



	Model	ABCDEF2000-11				ABCDEF2000-22			
	Topology	True On line, Double-Conversion, IGBT Design, Internal Isolation Transformer							
<b>INPUT</b>	Voltage (VAC)	100	115	120	200	208	220	230	240
	Voltage Range (VAC)	70-115	81-132	84-138	140-230	146-239	154-253	161-264	168-276
	Voltage Tolerance	+ 15% ~ -30% before switching to batteries							
	Frequency (Hz)	50/60							
	Frequency Tolerance	42 Hz to 69 Hz before switching to batteries							
	Input PF	> 0.95							
	Input Current THD	< 5.0%							
	Input Connection	Hardwired Standard; Line Cord Optional (Consult factory)							
Input Capacity	2160 VA				2160 VA				
<b>OUTPUT</b>	Capacity	2000VA/ 1800W							
	Voltage (VAC)	100	115	120	200	208	220	230	240
	Voltage Regulation	± 3.0% Max, ± 1.0% Normal							
	Output Voltage THD	< 3.0%							
	Power Factor	0.9							
	Step Load Response	± 4.0% for 50% step load change ± 6.0% for 100% step load change Return to ± 3.0% of nominal within 3 cycles							
	Crest Factor	3:1							
	Frequency (Hz)	50/60							
	Frequency Regulation	± 0.1Hz							
	Overload	125% for 2 minutes 150% for 30 seconds 300% for 500ms							
	Efficiency	AC-AC >85.0% DC-AC >71.0%				AC-AC >85.0% DC-AC >70.0%			
	Common Mode Noise	< 0.5 VRMS							
Output Connection	Hardwired Standard; Output Receptacles Optional (Consult factory)								
<b>BYPASS</b>	Input Voltage (VAC)	100	115	120	200	208	220	230	240
	Output Voltage (VAC)	100	115	120	200	208	220	230	240
	Transformer Voltage Regulation	± 3.0%							
	Overload	125% for 10 minutes 150% for 500ms 1000% for 1 cycle							
	Efficiency	> 95.0%							

<b>BATTERY</b>	Voltage (VDC)	96.0, nominal 109.2, float
	Battery	12V, 34W flame retardant High Rate, Sealed Lead-Acid
	Quantity	8
	Charge Current (ADC)	2.0
	Backup Time (min)	> 7.0
	Recharge Time	8 hours to 90%
<b>ENVIRONMENT</b>	Temperature (°C)	0 to 40, operating -20 to 60, transit
	Altitude (m)	2,000, operating 12,000, transit
	Humidity	5.0% to 90.0%, non condensing
	Audible (dBA)	50-55 @ 1m from front of unit
	Heat Dissipation (BTU/hr)	1084
<b>AGENCIES</b>	EMC	FCC Part 15J Class A EN 55022 Class A/ CISPR 22 EN 50091-2 IEC 61000-3-2
	Safety Agencies	UL1778 4 <sup>th</sup> Ed. cUL to CSA22.2 No.107.1 CE (-22 only): IEC62040, w/CB report and cert IEC62040, w/CB report and cert IEC61000-4-2, Electrostatic Discharge IEC61000-4-3, Radiated Electromagnetic Field Immunity IEC61000-4-4, Electrical Fast Transient/ Burst Immunity IEC61000-4-5, Surge Immunity IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances IEC61000-4-8, Power Frequency Magnetic Field Immunity IEC61000-4-11, Voltage Dips, Short Interruptions, and Voltage Variations
	RoHS	All units are RoHS compliant
<b>OTHER</b>	Communication	RS-232 USB DB-9 Dry Contacts Internal SNMP Adapter (option)
	Unit Weight	-11 Models 215 lbs. / 97 kg. -22 Models 221 lbs. / 100 kg.
	Shipping Weight	-11 Models 310 lbs. / 139 kg. -22 Models 316 lbs. / 142 kg.
	Plug & Receptacle*	L5-30P (2)5-20R (1)L5-30R 208 VAC Input L6-30P (2)5-20R (1)L6-30R 240 VAC Input L6-20P (2)5-20R (1)L6-20R

\*Hardwired unit is standard. Plug & Receptacle is optional. Contact factory for part numbers.

**NOISE REJECTION-ISOLATION:** With unit under power and an ANSI/IEEE C62.41 Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-CM).

**SURGE VOLTAGE WITHSTAND CAPABILITY:** Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). Cat. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

**ABCDEF2000-11 Compatible External (Extended Run) Battery Cabinets:**

Model: D9632-11 Description: 4 Pack (32 Batt) Extended Run Battery Cabinet  
 Model: D9648-11 Description: 6 Pack (48 Batt) Extended Run Battery Cabinet

ABCDEF2000-11 TYPICAL RUN-TIMES (MINS)				
	25% (450 W)	50% (900 W)	75% (1350 W)	100% (1800 W)
Internal Batteries Only	20	13	10	7
Internal + 1) D9632-11	170	110	80	65
Internal + 2) D9632-11	375	250	190	140
Internal + 3) D9632-11	625	400	300	225
Internal + 4) D9632-11	>12 Hrs	575	400	300
Internal + 5) D9632-11	>12 Hrs	>12 Hrs	575	450
Internal + 1) D9648-11	250	180	130	100
Internal + 2) D9648-11	625	400	300	230
Internal + 3) D9648-11	>12 Hrs	700	500	375
Internal + 4) D9648-11	>12 Hrs	>12 Hrs	>12 Hrs	575
Internal + 5) D9648-11	>12 Hrs	>12 Hrs	>12 Hrs	>12 Hrs

Note: Run-Times are based on new fully charged batteries at 25 deg C ambient.

**ABCDEF2000-22 Compatible External (Extended Run) Battery Cabinets:**

Model: D9632-22 Description: 4 Pack (32 Batt) Extended Run Battery Cabinet  
 Model: D9648-22 Description: 6 Pack (48 Batt) Extended Run Battery Cabinet

ABCDEF2000-22 TYPICAL RUN-TIMES (MINS)				
	25% (450 W)	50% (900 W)	75% (1350 W)	100% (1800 W)
Internal Batteries Only	18	12	9	7
Internal + 1) D9632-22	160	110	80	65
Internal + 2) D9632-22	325	230	180	140
Internal + 3) D9632-22	575	375	275	225
Internal + 4) D9632-22	>12 Hrs	575	425	325
Internal + 5) D9632-22	>12 Hrs	>12 Hrs	550	425
Internal + 1) D9648-22	240	170	130	100
Internal + 2) D9648-22	575	375	275	225
Internal + 3) D9648-22	>12 Hrs	650	475	375
Internal + 4) D9648-22	>12 Hrs	>12 Hrs	>12 Hrs	550
Internal + 5) D9648-22	>12 Hrs	>12 Hrs	>12 Hrs	>12 Hrs

Note: Run-Times are based on new fully charged batteries at 25 deg C ambient.

**Battery Life Disclaimer:** POWERVAR's standard battery warranty applies only to UPS and UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, POWERVAR's standard battery warranty does not apply for applications in which the UPS or UPM product is regularly and intentionally disconnected from AC mains power. POWERVAR UPS and UPM products used in such applications shall receive a 90 day warranty on batteries.

**Warranty/Support:** POWERVAR warrants the electronics and transformers used in its uninterruptible power supplies to be free from defects in materials and workmanship for a period of three years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment for standby use; 90 days for cyclic use. For North American service or support on any POWERVAR product, please contact POWERVAR Technical Support at (800) 369-7179 (in Illinois call (847-596-7000)). For service and support in EMEA, contact POWERVAR, Ltd. in the United Kingdom at +44 (0) 1793 553980. Or visit the POWERVAR website at [www.powervar.com](http://www.powervar.com).

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