

SCIMITAR SERIES RACK-MOUNT INVERTERS WITH STATIC TRANSFER SWITCH

DESCRIPTION

The SCIMITAR Series are 1kVA & 2kVA sine-wave inverters which are 19" rack-mountable and only 1RU high. They operate from a 12V, 24V or 48VDC source and produce a 115 or 230VAC output.

The tightly regulated low distortion 50 or 60Hz sine wave is produced by DSP controlled power circuits using an advanced high frequency, pulse-width modulation technique which achieves up to 92% efficiency.

A built-in Static Transfer Switch allows connection of a utility or other AC power source which can be switched to the load automatically in the event that the inverter switches off.

In normal operation these inverters isolate the load from wide voltage swings, transients and noise usually present in the AC utility and which can cause equipment reliability problems.

Output voltage and frequency are programmable from the front panel, as well as Baud Rate for the RS232 communications interface which can be used for remote monitoring.

FEATURES

- ◆ 19-Inch x 1UR Rack Mounting
- ◆ 1000 or 2000 VA Output Capacity
- ◆ 115VAC or 230VAC Output
- ◆ 50 or 60Hz Low Distortion Sine Wave
- ◆ 12, 24 or 48VDC Input
- ◆ -20 to +60C Operating Temperature Range
- ◆ Static Transfer Switch Built-in
- ◆ Programmable Output Voltage and Frequency (Front panel DIP switch)
- ◆ Powers Reactive Loads
- ◆ LED Status Display
- ◆ Relay Alarm Output

TWO-YEAR WARRANTY



CE
LVD - 73/23/EEC
EMC - 89/336/EEC

STANDARD MODELS

MODEL	OUTPUT POWER	OUTPUT VOLTS	INPUT VOLTS
INV1210R-N	1000VA @ 0.85PF	115VAC	12VDC
INV2410R-N			24VDC
INV4810R-N			48VDC
INV1210RH-E	850W @ 1.0PF	230VAC	12VDC
INV2410RH-E			24VDC
INV4810RH-E			48VDC
INV1220R-N	2000VA @ 0.85PF	115VAC	12VDC
INV2420R-N			24VDC
INV4820R-N			48VDC
INV1220RH-E	1700W @ 1.0PF	230VAC	12VDC
INV2420RH-E			24VDC
INV4820RH-E			48VDC

Notes:

1. 115VAC models are shipped pre-programmed to 60Hz.
230VAC models are shipped pre-programmed to 50Hz.
115VAC models have 2 x NEMA 5-15 outlet sockets.
230VAC models have 2 x IEC60320-C13 outlet sockets.
2. If in doubt about load PF (Power Factor) assume that it is 1.0PF.

SCIMITAR Series Inverters operate 'on-line', providing the locally generated clean AC to the output under normal conditions.

An 'off-line' (UPS type) mode of operation where the inverter output is available as a back-up to the utility supply is available to special order. Please consult our sales office.

SAFETY STANDARDS

UL60950-1 (110VAC units Listed)
CSA22.2, No. 60950-1
EN60950-1

www.unipowertelecom.com

NORTH AMERICA CALL: 954-346-2442 • EUROPE CALL: +44 (0)1903 768200

SPECIFICATIONS FOR 1kVA MODELS

MODEL NUMBER	INV1210R-N	INV2410R-N	INV4810R-N	INV1210RH-E	INV2410RH-E	INV4810RH-E
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Inverter Section

Input Voltage	10-16VDC	20-32VDC	42-62VDC	10-16VDC	20-32VDC	42-62VDC
Output Power	1000VA @ ±0.85 power Factor 800W @ Unity Power Factor					
Surge Rating	900W for 1 minute 950W for 3 second, 1000W for 1 second					
Efficiency @ FL	86%	88%	89%	87%	90%	92%
Output Voltage	100/110/115/120VAC ±3% (switch selectable)			200/220/230/240VAC ±3% (switch selectable)		
Output Frequency	50Hz or 60Hz ±0.05% (switch selectable)					
Peak Output Current	15A			9A		
No Load Current	0.75A	0.4A	0.3A	0.7A	0.35A	0.25A
Output Waveform	Pure Sine Wave <3% THD (R Load)					
Protection	Output Overload - Output Short Circuit Input Reverse Polarity (fuse) - Input Undervoltage - Input Overvoltage Over Temperature					
Digital Display	OVP - UVP - OTP - OLP - VAC AMP - WATT - VDC - TEMP - Hz					
Control Port	RS232C Baud Rates - 2400, 4800, 9600, 19200 (switch selectable)					

STS Section (By-Pass)

AC Input Range	90 - 130VAC (110VAC nominal)	180-260VAC (230VAC nominal)
Frequency	47 - 63Hz	
Transfer Time	4 - 6ms	
Alarm Relay	Form-C dry contacts, indicates presence of AC Utility supply (NOTE: Not suitable for direct connection to SELV circuits)	

THE STS BY-PASS SECTION IS ONLY ACTIVE WHEN A UTILITY OR OTHER AC SOURCE IS CONNECTED. NORMAL OPERATION, WITH OR WITHOUT A UTILITY OR OTHER AC SOURCE IS 'ON-LINE', WITH THE INVERTER DELIVERING REGULATED AC TO THE OUTLETS.

General

Temperature Range	-20°C to +60°C Operating -30°C to +70°C Storage	
Safety	UL60950-1 (Listed)	EN60950-1
EMC	FCC Class B	EN 55022:1998/ A1:2000/A2:2003(Class B) EN 55024: 1998/ A1:2001/A2:2003 EN 61000-3-2:2000/A2: 2005 EN 61000-3-3:1995/A1: 2001 IEC 61000-4-2:1995/ A1:1998/A2:2000 IEC 61000-4-3:2002/A1:2002 IEC 61000-4-4:2004 IEC 61000-4-5:1995/A1:2000 IEC 61000-4-6:1996/A1:2001 IEC 61000-4-8:1993/A1:2000 IEC 61000-4-11:2004
Dimensions	16.1"(d) x 19"(w) x 1.73"(h) 408.7mm(d) x 484.0mm(w) x 44.0mm(h)	
Mounting	19" rack-mount, 1U high	
Weight	16.5lbs / 7.5Kg	

SPECIFICATIONS FOR 2kVA MODELS

MODEL NUMBER	INV1220R-N	INV2420R-N	INV4820R-N	INV1220RH-E	INV2420RH-E	INV4820RH-E
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Inverter Section

Input Voltage	10-16VDC	20-32VDC	42-62VDC	10-16VDC	20-32VDC	42-62VDC
Output Power	2000VA @ ±0.85 power Factor 1700W @ Unity Power Factor					
Surge Rating	1870W for 1 minute 2040W for 20 second					
Efficiency @ FL	86%	88%	90%	87%	90%	92%
Output Voltage	100/110/115/120VAC ±3% (switch selectable)			200/220/230/240VAC ±3% (switch selectable)		
Output Frequency	50Hz or 60Hz ±0.05% (switch selectable)					
Peak Output Current	25A			11A		
No Load Current	1.45A	0.7A	0.45A	1.47A	0.8A	0.47A
Output Waveform	Pure Sine Wave <3% THD (R Load)					
Protection	Output Overload - Output Short Circuit Input Reverse Polarity (fuse) - Input Undervoltage - Input Overvoltage Over Temperature					
Digital Display	OVP - UVP - OTP - OLP - VAC AMP - WATT - VDC - TEMP - Hz					
Control Port	RS232C Baud Rates - 2400, 4800, 9600, 19200 (switch selectable)					

STS Section (By-Pass)

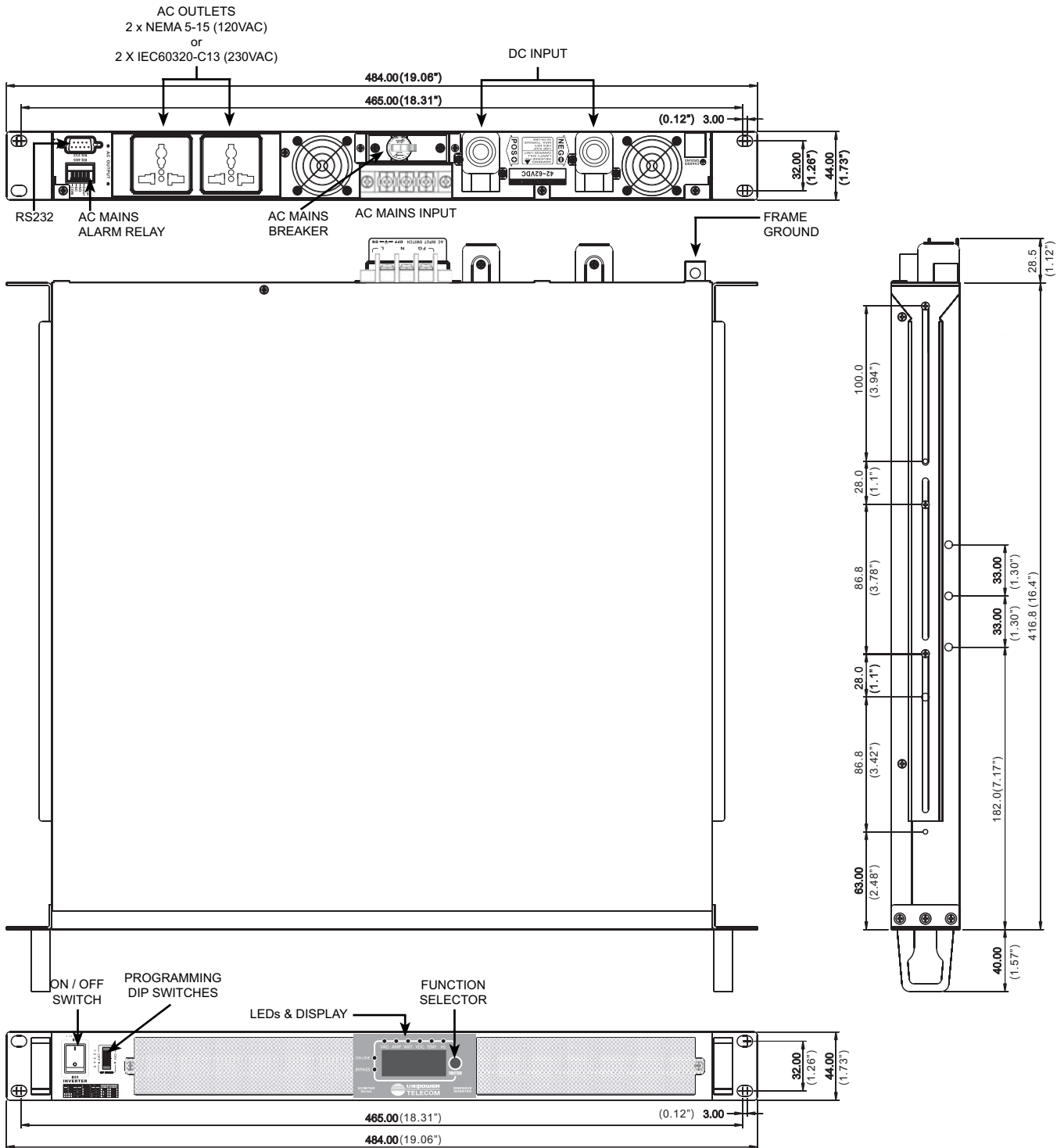
AC Input Range	90 - 130VAC (110VAC nominal)	180-260VAC (230VAC nominal)
Frequency	47 - 63Hz	
Transfer Time	4 - 6ms	
Alarm Relay	Form-C dry contacts, indicates presence of AC Utility supply (NOTE: Not suitable for direct connection to SELV circuits)	

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Dimensions	16.1"(d) x 19"(w) x 1.73"(h) 408.7mm(d) x 484.0mm(w) x 44.0mm(h)	
Mounting	19" rack-mount, 1U high	
Weight	19.8lbs / 9Kg	

MECHANICAL DRAWING



Outlet Sockets: 2 x NEMA for 115VAC models, 2 x IEC60320-C13 for 230VAC models.