Computer tape drive motors

These may well be the best, inexpensive, ready to go low rpm DC generator out there. They are surplus, from large computer tape drives. Were not sure if they still make or use these, probably not - but, there are a lot available from various electronics surplus suppliers. We try to keep these on our products page, check for current availability! They seem to come in many sizes, the larger ones usually haveing higher output. We've built and seen many very successful wind generators made from these, usually capable of 150 watts at best. They seem to be well built, have robust bearings and hold up, even with a propellor bolted right on them, for years. They are DC motors, so they do have brushes which do wear out. Some of these will generate 12 volts at less than 300 rpm! Even simply shorting out the leads makes them difficult to turn by hand (a good sign for a low rpm generator). These generators have 4 ceramic grade permanant magnets in them. Maximum current before demagnetization occurs is 24 amps. Weight, 10 lbs. +/-.

Our experience....a windmill with one of these might need taken down once every two years to replace the ball bearings and brushes. One of our neighbors built a very simple hydro system, out of a squirrel cage fan and one of these. They are also well-suited for direct connection to a small pelton or turgo wheel for hydro power, a bicycle for human power, a circular wire cage for dog or cat power...

In a battery-charging application, you will need a diode in the circuit, otherwise the battery will simply spin the motor. We sell 35-amp diodes on our products page.

Our test results from these motors appear below. Please note that these tests were approximate--the lathe we used for testing them started to bog down at about 9 amps. In our experience using these for windmills, they can produce much more current than this. The voltages given are OPEN CIRCUIT, the amperages were measured while connected to a battery bank. These motors are ideal for charging 12 volt battery banks.

RPM	Large Motor Volts	Large Motor Amps	Small Motor Volts	Small Motor Amps
80	3.0	--	3.0	--
130	5.1	--	5.0	--
200	8.0	--	8.0	--
340	13.5	2.0	13.4	--
440	18.2	4.0	18.5	6.2
780	31.0	8.5	31.5	8.0
1260	48.3	12.0	50.5	9.0

HOME	PRODUCTS	DISCUSSION BOARD	DAILY NEWS
CONSERVATION	BATTERIES	SUN	WIND
HYDRO	FOSSIL FUELS	EXPERIMENTS	ORDER NOW!
WATER PUMPING	POWER SYSTEMS	EFFICIENT LIGHTING	LINKS

mailto:info@otherpower.com