



Hospital-grade

Isolation transformer

UL/cUL 60601-1

ILc-Med
 model

1000Med4

8.3 amps
 1000 VA
 1000 watts
 120 volts

1400Med4

11.7 amps
 1400 VA
 1400 watts
 120 volts

Hospital Grade UL/cUL 60601-1 Medical Isolation Transformer

TSi Power's ILc-Med line conditioners provide the best all-round hospital-grade 'low-leakage current' line conditioning and surge protection for sensitive medical equipment. The integral isolation transformer provides 100% isolation from the input ac line, the secondary neutral-ground bond eliminates all surge voltages between neutral and ground. Surge protection and noise filtering are superior to conventional surge protection and filtering devices.

Key ILc-Med benefits

TSi Power's hospital-grade line conditioner reduces the need for a high quality "isolated and dedicated" line, while eliminating interference from adjacent sources of disturbances. ILc-Med contributes to enhanced systems operation, greater reliability, improved repeatability, fewer reboots and system lock-ups and extended operating life. Reductions in hospital equipment down time and service costs can be expected.

How ILc-Med conditioners work

The integral isolation transformer provides complete isolation between the primary and secondary, and permits bonding its output neutral to ground, which completely eliminates all disturbances between neutral and ground, regardless of source. The series inductance of the isolation transformer in combination with a capacitive element and an MOV, provide superb noise filtering, as well as coordinated multi-stage surge protection in accordance with the principles of IEC-61312.3.

In addition, ILc-Med has an extremely low input ac leakage current (typical 50µA) rating which exceeds both domestic US (UL 2601), and international (IEC 601) medical standards for a leakage current limit of 300µA maximum for non-patient connected medical equipment and instruments.

Typical ILc-Med applications

These are designed for medical systems requiring line conditioners having UL 60601-1 (formerly UL 2601 and UL 544) agency approval. Examples include: imaging systems, analyzers, patient care/ monitoring equipment, audio systems and other patient-critical applications.



Key features of the TSi Power medical isolation transformer

- Typical leakage current <math>< 50\mu\text{A}</math>
- UL/cUL 60601-1 listed
- Low-impedance isolation transformer
- Coordinated surge protection per IEC61312.3
- Filtering and MOVs
- Resettable circuit breaker
- Eight "green dot" medical grade outlets/receptacles
- High efficiency
- 100% common mode noise elimination
- True isolation
- Quiet operation
- Five year warranty



TSi Power Corporation

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ILc-Med



Rear view
ILc-1000Med4



Rear view
ILc-1400Med4

Specification	ILc-1000Med4	ILc-1400Med4
Electrical		
Capacity in VA (watts)	1000VA (1000W)	1400VA (1400W)
Transformer type	Hospital-grade low-leakage E-I core isolation transformer	
Input		
Nominal voltage	120 volts ac, single phase	
Operating voltage	100 to 130 volts ac	
Nominal frequency	60Hz +/-5%	
Leakage current	50 µA typical (300 µA maximum)	
Over-current protection	User resettable circuit breaker	
Circuit breaker rating	10 amps	15 amps
Ac input cord	15 foot long hospital-grade ac power cord with NEMA 5-15P plug	
Output		
Nominal voltage	120 volts ac, single phase	
Power efficiency	94 to 96%	
Total harmonic distortion	< 1%	
Surge protection	A three-stage surge protection system consisting of isolation transformer, capacitor and M.O.V. is included.	
Surge test conditions	Per ANSI/IEEE C62.41-1991 test waveforms	
Surge let-through voltages	Single pulse: L-N: 50 V, L-G: 50V, N-G: 0.5V Ring wave: L-N: 20 V, L-G: 20V, N-G: 0.5V Combination wave: L-N: 250V, L-G: 250V, N-G: 0.5V The measured rate of voltage rise/fall (dV/dt) of the remnant waveform is less than 10V/µS with input test waveform dV/dt of 6kV/µS.	
Ac output receptacles	Eight hospital-grade "green dot" NEMA 5-15R receptacles.	
Physical		
Dimensions	190mmW x 133mmH x 229mmD (7.5" W x 5.25" H x 9.0" D)	216W x 165H x 229mmD (8.5" W x 6.5" H x 9.0" D)
Weight	29 lbs (13.2kg)	49 lbs (22.3kg)
Safety		
Agency approvals	UL/cUL 60601-1 listed (formerly UL 2601). UL control number 85EF.	
Environmental		
Ambient temperature	0° to 40°C (32° to 104°F). 10 to 90% relative humidity(non-condensing).	
Warranty		
Warranty	Five 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.



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ILc-Med system architecture

