

### 12V and 24V Remote-Control Ceiling Fans

This is a 42" four-blade ceiling fan with tan or white painted wood blades and a bright brass housing. The 3-speed reversible motor is controlled by infrared remote control and draws 1.2 amps (on 12V models) at high speed, .75 amp at medium speed and .5 amp at low speed. This fan is designed for surface mounting on a flat ceiling. An 8" swivel pendant mount for pitched ceilings is available as an option. They are available for 12- or 24-volt DC operation. CSA/UL approved.



Description	Item code	Price
12-volt ceiling fan 12V 42" white / brass w/ remote	85.7214	\$120
12-volt ceiling fan 12V 42" tan / brass w/ remote	85.7216	\$120
24-volt ceiling fan 12V 42" tan / brass w/ remote	85.7419	\$120
24-volt ceiling fan 12V 42" white / brass w/ remote	85.7418	\$120
Ceiling fan hanging kit - 8"	85.7425	\$20

### 12V Freedom Fan 124-C



The two-speed Freedom Fan is quiet and efficient. Built in the USA by the Amish, this rugged fan uses only 1.25 amps at low speed and 3 amps at high speed. It has a 12" fan blade protected by a durable plastic housing. Place it on a table and tilt to any angle, or mount it on the wall. Comes with battery clips.

Description	Item code	Price
12-volt 12" Freedom Fan 124-C	85.8232	\$156

### RCH Fanworks 42" Vari-Fan



The Vari-Fan can be operated at 12 or 24 VDC. At 24 volts, it moves more air. The Vari-Fan comes with a matte black finish, but it can be easily painted.

The main body parts (the black parts) of the Vari-Fan are made from injection molded ABS plastic insuring a lightweight, very durable fan that will stand up to a variety of environments from extreme heat and cold and high humidity to very dry. The Vari-Fan will not corrode, dent, or show minor scratches. The Vari-Fan is a dual mount ceiling fan – close mount or down rod, 4 or 5 blade fan – it's your choice. Everything you need comes in the box with the fan; how you mount it is your decision. Blades are light oak on one side and dark oak on the other side.

### RCH Fanworks Vari-Cyclone



The Vari-Cyclone is a high efficiency version of the already very efficient Vari-Fan line of DC powered ceiling fans. The Vari-Cyclone's 60" fan blades, designed

by the Florida Solar Energy Center in cooperation with a major fan manufacturer, utilize Gossamer Wind Technology, previously found only in AC powered ceiling fans. In tests conducted by the Florida Solar Energy Center, the 3-blade Vari-Cyclone showed a 22.8% increase in cubic feet per minute (CFM) over the 5-blade, 42" Vari-Fan. 12- or 24-volt operation.

#### Fan Speed Controls

If you are using a Fanworks fan on 12 volts, you can increase air movement and power consumption with the 85.9169 control, which takes 12 volts and steps it up to 24 volts. The 24-volt input control is for use on 24-volt battery systems. Maximum 1.5 amps.

Description	Item code	Price
RCH Fanworks 42" Vari-Fan 12/24 volt ceiling fan	85.7445	\$140
RCH Fanworks 3-blade 60" Vari-Cyclone white painted	85.7453	\$225
RCH Fanworks 3-blade 60" Vari-Cyclone unpainted	85.7456	\$210
Fan speed control 12V in / 0-24V out with reverse switch	85.9169	\$93
Fan speed control 24V in / 0-24V out with reverse switch	85.9170	\$45

### Solar Fan Info

Fans are nearly ideal solar powered loads. They can run directly off DC (as with all of the following products). Solar powered fans run when they are most needed, when the sun is shining. During summer months, your attic temperatures can reach 150°F. High temperatures cause an increase in temperature in the living space and an increase in energy consumption by air conditioning equipment. Forced ventilation will circulate cooler air through the attic space and lower the temperature. Fan and solar module combinations allow daytime ventilation and air circulation anywhere the sun shines. They are great for greenhouses, kennels, barns and attics where AC power is not available. The solar module runs the fan at full power in full sun and at a slower speed in overcast weather. Operation is automatic. When the sun shines on the solar module, the fan begins to operate. The 12" and 16" solar fan kits include fan, solar module and 20 feet of two-conductor wire.

### Natural Light Solar Attic Fan

The solar attic fan from Natural Light is a simple and environmentally sensible solution that can save you money. Powered completely by free solar energy, this sleek and efficient vent is both compact and quiet. Fully operational right from the box, it installs easily, with no electrical wiring, no expensive electrician and no city permits. And let's not forget powerful! Operating at a whopping 850 CFM, a single unit can fully vent up to 1200 square feet. Place it wherever you need improved circulation; attics, lofts, workshops, storage sheds, garages, even barns. These attic fans are available with a flush mount solar modules or with a tiltable mount solar module. 5-year warranty.



Description	Item code	Price
Solar attic fan with adjustable module	85.7077	\$459

### DC Powered Venturi Fans



These fans have a 3-wing blade mounted in a square steel ring frame style venturi for easy mounting. They can be used on existing battery systems or with other module combinations with up to 30 VDC. The 12" fan fits between 16" on-center studs and delivers approximately 500 CFM at 12 volts and 1200 CFM at 24 volts. The 16" fan fits

between 24" on-center studs and delivers 750 CFM at 12 volts and 1800 CFM at 24 volts. 1-year warranty.

Blade diameter	Frame dimensions	Amps (12VDC)	Amps (24VDC)	Weight lbs	Item code	Price
12"	15" x 15"	0.7	2	14	85.9112	\$155
16"	20" x 20"	0.9	2.4	16	85.9116	\$170

### Solar Fan Kit

These solar fans include our venturi fan below, a 20-watt solar module with a 20' cord and mounting hardware. The 12" fan will deliver up to 800 CFM, and the 16" fan will deliver up to 1300 CFM when the module is in full sun. The reversible, ball bearing PM motor allows the fan to be used for intake or exhaust by reversing the wire at the motor. 2-year warranty.



Description	Item code	Price
Solar fan kit w/12" fan and 20-watt module	85.9113	\$275
Solar fan kit w/16" fan and 20-watt module	85.9117	\$290

## Solar Chill DC Powered Evaporative Coolers

The Solar Chill solar powered evaporative cooling system is available in five sizes and 2 DC voltages (12, and 24 volts DC). The rust-proof housings are built of 304 stainless steel, and use a 6" thick fluted pad as the wet cooling media. This pad is the most efficient evaporative cooling media in the world, and it will last five years with minimal maintenance. SOLAR CHILLS use only 25 to 130 watts! Only 80 Watts for 4500 cubic feet per minute (CFM). Use the 24" or 2-20" if the cooler will be connected to duct work. Optional rheostats may be used to slow fan speed. Optional Control Packages with cleanout pumps are available.

For array direct operation evaporative coolers, use an array with at least the recommended watts and choose a Linear Current Booster on page 151 with the correct amp and voltage rating.

Model	Nominal voltage	Dimensions H" x L" x W"	Fan diameter	Current amps	Recommended PV watts	Air flow (CFM)	Weight lbs	Item code	Price
1412HP	12	18.5 x 19 x 17	14"	3	45 - 65	900	36	<b>85.6606</b>	<b>\$695</b>
1812HP	12	26 X 21.5 X 24	20"	4.4	85 - 130	2400	56	<b>85.6609</b>	<b>\$789</b>
2412HP	12	35.5 X 22 X 36	24"	6.7	110 - 180	4500	110	<b>85.6611</b>	<b>\$1,047</b>
1424HP	24	18.5 x 19 x 17	14"	1.5	45 - 65	1100	36	<b>85.6623</b>	<b>\$759</b>
1824HP	24	26 X 21.5 X 24	20"	2.9	85 - 130	2500	56	<b>85.6626</b>	<b>\$829</b>



### Solar Chill Accessories

Cooler leg kit - galvanized roof mount	<b>85.6662</b>	<b>\$30</b>
Replacement pump - 12 volt	<b>85.6664</b>	<b>\$24</b>
Replacement pump - 24 volt	<b>85.6666</b>	<b>\$33</b>
Evaporative cooler thermostat	<b>85.6668</b>	<b>\$28</b>
5 Minute mechanical timer for cleanout pump	<b>85.6670</b>	<b>\$25</b>
Control box - 6" x 9" x 2.25"	<b>85.6672</b>	<b>\$45</b>
Control pkg - cleanout pump, thermostat, switches, cleanout timer in stainless steel box - 12V	<b>85.6674</b>	<b>\$129</b>
Control pkg - cleanout pump, thermostat, switches, cleanout timer in stainless steel box - 24V	<b>85.6676</b>	<b>\$139</b>
On/off switch for Solar Chill coolers - rated at 15 amps	<b>85.6684</b>	<b>\$10</b>
Variable speed rheostat - 2.5 amp, use with 1224HP and 1624HP	<b>85.6691</b>	<b>\$55</b>
Variable speed rheostat - 3.5 amp, use with 1212HP and 2024HP	<b>85.6694</b>	<b>\$60</b>
Variable speed rheostat - 4.7 amp, use with 2012HP	<b>85.6695</b>	<b>\$69</b>
Variable speed rheostat - 7.0 amp, use with 2412HP and 2-2024HP	<b>85.6697</b>	<b>\$75</b>
Knob for rheostat	<b>85.6699</b>	<b>\$5</b>
Diffuser grill 14 inch	<b>85.6705</b>	<b>\$55</b>
Diffuser grill 24 inch	<b>85.6709</b>	<b>\$80</b>

## Thermostats

These thermostats can switch up to 22 amps at 120 VAC and they work fine for up to 10 amps at 12 or 24 VDC. Use them with DC fans to turn the fans on or off as temperature changes. They mount in a standard 2" x 4" electrical box. The attic fan thermostat has single pole contacts that close (turn fan on) as temperature rises. Its adjustment range is 90°F to 130°F. When the thermostat reaches the turn-on temperature, it must fall by 15°F before it will turn off. The heat/cool thermostat has double throw contacts, so it can be used to turn a fan on as the temperature rises or as it falls, depending on how it is wired. Its range is 50°F to 90°F and its differential is 2°F.

Description	Range	Item code	Price
Attic fan thermostat	90°F to 130°F	<b>85.8036</b>	<b>\$35</b>
Heating and cooling thermostat	50°F to 90°F	<b>85.8032</b>	<b>\$30</b>

