



TECHNICAL DATA SHEET

AC Inverter System WEW 1000 5 - 200 kVA Single Phase

GUTOR

Inverter Input

DC Voltage	110/125/220/~400VDC
Inverter input range	+20/-15%
- output tolerance	+/-1%
Inverter maximum input range	typical +/-25%
- output tolerance	+/-10%
Bypass input voltage	1x220/230/240V +/-10%
Frequency	50/60 Hz +/-6%

Inverter Output

Nominal Inverter rating	kVA at PF 0.8 lag
Voltage	1x220/230/240V
Voltage tolerance:	
- static within 0-100% load	+/-1%
- dynamic at 100% load surge	+/-4%
- regulation time	< 25 ms
Overload Inverter 1 min.	150%
- Inverter 10 min.	125%
- Bypass 1s	1000%
Short-circuit Inverter 50 - 100ms	200%
Frequency	50/60 Hz
Frequency stability, free running	< 0.1%
Synchronization range	0.5/1/2/4/6/8% programmable
Slewwrate single unit	0.25/0.5/1/2/4 Hz/s programmable
Slewwrate redundant system	1.0 Hz/s
Wave form	sinusoidal
Output crest factor admissible	unlimited
Distortion factor with linear load	= <4%
Non linear load according to EN50091-1	= <5%
Allowable power factor	0.4lag - 0.9 lead

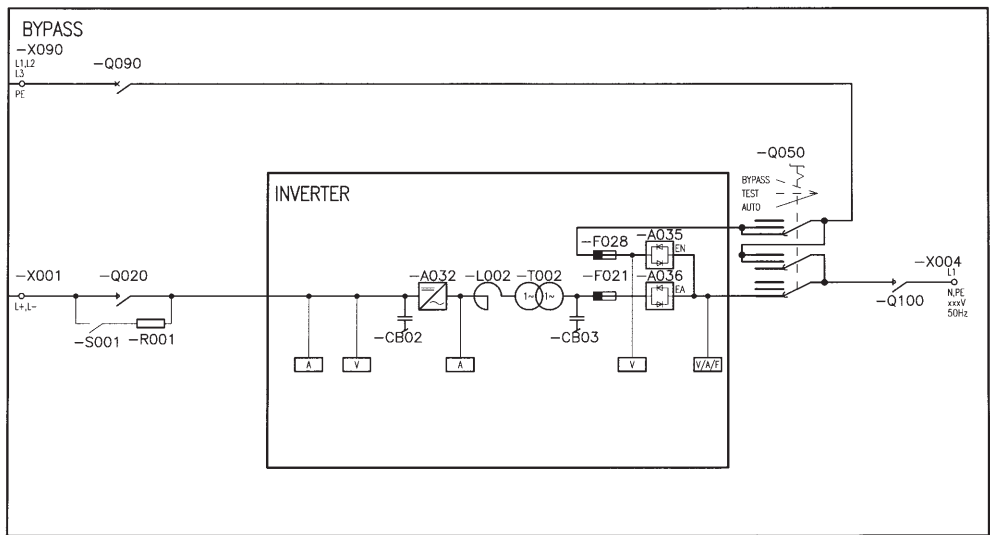
General Data

Ambient temperature range for storage	from -20 to +70°C
Ambient temperature range for operating	from -10 to +40°C (100% nominal load)
Altitude above sea level	1000m without load derating
Allowable air humidity	< 95% (noncondensing)
Noise level standard n+1 fan system	60~65 dBA depending on type
Noise level 100% redundant fans	62~70 dBA depending on type
Degree of protection	IP20 according to IEC 60529
Painting	pebble grey, RAL 7032 structured
Performance test	IEC 60146, IEC 62040-3
Safety	EN 50091 - 1, CE - Label
EMC	EN 50091 - 2, CE - Label
Efficiency	80-93% depending on type range
Cooling	forced ventilation with redundant n+1 supervised fans

Battery Voltage & UPS Ratings

Voltage (VDC)	110	125	220	400
UPS Rating (kVA)	5	5	5	-
	10	10	10	-
	15	15	15	-
	20	20	20	-
	30	30	30	-
	40	40	40	-
	-	-	60	-
	-	-	80	-
	-	-	100	-
	-	-	-	120
	-	-	-	150
	-	-	-	200

Typical Single-Line Drawing



Standard

- Single Inverter
- Inverter output voltage 1x230V
- Bypass input voltage 1x230V +10/-10%
- Frequency 50Hz +/-6%
- Inverter input switch
- Power - Module for nominal rating
- Static switch EN (mains side)
- System front panel with additional LED's for direct alarm display
- LCD display unit with keyboard
- Alarm relays
- Common alarm
- Battery capacity test (full discharge with actual load)
- Bottom cable entry
- Earth terminal
- Ventilation n+1
- Ambient temperature range from -10 to +40°C
- Protection IP20
- Painting pebble grey, RAL 7032 structured

Options

- Parallel redundant configuration
- Other input voltages
- Frequency 60Hz +/-6%
- Bypass input MCCB
- Diode for polarity revers protection
- Inverter input isolator
- Inverter input circuit breaker
- Larger Power Module + 1 step* / + 2 steps*
- Static Switch EA (Inverter side)
- Manual Bypass 3 pos in Inverter
- Battery Monitor (programmable battery data)
- Battery asymmetry supervision
- AC earth fault alarm
- Multi-Com RS232 V.24 (20mA)
- Remote display unit
- SNMP - Adapter for LAN / WAN Networks with software

- MODBUS Protocol (only in combination with optional Multi-Com RS232)
- Top cable entry
- Top & bottom cable entry
- Space heaters
- Ventilation 100% redundant
- Panel lighting
- Ambient temperature maximum +55°C
- Allowable altitude <4000m above sea level
- Protection up to IP52
- Air filters in air inlet
- Other colours
- Bypass transformer
- Bypass stabilizer
- * within type range**

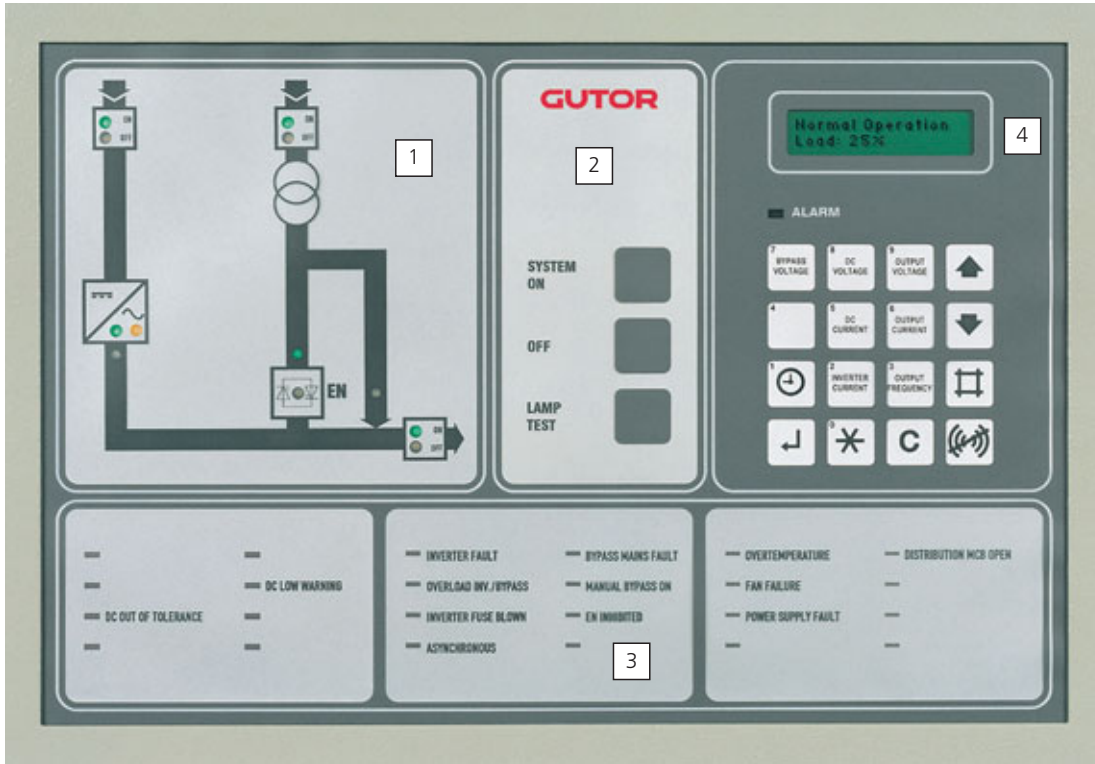
- Additional analogue meters 96x96,cl. 1.5
- Set with VM DC, AM & output FM,VM & AM
 - Set with Input VM & AM with select switch
 - kW of output
 - Power factor of output

- Relay board A077:**
- DC out of tolerance
 - Battery discharged
 - Earth fault DC
 - Inverter fuse blown
 - Bypass mains fault
 - Overtemperature
 - Fan failure
 - Power supply unit fault

- Relay board A078:**
- EA inhibited
 - EN inhibited
 - Manual Bypass ON
 - Asynchronous
 - Overload Inverter / Bypass
 - Inverter fault
 - Battery disconnected
 - EN ON
 - EA ON
 - Inverter ON
 - External horn

MAN-MACHINE INTERFACE (FRONT PANEL)

The front panel is used for both AC and DC systems and facilitates a comprehensive and flexible man-machine interface. It is divided into four sections:



1.) The system panel shows the system's current operation status, meaning which system part is supplying the load at the moment and which is in stand-by mode. LED's also indicate possible faults.

2.) Operations for turning on and off the system and a lamp test button for checking if all LED indications function properly.

3.) On the alarm indication panel the respective LED lights up, after an alarm has occurred.

4.) The display unit consist of a LC display, an alarm LED, an acoustic alarm and a key-pad. With this the user can set following operational parameters, obtain a list of measurement data, and get access to the event and alarm log.

Operational parameters

- Choice of optional language
- Auto Start programming
- Bypass operation
- M3 Start-up
- Battery capacity test
- Battery monitor test (optional)

Measurements

- Load in % of nominal kVA rating
- AC bypass mains 2 voltage
- DC total current, battery voltage and current
- Battery temperature (with optional sensor)
- AC Inverter current
- AC output voltage, current and frequency
- AC output peak current
- Time left in battery operation with actual load (option with programme battery data)
- Alarm log with date and time

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