

**Su-Kam**  
*Ek nayi sochi*

# Falcon+

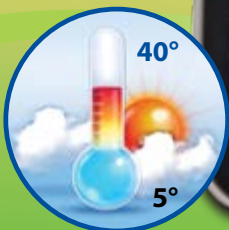
**PURE SINE WAVE HOME UPS**

750/900/1100-12V, 1600/24V

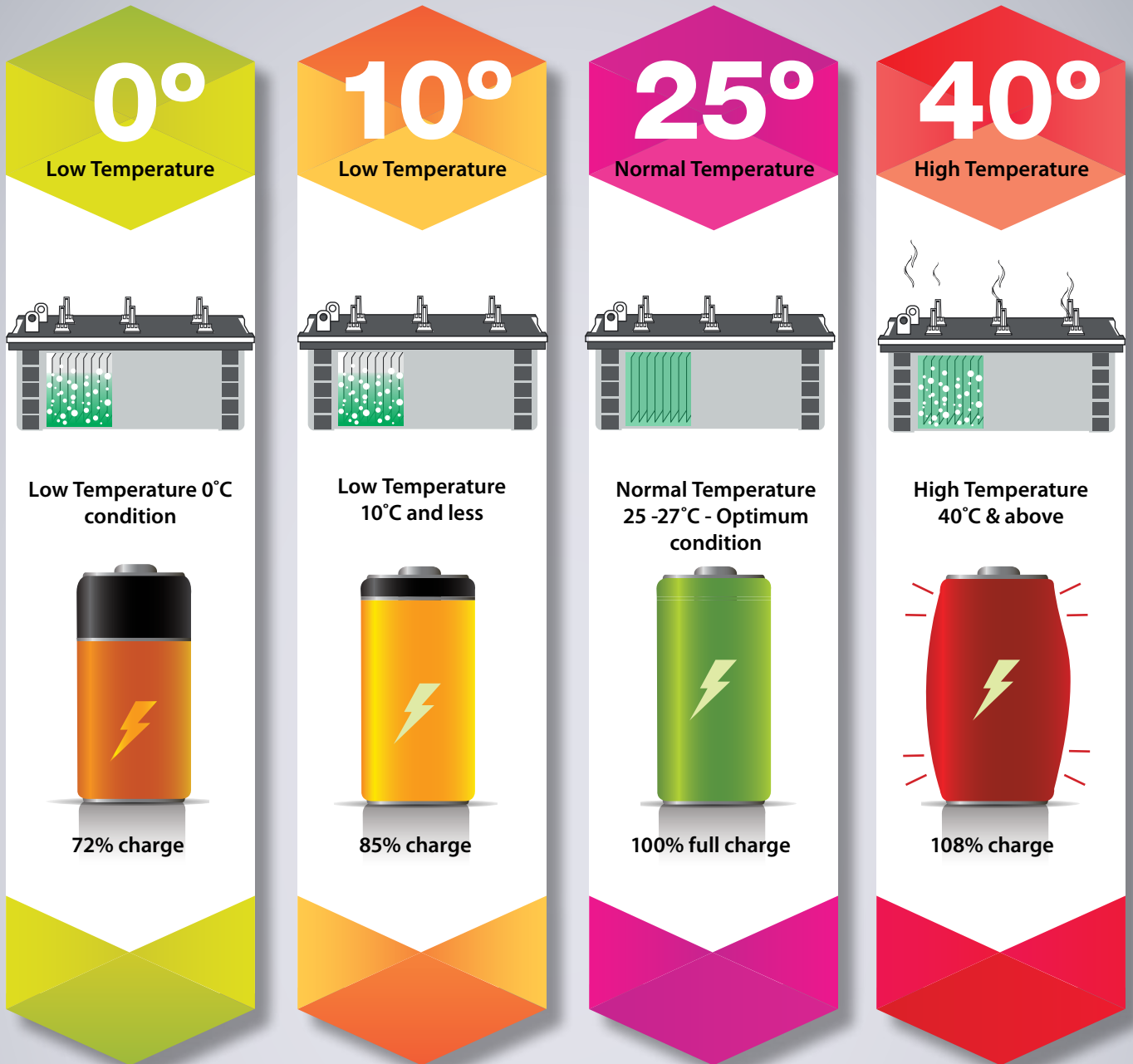
all  
seasons  
technology

Unique ATC sensor  
keeps the battery  
charging constant  
in all temperatures

TEMPERATURE  
SENSOR



# Current Scenario of Battery



## The Su-Kam Solution

First time in India, Su-Kam introduces Home UPS with an intelligent **ATC Technology (Automatic Temperature Compensation)** that adjusts battery charging according to the ambient temperature to maximize battery performance.

The sensor automatically senses the temperature and takes control of over charging and under charging, thereby increasing battery life by at least six months and providing excellent battery back-up.

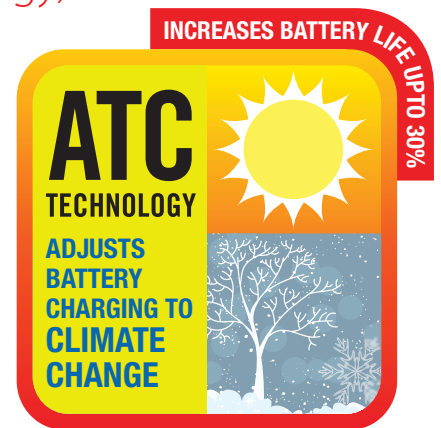
ATC SENSOR ADJUSTS BATTERY CHARGING ACCORDING TO AMBIENT TEMPERATURE TO MAXIMIZE BATTERY PERFORMANCE



# What is ATC ?

## (Automatic Temperature Compensation Technology)

- > Su-Kam's first Home UPS with ATC Technology senses the outside temperature and accordingly adjusts charging of batteries.
- > This automatic sensing controls over charging and under charging thereby increasing battery life by 30% and providing excellent battery back-up.
- > This new charging system monitors the battery temperature and automatically regulates the voltage.
- > ATC Sensor is kept close to the battery bank that determines battery temperature and automatically adjusts the target charge voltages accordingly.
- > Since charging efficiency is less than 100%, batteries typically warm up as they are charged. Fluctuations in outside temperature also cause battery temperature to change. ATC technology allows chargers to dynamically adjust target voltages during the charging process as battery temperature changes and ensures optimal charging.



## Benefits of ATC Technology

**Controls over charging and under charging of batteries**

**Low maintenance: Less frequent water topping**

**Increases battery life by at least 6 months**

# How does ATC work?

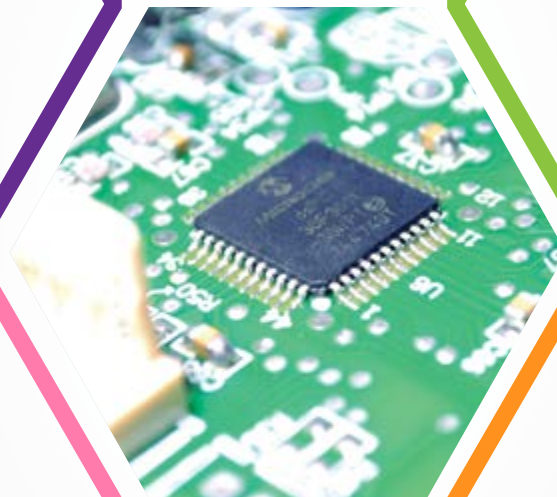
Falcon+ has highly advanced 4th generation micro processor which enables Automatic Temperature Compensation Technology.

## Magical 4th Generation Micro Processor

ATC Sensor senses the temperature near the battery

If the temperature is below 25°C it increases the boost voltage of battery

Increases battery life by at least 6 months



If the temperature is above 25°C it decreases the boost voltage of battery

Ideal Temp for Charging Battery 25°C

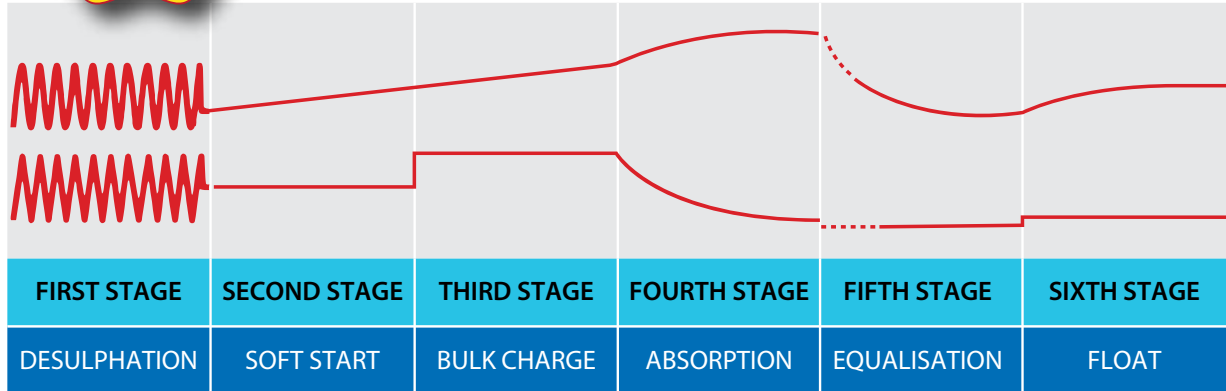
As a Result the Battery gets the desired Boost Voltage at all -Temperatures



# Falcon+ is powered with DT-6S technology



DT -6S technology provides effective de- sulphation of battery ensuring 10% faster charging and battery life increment of at least 30% over existing technology.



## De sulphation

- High voltage, low current helps micro pulses to detach the sulphate crystal from the plates of battery
- Battery Produces optimum Power

## Soft Start Charging

- Starts Charging battery at low voltage and low current.
- Waits till the battery gets charged

## Bulk Charging

- Gives high voltage and predefined current to the battery
- Battery reaches about 80% of charge level

## Absorption Charging

- Battery charger detects the charging till it slowed down at about 80% of charge level
- Then the charging current is fed slowly till the level reaches 100%

## Equalization Charging

- High Voltage Shakes the battery electrolyte and makes the electrolyte more efficient for charging

## Float Maintenance Stage

- Charging Voltage is reduced to a level and held Constant
- Maintains the full charge level of the battery

## Benefits of DT-6S 6 Stage charger are :

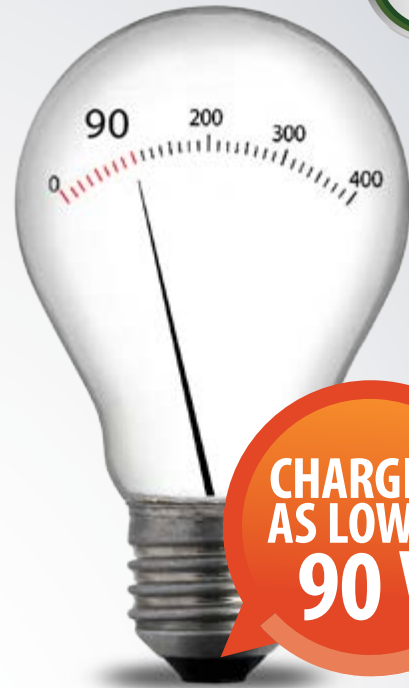
- ✓ Optimum back up time from battery
- ✓ Fast and full charging, ultimately leading to get a longer battery life
- ✓ Does not require frequent water topping of battery hence reducing maintenance cost and efforts
- ✓ Controls the emission of harmful gases into the environment

# Power Full Battery Charging with Input Voltage as Low as 90 V



Equipped with an SMPS charger, this intelligent system increases efficiency thereby allowing powerful charging even at a very low voltage of 90 V.

Typically, the inverter batteries require minimum 130 volt for charging.	Falcon + charges the battery with voltage as low as 90 volt.
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**Most effective solution even in remote places where the electricity voltage is not high.**

Enjoy uninterrupted backup with less than 8 msec switch over time



**Switch Over Time In UPS Mode**  **8 MSEC**



\* Your IT equipments does not reboot

# Falcon+ provides an extra layer of Protection of your devices



## MCB

Available in 1100/12V and 1600/24V Model only

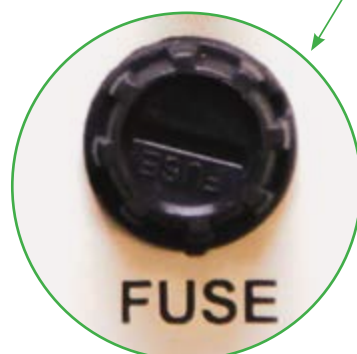
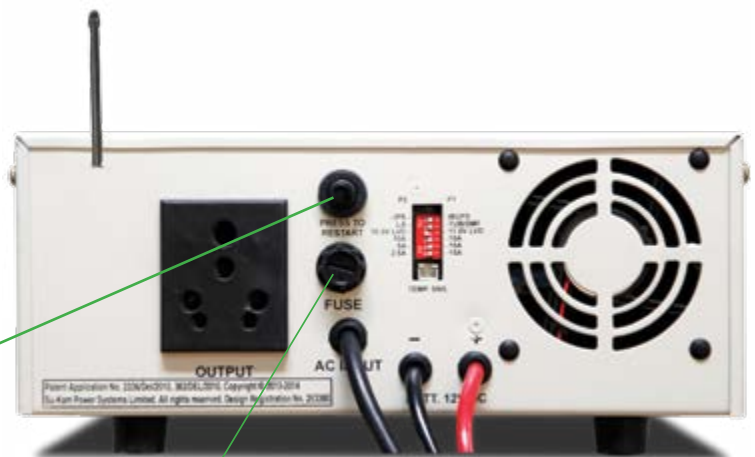


- Falcon+ series is equipped with MCB (Miniature Circuit Breaker) / Resettable Fuse
- Protects the system and appliances from overload and short circuits
- Increases the battery life and all appliances attached



## RESETTABLE FUSE

Available in 750/12V and 900/12V



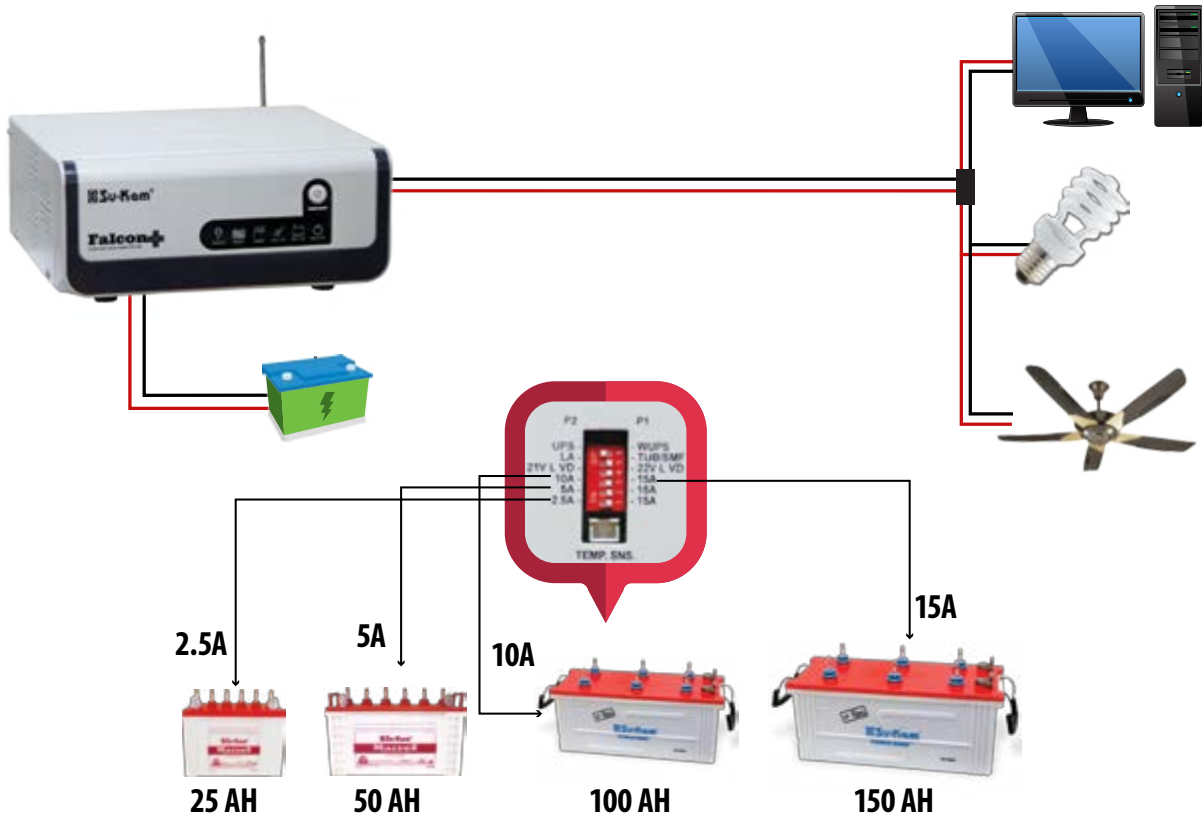
## DOUBLE PROTECTION

Available in 750/12V and 900/12V

Back up selection switch gives you the option to choose battery size.



Choose any battery between 18-200AH according to your backup need



## Small Battery + Backup options

Choose any battery according to your backup needs

<p>25AH Back up time <b>10min</b></p>	<p>50AH Back up time <b>30min</b></p>	<p>100AH Back up time <b>1hrs 10min</b></p>

\*14 Inch TFT Monitor

\*Valid on Falcon+900



# Increase your battery life with LVD

Falcon+ comes with a choice for low voltage selection & low voltage disconnect (LVD). Commonly all UPS has a backup cut at 10.5 where as Falcon+ gives a backup cut at 11 which makes it useful for areas with less frequent power cuts.

## POWER OF 11 LOW VOLTAGE SELECTION

### Backup cut at 11V

Less backup  
more battery life

### Backup cut at 10.5V

More back up time  
Less battery Life

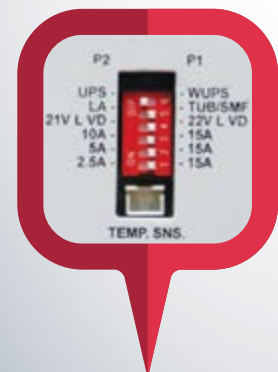
### Less than 10.5 V

Deep Discharge



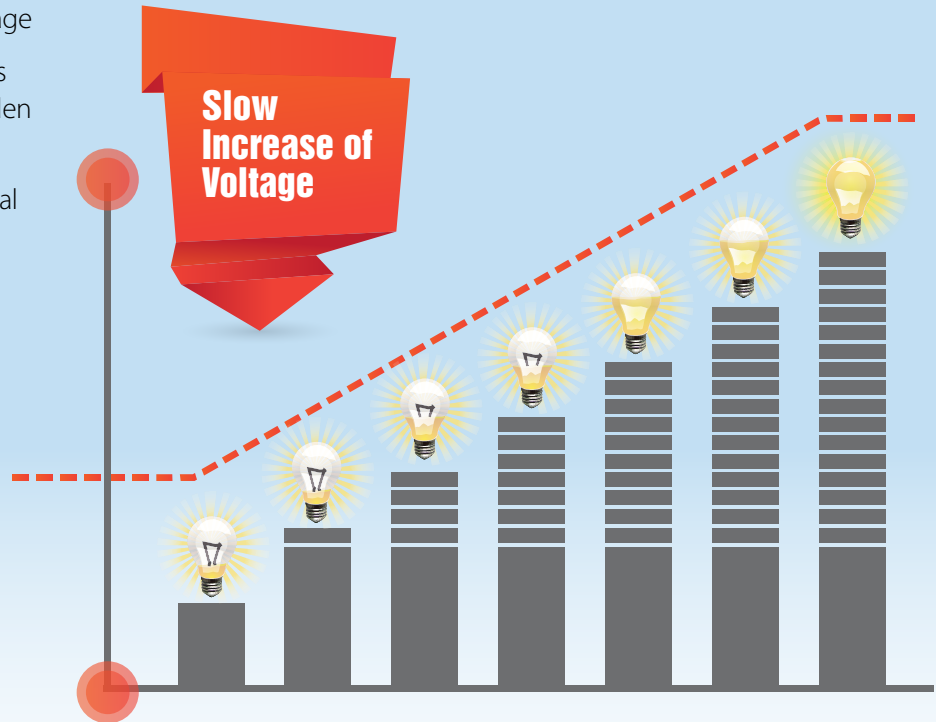
## Advantages of Low Voltage Disconnect (LVD)

- ✓ Saves battery from deep discharge
- ✓ Faster battery charging
- ✓ Life of battery increases by 3 months



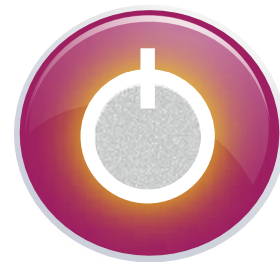
# Soft Start Technology to safeguard your appliances

- Gradual increase of voltage
- This technology protects the appliance from sudden high voltage
- Hence life of the electrical appliance increases.

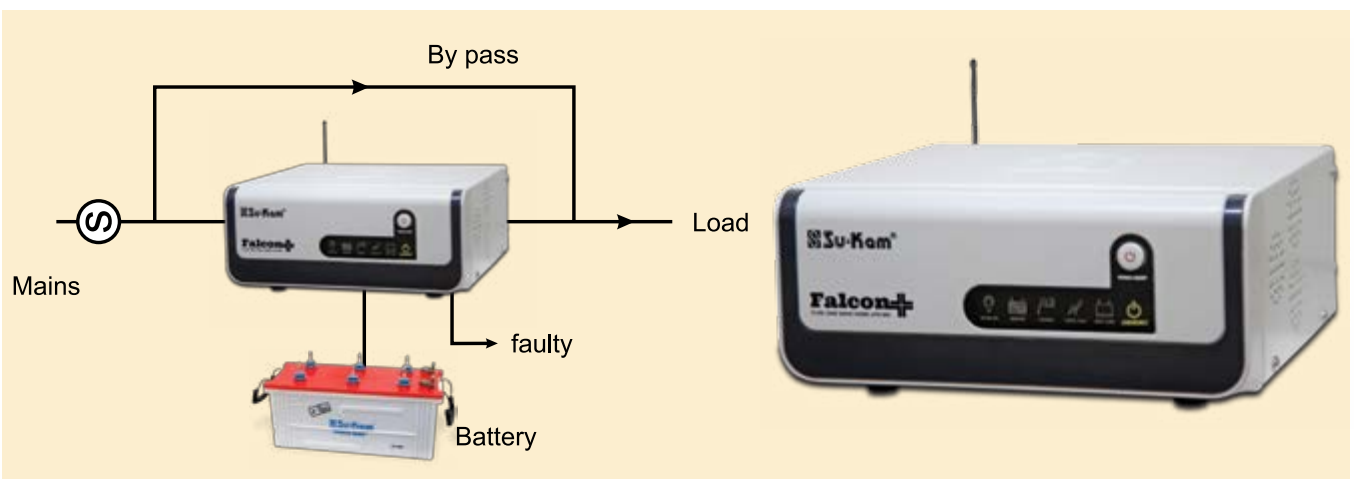


## Enjoy uninterrupted supply of power even when UPS fails

**Static Bypass Switch** This switch helps to bypass the electricity to mains whenever there is a failure in the inverter. This makes the system user friendly and convenient.



**ABS ACTIVE**



## SOLAR COMPATIBILITY

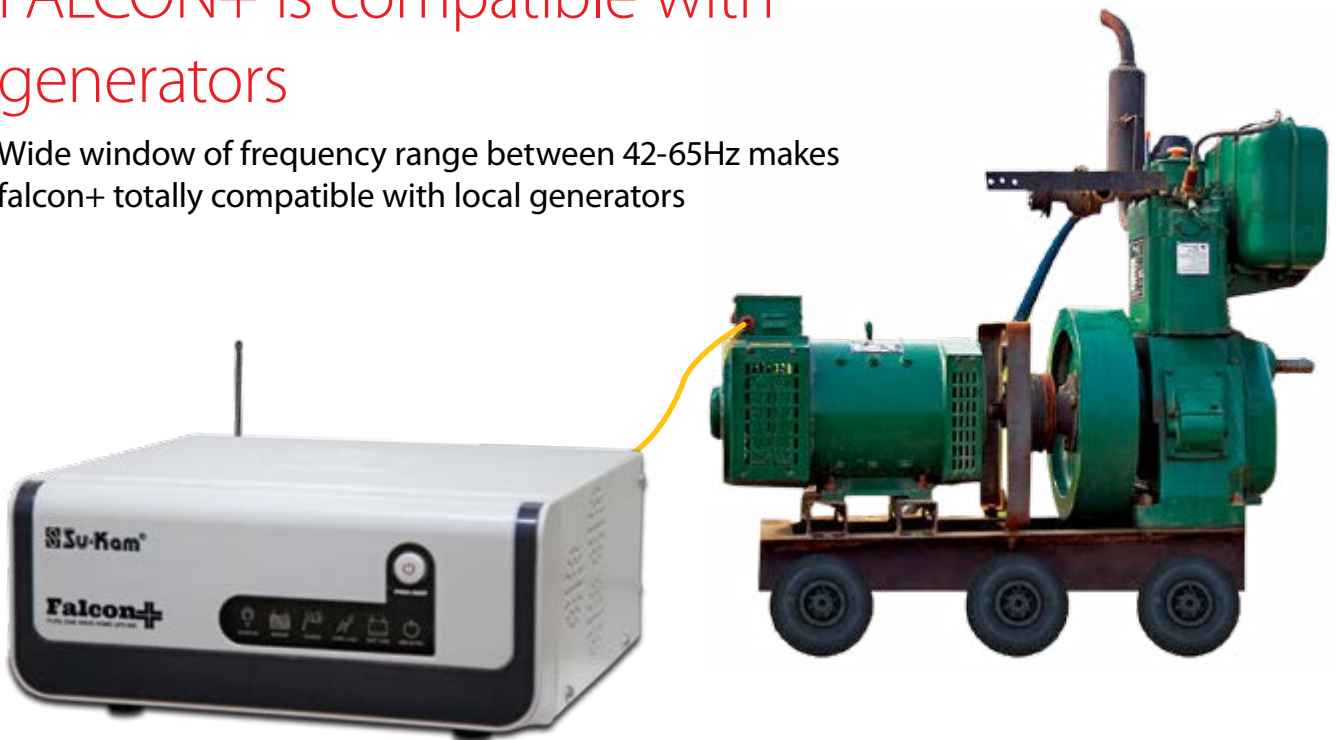
Falcon+ can be used as a solar inverter by using our unique product SOLARCON. Solarcon is an intelligent converter that when attached to the existing inverter and battery along with solar panels can help the user to reap benefits from the power of sun.

# SOLARCON



## FALCON+ is compatible with generators

Wide window of frequency range between 42-65Hz makes falcon+ totally compatible with local generators



## PRODUCT FEATURES

- Pure Sine Wave output runs all your appliances efficiently and noiselessly.
- Intelligent thermal management system.
- Solar Compatibility.
- Static by-pass.
- Electronic Protection updates.
- Battery reversal pole protection.
- High surge load handling capability.
- Inbuilt wrong wire connection protection.
- Smart overload and short circuit protection with 8 times auto retry.
- Reverse current flow protection.

### Displays

- Multifunction Graphical LED display.
- Power Switch active indication.
- 5 LEDs display following states – operation mode, state of charge, fault message.

### Operation

- Single operation master switch.
- Automatic cooling fan operation.
- Automatic circuit breaker recovery.

### Approvals & Certifications

- Certified by ETDC & CE.
- Technology & Design Patent.
- Copyrights & Trademark.
- Manufactured according to ISO 9001 and ISO 14001.
- R&D approved by Govt. of Science & Technology.



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**Sales Enquiry: 1800-102-7555**

## LOAD CHART, APPLICATIONS & BACK-UP TIME

Load Options	FALCON+ 750/12V			FALCON+ 900/12V		
	A	B	C	A	B	C
Computer	1	-	-	1	-	-
Television	-	-	1	-	-	1
Tube Lights	3	1	3	3	2	4
Fans	1	2	1	3	3	4
Room Cooler	-	1	-	-	1	-
CFL	-	-	-	1	1	1

Back-up time in hrs. (below back-up time is calculated on above load options A, B, C combination run independently)

135 AH	2.7 H	2.1 H
150 AH	3.0 H	2.4 H
200 AH	4.0 H	3.2 H

\*Recommended battery 100AH–200AH

Load Options	FALCON+ 1100/12V		
	A	B	C
Computer	-	1	-
Television	-	-	-
Tube Lights	10	3	4
Fans	-	4	3
Room Cooler	-	-	1
CFL	2	-	-

Back-up time in hrs. (below back-up time is calculated on above load options A, B, C combination run independently)

135 AH	1.8 H
150 AH	2.0 H
200 AH	2.7 H

\*Recommended battery 100AH–200AH

Load Options	FALCON+ 1600/24V		
	A	B	C
Computer	1	-	-
Television	-	-	1
Tube Lights	7	6	8
Fans	7	6	8
Room Cooler	-	1	-
CFL	-	-	-

Back-up time in hrs. (below back-up time is calculated on above load options A, B, C combination run independently)

135 AH	2.1 H
150 AH	2.3 H
200 AH	3.1 H

\*Recommended battery 100AH–200AH

**Note:** Indicative values only, actual calculation depends on manufacturer's specification.

\* CFL - 15W, Ceiling Fan -3 blades (48mm 100 - 1200 mm sweep), TV - 19-21 inch, Tube light - 40W.

**Applications:** Computer, Televisions, Printer, / Bulbs, Tube Light, Fans, Room Cooler, Mixer Grinder etc.



# Falcon+

PURE SINE WAVE HOME UPS

## RANGE OF INVERTERS

- Pure Sinewave Home UPS 750
- Pure Sinewave Home UPS 900
- Pure Sinewave Home UPS 1100
- Pure Sinewave Home UPS 1600