

# **INV-LAVA-2000** 4 - 24kva inverter system



### This series of inverters is designed to be part of a system incorporating both a controller and an optional automatic bypass.

This arrangement provides a very flexible system that can be easily expanded or reconfigured as power needs dictate. Up to 12 inverters can be connected via CAT5 cables to the controller module to provide up to 24kVA of output power. Two different bypasses are available capable of either 120A or 200A. Separate summaries are available for these units. The inverters themselves produce a true micro-processor controlled sinewave. LED indication on the front panel shows the power taken from each inverter.

The system is comprised of:-

- + INV-LAVA Controller Module
- + Optional INV-LAVA Bypass Module
- + Up To 12 Parallel Inverter Modules
- + Optional 19" Cabinet

## **FURTHER DETAILS**

To identify a particular inverter within the system the address is displayed digitally on the front panel of each inverter. The system allows for true n+1 redundancy. Should an inverter fail redundancy can be regained by installing a new unit in to the system while it is still operational. These robust inverters have excellent efficiencies typically over 88% at nominal load. A high peak capability and wide operating temperature range makes them ideal for many applications.

#### SELECTION TABLE

Part Number	Number of Modules	Maximum Power <sup>1</sup>	Output Frequency <sup>2</sup>	Dimensions $(W \times H \times D)^3$
INV-LAVA 20002	2	4kVA	50Hz	19" × 8U × 360mm
INV-LAVA 20003	3	6kVA	50Hz	19" × 11U × 360mm
INV-LAVA 20004	4	8kVA	50Hz	19" × 14U × 360mm
INV-LAVA 20005	5	10kVA	50Hz	19" × 17U × 360mm
INV-LAVA 20006	6	12kVA	50Hz	19" × 20U × 360mm
INV-LAVA 20007	7	14kVA	50Hz	19" × 23U × 360mm
INV-LAVA 20008	8	16kVA	50Hz	19" × 26U × 360mm
INV-LAVA 20009	9	18kVA	50Hz	19" × 29U × 360mm
INV-LAVA 200010	10	20kVA	50Hz	19" × 32U × 360mm
INV-LAVA 200011	11	22kVA	50Hz	19" × 35U × 360mm
INV-LAVA 200012	12	24kVA	50Hz	19" × 38U × 360mm

<sup>1</sup>This is the maximum continuous apparent power at max PF. <sup>2</sup>Different output voltage and frequences are possible. Please contact ETPS to discuss your requirements. <sup>3</sup>Dimensions include the 19" × 2U × 201mm INV-LAVA controller module. Dimensions do not include optional bypass module.

OPTIONS	
CODE	DESCRIPTION
/BYP-120	Electronic bypass with a rated current of 120A
/BYP-200	Electronic bypass with a rated current of 200A
/1	Unit built with 115VAC, 60Hz output
/V24	System input voltage of 24VDC
/V48	System input voltage of 48/60VDC
/V110	System input voltage of 110VDC
/V220	System input voltage of 220VDC
/CAB	System is placed in a 19" cabinet
/LAN-LAV	Unit provided with external LAN interface



#### **TECHNICAL DATA**

GENERAL				
Electrical Safety	EN 60950, VDE 0805 (overload & short circuit protected)			
Efficiency	>88% at nominal load			
Galvanic Isolation	3.75kVDC			
EMC (Emission)	EN 50081-1, Curve EN 55022B			
EMC (Immunity)	EN 50082-2			
Operating Temperature	-5°C to +45°C (non condensing)			
INPUT DC				
24VDC [option /V24]	19 - 31VDC			
48/60VDC (option /V48)	38 - 72VDC			
110VDC (option /V110)	88 - 132VDC			
220VDC [option /V220]	178 - 264VDC			
OUTPUT AC				
Voltage	230VAC, failure tolerance ±5% (option /1 for 115VAC, 60Hz)			
Frequency	50Hz - Sinewave processor controlled (option /1 for 115VAC, 60Hz)			
Maximum Continuous True Power	1600W (per module)			
Permissible Power Factor	-0.8 to +0.8			
Maximum Continuous Apparent Power	2kVA (per module)			
Load Range	0 - 100%			
Crest Factor	>2.5			
Harmonic Distortion	<2%			
HOUSING				
Casing	19" rack with mounting flanges (option /CAB for installation within a 19" cabinet)			
Dimensions (per module)	19" × 3U × 360mm (W × H × D)			
Weight (per module)	Approx. 12kg			
Classification	IP 20			
Ventilation	Internal fan			
Connector Position	Front of unit - main AC input			
Input DC	3 × high current terminal blocks 16mm			
Output AC (parallel mains)	Phoenix Power Combicon 3-pole			
Output AC (parallel signal)	2 × RJ45 S-UTP			
OTHER				
Visual	LEDs for load display and PG/ON, two digit seven segment display of address			
Operation	Push button for address setting, battery switch			
Warranty	2 years			

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ETPS Ltd must reserve the right to make changes to the published specifications without prior notice. Where certain operating parameters are critical for your application we advise that they be confirmed at the time of order. ETPS Ltd specialises in modifying its proven platforms to suit your needs. Please contact our office if your requirement is non-standard. Please note that your actual unit may differ from those shown.



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