

Su-Kam
Ek nayi soch

Falcon+

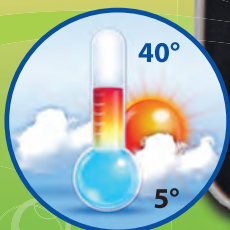
PURE SINE WAVE HOME UPS

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

all
seasons
technology

Unique ATC sensor
keeps the battery
charging constant
in all temperatures

TEMPERATURE SENSOR



www.su-kam.com

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.

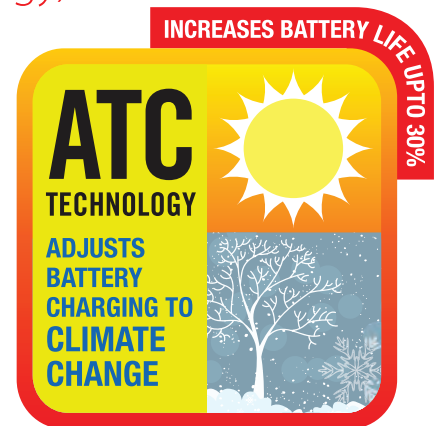
ATC SENSOR ADJUSTS BATTERY CHARGING ACCORDING TO AMBIENT TEMPERATURE TO MAXIMIZE BATTERY PERFORMANCE



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.
- > Since charging efficiency is less than 100%, batteries typically warm up as they are charged. Fluctuations in outside temperature also causes 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.
- > ATC Sensor is kept close to the battery bank that determines battery temperature and automatically adjusts the target charge voltages accordingly.



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

Falcon+
PURE SINE WAVE HOME UPS

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

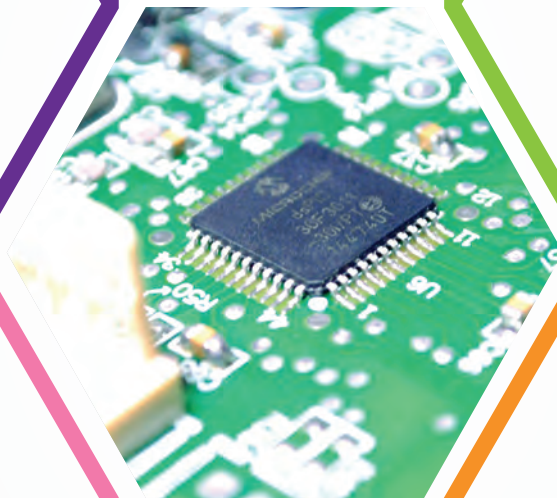
If the temperature is below 25°C it increases the boost voltage of battery

Increases battery life by at least 6 months

Ideal Temp for Charging Battery 25°C

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

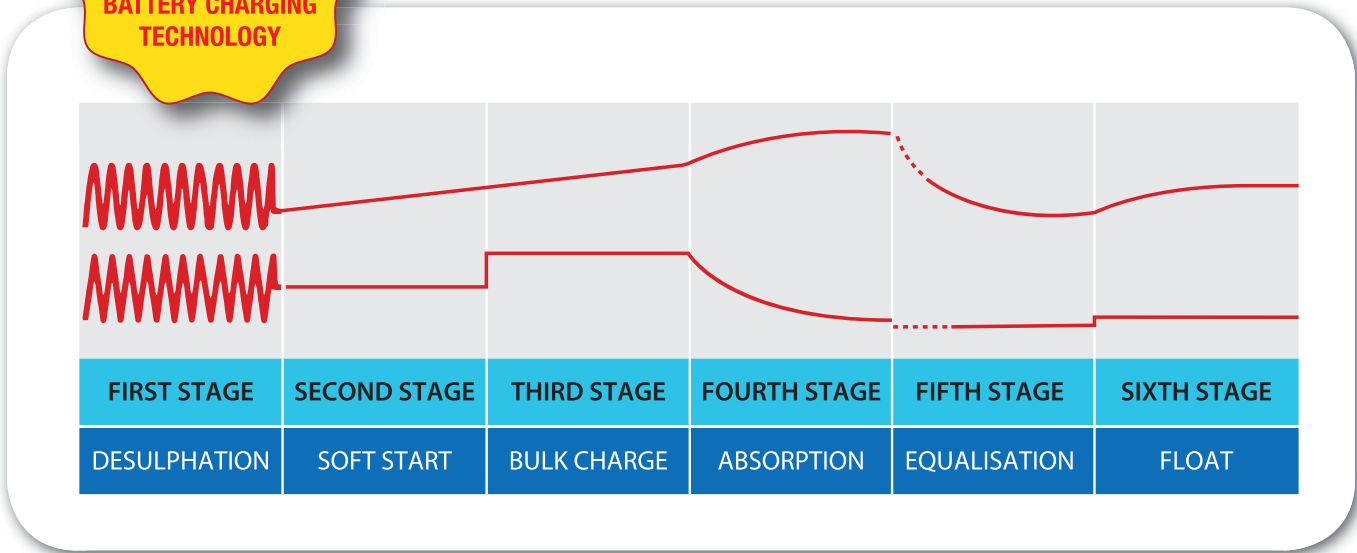
As a Result the Battery gets the desired Boost Voltage at all -Temperatures



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 15% 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

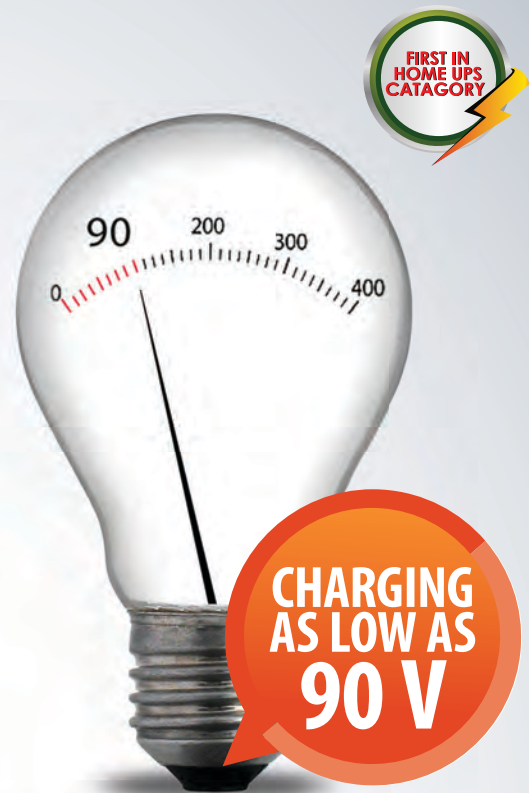
Power Full Battery Charging with Input Voltage as Low as 90 V

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.

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

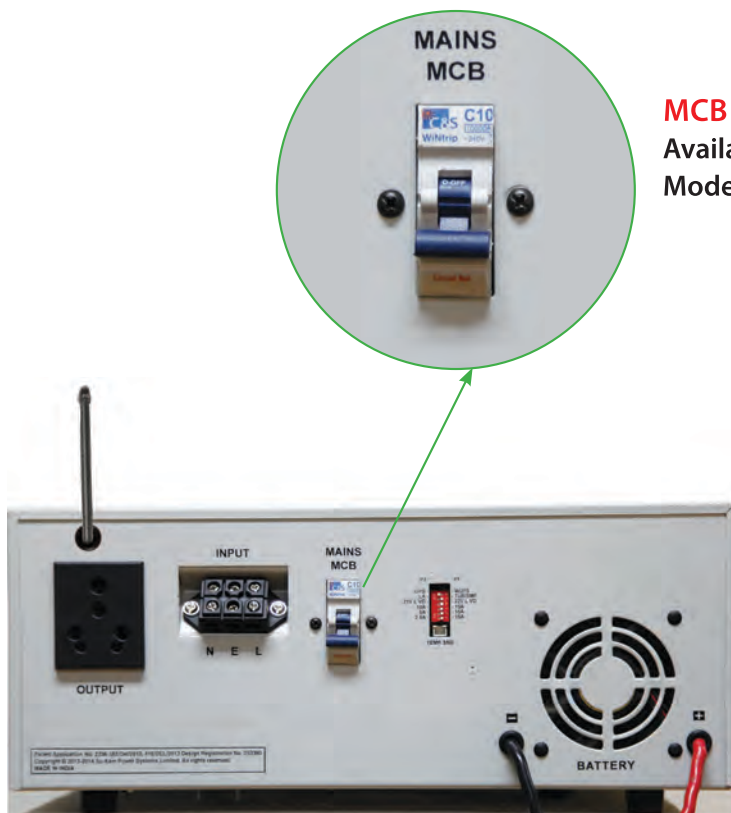


Switch Over Time In UPS Mode



* Your IT equipments does not reboot

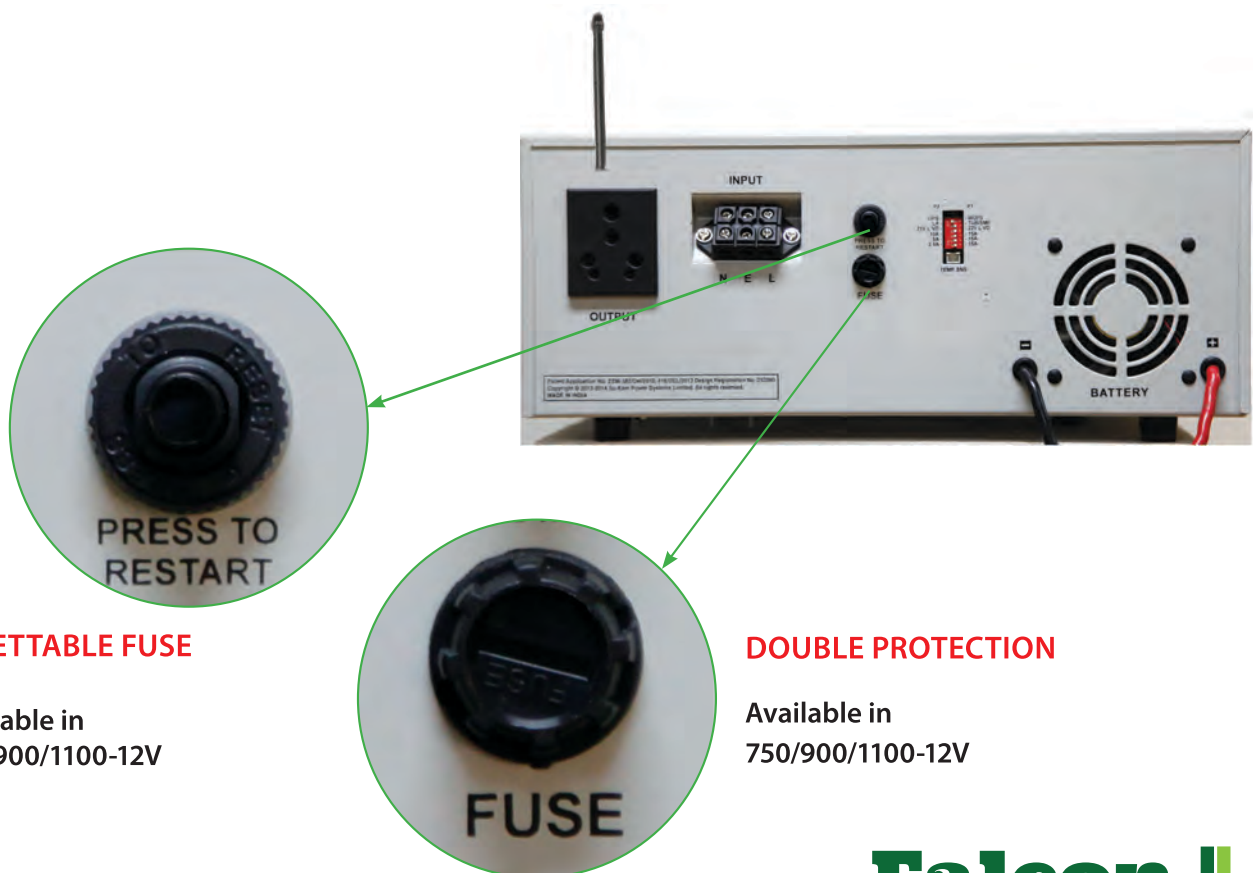
Falcon+ provides an extra layer of Protection of your devices



MCB

Available in 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

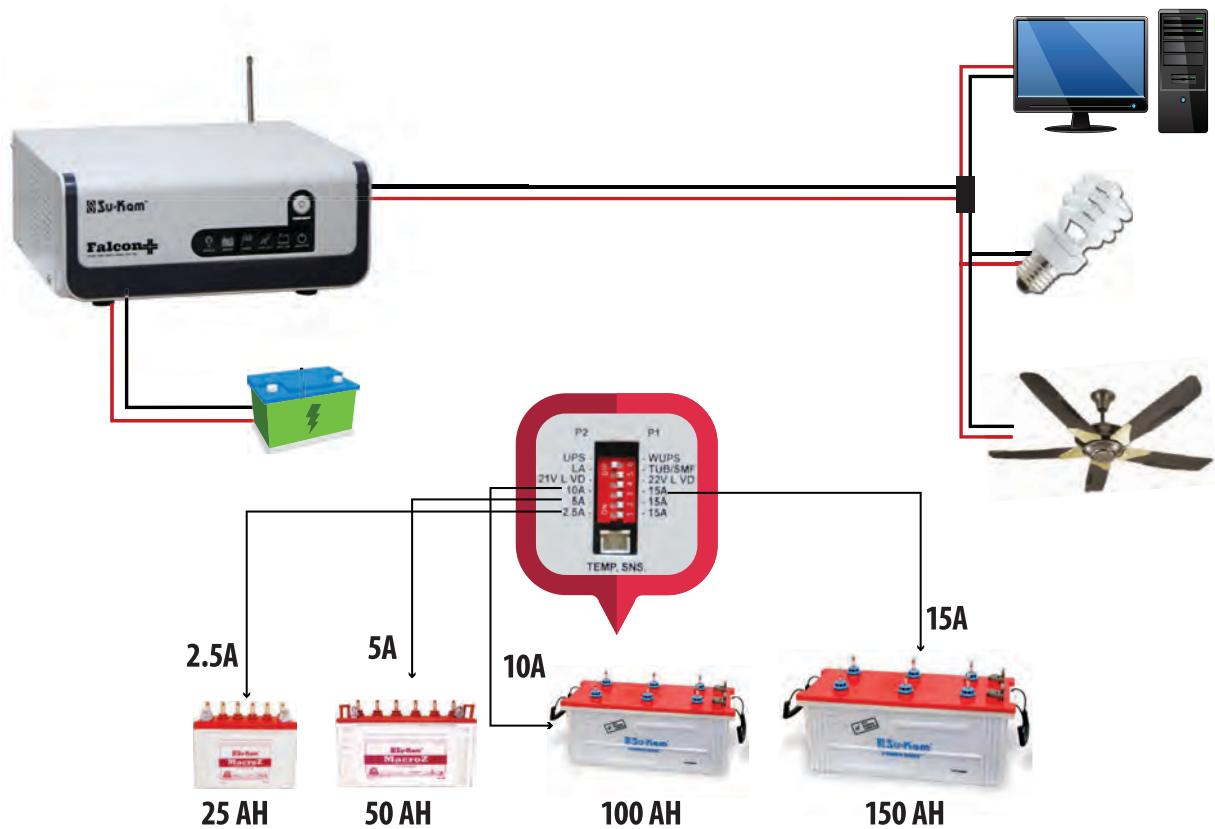
Available in
750/900/1100-12V

DOUBLE PROTECTION

Available in
750/900/1100-12V

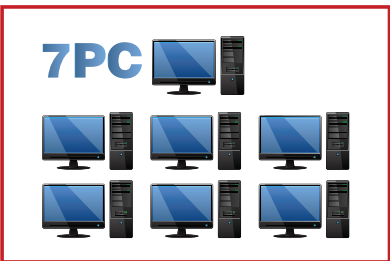
Back up selection switch gives you the option to choose battery size.

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

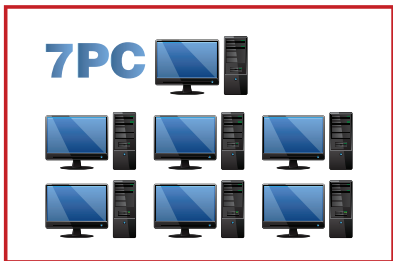


Small Battery + Backup options

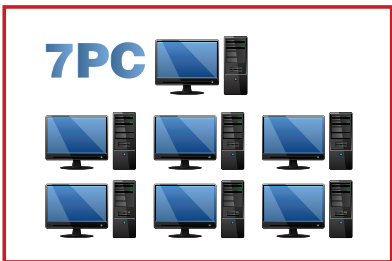
Choose any battery according to your backup needs



25AH
Back up time
10min



50AH
Back up time
30min



100AH
Back up time
1hrs 10min

*14 Inch TFT Monitor

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

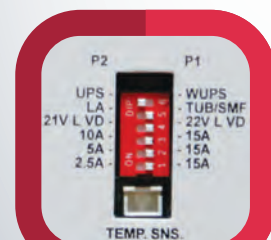
Less than 10.5 V

Deep Discharge



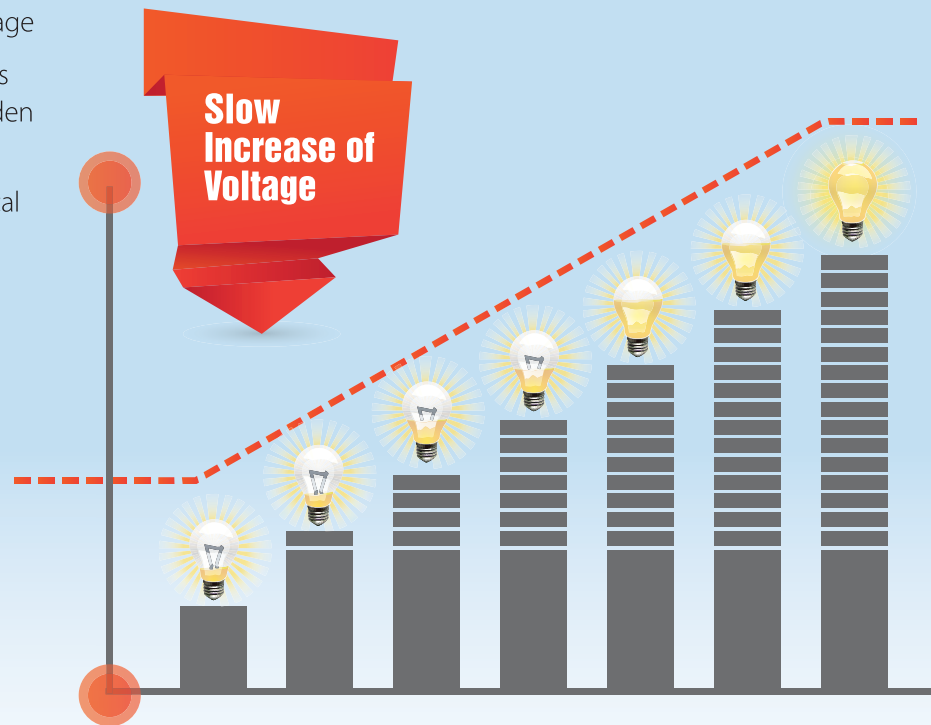
Advantages of Low Voltage Disconnect (LVD)

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



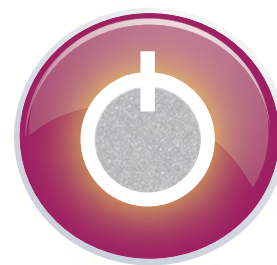
Soft Start Technology to safeguard your appliances

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

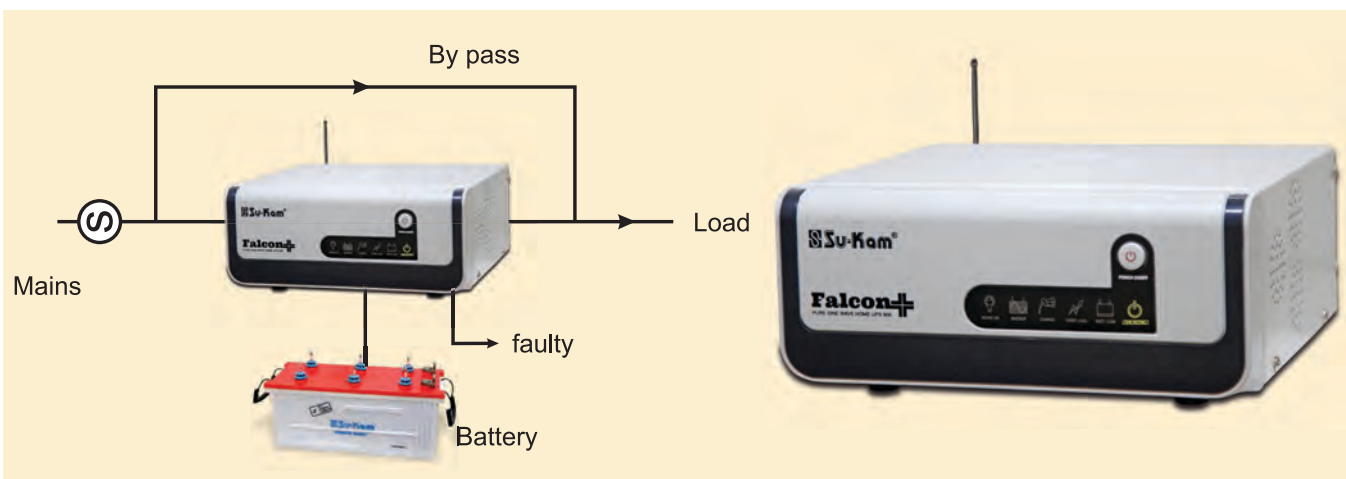


Enjoy uninterrupted supply of power even when UPS fails

Automatic 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



Patent Application No. 2336/Del/2010, 382/DEL/2010, 416/DEL/2013
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Design Registration No.: 253380, 271360

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.

LOAD CHART, APPLICATIONS & BACK-UP TIME

	FALCON+ 750/12V			FALCON+ 900/12V		
Load Options	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

	FALCON+ 1100/12V		
Load Options	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

	FALCON+ 1600/24V		
Load Options	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.



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.



Su-Kam Power Systems Limited

Corporate Office: Plot No. 54,
 Udyog Vihar, Phase VI, Sector-37,
 Gurgaon - 122001, Haryana, INDIA
 Tel: +91-124-4170500
 Fax: +91-124-4038700/1/2
 E-mail: info@su-kam.com
 Website: www.su-kam.com
 Helpline No.: 1800-102-7555 (Toll Free)

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