



Two ac inputs ~ one ac output

Automatic redundancy

Compact

ARm model

1000E

- 10 amps
- 2300 VA
- 2300 watts
- 230 volts

Automatic Redundancy Module ~ 230V

TSi Power's ARm-1000 redundancy module automatic bypass system is recommended when no downtime from power outages is tolerated. Internet service providers, critical servers and telecom equipment, and export markets with bad power would find this technology valuable. The ARm Series permits daisy chaining with any UPS, providing unlimited redundancy using any combination of independent (separate) ac circuits, UPS systems, generator-backed ac circuits, and so on.

Note: Both power sources must be in phase. If cannot be guaranteed, see the ATs-1000E.

Typical 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.

Key benefits

ARm 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 & preventive maintenance of UPS, accidental UPS shut down, loose power cords, or UPS failure.

ARm-1000 permits unlimited redundancy using any combination of independent (separate) ac circuits, UPS systems, generator-backed ac circuits, etc.

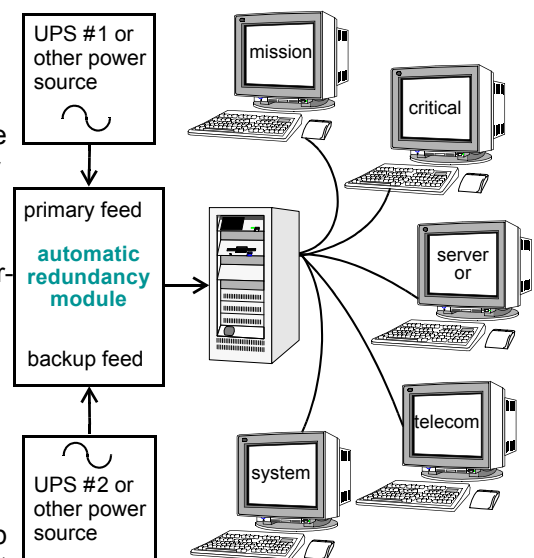
How the ARm works

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 features of the TSi Power automatic redundancy module

- Enables redundant UPS, backup generators or other ac power sources to be used for a single load.
- Less than a 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



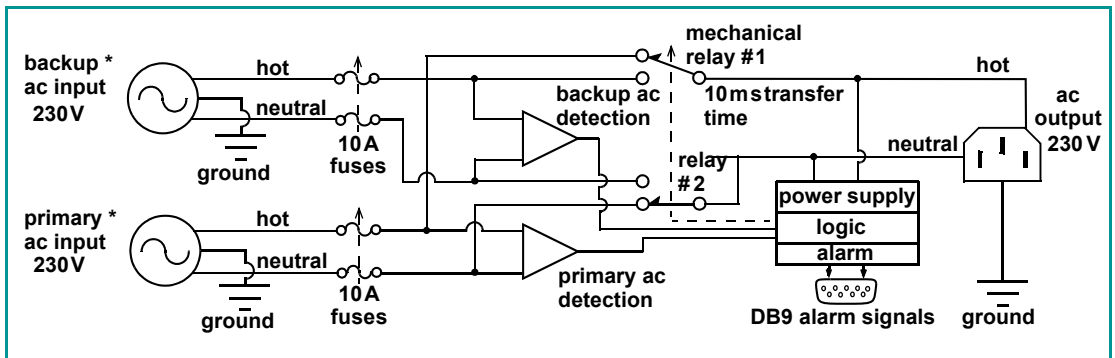
Rear view
(ARm-1000 120V shown)

Specification	ARm-1000E
Electrical	
Capacity in VA (Watts)	2300VA (2300W)
Switching technology	Fast operating/releasing relays
Input	
Nominal voltage	230 volts ac single phase
Primary ac voltage	190 to 260 volts ac
Backup ac voltage	190 to 260 volts ac
Frequency range	50 Hz +/-5%
Overcurrent protection	Fuses
Fuse ratings	10 amps
Typical transfer time	Less than 10ms, primary to back-up and back-up to primary.
Ac input	1.8m (6 ft.) 3-conductor 2.5mm ² (14 AWG) SJT cord & IEC 320 plugs.
Output	
Nominal voltage	230 volts ac, single phase
Load regulation	Better than 2% from no load to full load
Power efficiency	98% or higher
Ac receptacles	Four IEC 320 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 signal for external power monitoring. Pins 4 and 5 are used.
Physical	
Dimensions	254mm(10") wide x 203.2mm(8") deep x 76 mm(3.2") high
Weight	2.7kg (6 lbs)
Rack mount option	Front mount kit: For a 19" rack: use # MK-1019A
Special Note	
In Phase Requirement	Primary and back-up ac must be sinusoidal and always be in phase.
Environmental	
Ambient Temperature	0° to 40°C (32° to 104°F). 10 to 90% Relative humidity (non-condensing).
Warranty	
Warranty	Two year limited warranty, parts and labor.

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.

ARm system architecture

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



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