



Two ac inputs ~ one ac output      UPS bypass switch      Compact

**ARm model**  
**1000**  
15 amperes  
1750 VA  
1750 watts  
120 volts

# Automatic Redundancy Module

TSi Power's ARm-1000 redundancy module automatic bypass system is recommended when no downtime from power outage is tolerated. Internet service providers, critical servers and telecom equipment, and export markets with bad power would find this technology valuable.

## Typical ARm applications

Designed for situations where reliability and predictability matter to the enterprise. Examples: telecommunications equipment, export markets, file servers, routers, digital copiers, office machines, industrial controllers (PLC), automatic test equipment (ATE), laboratory analyzers and other sensitive, specialized microprocessor-based equipment.

**Note:** Both power sources Must be In Phase. **If cannot be guaranteed, see the ATs-1000.**

## Key ARm benefits

The ARm unit will provide uninterrupted ac to your load even in the event of UPS failure. ARms your critical equipment against extended power outages and catastrophic system shutdowns caused by accidental circuit breaker trips, UPS overload conditions, weak or old UPS batteries, routine and preventive maintenance of UPS, accidental UPS shut-down, loose power cords, or UPS failure. The ARM Series permits daisy chaining with any sine wave in-phase UPS, providing unlimited redundancy using any combination of independant (separate) ac circuits, UPS systems, generator-backed ac circuits, etc.

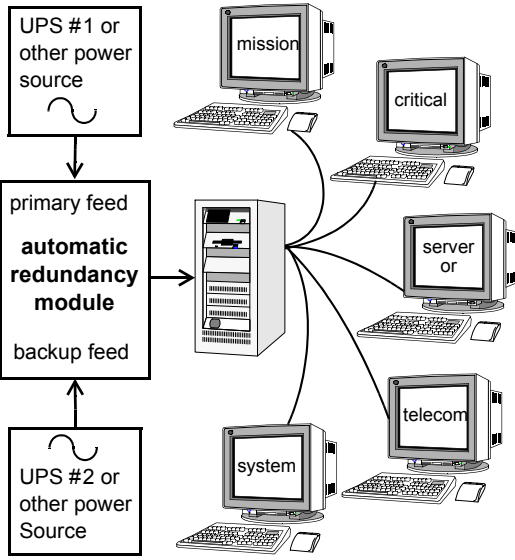
## How the ARm works

The ARm is fed by two ac power sources. When the primary power source detector circuit senses a loss of power on that circuit, a relay immediately switches the load over to the backup power source feed in less than 10 ms. This is fast enough to be invisible to computer switch-mode power supplies.



## Key ARm Series features

- Enables redundant UPS, backup generators or other ac power sources to be used for a single load.
- Less than 10ms transfer time from source A to source B.
- Low cost
- LED status indicators
- DB9 communications interface
- Audible alarms with enable/disable switch



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Automatic redundancy module

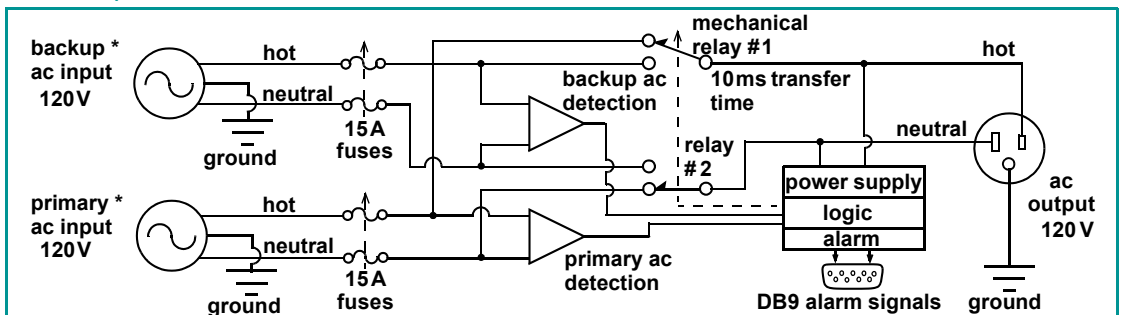


Rear view  
ARm-1000

TSi's ongoing product improvement process makes specifications subject to change. Other companies product names herein are for identification purposes only, and may be trademarks of their respective companies.

Specifications	ARm-1000
<b>Electrical</b>	
Capacity in VA (watts)	1750 VA (1750W)
Switching technology	Fast operating/releasing relays
<b>Inputs</b>	
Nominal voltage	120 volts ac, single phase
Primary ac voltage	100 to 135 volts ac
Backup ac voltage	100 to 135 volts ac
Frequency range	60 Hz +/-5%
Over-current protection	Both primary and backup ac are protected by fuses
Fuse ratings	15 amperes
Typical transfer time	Less than 10ms, primary to back-up and back-up to primary
Input/output wire size	2.5mm <sup>2</sup> (14 AWG) recommended
Ac inputs (two)	1.8m (6 ft.) cords and 5-15P plugs
<b>Output</b>	
Nominal voltage	120 volts ac, single phase
Load regulation	Better than 2% from no load to full load
Power efficiency	98% or higher
Ac receptacles	Four NEMA 5-15R output receptacles
Indicators	Green LED for primary ac presence, yellow LED for backup ac presence, flashing red LED for loss of primary or backup ac.
Audible alarms	Buzzer beeps when loss of primary or backup ac occurs.
Audible alarm switch	Audible alarm (buzzer) and alarm enable/disable switch
Alarm contacts interface	A rear-mounted DB-9 connector sends loss of primary ac and loss of backup ac. (Pins 1 and 5 are used).
<b>Physical</b>	
Dimensions	254mmW x 203mmD x 76 mmH (10" wide x 8" deep x 3.2" high)
Weight	2.7 kg (6 lbs)
Rack mount option	Front mount kit for a 19" rack: # MK-5019A
<b>Environmental</b>	
Ambient temperature	0° to +40°C (32° to +104°F). 10 to 90% relative humidity (non-condensing)
<b>Warranty</b>	
Warranty	Two year limited warranty, parts and labor.

ARm system architecture



\* Note: Primary and back-up ac must be in phase. Otherwise, relay contacts may be damaged.



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