

The Elco Electric Propulsion System: Specifications & System Components:

27 ELECTRIC

STANDARD EQUIPMENT

10 HP ELCO AC ELECTRIC ENGINE
(6) 12V ZERO MAINTENANCE
AGM BATTERIES (214 AMP HOURS)

ENERGY PACKAGE OPTION

WIND GENERATOR
T-TOP W/SOLAR PANELS (3) AND CANVAS

27e



ElectroMaax
OPTIMUM CHARGING SOLUTIONS

Elco Motor Yachts is pleased to announce it has teamed up with Hunter Marine Corporation to produce and market the Hunter 27 sail boat with electric propulsion.

The diesel engine has been substituted with the Elco EP-1000, an electric engine that offers the same amount of thrust as the H-27's normal 14hp diesel engine. The electric engine offers the advantages of being truly "green" in that it does not emit any "emissions, noise, vibrations, heat, or fumes" as it operates solely on battery power.



HUNTER 27e

The Elco Electric Propulsion System: Specifications & System Components:

Three models designed to provide electric propulsion to a range of boat types and sizes.

EP-300

Rated power: 3 shaft HP, continuous.

Input power: 36 VDC, max current 80 amps

Speed Range RPM: 0-2,100 RPM, FWD & REV, at full torque.

Motor: Totally enclosed fan cooled 3-phase AC motor.

EP-600

Rated power: 6 shaft HP, continuous.

Input power: 72 VDC, max current 83 amps.

Speed range RPM: 0-2,100 RPM, FWD & REV, at full torque.

Motor: Totally enclosed fan cooled 3-phase AC motor.

EP-1000: Installed in the Hunter 27e

Rated power: 10 shaft HP, continuous.

Input power: 72 VDC, max current 138 amps.

Speed range RPM: 0-2,100 RPM, FWD & REV, at full torque.

Motor: Totally enclosed fan cooled 3-phase AC motor.

Built Right

Construction: The Elco electric propulsion system is built of heavy gauge marine grade aluminum frame and enclosure that contains all of the electronic and mechanical power equipment with the exception of batteries and battery chargers. This enclosure is physically designed as a drop in replacement for typical marine diesel engines such as a Yanmar, Volvo, or Westerbeke. The enclosure is also serves the purpose of providing environmental protection as well as cooling for the power electronics and motor.

Motor: The Elco electric motor is a totally enclosed 3-phase AC motor that provides extreme reliability and efficiency with only one moving part (the rotor) mounted on two permanently sealed deep grooved ball bearings. The motor is splash proof and can sustain submersion for a limited period of time while still operational.

Sized Right: All the Elco electric propulsion systems are smaller and lighter than diesel motors they replace and are easily mounted in the same location and manner as the diesel motor would be.

Intuitive Instrument Panel

Key switch: Standard marine grade type on/off.

Indicator lamp: Comes on only if the internal electronics are on.

Energy Gauge: Primarily tells the amount of charge in the batteries and the run time available for a given throttle setting. This is shown by an analogue "gas gauge" with the run time available shown below in hours and minutes, digitally. Two additional gauges show motor RPM and DC amps in both analogue and digital format.

Power Boost Button: This is a press to activate spring return button, that when operating the boat at full throttle forward, will give a power boost to the motor output up to 50% for emergency situations. This allows the skipper to have extra power at his or her discretion when needed for safety, albeit at the cost of temporary higher battery drain.

Throttle: This is a sealed assembly that provides a smooth variable forward-neutral-reverse speed control of the system with no hesitation required in going from FWD to REV to FWD.

Safety Features Built In

Key Switch: If the system is turned on with the key switch and the throttle is not in the neutral position or some other fault is present, the system will not operate, a red light will flash and the energy gauge panel will identify what the fault is. Also, the system has built-in overload sensing that prevents electrical damage to the system if a grounding occurs, allowing the system to resume operation once the boat is again afloat.

ELCO MOTOR



THROTTLE CONTROL



DASHBOARD



WIND & SOLAR



SHORE POWER CONNECTION



PROP & SHAFT



BATTERY CHARGER



GENERATOR



MOTOR CONTROLLER

