

## Uninterruptible Power Systems



## 1600XP Series

3.6 to 22 KVA Single-Phase

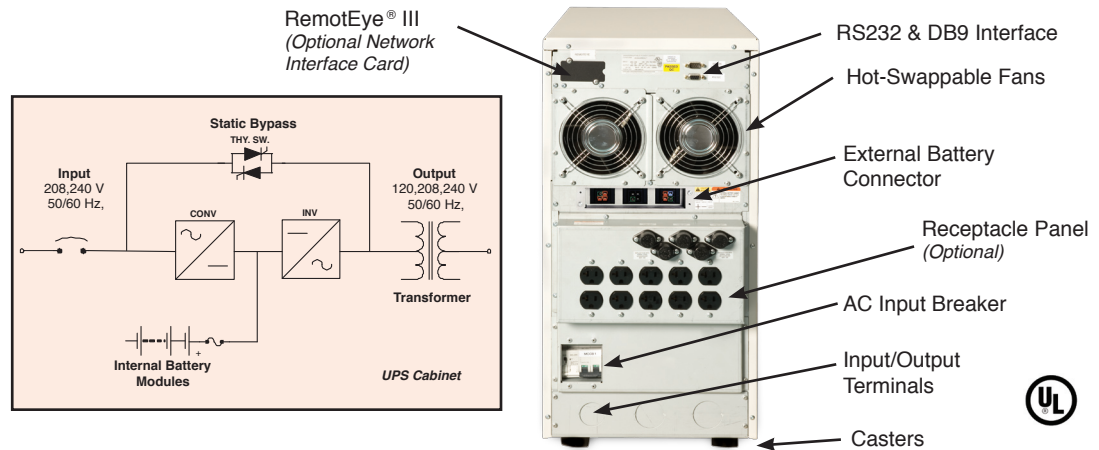
- True On-Line, Double-Conversion UPS
- Input Power Factor > 0.95
- Input Current THD < 5%
- Wide Input Voltage Window +10% to -30%
- Wide Input Frequency Window 45 to 65 Hz
- 0.85 Output Power Factor
- Hot-Swappable Battery Packs & Cooling Fans
- Internal Isolation Transformer
- External Battery Connector
- Generator Compatible
- Crest Factor 3.0
- Three-Year Warranty

### Enhanced Features!

- User-Friendly, Programmable Touch-Screen Display
- Angled Terminal Block for Ease of Installation
- RoHS and CE Certification

# 1600XP Series 3.6 to 22 KVA UPS

| Capacity                             | 3.6 KVA (3.1 KW)   | 6 KVA (5.1 KW)    | 8 KVA (6.8 KW)      | 10 KVA (8.5 KW) | 14 KVA (11.9 KW)      | 18 KVA (15.3 KW) | 22 KVA (18.7 KW) |
|--------------------------------------|--|-------------------|---------------------|-----------------|-----------------------|------------------|------------------|
| Topology                             | True On-Line, Double Conversion; IGBT Power Factor Corrected Input; Internal Isolation Transformer   |                   |                     |                 |                       |                  |                  |
| Certifications                       | UL 1778, CUL, CE, FCC Class A, IEEE 587, ANSI/C62.41, ISO 9001, ISO 14001, NEMA/PE1-1993, RoHs   |                   |                     |                 |                       |                  |                  |
| Input Characteristics                |  |                   |                     |                 |                       |                  |                  |
| Input Voltage                        | Single-Phase 208/240 VAC (Three-Wire Input/L-L, G); 230 VAC (Three-Wire Input/L, N, G), +10% -30%  |                   |                     |                 |                       |                  |                  |
| Input Frequency                      | 45 to 65 Hz (Auto-Sensing)   |                   |                     |                 |                       |                  |                  |
| Input Power Factor                   | > 0.95 For All Loads   |                   |                     |                 |                       |                  |                  |
| Input Current THD                    | < 5% (Even for 100% Non-Linear Loads)  |                   |                     |                 |                       |                  |                  |
| AC Input Breaker Rating              | 30 A   | 50 A              | 60 A                | 63 A            | 100 A                 | 100 A            | 125 A            |
| Battery Characteristics              |  |                   |                     |                 |                       |                  |                  |
| Battery Type                         | Valve-Regulated Lead Acid; Flame Retardant (9.0 Amp Hr)  |                   |                     |                 |                       |                  |                  |
| Backup Time (Fully Charged)          | 7 Minutes  | 7 Minutes         | 7 Minutes           | 5 Minutes       | 7 Minutes             | 5 Minutes        | 3 Minutes        |
| Recharge Time                        | 0.85 Power Factor; 77° F; Approximately 30% More Runtime for Output Power Factor of 0.7 (Triple Backup Time at ½ Load)                             |                   |                     |                 |                       |                  |                  |
| DC Link                              | 144 VDC  | 216 VDC           |                     |                 | 288 VDC               |                  |                  |
| Output Characteristics               |  |                   |                     |                 |                       |                  |                  |
| Output Voltage                       | Single-Phase 240/208/120 VAC (Four-Wire Output/L-L, N, G) 230 VAC (Three-Wire Output L, N, G)  |                   |                     |                 |                       |                  |                  |
| Output Voltage Regulation            | ±3%; ±1% Typical   |                   |                     |                 |                       |                  |                  |
| Output Frequency                     | 50/60 Hz; ±0.5 Hz/1.0 Hz/1.5 Hz (Factory or Authorized Service Center Selectable)  |                   |                     |                 |                       |                  |                  |
| Output Voltage THD                   | < 3% for Linear Load; 1% Typical   |                   |                     |                 |                       |                  |                  |
| Common Mode Noise                    | < 0.5 V RMS  |                   |                     |                 |                       |                  |                  |
| Rated-Load Power Factor              | 0.85 (0.6 to 1.0) Lag  |                   |                     |                 |                       |                  |                  |
| Rated Output Current @ 240 V         | 15 A   | 25 A              | 33.3 A              | 41.6 A          | 58 A                  | 75A              | 91.6 A           |
| Maximum Peak Output Current          | 45 A   | 75 A              | 100 A               | 125 A           | 174 A                 | 225 A            | 275 A            |
| Overload Capacity                    | Inverter Mode: 150% for 10 Seconds, 125% for 30 seconds; Bypass Mode: 125% for 10 Minutes, 1000% for One Cycle                                     |                   |                     |                 |                       |                  |                  |
| Environmental Characteristics        |  |                   |                     |                 |                       |                  |                  |
| Efficiency (AC-DC-AC)                | > 85%  |                   |                     |                 |                       |                  |                  |
| Temperature Range                    | 0 to 40°C (Operating); -20° to +40°C (Storage)   |                   |                     |                 |                       |                  |                  |
| Heat Generation (BTU/Hr)             | 1843   | 3071              | 4095                | 5118            | 7168                  | 9213             | 11,260           |
| Altitude                             | 6600 Feet (2000 Meters) Maximum Without Derating   |                   |                     |                 |                       |                  |                  |
| Audible Noise                        | < 60 DBA @ 1 Meter   |                   |                     |                 |                       |                  |                  |
| Mechanical Design                    |  |                   |                     |                 |                       |                  |                  |
| Enclosure                            | Steel Enclosure; Complies with NEMA 1 and UL Type-1 Standard   |                   |                     |                 |                       |                  |                  |
| Enclosure Dimensions (HxWxD)         | 22.1" x 10" x 33"  | 27.5" x 10" x 33" | 28.4" x 13" x 34.9" |                 | 39.1" x 17.5" x 36.1" |                  |                  |
| Shipping Weight                      | 280 lb/127 kg  | 346 lb/157 kg     | 476 lb/214 kg       |                 | 784 lb/355 kg         | 784 lb/355 kg    | 835 lbs/379 kg   |
| Battery Pack Size (HxWxD)            | 5" x 7.3" x 19" (Battery Pack Part # 51896-FS)   |                   |                     |                 |                       |                  |                  |
| Battery Pack Quantity                | Two  | Three             | Four                |                 | Eight                 |                  |                  |
| Additional Key Features              | Output Isolation Transformer, RS232 & Dry Contact Interface, Crest Factor of 3, Angled Terminal Blocks for Easy Installation, Casters for Mobility |                   |                     |                 |                       |                  |                  |
| Options                              |  |                   |                     |                 |                       |                  |                  |
| SNMP & WEB-Based Monitoring          | RemotEye® III, RemotRadar™, & Environmental Monitoring Device  |                   |                     |                 |                       |                  |                  |
| Matching Battery Cabinet             | Consult Factory  |                   |                     |                 |                       |                  |                  |
| Internal/External Maintenance Bypass | Consult Factory  |                   |                     |                 |                       |                  |                  |
| Receptacle Panel & Line Cord         | Consult Factory  |                   |                     |                 |                       |                  |                  |
| Warranty                             | Three Years on Electronics (UPS); Two Years on Battery (See Toshiba Warranty Policy for Full Details)  |                   |                     |                 |                       |                  |                  |



**UPS    ADJUSTABLE SPEED DRIVES    MOTORS    CONTROLS    INSTRUMENTATION    PLC**

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