Technical Data Sheet

WxW AC Inverter System

> WEW 5–200 kVA single phase
> WDW 10–220 kVA three phase
> Higher ratings on request

Gutor is becoming Schneider Electric

GUTOR
by Schneider Electric

Technical data WEW single phase / WDW three phase

Inverter input

DC	110/125/220/400VDC
Inverter input range (Output tolerance +/- 1 %)	+20/-15 %
Inverter maximum input range (Output tolerance +/- 10 %)	typical +/- 25 %
Bypass input voltage single phase	1x220/230/240V +/- 10 %
three phase	3x380/400/415V +/- 10 %
Frequency	50/(60) Hz +/- 6 %

Inverter output

Nominal inverter rating	kVA at lagging 0.8 PF
Voltage single phase	1x220/230/240V
three phase	3x380/400/415V
Voltage regulation:	
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 100 ms	1000 %
Short-circuit inverter 50–100 ms	200 %
Frequency	50/60 Hz
Frequency stability, free running	<0.01 %
Synchronization range	0.5/1/2/4/6/8 %
Slew rate single unit	0.25/0.5/1/2/4 Hz/s programmable
Slew rate redundant system	4.0 Hz/s
Wave form	sinusoidal
Admissible output crest factor	unlimited
Distortion factor:	
Linear load	≤3 %
Non-linear load according to IEC 62040-3	≤5 %
Allowable power factor	0.4 lag–0.9 lead
Fault clearing capability	30 % of UPS nom. current rated gG fuse (IEC 60269) within 10 ms and bypass available

General data

Ambient temperature range for storage	from -20 to +70 °C
Ambient temperature range for operating	form -10 to +40 °C (100 % nominal load)
Altitude above sea level	1000 m without load de-rating
Allowable air humidity	<95 % (non condensing)
Noise level standard n+1 fan system	60–70 dBA depending on type
Noise level 100 % redundant fans	65–75 dBA depending on type
Efficiency	up to 93 % depending on type
Cooling	forced-air ventilation with redundant n+1 monitored fans
Degree of protection	IP20 according to IEC 60529
Paint	pebble gray, RAL 7032 structure

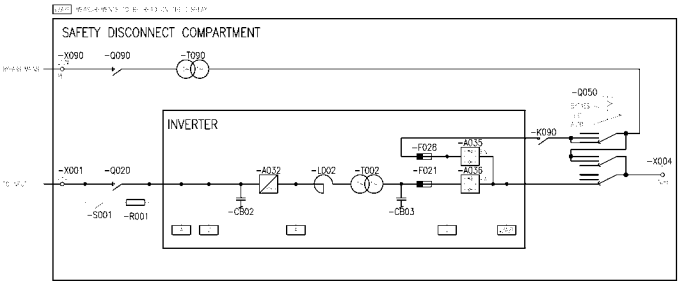
Standards

Safety	IEC/EN 62040-1-2
EMC	IEC 62040-2, EN 50091-2
Performance	IEC/EN 62040-3
UPS classification	VFI-SS-111 acc. to IEC 62040-3
Conformity	CE-Label

Data subject to changes

Specification WEW single phase / WDW three phase

Typical single-line drawing



Single phase drawing

Battery voltage & UPS ratings

Voltage (VDC)	110		125		220		400	
UPS ratings (kVA)	5	–	5	–	5	–	–	–
	10	10	10	10	10	10	–	–
	15	15	15	15	15	15	–	–
	20	20	20	20	20	20	–	–
	30	30	30	30	30	30	–	–
	40	40	40	40	40	40	–	–
	–	–	–	–	50	–	–	–
	–	60	–	60	60	60	–	–
	–	80	–	80	80	80	–	–
	–	–	–	–	100	100	–	–
	–	–	–	–	–	120	120	120
	–	–	–	–	–	–	150	–
	–	–	–	–	–	160	–	160
	–	–	–	–	–	–	200	–
	–	–	–	–	–	–	–	220

Higher ratings and other voltages on request

single phase **three phase**

Standard configuration

Single Inverter		
Inverter output voltage	single phase	1x230V
	three phase	3x400V / 230V
Bypass input voltage	single phase	1x230V +10 / -10 %
	three phase	3x400V / 230V +10 / -10 %
Frequency	50Hz +/- 6 %	
Inverter input switch		
Power-Module for nominal rating		
Manual Bypass Switch 3 pos in Inverter		
Static switch EN (line power side) with additional backfeed protection		
Static switch EA (Inverter side)		
System front panel with additional LEDs for direct alarm display		
LC display unit with keyboard		
Alarm relays for battery operation and common alarm		
Bottom cable entry		
Ground terminal		
N+1 monitored two-speed fans		
Ambient temperature range from -10 to +40 °C		
Protection IP20		
Structure is painted pebble gray, RAL 7032		
Black start facility		

Options

Parallel redundant configuration	
Other output voltages single phase	110 – 288V
three phase	190 – 690V
Frequency 60Hz +/- 6 %	
Bypass input switch	
Bypass input MCCB	
Battery temperature alarm	
Diode for reverse polarity protection	
Inverter input isolator	
Inverter input circuit breaker	
Larger inverter Power Module + 1 step* / + 2 steps*	
Battery asymmetry supervision	
AC ground fault alarm	
RS-232 Interface (event log download)	
RS-485 Interface	
RJ-45 Ethernet port for WEB browser based monitoring	
RS-485 MODBUS Protocol (slave)	
External time synchronization	
Top cable entry	
Top & bottom cable entry	
Space heaters	
Ventilation 100 % redundant	
Panel lighting	
Ambient temperature maximum +55 °C	
Allowable altitude up to 4000 m above sea level	
Protection up to IP52	
Other colors	
Bypass isolation transformer	
Bypass stabilizer with isolation transformer	
Key switch on front panel	

*** within type range**

Additional analog meters 96 x 96, cl. 1.5

Set with VM DC, AM & output FM, VM & AM	
Set with input VM & AM	
kW of output	
Power factor	

Relay board A077, 16 fail-safe NO / NC contacts:

Bypass line power fault	Overtemperature
DC out of tolerance	Power supply unit fault
Fan failure	Bypass fuse blown
Battery discharged	5x options
Ground fault DC	Inverter fuse blown

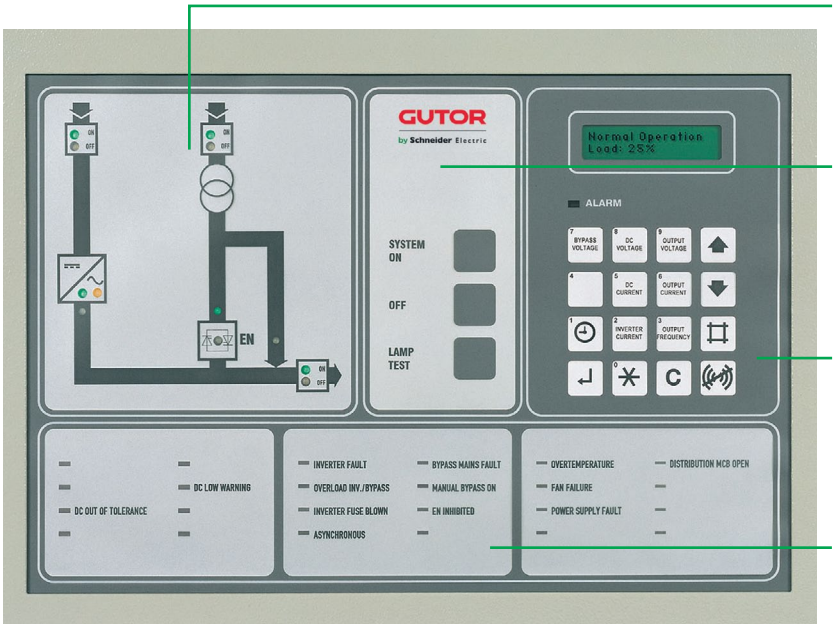
Relay board A078, 16 fail-safe NO / NC contacts:

EA inhibited	Battery operation
EN inhibited	EN ON
Manual bypass ON	EA ON
Asynchronous	Inverter ON
Overload inverter / bypass	External horn
Inverter fault	

Additional options are available on request

Human-machine interface (front panel)

The front panel includes a comprehensive and flexible human-machine interface. It is divided into four sections:



The system panel shows the system's current state of operation (which part of the system is currently supplying the load and which is in stand-by mode). LEDs also indicate possible faults.

Operations for turning on and off the system and a lamp test button for checking whether all LED indications are functioning properly. To shut down the system, you have to press the ON and OFF buttons at the same time.

The display unit consists of an LC display, an alarm LED, an acoustic alarm and a keypad. From here, the user can set operational parameters, obtain current measurement data, and access the event and alarm logs.

On the alarm indication panel, the respective LEDs light up to indicate a possible fault or after an alarm has occurred.

Operational parameters

Selectable second display language
Auto start
Bypass operation
Set date/time

Measurements

Load in % of nominal kVA rating
AC bypass line power 2 voltage
DC total current, DC voltage
Battery temperature (with optional sensor)
AC Inverter current
AC output voltage, current and frequency
AC output peak current
Event log with date and time (change in operating mode and alarm)

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