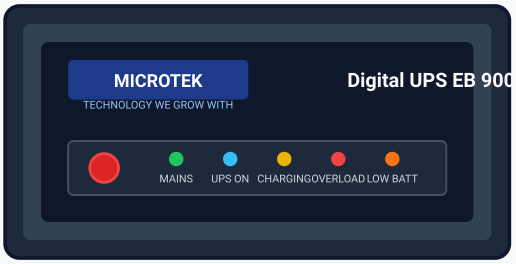
Microtek Digital UPS EB 900

Micro-Controller Based Home UPS / Square Wave Inverter Series

ISO 9001 CERTIFIED / BIS APPROVED

CAPACITY	SYSTEM VOLTAGE	WAVEFORM	TECHNOLOGY
900 VA / 720 Watts	12V DC (Single Battery)	Modified Square Wave	Micro-Controller Digital



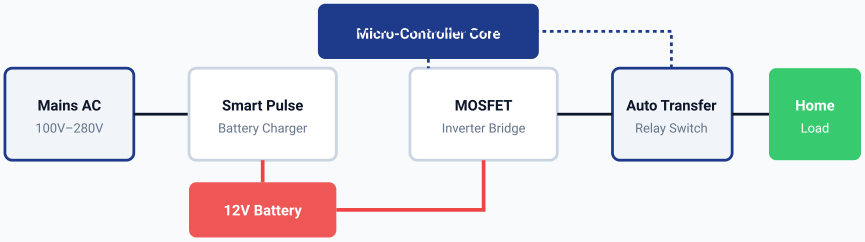
PRODUCT OVERVIEW

The **Microtek Digital UPS EB 900 VA** is a micro-controller based power backup system designed to provide reliable electricity during power outages. Powered by Microtek's proprietary digital processing technology, it automatically senses grid power conditions and switches seamlessly between Mains AC and Battery Backup mode.

Key Technical Highlights

- Micro-controller based digital circuit design.
- Smart Auto Equalizer for longer battery life.
- Multi-stage pulse battery charger for fast recovery.
- Selectable Narrow/Standard Mains input voltage range.

FUNCTIONAL BLOCK DIAGRAM



TECHNICAL SPECIFICATIONS & PERFORMANCE METRICS

375 mm (L) × 315 mm (W) × 150 mm (H) | Weight: ~ 8.6 kg

Specification Category	Technical Parameter	Standard / Operational Limit
Capacity & Output Performance		
Rated Capacity	900 VA / 720 Watts Peak Load Capacity	Single Phase System
Output Waveform	Modified Square Wave (Inverter Mode)	50 Hz ± 0.5 Hz
Output Voltage (UPS Mode)	220V AC ± 10% RMS	Regulated Output
Switchover / Transfer Time	< 15 milliseconds (UPS Mode) / < 40 ms (Standard Mode)	Seamless Transition
Mains Input & Voltage Windows		
Standard Input Voltage Range	100V AC to 280V AC (For general household appliances)	Wide Mains Window
Narrow Input Voltage Range	180V AC to 260V AC (For sensitive IT equipment)	Regulated Window
Input Mains Frequency	50 Hz ± 5 Hz	Auto Frequency Sense
Battery & Charging System		
Nominal Battery Voltage	12V DC (Requires 1x 12V Lead-Acid / Tubular / Flat Plate Battery)	Single Battery Unit
Charging Current	10A – 14A (Smart Multi-stage Pulse Charging)	Auto-Controlled Current
Supported Battery Capacity	100 Ah to 220 Ah Tubular / Flat Plate / SLA Batteries	External Battery Bank
Protection & Physical Specifications		
Protections Enforced	Overload, Short Circuit, Battery Deep Discharge, Reverse Polarity	Auto Reset & Alarm
Dimensions & Net Weight	Compact Steel Enclosure	

INSTALLATION & PROTECTION PROTOCOLS

Protective Alarm Functions

1. **Overload Alarm:** Continuous beep with auto shut-down after 5 retries.
2. **Low Battery Warning:** Intermittent warning beep prior to cutoff.
3. **Short Circuit Trip:** Instant electronic shutdown to protect power MOSFETs.
4. **Thermal Overload:** Auto shutdown if internal transformer exceeds safety limits.

Installation Recommendations

1. Install in a well-ventilated area away from direct sunlight and heat sources.
2. Connect red cable to battery (+) terminal and black cable to (-) terminal.
3. Set the mode switch on rear panel to 'UPS' for IT loads or 'Standard' for general loads.
4. Maintain recommended battery distilled water level every 60 days.