

# LTI POWER SYSTEMS

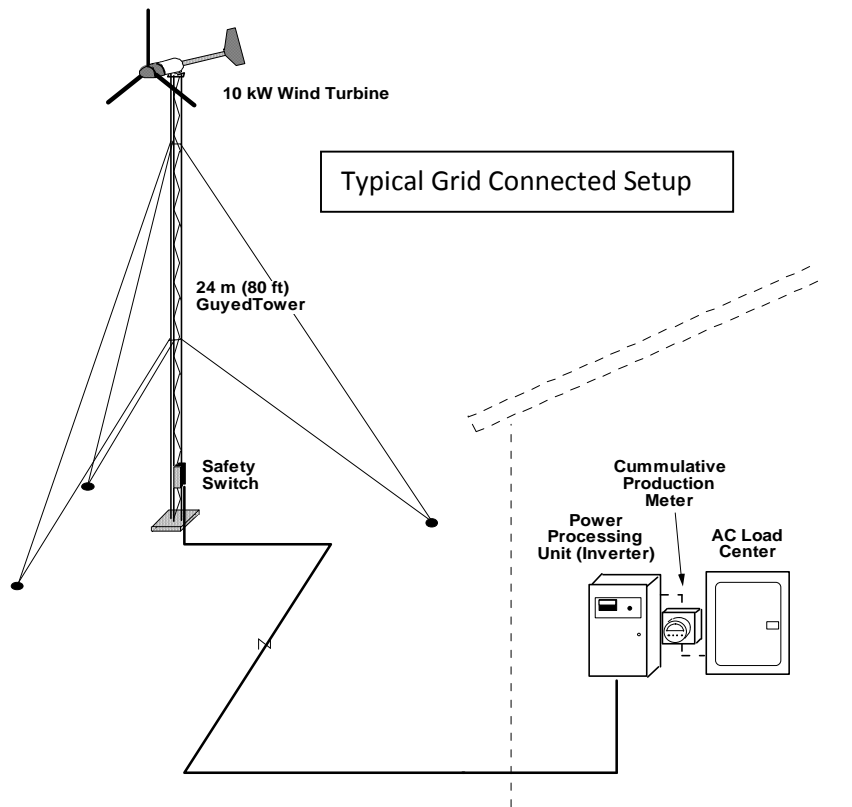
## 10kW WIND TURBINE

### PRODUCE ELECTRICITY IN YOUR OWN BACKYARD

- ✓ Reduce your electric bill
- ✓ Environmentally safe, non-polluting
- ✓ On-Grid and Off-Grid configurations
- ✓ Patented PowerFlex rotor system
- ✓ AutoFurl Automatic Storm Protection
- ✓ Monopole and Guyed Towers
- ✓ Direct Drive PM Alternator
- ✓ No Scheduled Maintenance
- ✓ 30 Year Designed life
- ✓ Rated at 10 kW
- ✓ Turnkey Installations



The BWC Excel is a rugged and reliable small wind turbine that has been proven in hundreds of installations around the world. It comes from the world's leading manufacturer of small wind turbines and is backed by the longest warranty in the industry. Whether you want to reduce electrical bills at home or power a critical load far from the power grid, LTI's Excel Turbine will deliver years of trouble-free operation.





# BWC EXCEL

## Technical Specifications

MODEL	EXCEL-S		EXCEL-R			
Rated Output Power (W)	10,000		7,500			
Configuration Voltages	240 VAC 1-PH	220 VAC 1-PH	24VDC	48VDC	120VDC	240VDC
Output Power Factor Rating	.98 - 1.0		N/A			
Nominal Output Frequency (Hz)	60	50	N/A			
Max Output Current (A)	41.6		312.5	156.3	62.5	31.3
Operating Temperature	-40°C to 60°C					
Rotor Diameter	23 ft. (7m)					
Weight	1,050 lbs (476kg)					
Swept Area	415 ft² (38.5 m²)					
Turbine Type	Upwind Rotor with AutoFurl® Overspeed Control					
Direction Of Rotation	Clockwise looking upwind					
Blades	(3) Pultruded Fiber Reinforced Plastic (FRP) with PowerFlex Passive (Fixed) Pitch System					
Rated Speed	310 rpm					
Alternator	38 Pole Permanent Magnet					
Yaw Control	Passive, except when in AutoFurl®					
Battery Charging	No			Yes		
External Interconnection Equip.	GridTek 10 IGBT Inverter			OptiCharge 10 Rectifier/Regulator		
Certification	IEEE 929, 519, UL 1741, CEC			N/A		
User Monitoring	Output Power, Turbine Speed			Charge Status, Battery Voltage		
Braking System	AutoFurl® Overspeed Control					
Start-up Wind Speed	7.5 mph (3.4 m/s)					
Cut In Wind Speed	8 mph (3.6 m/s)					
Rated Wind Speed	31 mph (13.86 m/s)					
Furling Wind Speed	35 mph (15.6 m/s)					
Survival Wind Speed	120 mph (54 m/s)					
Warranty	5 year limited warranty					

### Predicted Monthly Energy Production

#### Wind Speeds Taken at Top of Tower

Average Wind Speed	8 mph	9 mph	10 mph	11 mph	12 mph	13 mph	14 mph
Excel-S (AC kWh)	240	370	520	700	900	1,130	1,370
Excel-R (DC kWh)	340	500	680	880	1,090	1,320	1,550

#### Wind Speeds Taken at 10 meters (per standard wind resource maps)

Average Wind Speed	8 mph	9 mph	10 mph	11 mph	12 mph	13 mph	14 mph
60 ft. Excel-S	330	480	670	870	1,110	1,350	1,610
Tower Excel-R	440	620	830	1,050	1,280	1,510	1,740
80 ft. Excel-S	430	620	840	1,100	1,370	1,670	1,960
Tower Excel-R	560	780	1,030	1,290	1,550	1,820	2,060
100 ft. Excel-S	490	700	950	1,220	1,510	1,820	2,130
Tower Excel-R	630	870	1,140	1,410	1,680	1,950	2,200
120 ft. Excel-S	550	780	1,050	1,340	1,650	1,970	2,280
Tower Excel-R	700	960	1,240	1,530	1,800	2,070	2,320

Assumptions: Inland Site, Rayleigh Distribution, Shear Exponent = 0.18, Altitude = 1,000 ft.,  
 Note: Battery charge regulation (batteries full) will reduce actual Excel-R performance.  
**Your Performance May Vary.**

