ELTEK VALERE
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DC/AC INVERTER
INV222

In: 220VDC

Out: 230VAC (2.25kVA)

KEY FEATURES

- **1/4 x 19“, 2U**
- **Excellent overall efficiency and high control rate**
- **“Hot plug-in“ design with backplane connection**
- **High power density**
- **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 4 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 available on request.

APPLICATIONS

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

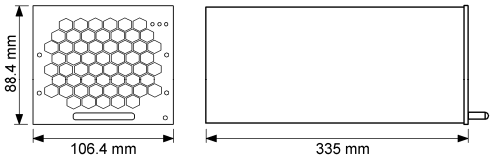
TECHNICAL DATA

Type	INV222-220/230-50
Article code	501-022-815.00
Nominal input voltage	216VDC
Nominal input current	9.2ADC @ 216VDC
Input frequency range	DC
Input voltage range	183.6-270VDC
Inrush current	≤nominal input current
Overall efficiency	≥90%
Internal input fusing	No; external fusing required (16A)
Nominal output voltage	230VAC ±0.5%, adjustment range: 200-242VAC; parallel mode: 230VAC ±5%
Nominal output current	9.8AAC @ cos phi=0.8; 7.8AAC @ cos phi=1 (resistive power)
Nominal output power	1800W/2250VA @ cos phi=0.8
Overload capability	130% for 10 sec
Output frequency	50Hz ±0.01Hz
Synchronization range	48-52Hz/58-62Hz (60Hz optional)
Static regulating deviation	±0.5%
Dynamic accuracy of the output voltage	<3% Vnom at load variations between 10%-90%-10% Inom; transient time ≤0.3ms
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; 60V/0.1A
Communications interface	CAN-Bus, proprietary protocol
Ambient temperature	Operation: -20C 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	≤ 1500m
Audible noise	<45dBA
Type of construction	19“subrack 2U
Dimensions (W/H/D)	106.4/88.4/335mm
Weight	Approx. 3.5kg
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 available on request.	

DIMENSIONS



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