



The sinusoidal DC / AC inverter of the ELIT INV-LC series has been designed with a particular constructive simplicity, high reliability and maximum safety. It uses microprocessor-controlled high-frequency PWM technology to provide a pure sine wave output voltage. High frequency conversion enables compact construction, low weight and high efficiency. The Inverter ELIT INV-LC is able to generate a 230Vac sinusoidal alternating voltage (110Vac single-phase as an option) starting from a DC 12V, 24Vdc, 48Vdc, 110Vdc and 220Vdc. INV-LC sine wave ELIT inverters power electronic consumers in the fields of industrial, railway, military, naval, mining, utility, telecommunications and aviation support equipment.

### PRINCIPLE OF WORKING

The ELIT Inverter INV-LC transforms the continuous voltage into an alternating sinusoidal stabilized voltage. The PWM modulation technique used reduces the harmonic content of the output and limits voltage deviations under step load conditions

### FEATURES

- Electronic Bypass for automatic transfer of the load from the inverter to the emergency line in case of overload or inverter failure (~ 5msec)
- DC priority function: main source selection, AC or DC for load power supply, settable from the display.
- RS232 communication interface and dry contact port (RS485, SNMP optional).
- Efficiency  $\geq 85\%$
- LCD display for measurements and alarms
- 230V single-phase output (optional 110V)

### CONTROL PANEL



### LCD MEASURES

DC input current, AC input current, AC input frequency, output voltage, output current, output frequency, load percentage. Operating mode: AC or DC source

### KEYBOARD

ON-OFF, display of electric measurement, selection of primary source AC or DC.

### LEDs

Input voltage not OK, selected source, overload, general alarm



24VDC PURE SINE WAVE INVERTER		
Model	INV 24/230-1K LC	INV 24/230-2K LC
Rated power	1000VA/800W	2000VA/1600W
<b>DC INPUT</b>		
Nominal voltage	24Vdc (20-30Vdc)	
Nominal current	50 A	100 A
THDI	≤10%	
<b>AC INPUT</b>		
Nominal voltage	230Vac (185-265Vac)	
Nominal current	5.4 A	10.8 A
Bypass transfer time	≤5msec	
<b>OUTPUT</b>		
Voltage	230V single phase	
Waveform	Sinusoidal	
Output current	3.6 A	7.2 A
Static stability	±1.5%	
Frequency	50Hz ±0.1%	
Overload	120% for 30 seconds	
<b>MISCELLANEOUS</b>		
Efficiency	≥85%	
Dielectric strength	input-output 1500Vac 1 minute	
Noise	≤40dBA	
Enviromental temperature	-25°C +50°C	
Relative humidity	0-95% without condensing	
Cooling	Forced	
Communication interface	RS232, dry contact (SNMP, RS485 as option)	
Inlet/outlet	Terminals	
Dimensions (mm)	445x358x88mm	445x358x88mm
Weight (kgs)	8	8
<b>STANDARDS</b>		
Safety	EN 62040-1	
EMC	EN 62040-2	
Performance	EN 62040-3	

**48VDC PURE SINE WAVE INVERTER**

Model	INV 48/230-1K LC	INV 48/230-2K LC	INV 48/230-3K LC	INV 48/230-4K LC
Rated power	1000VA/800W	2000VA/1600W	3000VA/2400W	4000VA/3200W
<b>DC INPUT</b>				
Nominal voltage	48Vdc (42-59Vdc)			
Nominal current	24 A	48 A	72 A	96 A
THDI	≤10%			
<b>AC INPUT</b>				
Nominal voltage	230Vac (185-265Vac)			
Nominal current	5.4 A	10.8 A	16.2 A	21.6 A
Bypass transfer time	≤5msec			
<b>OUTPUT</b>				
Voltage	230V single phase			
Waveform	Sinusoidal			
Output current	3.6 A	7.2 A	10.9 A	14.5 A
Static stability	±1.5%			
Frequency	50Hz ±0.1%			
Overload	120% for 30 seconds			
<b>MISCELLANEOUS</b>				
Efficiency	≥85%			
Dielectric strength	input-output 1500Vac 1 minute			
Noise	≤40dBA			
Enviromental temperature	-25°C +50°C			
Relative humidity	0-95% without condensing			
Cooling	Forced			
Communication interface	RS232, dry contact (SNMP, RS485 as option)			
Inlet/outlet	Terminals			
Dimensions (mm)	445x358x88mm	445x358x88mm	445x358x88mm	445x413x176mm
Weight (kgs)	8	8	10	15
<b>STANDARDS</b>				
Safety	EN 62040-1			
EMC	EN 62040-2			
Performance	EN 62040-3			

**48VDC PURE SINE WAVE INVERTER**

Model	INV 48/230-5K LC	INV 48/230-6K LC	INV 48/230-7K LC	INV 48/230-8K LC
Rated power	5000VA/3500W	6000VA/4200W	7000VA/4900W	8000VA/5600W

DC INPUT				
Nominal voltage	48Vdc (42-59Vdc)			
Nominal current	119 A	125 A	143 A	167 A
THDI	≤10%			

AC INPUT				
Nominal voltage	230Vac (185-265Vac)			
Nominal current	22.7 A	27 A	36.4 A	37.8 A
Bypass transfer time	≤5msec			

OUTPUT				
Voltage	230V single phase			
Waveform	sinusoidal			
Output current	16 A	19.1 A	22.3 A	25.5 A
Static stability	±1.5%			
Frequency	50Hz ±0.1%			
Overload	120% for 30 seconds			

MISCELLANEOUS				
Efficiency	≥85%			
Dielectric strength	input-output 1500Vac 1 minute			
Noise	≤40dBA			
Enviromental temperature	-25°C +50°C			
Relative humidity	0-95% without condensing			
Cooling	forced			
Communication interface	RS232, dry contact (SNMP, RS485 as option)			
Inlet/outlet	terminals			
Dimensions (mm)	445x413x176mm	445x413x176mm	445x413x176mm	445x413x176mm
Weight (kgs)	28	28	30	30

STANDARDS	
Safety	EN 62040-1
EMC	EN 62040-2
Performance	EN 62040-3

48VDC PURE SINE WAVE INVERTER		
Model	INV 48/230-9K LC	INV 48/230-10K LC
Rated power	9000VA/6300W	10000VA/7000W
<b>DC INPUT</b>		
Nominal voltage	48Vdc (42-59Vdc)	
Nominal current	214 A	238 A
THDI	≤10%	
<b>AC INPUT</b>		
Nominal voltage	230Vac (185-265Vac)	
Nominal current	43.2 A	54 A
Bypass transfer time	≤5msec	
<b>OUTPUT</b>		
Voltage	230V single phase	
Waveform	sinusoidal	
Output current	28.6 A	31.8 A
Static stability	±1.5%	
Frequency	50Hz ±0.1%	
Overload	120% for 30 seconds	
<b>MISCELLANEOUS</b>		
Efficiency	≥85%	
Dielectric strength	input-output 1500Vac 1 minute	
Noise	≤40dBA	
Enviromental temperature	-25°C +50°C	
Relative humidity	0-95% without condensing	
Cooling	Forced	
Communication interface	RS232, dry contacts (SNMP, RS485 as option)	
Inlet/outlet	terminals	
Dimensions (mm)	445x413x176mm	445x413x176mm
Weight (kgs)	35	35
<b>STANDARDS</b>		
Safety	EN 62040-1	
EMC	EN 62040-2	
Performance	EN 62040-3	

**110VDC PURE SINE WAVE INVERTER**

Model	INV 110/230-1K LC	INV 110/230-2K LC	INV 110/230-3K LC	INV 110/230-4K LC
Rated power	1000VA/800W	2000VA/1600W	3000VA/2400W	4000VA/3200W

DC INPUT				
Nominal voltage	110Vdc (92-132Vdc)			
Nominal current	10.6 A	21.3 A	32 A	42.6 A
THDI	≤10%			

AC INPUT				
Nominal voltage	230Vac (185-265Vac)			
Nominal current	10.5 A	21.1 A	31.6 A	42.1 A
Bypass transfer time	≤5msec			

OUTPUT				
Voltage	230V single phase			
Waveform	Sinusoidal			
Output current	7.2 A	14.5 A	21.8 A	29.1 A
Static stability	±1.5%			
Frequency	50Hz ±0.1%			
Overload	120% for 30 seconds			

MISCELLANEOUS				
Efficiency	≥85%			
Dielectric strength	input-output 1500Vac 1 minute			
Noise	≤40dBA			
Enviromental temperature	-25°C +50°C			
Relative humidity	0-95% without			
Cooling	Forced			
Communication interface	RS232, dry contacts (SNMP, RS485 as option)			
Inlet/outlet	terminals			
Dimensions (mm)	445x358x88mm	445x358x88mm	445x358x88mm	445x413x176mm
Weight (kgs)	8	8	10	15

STANDARDS	
Safety	EN 62040-1
EMC	EN 62040-2
Performance	EN 62040-3

<b>110VDC PURE SINE WAVE INVERTER</b>	
<b>Model</b>	<b>INV 110/230-5K LC</b>
Rated power	5000VA/3500W
<b>DC INPUT</b>	
Nominal voltage	110Vdc (92-132Vdc)
Nominal current	119 A
THDI	≤10%
<b>AC INPUT</b>	
Nominal voltage	230Vac (185-265Vac)
Nominal current	22.7 A
Bypass transfer time	≤5msec
<b>OUTPUT</b>	
Voltage	230V single phase
Waveform	Sinusoidal
Output current	16 A
Static stability	±1.5%
Frequency	50Hz ±0.1%
Overload	120% for 30 seconds
<b>MISCELLANEOUS</b>	
Efficiency	≥85%
Dielectric strength	input-output 1500Vac 1 minute
Noise	≤40dBA
Enviromental temperature	-25°C +50°C
Relative humidity	0-95% without condensing
Cooling	Forced
Communication interface	RS232, dry contacts (SNMP, RS485 as option)
Inlet/outlet	Terminals
Dimensions (mm)	445x413x176mm
Weight (kgs)	28
<b>STANDARDS</b>	
Safety	EN 62040-1
EMC	EN 62040-2
Performance	EN 62040-3

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