



# Pyramid DSP Series

Uninterruptible Power Systems

On-Line "Double Conversion" Technology, DSP Controlled IGBT Rectifier UPS

3 phase in / 3phase out 10 to 300kVA ( PDSP version )

3 phase in / 3phase out 5 to 150kVA ( PDSP-U version )



- IGBT Rectifier
- Real Digital Signal Processor (DSP) controlled transformerless design
- Input Power Factor Correction PFC( >0,99 )
- Low Total Harmonic Distortion Level ( THDi  $\leq$  4% )
- High Efficiency ( up to 95% )
- Wide Input Voltage Range
- Generator Compatible Operation
- Evolution and redundancy guaranteed by on site Modular Parallel Systems
- Intelligent battery management system extends the lifetime of batteries
- Synchronization Capability with external sources
- Static and Manual Bypass
- Optional Galvanic isolation transformer
- Communication with computers and network systems with SNMP availability
- Expandable battery blocks
- Low installation and operating costs
- Different voltage applications with refer to country mains characteristic ;
  - PDSP version for 380/400/415V(Ph\_Ph) applications
  - PDSP-U version for 200/208/220V(Ph\_Ph) applications
  - Special voltage applications other than stated values
- EPO (Emergency Power Off)
- 3 phase in 1 phase out version is available (10 to 40 kVA)
- 50/60 Hz Frequency Converter version is available

## Accessories

### Communication

- Remote Monitoring Panel &25m Cable For Remote Panel
- UPSMAN (Management Software)
- Multiserver Shutdown Licence
- Internal SNMP kit :
  - Internal Slot Card SNMP CS121BSC, slot box, cable
- External Adapter
  - SNMP Adapter Net Agent Mini DP 522
  - SNMP Adapter CS121BL
  - SNMP Adapter with Modbus CS121LM

### Other

- Splitt by-pass
- Parallel Kit
- Drawer Type Internal Battery Shelves 10 - 30kVA
- Special Battery Connection Cable for Drawer Type Shelves

### Battery Cabinets

UPS looking battery Cabinets (different battery configuration available)

- V14, V15, V24, V33, V34

Eco Cabinets (different battery configurations available)

- BC20, BC30, BC40, BC50, BC60



TESID Innovation and Creativity Award 2005



# Pyramid DSP Specifications

MODEL (380-400-415V 3Ph Version)	PDSP33010	PDSP33015	PDSP33020	PDSP33030	PDSP33040	PDSP33060	PDSP33080	PDSP33100	PDSP33120	PDSP33160	PDSP33200	PDSP33250	PDSP33300			
Output Power ( kVA )	10	15	20	30	40	60	80	100	120	160	200	250	300			
Nominal Active Power ( kW )	8	12	16	24	32	48	64	80	96	128	160	200	240			
MODEL (200-208-220V 3Ph Version)	PDSP-U33005	PDSP-U33007	PDSP-U33010	PDSP-U33015	PDSP-U33020	PDSP-U33030	PDSP-U33040	PDSP-U33050	PDSP-U33060	PDSP-U33080	PDSP-U33100	PDSP-U33125	PDSP-U33150			
Output Power ( kVA )	5	7,5	10	15	20	30	40	50	60	80	100	125	150			
Nominal Active Power ( kW )	4	6	8	12	16	24	32	40	48	64	80	100	120			
<b>INPUT</b>																
Number Of Phases	3Ph+N+PE															
Nominal Voltage ( Ph-Ph )	200V / 208V / 220V ( PDSP-U ) or 380V/400V/415V ( PDSP )															
Voltage Range (%100 Load)	(-15%) (+27)%															
Voltage Range (%64 Load)	(-45%) (+27)%															
Voltage Range (%42 Load)	(-64%) (+27)%															
Nominal Frequency ( Hz )	50 or 60															
Frequency Range For Online Operation	±10%															
Input Current THD	≤4% (*)															
Input Power Factor	0,99															
<b>OUTPUT</b>																
Power Factor	0,8															
Number Of Phases	3Ph+N+PE (PDSP & PDSP-U)															
Voltage ( 1Ph_ Phase To Neutral ) Voltage ( 3ph_ Phase To Phase )	200V / 208V / 220V (PDSP-U) or 380V/400V/415V (PDSP)															
Static Voltage Regulation At %100 Linear Load ( Online&Battery Mode )	<1%															
Voltage THD At Rated Linear Load	<3%															
Crest Factor	3:1															
Frequency (Hz)	50 or 60															
Free Running Frequency (Hz)	± 0,01%															
Overload	125% for 10 minutes 150% for 1 minutes															
Efficiency	up to 95% (**)															
<b>BATTERY</b>																
Type	Maintenance-Free Lead Acid Batteries															
Quantity (Pcs ) PDSP Version	62 ( 2*31 )						60 ( 2*30 )									
Quantity (Pcs ) PDSP-U Version	34 ( 2*17 )															
Battery Protection	Deep Discharge Protection With Auto Cut Off															
Battery Test	Standard ( Automatic And Manual )															
<b>DISPLAY</b>																
LED Display	Line, Bypass, Battery, Inverter, Load, Fault Indications															
LCD Display	Load%, Input & Output Frequency, Voltage & Current, By Pass Voltage, Battery Voltage & Current, Temperature, Alarms															
<b>STATIC BYPASS</b>																
Number Of Phases	3Ph+N+PE															
Voltage Range For By Pass Operation	±10%															
Frequency Range For By Pass Operation (Hz)	± 6% ( Configurable )															
<b>COMMUNICATION</b>																
Interface (Communication Ports)	RS232 & RS422															
Dry Contact Signals	AC failure, Battery under Voltage, By Pass Operation, Output Failure															
Others	EPO, Generator Interface															
<b>ENVIRONMENT</b>																
Storage Temperature Range (°C)	-25 to +55 ( 15 to 40 Recommended For Longer Battery Life Time )															
Operating Temperature Range (°C)	0 to 40 ( 20 to 25 Recommended For Longer Battery Life Time )															
Relative Humidity Range	0-95% ( Non-Condensing )															
Maximum Altitude Without Derating (m)	1000															
Protection Level	IP20															
<b>PHYSICAL SPECIFICATIONS</b>																
Dimensions wxdxh (cm)	40 x 78 x 107			52 x 90 x 130			67x73x153		64x98x140		77x76x168		96x87x186		161x106x193	
Weight (kg)	102		110	240	242	260	295	330	370	380	740	765				
<b>STANDARDS</b>																
Standards	EN 62040-1-1 (safety), EN 62040-2(EMC), EN 62040-3 (VFI-SS-111)															

(\*) for source having THDv < 2 % @ nominal load  
 (\*\*) varies depending on ups power

