

The Best Fans for EV Charging Stations

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High-reliability 2-Ball DC Fans for EV Charging Stations

- Up to ~230 CFM, high static pressure
- Wide temp range -10 to 70°C
- 70,000-hour life (2-ball bearing)
- Custom PWM control + FG tach output
- UL Class A, RoHS, IP52/IP56

Target Applications

Outdoor and indoor EV chargers (AC/DC cabinets, DC fast chargers, wallboxes, control and communication bays).

Challenge & Sunon Solution

EV chargers pack dense power electronics into compact space exposed to heat, dust, moisture, and vibration; failure in the cooling path drive costly field service and downtime. Sunon PF & GF DC fans combine high airflow, long life, environmental protection, and PWM control to keep modules and control boards within safe temperatures in demanding EV charging environments.

Key Benefits

- **High airflow and pressure:** Delivers strong cooling performance in tight cabinets, helping protect high-value power electronics and support higher charging power levels.
- **Long-life reliability:** Precision ball-bearing system and 70,000-hour life rating at 40 °C and 15–65% RH help reduce unplanned fan replacements in the field.
- **Harsh-environment performance:** Operating range -10 to 70 °C and 5–90% RH, with IP56 or IP68 protection on selected models for dust and water ingress resistance.
- **Smart control and monitoring:** Integrated PWM speed control plus FG/RD tach signals (model-dependent) support temperature-based speed curves and fan-fail alarms.
- **Compliance ready:** UL Class A insulation and RoHS/REACH conformity simplify system safety and environmental approvals.

Promoted models

GF8038, PF8038, PFC0381, PFC0382

Recommended 2-Ball DC Fan models for EV charging stations

Model	Size (mm)	Rated Voltage	Airflow (cfm)	Static Pressure (inch-H ₂ O)	Noise (dBA)	Ip Rating	Speed (rpm)	Bearing
GF80381B1-Q14U-QE9	80×80×38	12	112.2	2.03	67.4	IP68	11,200	2 Ball
PF80381B1-1Q054-S99	80×80×38	12	110.0	2.08	63.9	-	11,200	2 Ball
PFC0381BX-1Q60U-SC9	120×120×38	12	232.3	1.14	63.5	IP56	6,000	2 Ball
PFC0382BX-1Q48U-SLP	120×120×38	24	233.7	1.16	62.4	IP52	6,000	2 Ball

*All models feature 70,000 hour life

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