



# QUARTZ

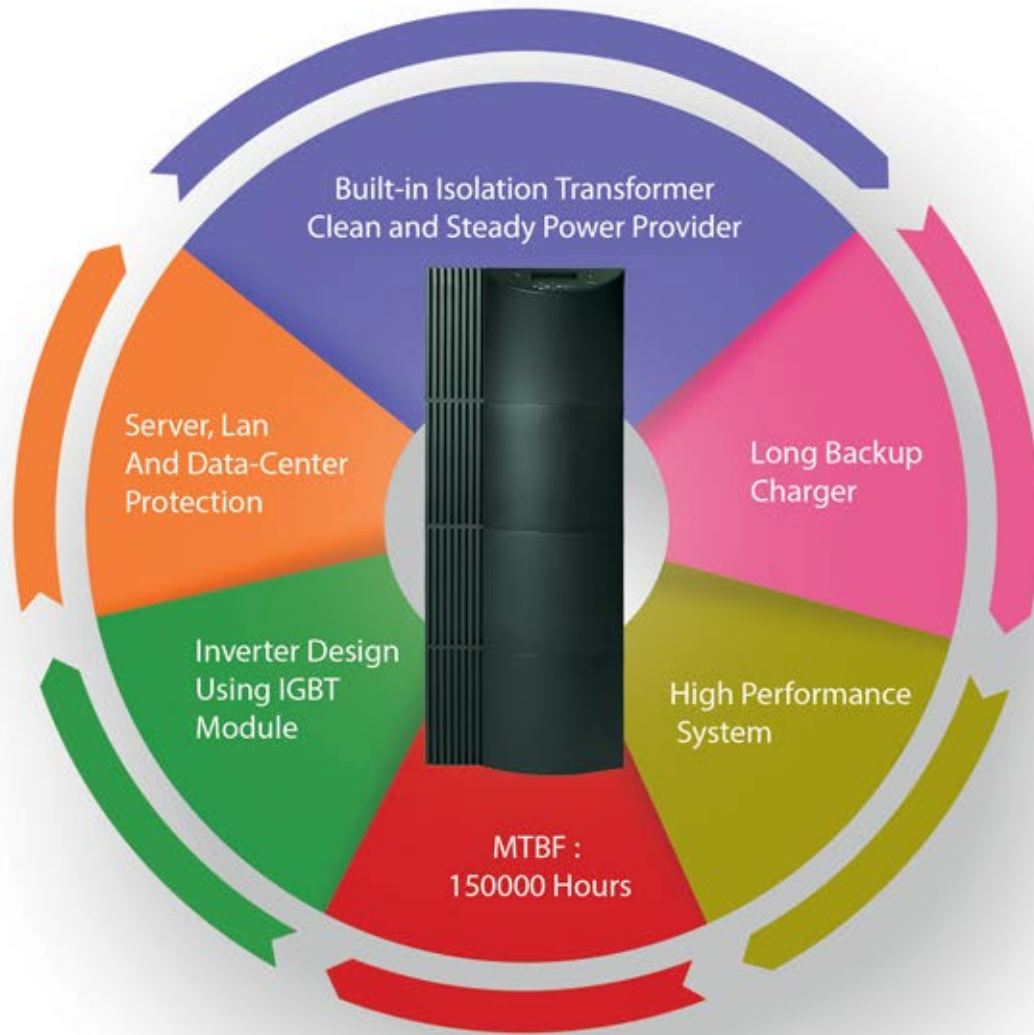
Series

QZ 3 - 20 KVA

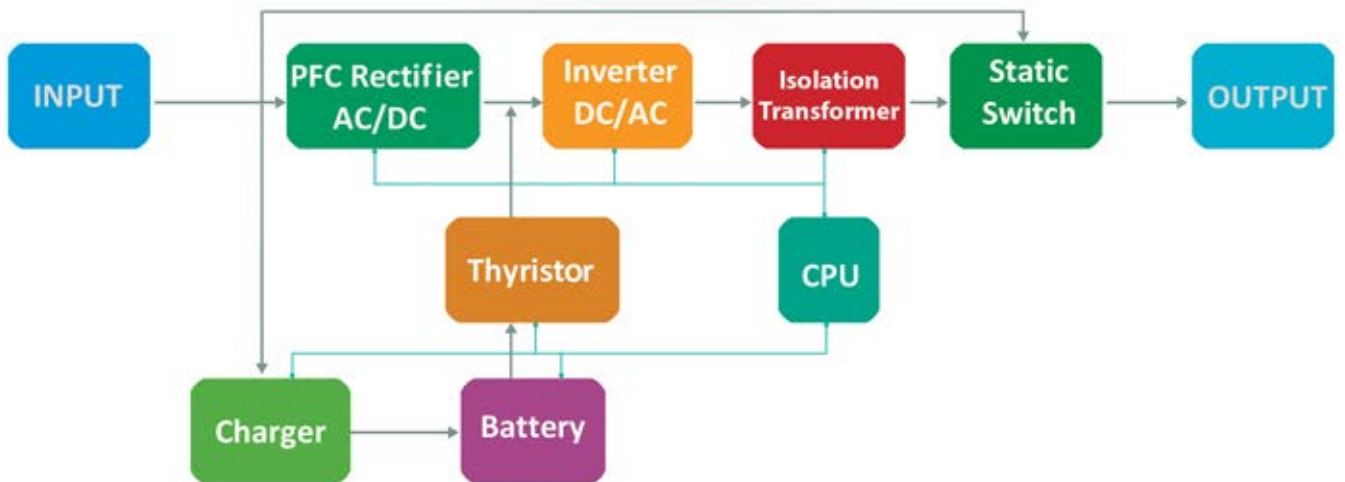
1/1 PH OR 3/1 PH



True On Line Double Conversion  
Low Frequency  
Built-in Isolation Transformer  
Inverter Design Using IGBT Module  
Long Backup Charger  
User Friendly Operation  
High Performance System  
Micro Processor Control  
Wide Input Voltage Range  
High Overload Capacity  
Dual (Auto / Manual) Bypass Switch  
MTTR: 30 min  
MTBF: 150000 Hours



Block Diagram of D Series



## Features



- High Performance System
- On-Line Double Conversion Topology
- True Sine Wave Output
- Microprocessor Controller
- AVR design, Expandable Input Voltage range 165 VAC ~ 280 VAC
- Transformer Base
- Built-In Isolation Transformer Provide Clean and Steady Power
- Lighting and Spike Protection
- Electromagnetic / Radio frequency Interference ( EMI/RFI ) Filter Protection
- Outstanding Overload Capacity ( Maintains Up to 30 Seconds of 150% Overload )
- User Friendly Operation
- LED and LCD Display UPS Status and internal Messages
- Smart Computer Interface ( RS232 Standard )
- Remote Monitoring, Control and Schedule Switch On/Power down Capable
- External Battery Packs for extra runtime ( 0.5~2 hrs.)
- Long Backup Series Contain 10A High Capacity Charger and Up to 8 Hours of Discharge Time
- EPO (Emergency Power off )
- Dual (Auto / Manual) Bypass Switch
- MTTR : 30 Min
- MTBF : 150000 Hours



| Models                  |                             | QZL 3 KVA  | QZL 6 KVA               | QZL 10 KVA    | QZL 15 KVA          | QZL 20 KVA     |
|-------------------------|-----------------------------|--|-------------------------|---------------|---------------------|----------------|
| Capacity (VA/W)         |                             | 3000VA/2400W   | 6000VA/4800W            | 10000VA/8000W | 15000VA/12000W      | 20000VA/16000W |
| System                  | Topology                    | True on line Double Conversion   |                         |               |                     |                |
|                         | MTBF                        | 150000 Hours   |                         |               |                     |                |
|                         | Feature                     | Low Frequency, Transformer Base ,Inverter Design using IGBT module                           |                         |               |                     |                |
|                         | Transfer time               | Utility to battery   | 0mes                    |               |                     |                |
| Utility to Bypass       |                             | 0mes   |                         |               |                     |                |
| Input                   | Phase                       | Single phase + Ground  |                         |               | Three phase + N + G |                |
|                         | Rated voltage               | 220/230/240 VAC  |                         |               | 380/ 400/ 415 VAC   |                |
|                         | Voltage Range               | ±25%   |                         |               |                     |                |
|                         | Frequency Range             | 50/60 Hz±5%  |                         |               |                     |                |
|                         | Max input current(110V)     | 36 A   | 72 A                    | 102 A         |                     |                |
|                         | Max input current(220V)     | 18 A   | 36 A                    | 60 A          | 36 A @ 380VAC       | 40 A @ 380VAC  |
|                         | Bypass Voltage Range        | 170VAC – 270VAC  |                         |               | 285 VAC – 485 VAC   |                |
|                         | Generator                   | supports any Generator   |                         |               |                     |                |
| Output                  | Phase                       | Single phase + GND   |                         |               |                     |                |
|                         | Rated voltage               | 220/230/240VAC   |                         |               |                     |                |
|                         | Voltage Range               | ±1%  |                         |               |                     |                |
|                         | Frequency                   | 50/60 Hz±0.05  |                         |               |                     |                |
|                         | Power Factor                | 0.8  |                         |               |                     |                |
|                         | THD                         | ≤ 3% (linear load)   |                         |               |                     |                |
|                         | Crest Factor                | 3.1  |                         |               |                     |                |
|                         | Wave form                   | Pure sine wave   |                         |               |                     |                |
| Battery                 | Type                        | Sealed lead acid. Maintenance free   |                         |               |                     |                |
|                         | Voltage                     | 48 VDC   | 192 VDC                 |               |                     |                |
|                         | Charge current              | 4.2A   | 14A                     | 14A           | 14A                 | 14A            |
|                         | Recharging Time To 90%      | 8 – 10 hours (standard)  |                         |               |                     |                |
|                         | Battery Socket              | Hard wire  |                         |               |                     |                |
| Protection              | Overload                    | ≤110% Continuously   |                         |               |                     |                |
|                         |                             | ≤125% after 10 min switch to bypass  |                         |               |                     |                |
|                         |                             | ≤150% after 1 min switch to bypass   |                         |               |                     |                |
|                         | Short Circuit               | Hold whole system  |                         |               |                     |                |
|                         | Overheat                    | Ac Mode  | Bypass switch           |               |                     |                |
|                         |                             | Back up Mode   | Immediate UPS Shut down |               |                     |                |
|                         | Low Battery                 | Alarm / switch off   |                         |               |                     |                |
|                         | Self-diagnostics            | Upon power on and software control   |                         |               |                     |                |
| EPO(optional)           | Immediate UPS Shut down     |  |                         |               |                     |                |
| Battery                 | Advanced battery management |  |                         |               |                     |                |
| Alarms                  | Audio / Video               | line Failure, low Battery Overload,Faulty system   |                         |               |                     |                |
| Display                 | LCD                         | working mode ,IP and op voltage ,IP and op frequency ,Battery voltage ,load UPS, temperature |                         |               |                     |                |
|                         | LED                         | inverter on, UPS fault   |                         |               |                     |                |
| Physical                | Dimension(W*H*D)mm          | 670*230*538  | 630*230*710             | 650*305*865   | 725*430*1180        | 745*450*1200   |
|                         | Net Weight (Kg)             | 75   | 96                      | 115           | 262                 | 310            |
|                         | Input Connection            | Hard wire  |                         |               |                     |                |
|                         | Output Connection           | Hard wire  |                         |               |                     |                |
|                         | External Battery Connection | Hard wire  |                         |               |                     |                |
|                         | Protection degree           | IP 20  |                         |               |                     |                |
| Communication Interface | RS232,SNMP card (optional)  |  |                         |               |                     |                |
| Environment             | Operating Temperature       | 0~40   |                         |               |                     |                |
|                         | Storage Temperature         | -25 – 55°C   |                         |               |                     |                |
|                         | Humidity                    | 0%~95%   |                         |               |                     |                |
|                         | Altitude                    | <2000 m  |                         |               |                     |                |
| Noise                   | <55db at 1 meter            |  |                         |               |                     |                |
| Conformance             | Mark                        | CE,FCC,TUV,ISO   |                         |               |                     |                |

## Power Management

### Power Management Solutions- UPS, Software, Cable Providers



#### Features :

- Provides True RS232 Communication
- Intelligent Computer Interface- Upsilon 2000
- Supports NetWare, Windows 98/200/NT/ME/XP/Linux
- Remote UPS monitoring through TCP/IP for internet or LAN
- Power Failure /Low Battery Detection
- Graceful OS shutdown
- Broadcasts /Records abnormal power status
- Programmable shutdown timer and warning period
- Flexible Setting for Auto System Turn-on/off
- Graphical display of UPS status
- Automatic files saving
- Sends warning message by e-mail / to pager
- Data log power problem analysis
- USB Interface
- Power management facility through USB port
- SNMP/HTTP (optional) allows real time control/monitor Via LAN/Web by MIS dept.

## Features

