



**SU-KAM
POWER SYSTEMS LTD.
TECHNICAL SPECIFICATIONS**

Doc. No.	TS/HUPS/520
Rev. No.	00
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MODEL : 650VA/12V Sine Wave Home Ups (Matrix 90AH)

CAPACITY 650VA

MAINS UPS MODE

MAINS LOW CUT VOLTAGE	=>	185 V ± 10V
MAINS LOW CUT RECOVERY	=>	190 V ± 10V
MAINS HIGH CUT VOLTAGE	=>	265 V ± 10V
MAINS HIGH CUT RECOVERY	=>	260 V ± 10V
O/P VOLTAGE AND O/P FREQ. IN MAINS MODE	=>	SAME AS INPUT

MAINS W-UPS MODE

MAINS A.C VOLTAGE RANGE	=>	125 V – 285V
MAINS LOW CUT VOLTAGE	=>	105 V ± 10V
MAINS LOW CUT RECOVERY	=>	120 V ± 10V
MAINS HIGH CUT VOLTAGE	=>	285 V ± 10V
MAINS HIGH CUT RECOVERY	=>	275 V ± 10V
O/P VOLTAGE AND O/P FREQ. IN MAINS MODE	=>	SAME AS INPUT

BACKUP MODE

OUTPUT WAVEFORM IN INVERTER MODE	=>	SINE WAVE
OUTPUT VOLTAGE RANGE WITH ANY LOAD COMBINATION *	=>	200V-230V±25V
INVERTER OUTPUT FRQUENCY	=>	50.0 ± 0.1 Hz
NO LOAD CURRENT	=>	<1.8A
NO LOAD SHUTDOWN	=>	IF LOAD IS ? 25W
LOAD RECOVERY	=>	> 25W.

CHANGEOVER TIME

UPS MODE	=>	<10msec
INVERTER MODE	=>	<40msec
LOW BATTERY WARNING	=>	10.5V ± 0.2V
BATTERY LOWER VOLTAGE TRIP	=>	10.2V ± 0.2V (Depending on Load)
OVERLOAD (IT CAN TAKE UPTO 30 SEC TO SHOW OVERLOAD INDICATION DEPENDING ON LOAD & BATTERY STATUS).	=>	43A ± 3A (DC CURRENT)

Prepared By :

Approved By:



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• **FULL LOAD COMBINATION**

- i) 2 TUBES, 2 FANS, 1 PC
OR
- ii) 2 TUBES, 2 FANS, 1 TV
OR
- iii) 3 TUBES, 3 FANS
OR
- iv) 7 TUBES

BATTERY CHARGING

PWM CONTROLLED MOSFET BASED CHARGING =>	150V - 285V
BATTERY CHARGING CURRENT (BULK MODE) =>	9.0 ± 1.0 A (I/P>150V)
BATTERY CHARGING CURRENT (FLOAT MODE) =>	1.5A ± 0.5A
BATTERY BOOST CHARGING VOLTAGE =>	14.2 ± 0.2V
BATTERY FLOAT CHARGING VOLTAGE =>	13.6 ± 0.2V

PROTECTIONS:

OVER LOAD AND SHORT CIRCUIT PROTECTION WITH AUTO-RESET FEATURE YES
(8 -TIMES AUTO-RESET FEATURE IN CASE OF OVERLOAD)
(4 -TIMES AUTO-RESET FEATURE IN CASE OF SHORT CIRCUIT)

LED DISPLAY OF DIFFERNT MESSAGES

- > MAINS ON (LED CONTINUOUSLY ON) MAINS FUSE BLOWN (LED BLINKING WITH BUZZER BEEP)
- > BATTERY CHARGING / NO LOAD SHUTDOWN (**NO LOAD SHUTDOWN IN CASE OF LOAD IS ? 25W & AUTO RECOVERY IN CASE LOAD > 25W.**)
(LED BLINKING) / CHARGED (LED CONTINUOUSLY ON)
- > INVERTER ON / NO LOAD SHUTDOWN (LED CONTINUOUSLY ON)
- > BATTERY LOW (WITH BUZZER BEEP)
- > OVER LOAD/SHORT CIRCUIT (WITH BUZZER BEEP)

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