Zutronic
by ENERGY SERVICE

GDCA7 SERIES

3:3 PHASE

10-200 KVA
ONLINE UPS



- **3 UPS LEVEL**
- KVA=**KW**
- Efficiency **96%**

FINANZA | TELECOMUNICAZIONI | ENERHIA | MEDICINA | GOVERNO | VFI type UPS ONLINE | TOWER | PF= 1,0 POWER FACTOR | service SERVICE

The **UPS GDCA7**, series 3-Phase in, 3-Phase out UPS uses advanced 3 level inverter technology and digital technology for full interconnection and has advantages such high efficiency, high power density and occupies only a small amount of floor space.
It provides safe, stable, clean, and environmentally friendly power to loads and can provide safe and reliable comprehensive protection to data centers, IT server rooms, precision instruments and others.

- 3 level IGBT technology UPS;
- Modular design;
- Upgradable on site (50-200KVA);
- 96% Efficiency;
- Output power factor 1;
- Fully settable from displayon site;
- Self-cleaning function;
- Capture wave-form graphicson display (black box);
- Hot-swappable battery packs.

GUARANTEED PROTECTION

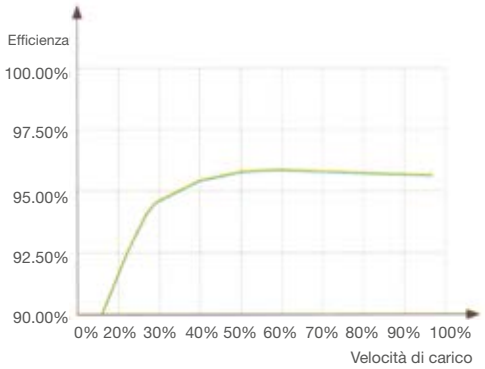
- The **UPS GDCA7** Series with Innovative 3 Levels Technology is a true on-line double conversion, three-phases UPS system that provides one of the highest level energy efficiencies in the industry.

- Three levels inverter & rectifier design **GDCA7** Series brings the newest power conversion technology and delivers efficiency up to 96% at 50-75% load operation which is the most common operating range.

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HIGH EFFICIENCY

- High efficiency in online mode (≥96%) reduces heat dissipation and limits power consumption costs
- Efficiency>99% in ECO mode gives significant cost reduction



INTELLIGENT MANAGEMENT SMARTER OPERATION AND MAINTENANCE MANAGEMENT

- Modular design allows operations of maintenance and reparations to be quicker and safer.
- Replacing Power Module of an industrial **UPS three-phase GDCA7** has never been so easy and fast, in fact, the average time to replace the faulty component is less than 30 minutes, reducing all costs of reparations by 50%.
- Full digital interconnection, advanced dual DSP control technology, fast fault self-diagnosis, full redundancy coverage, no more single point of failure, and good system compatibility ensures reliable power supply to the load from an ultra-wide range of input from the power grid, while the smart generator control enables flexible adaptation to various complex power grid environments.

HIGH RELIABILITY

- Super wide input voltage range -60%~+25%
- Robust overload ability
- Dual system control card prevent single failure point
- IGBT rectifier benefit with low THDi (<3%) and high power factor
- Bus synchronization control function provides reliable high power for the dual bus application
- 3-levels IGBT inverter ensures excellent performance

Intelligent fan control according the load capacity reduces the noise and prolongs fan service life

MODULAR DESIGN

The **GDCA7** are industrial **UPS** units with high power density, 200 kW; **GDCA7** occupies only 0.54 square meters of area and saves a lot of space in the client's server room while having an ecological design.

The three-phase **UPS GDCA7** uses the latest 3-level IGBT rectification technology and its input power factor approaches the unit's power factor; improves energy efficiency up to 96%

SELF-CLEANING FUNCTION

- **GDCA7** series **three-phase UPS**, the new self-cleaning mode periodically expels all the dust from the power module to reduce the risk of PCB failures due to dust corrosion by over 30%.
- The automatic self de-dusting mode in industrial UPS can be set daily, weekly, or periodically at the user's discretion based on company needs.

BLACK BOX

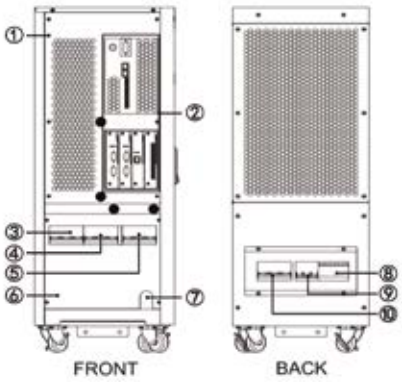
- The operating system incorporated in the computerized display can analyze and record the waveforms of each component of the Uninterruptible Power Supply online.
- Through the display it is possible to display all the waveforms passing through each component on the color screen, thus simplifying the localized identification of problems or distortions of any kind inside or outside the apparatus.

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GDCA7

10-200KVA

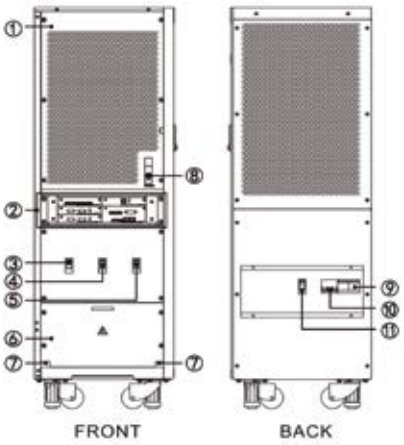
10-40KVA



1. TOP COVER PLATE;
2. CONTROL UNIT;
3. POWER BREAKER;
4. BYPASS BREAKER;
5. OUTPUT BREAKER;
6. WIRING COVER PLATE;
7. WIRING HOLES OF COMMUNICATION WIRES;
8. SURGE PROTECTION DEVICE (OPTIONAL);
9. SURGE PROTECTION BREAKER (OPTIONAL);
10. MAINTENANCE BUPASS BREAKER.



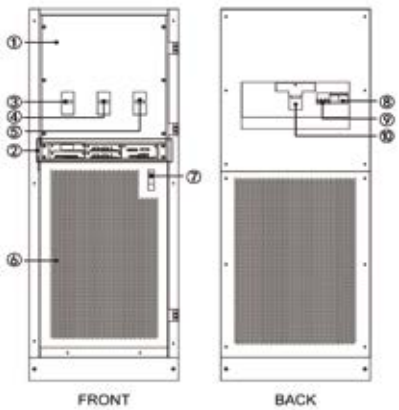
50-120KVA



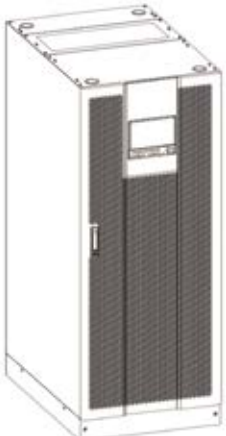
1. TOP COVER PLATE;
2. CONTROL UNIT;
3. POWER BREAKER;
4. BYPASS BREAKER;
5. OUTPUT BREAKER;
6. WIRING COVER PLATE;
7. WIRING HOLES OF COMMUNICATION WIRES;
8. BATTERY SLOW START BOTTON;
9. SURGE PROTECTION DEVICE (OPTIONAL);
10. SURGE PROTECTION BREAKER (OPTIONAL);
11. MAINTENANCE BUPASS BREAKER.



160-200KVA



1. WIRING COVER PLATE;
2. CONTROL UNIT;
3. POWER BREAKER;
4. BYPASS BREAKER;
5. OUTPUT BREAKER;
6. BOTTOM COVER PLATE;
7. BOTTOM START BUTTON;
8. SURGE PROTECTION DEVICE (OPTIONAL);
9. SURGE PROTECTION BREAKER (OPTIONAL);
10. MAINTENANCE BUPASS BREAKER.



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DATA SHEET

GDCA7 10K GDCA7 10K-L	GDCA7 15K GDCA7 15K-L	GDCA7 20K GDCA7 20K-L	GDCA7 30K GDCA7 30K-L	GDCA7 40K GDCA7 40K-L

INPUT

CAPACITY	10KVA/KW	15KVA/KW	20KVA/KW	30KVA/KW	40KVA/KW
INPUT VOLTAGE	380/400/415V				
INPUT CONNECTION	3 - 4W+PE				
POWER FACTOR	≥0,99				
INPUT CURRENT THD	<3%				
INPUT VOLTAGE WINDOW	-20% || +15% full load				
FREQUENCY WINDOW	40-70Hz				

BYPASS INPUT

BYPASS VOLTAGE	380/400/415V
BYPASS VOLTAGE WINDOW	-20% - +15% full load
FREQUENCY WINDOW	± 5Hz

BATTERY

BATTERY TYPE	VRLA
BATTERY VOLTAGE VDC	±192/±216
MAX CHARGING CURRENT	up to 20% of the ups rated power
VOLTAGE PRECISION OF CHARGING	1%

OUTPUT

OUTPUT PF	L-N:220/230/240V±1% L-L:380/400/415V±1%
NOMINAL VOLTAGE	±0,5% (balance load) 1% (unbalance load)
WAVEFORM	pure sine wave (double conversion ON LINE - VFI)
VOLTAGE PRECISION	5% (0-100 increase in load)
THD	THD<1%, (linear load) || THD<5%, (not linear load)
EFFICIENCY	up to 96%
POWER FACTOR	1
FREQUENCY	50/60Hz±3Hz, adjustable
PHASE	as an input
FREQUENCY PRECISION (FREE RUNNING)	±0.02%
PHASE TOLERANCE	150° ±0.5°
VOLTAGE UNBALANCE DEGREE	da 0,5Hz/s a 5Hz/s adjustable
CREST RATIO	3:1
OVERLOAD ALLOWED BY INVERTER	105% ~ 115% after 1 hour || 130% after 10 min||131-150% after 1 min > 150% after 200 ms || switching to bypass

OTHERS

DISPLAY	TOUCH SCREEN + LED				
ALARMS	abnormal VAC input, low battery, overload, errors, etc.				
PROTECTION	short-circuit output, overload, high temperature, etc.				
EMI FILTER	IEC62040-2				
EMC REGULATIONS	IEC61000-4-2 (ESD), IEC61000-4-3(RS)IEC6100-4-4(EFT). IEC6100-4-5				
IP CLASS	IP20				
COMMUNICATION	RS485 modbus, dry contact (SNMP optional and RS232)				
OPERATION TEMPERATURE	0-40°C				
RELATIVE HUMIDITY	0-95% (non condensing)				
NOISE (DB)	<65dB				
WEIGHT (KG) INTERNAL BATT MODEL	240	250	250	350	350
WEIGHT (KG) EXTERNAL BATT MODEL	120	120	120	120	120
DIMENSION (W*D*H) (MM) INTERNAL BATT MODEL	320*840*1030	320*840*1030	320*840*1030	320*840*1400	320*840*1400
DIMENSION (W*D*H) (MM) EXTERNAL BATT MODEL	320*840*867	320*840*867	320*840*867	320*840*867	320*840*867

All information contained are purely indicative, specifications or designs can be changed at anytime without notice by Zutronic and cannot be used to form any contractual obligations.

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DATA SHEET

	GDCA7 50K	GDCA7 80K	GDCA7 100K	GDCA7 120K
INPUT				
CAPACITY	50KVA/KW	80KVA/KW	100KVA/KW	120KVA/KW
INPUT VOLTAGE	380/400/415V			
INPUT CONNECTION	3 - 4W+PE			
POWER FACTOR	≥0,99			
INPUT CURRENT THD	<3%			
INPUT VOLTAGE WINDOW	-20% ‖ +15% full load			
FREQUENCY WINDOW	40-70Hz			
BYPASS INPUT				
BYPASS VOLTAGE	380/400/415V			
BYPASS VOLTAGE WINDOW	-20% - +15%full load			
FREQUENCY WINDOW	± 5Hz			
BATTERY				
BATTERY TYPE	VRLA			
BATTERY VOLTAGE VDC	±192/±216			
MAX CHARGING CURRENT	up to 20% of the ups rated power			
VOLTAGE PRECISION OF CHARGING	1%			
OUTPUT				
OUTPUT VOLTAGE	L-N:220/230/240V±1% L-L:380/400/415V±1%			
VOLTAGE PRECISION	±0,5% (balance load) 1% (unbalance load)			
OUTPUT VOLTAGE TRANSIENT	5% (0-100% load step)			
THD	THD<1% (linear load) THD<5% (non linear load)			
EFFICIENCY	up to 96%			
POWER FACTOR	1			
FREQUENCY	50/60Hz±3Hz, adjustable			
PHASE	as an input			
FREQUENCY PRECISION (FREE RUNNING)	±0.02%			
PHASE TOLERANCE	150° ±0.5°			
VOLTAGE UNBALANCE DEGREE	da 0,5Hz/s a 5Hz/s adjustable			
CREST RATIO	3:1			
OVERLOAD ALLOWED BY INVERTER	105% ~ 115% after 1 hour ‖ 130% after 10 min‖131-150% after 1 min > 150% after 200 ms ‖ switching to bypass			
OTHERS				
DISPLAY	TOUCH SCREEN + LED			
ALARMS	abnormal VAC input, low battery, overload, errors, etc.			
PROTECTION	short-circuit output, overload, high temperature, etc.			
EMI FILTER	IEC62040-2			
EMC REGULATIONS	IEC61000-4-2 (ESD), IEC61000-4-3(RS)IEC6100-4-4(EFT). IEC6100-4-5			
IP CLASS	IP20			
COMMUNICATION	RS485 modbus, dry contact (SNMP optional and RS232)			
OPERATION TEMPERATURE	0-40°C			
RELATIVE HUMIDITY	0-95% (non condensing)			
NOISE (DB)	<65dB			
WEIGHT (KG) WITHOUT BATTERIES	160	210	242	242
DIMENSIONS (W*D*H) WITHOUT BATTERIES	450*840*1400	450*840*1400	450*840*1400	450*840*1400

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DATA SHEET

	GDCA7 140K	GDCA7 160K	GDCA7 200K
INPUT			
CAPACITY	140KVA/KW	160KVA/KW	200KVA/KW
INPUT VOLTAGE	380/400/415V		
INPUT CONNECTION	3 - 4W+PE		
POWER FACTOR	≥0,99		
INPUT CURRENT THD	<3%		
INPUT VOLTAGE WINDOW	-20% ‖ +15% full load		
FREQUENCY WINDOW	40-70Hz		
BYPASS INPUT			
BYPASS VOLTAGE	380/400/415V		
BYPASS VOLTAGE WINDOW	-20% - +15% full load		
FREQUENCY WINDOW	± 5Hz		
BATTERY			
BATTERY TYPE	VRLA		
BATTERY VOLTAGE VDC	±192/±216		
MAX CHARGING CURRENT	up to 20% of the ups rated power		
VOLTAGE PRECISION OF CHARGING	1%		
OUTPUT			
OUTPUT VOLTAGE	L-N:220/230/240V±1% L-L:380/400/415V±1%		
VOLTAGE PRECISION	±0,5% (balance load) 1% (unbalance load)		
OUTPUT VOLTAGE TRANSIENT	5% (0-100% load step)		
THD	THD<1% (linear load) THD<5% (non linear load)		
EFFICIENCY	up to 96%		
POWER FACTOR	1		
FREQUENCY	50/60Hz±3Hz, adjustable		
PHASE	as an input		
FREQUENCY PRECISION (FREE RUNNING)	±0.02%		
PHASE TOLERANCE	150° ±0.5°		
VOLTAGE UNBALANCE DEGREE	da 0,5Hz/s a 5Hz/s adjustable		
CREST RATIO	3:1		
OVERLOAD ALLOWED BY INVERTER	105% ~ 115% after 1 hour ‖ 130% after 10 min‖131-150% after 1 min > 150% after 200 ms ‖ switching to bypass		
OTHERS			
DISPLAY	TOUCH SCREEN + LED		
ALARMS	abnormal VAC input, low battery, overload, errors, etc.		
PROTECTION	short-circuit output, overload, high temperature, etc.		
EMI FILTER	IEC62040-2		
EMC REGULATIONS	IEC61000-4-2 (ESD), IEC61000-4-3(RS)IEC6100-4-4(EFT). IEC6100-4-5		
IP CLASS	IP20		
COMMUNICATION	RS485 modbus, dry contact (SNMP optional and RS232)		
OPERATION TEMPERATURE	0-40°C		
RELATIVE HUMIDITY	0-95% (non condensing)		
NOISE (DB)	<65dB		
WEIGHT (KG) WITHOUT BATTERIES	242	320	350
DIMENSIONS (W*D*H) WITHOUT BATTERIES	450*840*1400	600*900*1600	600*900*1600

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ISO9001:2015
BUREAU VERITAS
Certification

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