

# TECHNICAL DATA SHEET

AC UPS System PDW 3000    10 - 220 kVA Three Phase

**GUTOR**

**UPS Input**

Rectifier input voltage	3x380/400/415V
Tolerance	
- DC in tolerance	+/-10%
- for function	+10/-15%
Bypass input voltage	3x380/400/415V +/-10%
Frequency	50/60 Hz +/-6%

**Intermediate DC Circuit**

Voltage	110/125/220/~400VDC
Rectifier voltage tolerance	+/-1% IU characteristic
Float voltage range at -10% mains	100 - 115% programmable
Boost voltage range at nominal mains	100 ~ 125% programmable
Boost charge time	1-24h programmable
Charging current limitation	depending on battery programmable
Inverter input range	+20/-15%
- output tolerance	+/-1%
Inverter maximum input range	typical +/-25%
- output tolerance	+/-10%

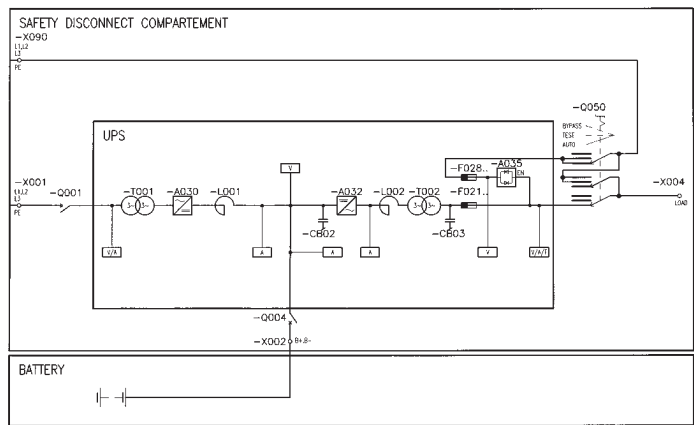
**UPS Output**

Nominal UPS rating	kVA at PF 0.8 lag
Voltage	3x380/400/415V
Voltage tolerance:	
- static within 0-100% symmetric load	+/-1%
- static within 0-100% asymmetric load	+/-3%
- dynamic at 100% load surge	+/-4%
- regulation time	< 25 ms
Overload Inverter 1 min.	150%
- Inverter 10 min.	125%
- Bypass 1 s	1000%
Short-circuit Inverter 50-100 ms	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	0.4 lag - 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

**Typical Single-Line Drawing**



**Battery Voltage & UPS Ratings**

Voltage ( VDC )	110	125	220	400
UPS Rating (kVA)	10	10	10	-
	15	15	15	-
	20	20	20	-
	30	30	30	-
	40	40	40	-
	60	60	60	-
	80	80	80	-
	-	-	100	-
	-	-	120	120
	-	-	160	160
-	-	-	220	

**Higher ratings and other voltages on request**

**Standard**

- Single UPS
- UPS output voltage 3x400 / 230V
- Rectifier input voltage 3x400V +10/-10%
- Bypass input voltage 3x400V +10/-10%
- Frequency 50Hz +/-6%
- 6-pulse Rectifier with Isolation Transformer
- Rectifier standard size, for UPS AC load
- PF 0.8 and up to ~ 1h Battery autonomy
- Rectifier input switch
- Fixed charging voltage IU characteristic
- 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
- Battery operation
- 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%
- 12-pulse Rectifier with Isolation Transformer
- Larger Rectifier +1 step\* / +2 steps\*

- Rectifier fuse
- Bypass input MCCB
- Rectifier input MCCB
- Sensor for temperature dependent battery charging voltage, recommended for sealed batteries and wide temperature range
- Serial diode ( for parallel Rectifiers )
- Diode for polarity revers protection
- Rectifier output isolator
- Rectifier output circuit breaker
- Battery fuse in UPS
- Battery fuse box
- Battery MCCB in UPS
- Battery MCCB box
- Inverter input isolator
- Inverter input circuit breaker
- Larger Power Module + 1 step\* / +2steps\*
- Static Switch EA ( Inverter side )
- Manual Bypass 3pos in UPS
- Battery Monitor ( programmable battery data )
- Battery asymmetry supervision
- DC earth fault alarm +/- only with Rectifier Isolation Transformer
- AC earth fault alarm
- Multi-Com RS232V.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
- Ventilation 100% redundant
- Space heaters
- 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 BAT & output FM, VM & AM with select switch
- Set with Input VM & AM with select switch
- kW
- Power factor

**Relay board A077:**

- Rectifier mains fault
- DC out of tolerance
- Rectifier fuse blown
- 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
- Battery operation
- Rectifier failure
- EN ON
- EA ON
- Inverter ON
- Boost charge
- Rectifier ON
- External Horn

**Additional options are available on request**

