

## Inverter



- Active input filter for reduction of psoph. ripple acc. to CCITT-A
- Wide range DC input
- Outstanding efficiency and dynamic performance
- High power density and low weight
- Parallel and three-phase operation
- Digital displays to notify all relevant parameters
- Remote communication and control by CAN-bus interface
- Flexible 19"-system, „Hot-Plug-In“

The UNV inverter family represent latest DC to AC power conversion technology in 19" compatible mechanic. Suitable for any low to medium power UPS system these inverters are ideal for applications in telecommunication, industry, and railroad power supplies.

Combining high frequency conversion with galvanic separation between input and output, UNV inverters are a flexible, efficient and reliable AC power source. The possibility of parallel connection offers highest flexibility in realising systems with increased output power and/or (n+1)-redundancy.

The UNV series is designed to operate together with the UNB series static switch and supervisory module. Remote control and communication is performed via CAN interface. Alternatively, the units can be operated in stand-alone mode.

TYPE LISTING					
Type	UNVx-1.2F	UNVx-1.8F	UNVx-2.5F	UNVx-3.3F	UNVx-5.0F
Order code x =48 V	500-012-511	500-018-511	500-025-511	500-033-511	500-050-511
Order code x=108 V	500-012-711	500-018-711	500-025-711	500-033-711	500-050-711
Category	Primary Switch Mode Sine Wave Inverter with RF technology				

DC INPUT					
Nominal voltage	48 / 60 V DC 108 V DC				
Voltage range	42—75 V DC 77—138 V DC				
Nominal current	22.8 / 18.2 A 10.1 A	34.1 / 27.3 A 14.8 A	47.3 / 37.9 A 20.4 A	62.5 / 50.0 A 26.7 A	94.7 / 74.9 A 39.9 A
Reflected ripple	< 1.8 mV psophometric				
Efficiency	≥ 90 %				
Inrush current	≤ nominal current				
Fusing	MCB 1 pole	MCB 1 pole	MCB 1 pole	MCB 1 pole	External

AC OUTPUT					
Nominal Voltage	230 V AC				
Voltage range	200-252 V AC				
Nominal output power (cos φ = 0.8)	1200 VA	1800 VA	2500 VA	3300 VA	5000 VA
Regulation	± 0.5 % static				
Recovery time	≤ 0.3 ms for load transient 10% - 90% - 10 %				
Frequency	50 or 60 Hz, programmable				
Synchronization range	45-65 Hz				
Total harmonic distortion	≤ 2 % for linear load				
Load crest factor	≤ 3				
Load power factor	0.5 ind.-1-0.5 cap., extension possible				
Permissible overload	130 % for 30 seconds				
Short circuit protection	Continuously short circuit proof, 3x I <sub>nom</sub> for approx. 2.5 s				

STANDARD FEATURES	
LED indicators	Standby, U <sub>OUT</sub> , U <sub>IN</sub> >, U <sub>IN</sub> <, overload, overtemperature, common fault
Digital display	2 x 3 digits, output voltage; output current; frequency, input voltage, input current, temperature, effective power, reactive power, cos φ
Remote signals	Common fault relay
Protection	Mechanically coupled input and output MCB, input undervoltage shutdown, input overvoltage shutdown, overtemperature shutdown, overload / short circuit shutdown
Ext. Synchronisation	Parallel operation and three-phase systems without additional components or specified master
Microprocessor control	Programmable monitoring and protection for all system parameters
Communication	CAN-bus interface for communication with static bypass switch UNB

ENVIRONMENT	
Ambient temperature	Operation: -10°C to +40°C Storage: -30°C to +50°C
Climatic conditions	IEC 721-3-3 class 3K3/3Z1/3B1/3C2/3S2/3M2
Humidity class	F
Altitude	≤ 1000 m a.s.l. ; extensions possible
Audible noise	<40 dB (A) at 1m distance

## Inverter

MECHANICAL CONSTRUCTION					
Construction	19"-compatible rack, full width, rear side connectors				
Dimensions [mm]					
W / H / D	483 / 133 / 360	483 / 133 / 360	483 / 133 / 360	483 / 133 / 360	483 / 133 / 400
W1	440	440	440	440	440
H1	125	125	125	125	125
Weight	10 kg	18 kg	22 kg	27 kg	38 kg
Cooling	Speed controlled fan with monitoring				
Protection class	IP20 (mech.); 1 acc. EN 60950 (electr.)				
Surface	Front panel: powder coating RAL 7032, constructive parts: anodised metal				

COMPLIANCES	
Conducted and radiated emissions EN 50081-1	EN 55011 / EN 55022 class B
Safety	EN 60950 ; VDE 0100 part 410; VDE 0110, EN 50178, EN 60146
Interference Immunity EN 50082-2	Case: Electrostatic discharge: EN 61000-4-2 (6 kV contact, 8 kV air discharge) Radiated radio frequency: EN 61000-4-3 (10V/m, 30 MHz - 1 GHz)
	Power line: EN 61000-4-4 ( 2 kV, other 2 kV) EN 61000-4-5 (4 kV unsymmetrical, 2 kV symmetrical, others: 2 kV unsymmetrical)
	Control line EN 61000-4-4 ( 2 kV ) EN 61000-4-5 (2 kV unsymmetrical)

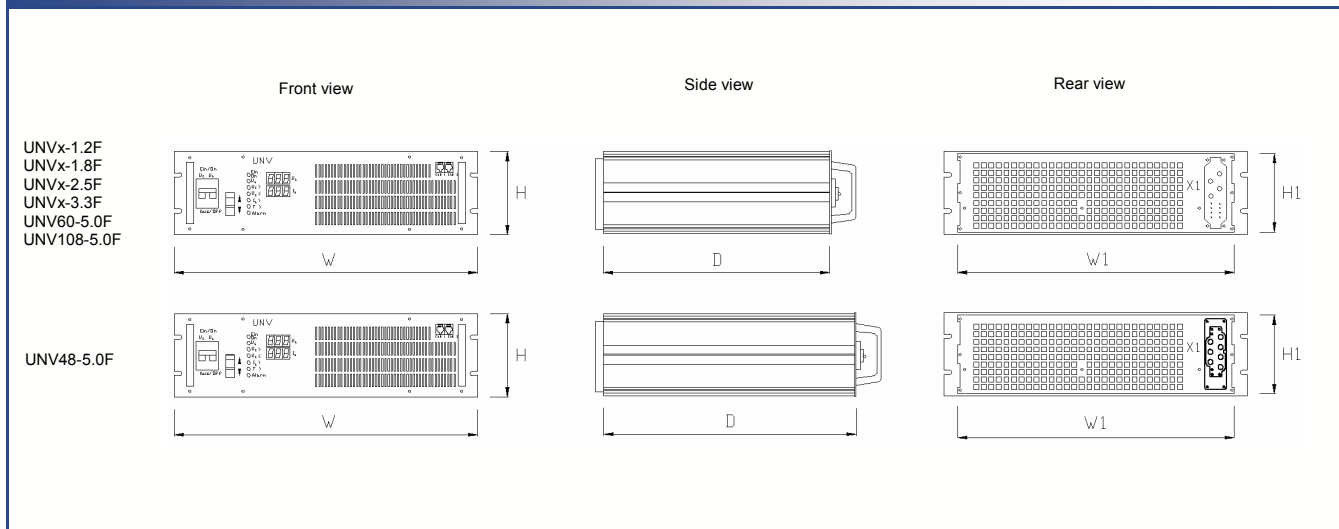
### Options:

- Mounting set for 19" cabinets, mat. no. C65-9999.00003



If more power is needed we offer inverter cabinets of the series TIPS, which are available in power ranges of 10, 12.5 and 20 kVA. This modular concept consists of 4 inverters in parallel operation to supply the load. One additional inverter is used to increase the availability (n+1 redundancy). To further increasing the reliability of the system a static bypass switch (type UNB) and a manual bypass switch (for maintenance and service purposes only) is included.

### MECHANICAL DIMENSIONS / CONNECTION VIEW



### Additional Information

Full information, drawings, manuals and application notes and advice to any of the wide range of products are available on request.

The manufacturer reserves the right to change the specification, product design and parameters at any time, without notice.

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### DISTRIBUTOR

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