

## MODULAR DC/AC INVERTER/60Hz

The INV222 combines advanced switching technology with digital control. The utilization of this technology results in a very high power density and low weight. 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. Up to four inverters can be installed in a 19"-subrack with only 2 U. Furthermore the module is prepared to operate with the new static switches of the STS series to increase the system availability. Modules for three-phase operation are available on request.



# DC/AC INVERTER INV222

IN: 48, 60, 110, 220 VDC / OUT: 230 VAC/60 Hz (2.25 kVA)

Eltek\_DS\_INV222-60Hz-model-range\_E\_R03

### OPTIONS



Assembly set 19" subrack 2U incl. backplane for 3pcs. inverters INV2xx and 1pc. static switch STS207



Assembly set 19" subrack 2U incl. backplane for 4pcs. inverters INV2xx

### APPLICATIONS

#### Power Utilities

- Control & protection
- Circuit breaker power
- Scada
- Communication

#### Railway & Metro

- Control & protection
- GSM-R - communication
- Signaling
- Emergency lightning
- Wireless Monitoring Systems

#### Oil & Gas

- Production solution for platform, rig, or FPSO/FSO
- GTL & ING facilities
- Heli-Deck Lightning

### KEY FEATURES

- 1/4 x 19", 2 U
- EXCELLENT OVERALL EFFICIENCY AND HIGH REGULATION SPEED
- "HOT-PLUG-IN" DESIGN WITH BACKPLANE CONNECTION
- HIGH POWER DENSITY
- CAN-BUS INTERFACE
- ABILITY FOR PARALLEL OPERATION
- TEMPERATURE-CONTROLLED FAN COOLING (MONITORED)
- EXCELLENT SINUSOIDAL OUTPUT
- INPUT OVER/UNDER VOLTAGE
- SHUTDOWN, OVERLOAD AND SHORT CIRCUIT PROOF
- ELECTRICAL ISOLATION CONFIRMING TO STANDARDS
- THREE-PHASE OPERATION AVAILABLE ON REQUEST

# DC/AC INVERTER INV222

IN: 48, 60, 110, 220 VDC / OUT: 230 VAC/60 Hz (2.25 kVA)



Model	INV222-48/230-60	INV222-60/230-60	INV222-110/230-60 WIR	INV222-220/230-60
Part number	501-022-515.2.60	501-022-615.2.60	501-022-715.2.60	501-022-815.60
<b>INPUT DATA</b>				
Nominal input voltage	48 V <sub>DC</sub>	60 V <sub>DC</sub>	108 V <sub>DC</sub>	216 V <sub>DC</sub>
Nominal input current	41.6 A <sub>DC</sub> @ 48 V <sub>DC</sub>	33.3 A <sub>DC</sub> @ 60 V <sub>DC</sub>	18.4 A <sub>DC</sub> @ 108 V <sub>DC</sub>	9.2 A <sub>DC</sub> @ 216 V <sub>DC</sub>
Input frequency range	DC			
Input voltage range	40.8 to 67.5 V <sub>DC</sub>	52 to 76 V <sub>DC</sub>	91.8 to 145 V <sub>DC</sub>	183.6 to 270 V <sub>DC</sub>
Inrush current	≤ nominal input current			
Overall efficiency	≥ 90 %			
Internal input fusing	No; external fusing required (63 A)	No; external fusing required (63 A)	No; external fusing required (25 A)	No; external fusing required (16A)
<b>OUTPUT DATA</b>				
Nominal output voltage	230 VAC -5 %, adjustment range: 200 to 242 VAC			
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	60 Hz ±0.01 Hz (50 Hz optional)			
Synchronization range	58 to 62 Hz/48 to 52 Hz			
Static voltage tolerance	±0.5 %			
Transient response	<3 % V <sub>nom</sub> at load variations between 10 %-90 %-10 % I <sub>nom</sub> ; transient time ≤0.3 ms			
Short circuit capability	Continuous short circuit proof; 3x I <sub>nom</sub> for 3 sec			
Parallel operation	Yes, ≤20 modules; current sharing ≤10 % I <sub>nom</sub> ; inclined output voltage characteristic			
THD/Crest factor	≤2 % at linear load/≤3			
Power factor range	0.5 inductive ... 1 ... 0.5 capacitive			
External output fuse	10 A gL or MCB characteristic B			
<b>OTHER SPECIFICATIONS</b>				
LED signalling	Operation (green), Vo OK (green), Alarm (red)			
Main processor	16 Bit 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 dB (A)			
Type of construction	1/4 x 19", 2 U			
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			
<b>DESIGN STANDARDS</b>				
CE conformity	Yes			
Compliance to safety standards	EN60950-1; VDE0100 T410; VDE0110; EN50178; EN60146 (class A)			
Compliance to EMC standards	EN55011/22; EN61000-4 T2-5			

Specifications are subject to change without notice