



DC/AC INVERTER

INV222

In: 110 V_{DC} WIR

Out: 230 V_{AC} (2.25 kVA)

KEY FEATURES

- **1/4 x 19", 2U**
- **Excellent overall efficiency and high control rate**
- **"Hot plug-in" design with backplane connection**
- **High power density**
- **Wide input range (WIR)**
- **CAN-Bus interface**
- **Ability for parallel operation**
- **Temperature-controlled fan cooling**
- **Redundant synchronization bus**
- **Excellent sinusoidal output**
- **Input over/under voltage shutdown, overload and short circuit-proof**
- **Three-phase operation as option**

PRODUCT DESCRIPTION

The inverter INV222 includes the newest switching technology with digital control. Due to this fact a dramatic reduction of volume and weight was achieved.

With a state-of-the-art control solution it provides an excellent functionality and several protection features.

The inverter is able to run in parallel operation mode to increase the reliability of the AC system without any additional options. Additional modules can be integrated in wired slots during normal system operation. For higher reliability the hard wired synchronization bus between paralleled inverters is working in a redundant mode.

Up to four inverters can be installed in a 19"-subrack with only 2U. The module is prepared to operate with the new static switches of the STS series to increase the system availability furthermore.

Modules for three-phase operation are available on request.

APPLICATIONS




AC power supply facilities with or without battery in all areas of industry, power generation and power distribution.



TECHNICAL DATA

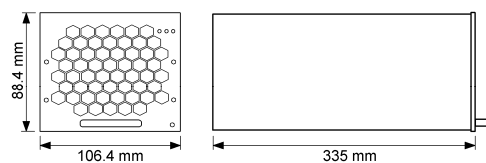
Type	INV222-110/230-50 WIR
Article code	501-022-715.10
Nominal input voltage	108 VDC
Nominal input current	18.4 ADC @ 108 VDC
Input frequency range	DC
Input voltage range	91.8-145 VDC
Inrush current	≤nominal input current
Overall efficiency	>90 %
Internal input fusing	No; external fusing required (25 A)
Nominal output voltage	230 VAC ±0.5 %, adjustment range: 200-242 VAC; parallel mode: 230 VAC ±5 %
Nominal output current	9.8 AAC @ cos phi=0.8; 7.8 AAC @ cos phi=1 (resistive power)
Nominal output power	1.8 kW/2.25 kVA @ cos phi=0.8
Overload capability	130 % for 10 sec
Output frequency	50 Hz ±0.01 Hz
Synchronization range	48-52 Hz/58-62 Hz (60 Hz optional)
Static regulating deviation	±0.5 %
Dynamic accuracy of the output voltage	<3 % Vnom at load variations between 10 %-90 %-10 % Inom; transient time ≤0.3 ms
Short circuit protection	Continuous short circuit proof; 3x Inom for 3 sec.
Parallel operation	Yes, ≤10 modules; current sharing ≤10 % Inom; inclined output voltage characteristic
THD/Crest factor	≤2 % at linear load/ ≤3
Power factor range	0.5 ind. - 1 - 0.5 cap.
External output fuse	10A gL or MCB characteristic B
LED signalling	Operation (green), Vo OK (green), Alarm (red)
Main processor	16Bit Fujitsu
Electronic protection	Input under voltage, input over voltage, over temperature, overload and short circuit protection
External synchronization	Parallel operation; no fixed master; external synchronization by static transfer switch
Isolated signalling contacts	"General fault"; relay contact NO; 60 V/0.1 A
Communications interface	CAN-Bus, proprietary protocol
Ambient temperature	Operation: -20 °C to +55 °C (power derating 2 %/K above +40 °C); storage: -40 °C to +85 °C
Cooling	Fan cooling (temperature-controlled; monitored)
Climatic conditions	According to IEC 721-3-3 class 3K3/3Z1/3B1/3C2/3S2/3M2
Max. installation altitude	≤1500 m
Audible noise	<45 dBA
Type of construction	1/4 x 19", 2U
Dimensions (W/H/D)	106.4/88.4/335 mm
Weight	Approx. 3.5 kg
Type of enclosure / Protection class	IP20 (front panel) / 1
Color	Front panel: RAL 7035, print: neutral, black RAL 9005
CE conformity	Yes
Compliance to safety standards	EN60950-1; VDE0100 T410; VDE0110; EN50178; EN60146
Compliance to EMC standards	EN55011/22 class "B"; EN61000-4 T2-5
Connections	DC input, AC output and signalization: DIN41612-M connector

OPTIONS

Article code / Designation	View
502-222-315.HV Assembly set 19" sub rack 2U incl. backplane for 3pcs. inverters INV2xx and 1pc. static switch STS207	
502-222-405.HV Assembly set 19" sub rack 2U incl. backplane for 4pcs. inverters INV2xx	
601-070-715.00 Static bypass switch STS207 HV	

INV222 inverter modules for three-phase operation are available on request.

DIMENSIONS



DS_INV222_110V_WIR_E_R00 - Subject to change without notice - Eltek Valere Deutschland GmbH

Eltek Valere Deutschland GmbH
Schillerstrasse 16
D-32052 Herford
Tel: +49 52 21 17 08 200
info.industrial@eltekvalere.com
www.eltekvalere.com

Finland
Eltek Energy Oy
Tel: +35 820 779 88 20
France
Eltek - SFEE SA
Tel: +33 562 340 930
Germany
Eltek Valere Industrial GmbH
Tel: +49 52 21 17 08 200
Eltek Valere Deutschl. GmbH
Tel: +49 694 2002 0

Norway
Eltek Valere AS
Tel: +47 32 20 32 00
Poland
Eltek Polska Sp. Z o.o.
Tel: +48 914 852 440
Russia
OOO Eltek St. Petersburg
Tel: +78 123 321 117
Slovakia
Eltek Energy Slovakia s.r.o.
Tel: +42 144 520 1607

Spain
Eltek Energia S.A.
Tel: +34 914 920 660
Sweden
Eltek Energy AB
Tel: +46 862 664 20
Alab DC Systems AB
Tel: +46 54 68 81 50
United Kingdom
Eltek Energy (UK) Ltd
Tel: +44 144 22 193 55

Australia
Eltek Pacific Pty Ltd
Tel: +61 294 794 200
Bangladesh
Eltek Energy Pte Ltd
Tel: +88 017 2097 097
India
Eltek SGS Pvt Ltd
Tel: +91 124 221 00 18
Malaysia
Eltek Energy (M)Sdn Bhd
Tel: +60 179 815 866/74 552

Pakistan
Eltek Energy AS Pakistan
Tel: +92 512 853 149
Philippines
Eltek Energy Incorporated
Tel: +63 291 063 55
Singapore
Eltek Energy Pte Ltd
Tel: +65 773 23 26
Thailand
Eltek Energy Incorp 2005 Ltd
Tel: +66 294 369 05

UAE
Eltek Middle East
Tel: +97 148 871 176
China
Eltek Energy Technology Ltd
Tel: +86 769 226 511 08
Hong Kong
Eltek Energy Ltd
Tel: +85 228 982 689
Brazil
Eltek Sistemas de Energia
Tel: +55 116 487 56 56

Colombia
Eltek Energy LLC
Tel: +57 162 216 91
USA
Eltek Energy LLC
Tel: +18 154 599 100
Mexico
Eltek Energy International
Tel: +52 55 53 74 1842
Peru
Eltek Energy de Peru SRL
Tel: +51 142 192 71