WATTCHOP HARDWARE

WattChop | DRIVE

DRIVE CONTROLLER

The WattChop Drive Controller drives your battery on site. A revenue-grade meter, an industrial controller and the WattChop Drive software in one enclosure, one per battery. Two versions: with backup power for sites that need to ride through outages, and without.

INCLUDED SERVICE

WattChop Drive · Flight Recorder built in (add the Flight Recorder SLA for the 10-year warranty record)

DRIVES, EVERY SECOND.

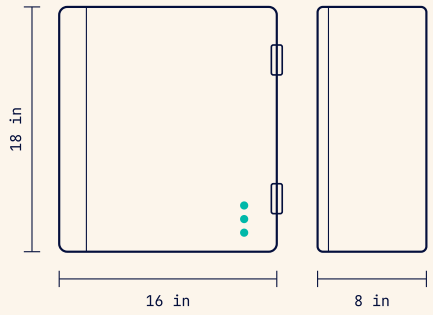
Reads the meter, the battery and your rate every second and sets the battery's power to save the most it can.

RESPECTS THE HARDWARE.

Reads the battery's own limits every cycle, stands down when the battery says no, and recovers nuisance trips on its own.

RIDES THROUGH OUTAGES (BACKUP VERSION)

Built-in UPS keeps the controller running through a grid outage, so Drive can manage the battery's backup where the battery supports grid-forming.



VERSIONS

- Drive Controller with Backup
- Drive Controller (no UPS)

METERING

Meter	Revenue-grade, 30 channels
Accuracy	ANSI C12.20, 0.5%
Measurements	V, A, W, Wh, Hz, VA, VAr, THD
AC voltage	85–277 V L-N
CT sizes	50–2,775 A

CONTROL AND CONNECTIVITY

Controller	Industrial fanless controller, quad-core 64-bit ARM, 2.4 GHz
Memory / storage	4 GB · 32 GB eMMC flash
Security	TPM 2.0 · secure boot · hardware watchdog
Control loop	1-second
Battery interface	Modbus TCP and RTU
Serial	2 × isolated RS-485 or CAN-FD (per port)
Ethernet	1 × 1 GbE + 1 × 100 Mb on the controller, plus 16-port switch in the enclosure
Cellular	4G LTE Cat-4 modem built in. Cellular data plan optional.
Data connection	Ethernet, provided by others, unless the cellular data plan is added

ENCLOSURE AND POWER

Enclosure	Fiberglass, 18 × 16 × 8 in
Ratings	NEMA 1, 3R, 4, 4X, 12 · UL 508A
AC input	110–277 VAC · L1/L2/L3/N · delta kit available
Backup power	Integrated UPS (Backup version only)