mains - 17A	Solar - 50A
Battery Charging through Solar (Default)	40A	
Low Battery Indication	11.1 ± 0.2V	
Low Battery Trip	10.8 ± 0.2V	
Solar Optimization after Battery is Fully Charged	If Solar is Available - then Load is Handled by Battery & Solar	

Overload, Protection, LCD Display & User Interface

Overload Shutdown Indication	Display Overload & Alarm
Overload Pre-alarm Indication	Display Overload with Load% & Alarm
Overload Capacity	110% Load Running at 3 sec
Protection	Thermal Trip, Over load with %, Short Circuit, Battery Low, PV Reverse, Fuse Trip
LCD Display	Mains Voltage/Output Voltage, Battery Voltage, Load (%), Battery Low, Solar KWh Solar Current on Load, Solar Charging Current, Overload with (%), PV Reverse, Short Circuit
User Interface	Battery Boost Voltage, Battery Low Cut Voltage, Max. Grid Charging Current, Max. Solar Charging Current

General

Operating Temperature	0°C to 50°C		
Dimensions (LxWxH) MM	295 x 330 x 170	363 x 398 x 251	365 x 400 x 250
Net Weight (Kg)	10	15	16.5

Technical Parameters are Subject to Change Without Any Prior Notice

PWM POWER CONDITIONING UNIT

Livfast Solar Hybrid PCUs are high capacity, high efficiency solar UPS that runs both on solar & utility (grid) power supply. It has an in-build solar charge controller which extracts maximum power from solar modules to power your appliances & battery charging.

2 Years Product Warranty

& LED Display

Real Time Clock (RTC) Technology
- In-built intelligence RTC to maximize solar energy utilization.
- Optimized solar energy utilization based• on localized power situation

Fast Battery Charging
- In-built 50/70 Amp solar charge controller that charges the battery in short time

Safety & Protection
- In-built human, panel, & battery protections
- No risk of electric shocks

User Friendly LCD Display
- Easy to operate, in-built interactive LCD display indicates alarm & system status including solar generation

UPS Mode
- Suitable for computer load as well as areas with low voltage

Pure Sine Wave
- Noiseless operations & long life of electrical appliances

PWM POWER CONDITIONING UNIT

Model Name	LFS SOR3500	LFS SOR5048	LFS SOR7500	LFS SOR10000
System Rating	3.5 KVA	5 KVA	7.5 KVA	10 KVA
Nominal Battery Voltage (Vdc)	48V	48V	120V	120V
Ouput Waveform	Pure Sine Wave			
Switching Element	MOSFET			

SOLAR PV INPUT

Technology	PWM			
Charge Controller Rating (Amps.)	50 A	70 A	50 A	70 A
Maximum Solar Panel (Wp)	3400W	5600W	8500W	11900W
Maximum Input Voltage (Vmp)	82.4	82.4	188	188
Maximum Input Voltage (Voc)	100	100	230	230

GRID INPUT

Input Supply	Single Phase - 230 V; 50 Hz
Nominal Voltage Range	100 - 280V
Nominal Frequency Range	45 - 55Hz

OUTPUT

Nominal Output (Vac)	220V ± 7V			
Nominal Frequency	50Hz ± 1Hz			
Nominal Output Current (A)	12.5Amp.	17.5Amp.	27Amp.	35Amp.
UPS Efficiency	≥ 80%	≥ 85%		

BATTERY

Battery Recharge Current Range from Grid Side (A)	5 - 18A	5 - 16A	5 - 20A
Default Value Battery Recharge Current Range from Grid Side (A)	18A	16A	20A
Battery Recharge Current Range from PV Side (A)	5 - 50A		

PROTECTION, USER INTERFACE & SETTING

Protection	Thermal Trip, Over load with %, Short Circuit, Battery Low, PV Reverse, MCB Trip
LCD Display	Mains on/off/cut, Mains Voltage, Battery Voltage, Battery Charging/Charged, Mode: UPS/Normal Load (%), Solar On/Off, Solar to Load (A), Solar to Battery (A)
Indications	Inverter: On/Off, Charging: high/low, Mode: UPS/Normal, Mode: Hybrid
User Setting	Battery Boost Voltage, Battery Low Cut Voltage, Max. Grid Charging Current, Max. Solar Charging Current

ENVIRONMENT

IP Protection Level	IP-20
Operating Temperature (°C)	0 to + 55°C
Max Relative Humidity @ 25°C	0-95%
Max. Altitude above Sea Level without De-rating (M)	≤1000 m

PHYSICAL

Dimension (W x D x H) in mm	370 x 400 x 320	370 x 510 x 550	370 x 530 x 620	370 x 530 x 620
Net Weight (Kg)	28.97	43.79	64.57	67.28
Gross Weight (Kg)	31.3	46.5	69.6	70.8

Technical Parameters are subject to change without any prior notice

MPPT POWER CONDITIONING UNIT

5 **Years Product Warranty**

LCD **&** **LED Display**

Livfast Solar Hybrid MPPT HKVA Inverters are high capacity, enhanced efficiency solar PCU that runs both on solar & utility (grid) power supply.
It comes with Priority Mode (ECO/GRID/NONSOLAR) feature for maximizing savings and extended backup.
Advanced MPPT algorithm extracts maximum power from PV modules to both run your appliances and charge your batteries.

FEATURES

Enhanced Solar Power Utilization with Priority Mode
- No PV overload tripping via limiting feature to ensure generation does not fully stop
- Greater PV power allowed per KVA along with a wide MPPT voltage range

Fast Battery Charging
- Charging from Grid + Solar
- Multiple Battery Selection available, Flat/Tubular/VRLA

Safety & Protection
- Smart thermal management
- In-built battery, inverter and panel protection
- MCB protection at all Inputs and Outputs

UPS/Unregulated Mode
- Wide range for poor grids where voltage frequently comes down

Best in Class Overload Capability
- Upto 200% overload for peak surges
- Multiple overload attempts allowed

Pure Sine Wave
- Noiseless & long life operations of electrical appliances.

MPPT POWER CONDITIONING UNIT

Model No.	LFS SO3048M	LFS SO5048M	LFS SO7500M	LFS SO10000M	LFS SO15000M
Product Specification Range of MPPT Solar PCU	3KVA/48V	5KVA/48V	7.5KVA/96V	10KVA/120V	15KVA/240V
Mains Input Mode					
Mains AC Low Cut (UPS Mode)	180 ± 5V		170 ± 5V		
Mains AC Low Cut Recovery (UPS Mode)	9-12V Hysterisis from > Low Cut Voltage				
Mains AC High Cut (UPS Mode)	260 ± 5V		270 ± 5V		
Mains AC High Cut Recovery (UPS Mode)	9-12V Hysterisis from < High Cut Voltage				
Mains AC Low Cut (Wide Range Mode)	120 ± 5V		170 ± 5V		
Mains AC Low Cut Recovery (Wide range Mode)	9-12V Hysterisis > Low Cut Voltage				
Mains AC High Cut (Wide Range Mode)	280 ± 5V		270 ± 5V		
Mains AC High Cut Recovery (Wide Range Mode)	9-12V Hysterisis < High Cut Voltage				
Input Frequency Range	50 ± 5% Hz				
Output voltage in Mains mode	Same as Mains Input				
Output frequency in Mains mode	Same as Mains Input				
Battery					
Battery Type	TUBULAR				
	VRLA				
	FLAT PLATE				
DC Input Voltage (Nominal)	48V	48V	96V	120V	240V
Battery Quantity (12V 100Ah to 220Ah)	4	4	8	10	20
Float Charging Voltage (Tubular/VRLA/Flat Plate)	13.2/13.5/13.4 (per Battery) ± .5V				
Boost Charging Voltage(Tubular/VRLA/Flat Plate)	14.5/13.8/13.7 (per Battery) ± .5V				
Boost Charging Voltage Range for Tubular and SMF Battery	Provided Above				
Bulk Absorption Battery Voltage	Same as Above				
Battery Deep Discharge Recovery	YES				
Charging Current By Grid	20.0 ± 1.0A	30.0 ± 1.0A	25.0 ± 1.0A	35.0 ± 1.0A	30.0 ± 1.0A
Charging Current By PV	Provided Above				
Backup Mode					
Output Voltage	230 ± 2% V				
Output Frequency	50 ± 0.5 Hz				
Output Waveform	PURE SINE WAVE				
No Load Current (Switch OFF)	Sleep Mode is not Provided Currently				
Discharging Current @ Full Load	10.5 A± 1 Amp.	17.5 A ± 1 Amp.	26 A± 1 Amp.	35 A± 1 Amp.	52 A± 1 Amp.
Low Battery Warning	11.1V (per Battery) ± 0.2V				
Low Battery Cut	10.8V (per Battery) ± 0.2V				
Change Over Time From Mains To Inverter (Unregulated Mode)	≤ 46 msec		≤ 25 msec		
Change Over Time From Inverter To Mains (Unregulated Mode)	≤ 46 msec		≤ 25 msec		
Change Over Time From Mains To Inverter (UPS Mode)	≤ 20 msec		≤ 25 msec		
Change Over Time From Without Inverter To Mains (UPS Mode)	≤ 20 msec		≤ 25 msec		
Cooling	FORCED COOLING BY FAN				
Protections					
Overload in Backup Mode	YES				
Short Circuit in Backup Mode	YES				
Short Circuit in Mains Mode	Mains MCB Trip				
Backfeed	YES				
Over Temperature	YES				
Reverse Battery	YES				
Phase to Phase Protection in Mains Mode	YES				
Solar Charge Controller					
Solar Charge Controller Type	MPPT				
Max Panel Wattage That Can Be Connected	3300W	5500W	8250W	11000W	16500W
Max No. of (@325 Wp) Panels Connected (S:Series, P: Parallel)	S: 3, P: 3	S: 4, P: 4	S: 7, P: 4	S:7,P:5	S:12,P:4
Min No. of (@325 Wp) Panels Connected (S:Series, P: Parallel)	S: 3, P: 1	S: 3, P: 3	S: 5, P: 1	S:5,P:2	S:10,P:1
No. of Input Channel	1	1	1	1	1
Max. input Current per Channel (Maximum Isc)	(30 ± 1)A	(50 ± 1)A	(50 ± 1)A	(57 ± 1)A	(57 ± 1)A
Maximum PV Voltage Voc	(190 ± 5)V		(320 ± 5)V		(700 ±5)V
Minimum PV Voltage Vmp	70V		175V		350V
Maximum PV Voltage Vmp	(160 ± 5)V		(266 ± 5)V		(560 ± 5)V

MPPT POWER CONDITIONING UNIT

Solar Charge Controller					
Maximum Battery Current	60A	100A	75A	80A	60A
MPPT Charger Efficiency (Peak)	94%		95%		
Reverse PV Protection	YES				
Reverse Current Flow to PV	NO				
Switching Element(MPPT Charger)	IGBT				
DOD (Depth of Discharge)	As per battery voltage setting (1.8V/cell)				
Display and Alarms					
LCD Display Parameters	1. Battery Voltage & Current				
	2. PV Voltage & Current				
	3. PV Power, Total Generation & Today's Genration				
	4. Mains Voltage & Frequency				
	5. Load Voltage, Current & Frequency (Inverter Mode Only)				
	6. Load Power				
	7. Battrey Charging/Discharging Status				
	8. Time & Date				
	9. User Settings & Factory Settings				
LCD Fault/Protection Status Display	i) Overload				
	ii) Short Circuit				
	iii) Battery & PV Reversew Polarity				
	iv) Battrey Over/Under Voltage				
	v) Battery Current Limit				
	vi) Mains Over/Under Voltage				
	vii) System Over Temprature				
	viii) Grid/Load/PV Surge Protection(MOV)				
Buzzer	YES				
Safety					
HV Test Input to Earth	YES				
HV Test Output to Earth	YES				
IR Test Input to Earth	YES				
IR Test Output to Earth	YES				
Environment					
Operating Temperature	0°C to 50°C				
Storage Temperature	10°C to 70°C				
Operating Relative Humidity	5-95% (Non-condensed)				
Dimensions					
Dimensions in mm (LXWXH)	335X295X415	448.5X275X611	650X400X753.5	650X400X753.5	650X450X753.5
Box Dimensions in mm (LXWXH)	680X345X510	680X345X510	835X495X800	835X495X800	835X565X800
Weight in Kg — Net Weight	31.0Kg	52.95Kg	97.5Kg	104.35Kg	138.40Kg
Weight in Kg — Gross Weight	33.5Kg	55.55Kg	109.85Kg	116.70Kg	153.45Kg

NOTE: Specifications are subject to change without prior notice

SOLAR BATTERY

Livfast Solar Batteries are C10 rated deep cycle batteries. Innovative Super Tuff 3D design and extra thick tubular plates give longer backup & battery life.

Upto 5 Years Product Warranty

Super Tuff 3D Design Plates

Super Tuff 3D Grid
- Industry's 1st 3D design with double side pasting
- Ensures longer battery life

Superior Life Cycle
- Ensures longer battery service life Life Cycle- 2000 at 80% depth of
- discharge at Room Temperature

Tuff Futuristic Design
- Advanced premium design Robust high quality durable material

Ultra Low Maintenance
- Topping up frequency – Initially 8 to 10 Months

SOLAR BATTERY

Model Name	Nominal Voltage (V)	Capacity @ C10 (Ah)	Battery Weight with Acid ± 3% (Kg)	Overall Dimension			Free Replacement (Months)	Pro Rata Warranty (Months)
				Length ± 3 mm	width ± 3 mm	Height ± 3 mm		
LFS340L	12	40	23.4	410	175	235	0 - 36	-
LFS375L	12	75	30.1	410	175	271	0 - 36	-
LFS5100H	12	100	52.3	505	188	410	0 - 60	-
LFS5135H	12	135	55.7	505	188	410	0 - 60	-
LFS5150HP	12	150	53.2	505	188	410	0 - 36	37 - 60
LFS5165H	12	165	55	505	188	410	0 - 60	-
LFS5180HP	12	180	57.5	505	188	410	0 - 36	37 - 60
LFS5200H	12	200	63.4	505	188	410	0 - 60	-

Note: Battery Capacity is C10 upto 1.80 Volts per Cell at 27°C

Applications

- **Solar Rooftop Projects**
- **Solar Home Lights**
- **Solar Street Lights**
- **Solar UPS**
- **Solar Management Unit**
- **Solar Charge Controller**
- **Telecom Towers**

SOLAR STREET LIGHT

Livfast solar street lights are integrated with high efficiency LED as per MNRE specifications.

2 **Years Product Warranty**

In-built Dusk to Dawn Feature

Dusk to Dawn
- Automatic dusk to dawn technology
- Optimized utilization of battery energy

Dimming Features
- 50% dimming after 5 hrs
- Efficient & reliable product

Fully Compliant to MNRE Specification

Safety & Protection
- Reverse polarity protection for both solar panel & battery
- Intelligent 3 stage battery charging profile

SOLAR STREET LIGHT

Model Name	LFVSSL9N	LFVSSL12
System Rating	9 Watt	12 Watt
Panel Specification		
Maximum Solar Panel (Wp)	Upto 100W	

BATTERY

Battery Type	Lead Acid
Nominal Battery Voltage	12V
Battery Capacity (Ah)	Upto 100Ah

CHARGE CONTROLLER

Maximum Input Voltage(Voc)	22V	
Nominal Input Voltage (V)	12V	
Nominal Input Current (A)	0.74A @ 12V	0.97A @ 12V
Output Voltage (V)	22.8V ± 2%	16.82V ± 2%
Output Current (A)	0.36A ± 2%	0.625A ± 2%
Efficiency (%)	> 90%	
Dusk To Dawn	Dusk < 2.8V	
	Dawn > 8V	

LED

Number of LED	16	20
LED Type	1W	
CRI	Min 70	
CCT	5500K - 6500K	
Luminous Efficacy	> 90 lm/w	> 110 lm/w

CHARGING & WIRE SPECIFICATION

Charging Type	PWM
Charging Algorithm / Charging Current	3 Stage of Charging (Bulk, Constant, Voltage, Floating)
	6.8A ± 5%
Wire Specification	4 core 1.5 sq. mm
	1 m length
	Panel: Yellow(-ve), Blue (+ve)
	Battery: Black(-ve), Red(+ve)

PROTECTIONS & INDICATORS

Open Circuit Protection	Provided
Short Circuit Protection	Both LED Will Blink on Error. If Error is Removed, System Will Restart After Around 30 Secs
Reverse Polarity	Provided for Both Battery & Solar Panel
Charging	Green LED Blinking
Low Battery	11.2 V ± 2% (Red, LED on), Battery Reconnect @ 12.3 V ± 2%
Error	Both LED Will Blink (Red & Green)
Dimming	50% Dimming after 5 Hours

GENERAL

Operating Temperature	0°C to 50°C	
Dimensions (LxWxH) MM	330 x 76 x 139	330 x 76 x 139
Net Weight (Kg)	1.5	1.5

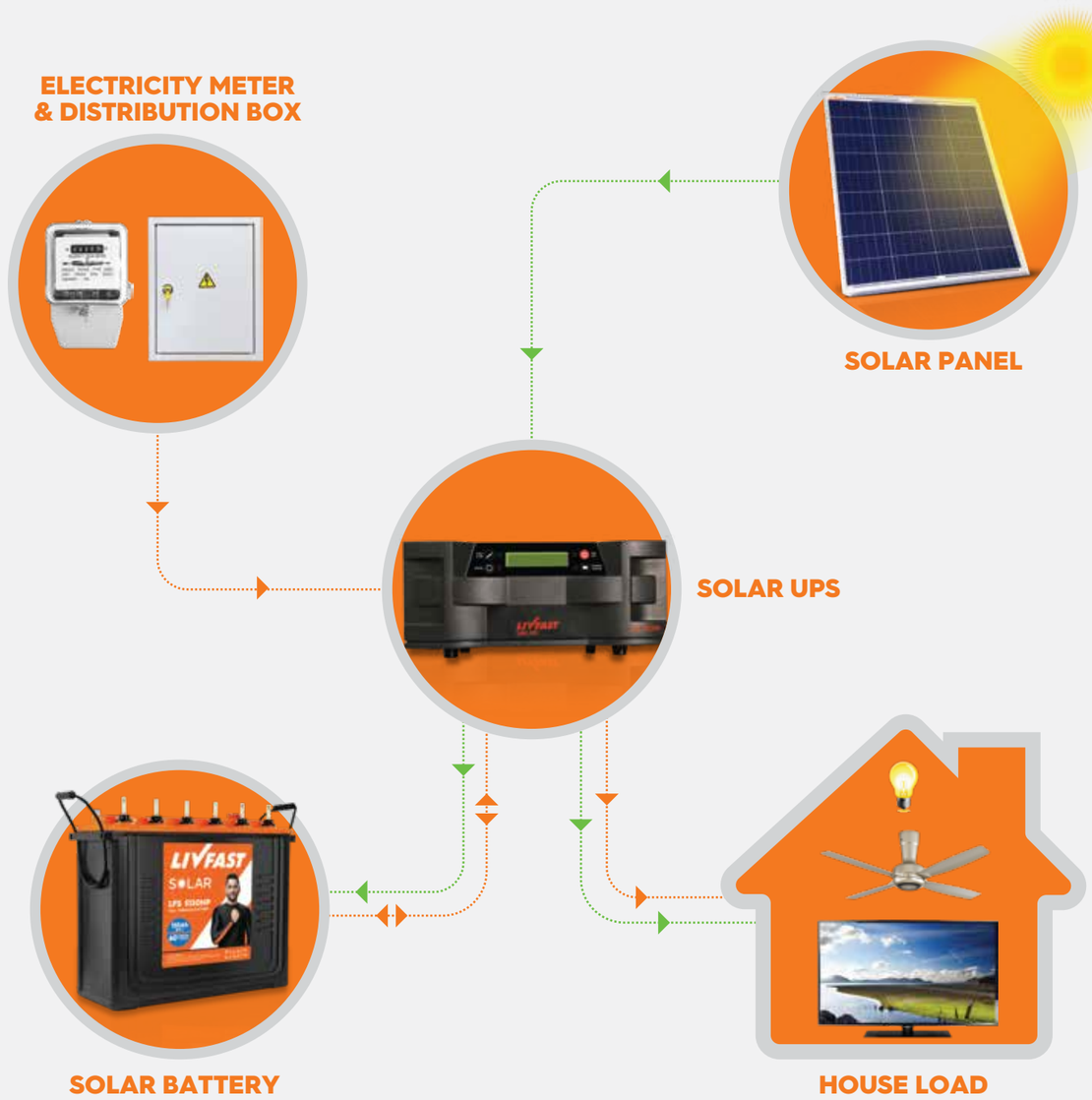
Technical Parameters are Subject to Change Without Any Prior Notice

SOLAR POWER GENERATING SYSTEMS

LIGHT DUTY HOME SOLUTION

SOLAR COMPONENTS

SOLAR PV PANEL	12V: 100W, 150W, 180W I 24V: 335W, 400W
SOLAR UPS	12V: 900VA I 24V: 1500-2000VA
SOLAR BATTERY	100AH, 135AH, 150AH, 165AH, 180AH, 200AH



Note: For the above solution, extra BOS will be required for final installation & commissioning BOS: Cable, connector, ACDB, structure etc.

HEAVY DUTY HOME SOLUTION

SOLAR COMPONENTS

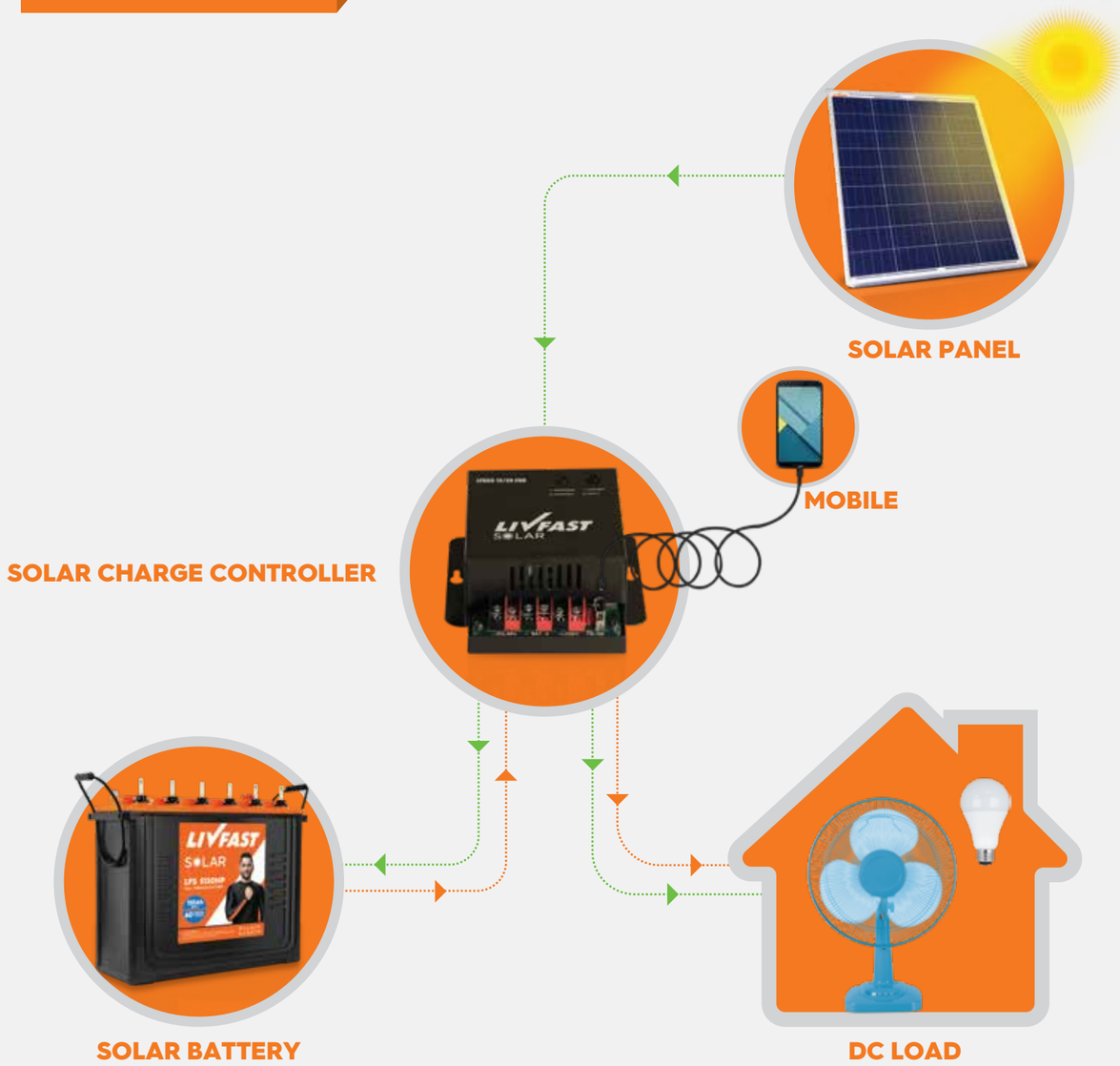
SOLAR PV PANEL	24V - 335W,400W
SOLAR PWM PCU	48V: 3.5KVA, 5KVA I 96V: 5KVA I 120V: 7.5KVA, 10KVA
SOLAR MPPT PCU	48V: 3KVA,5KVA I 96V: 7.5KVA I 120V: 10KVA I 240V: 15KVA
SOLAR BATTERY	100AH, 135AH, 150AH, 165AH, 180AH, 200AH

Note: For the above solution, extra BOS will be required for final installation & commissioning BOS: Cable, Connector, ACDB, DCDB, structure etc.

DC SOLUTION

SOLAR COMPONENTS

SOLAR PV PANEL	12V: 40W, 50W, 75W, 100W, 180W 24V - 335W,400W
SOLAR CHARGE CONTROLLER	12/24V: 10-20AMPS. I 24/36/48V: 50AMPS.
SOLAR BATTERY	40AH, 75AH, 100AH, 135AH, 150AH, 165AH, 180AH, 200AH

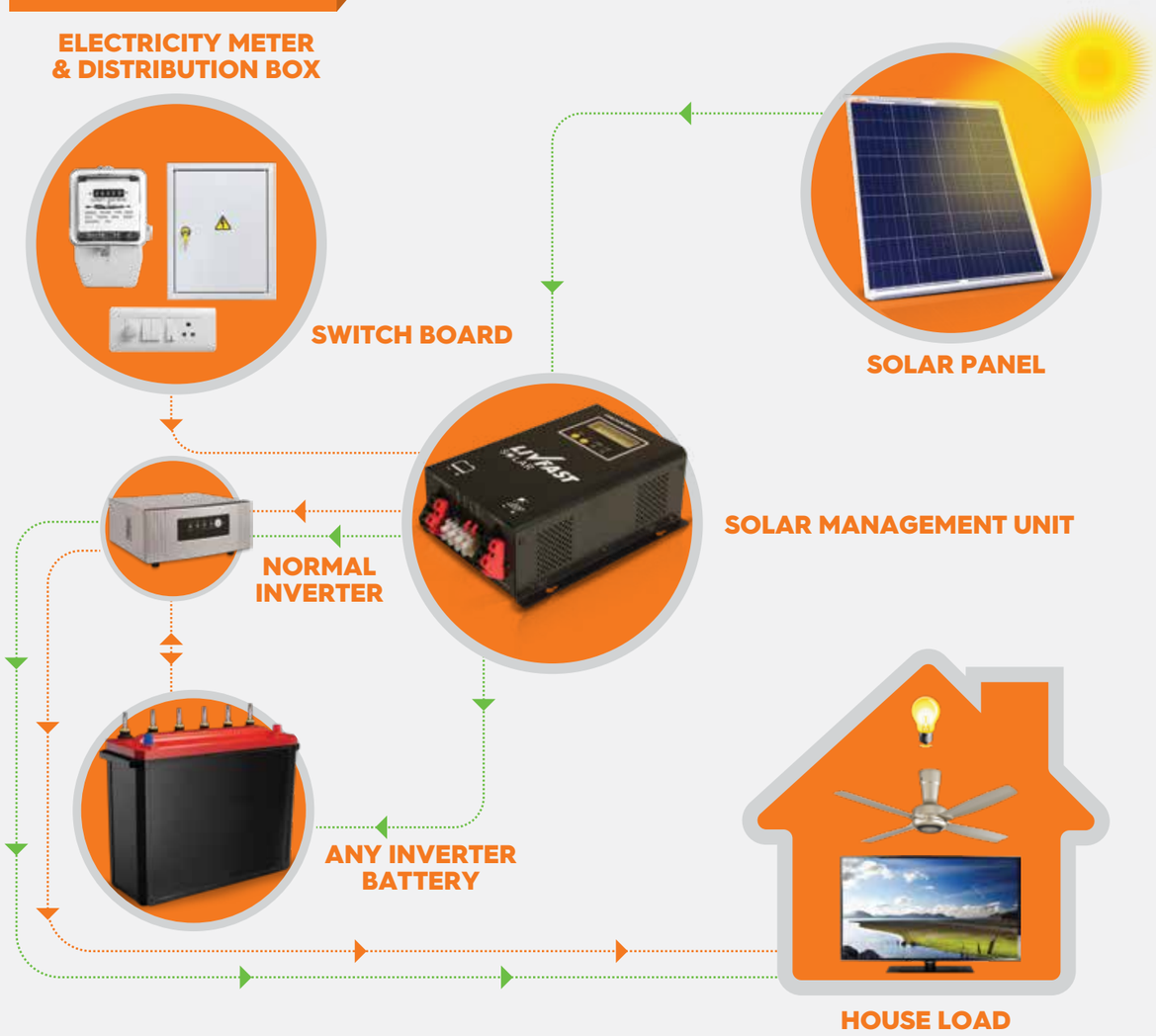


Note: For the above solution, extra BOS will be required for final installation & commissioning BOS: Cable, connector, ACDB, structure etc.

EXISTING INVERTER SOLARISATION SOLUTION

SOLAR COMPONENTS

SOLAR PV PANEL	12V: 100W, 150W, 180W I 24V - 335W,400W
SOLAR MANAGEMENT UNIT	12/24V: 30AMPS. I 24/36/48V: 50AMPS.
SOLAR BATTERY	100AH, 135AH, 150AH, 165AH, 180AH, 200AH



Note: For the above solution, extra BOS will be required for final installation & commissioning BOS: Cable, connector, ACDB, structure etc.

SOLAR STREET LIGHT SOLUTIONS

SOLAR COMPONENTS

SOLAR PV PANEL	12V: 40W, 50W, 75W, 100W
SOLAR STREET LIGHT	9W & 12W
SOLAR BATTERY	40AH, 75AH, 100AH

Note: For the above solution, extra BOS will be required for final installation & commissioning BOS: Cable, connector, ACDB, structure etc.

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