

Electric Inboard Drive Systems

The Triton 22 is a 96 V system designed for up to 10 - 12 hours of daily use. The system uses a synchronous permanent magnet AC motor attached to a stainless steel mounting console which is regulated by a digital motor controller.

CHARACTERISTICS

Increased reliability

An electric motor starts every time.

Power immediately available

There is no need for pre-heating. The power is immediately available.

Low weight:

The weight of the electric system is low compared to a combustion engine. Batteries may be distributed for better weight optimization.

Low maintenance costs:

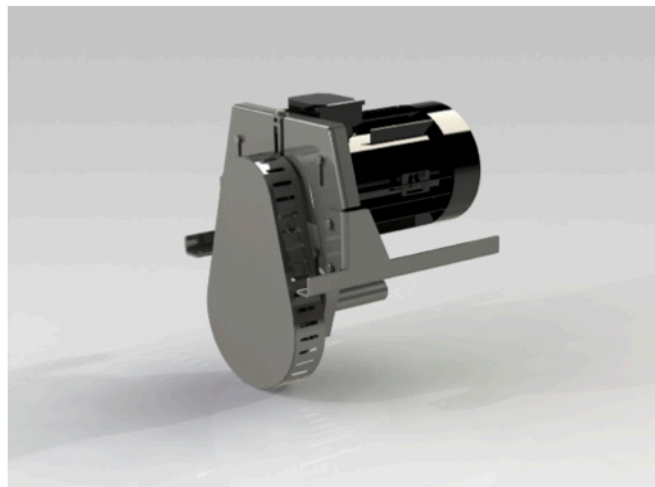
There is only one part of the system that requires maintenance and that is the gear belt.

Easy installation:

With the low weight of the motor, gearing and motor controller, the system is designed for easy installation.



22 kW Continuous Power
Replaces a 60 - 80hp combustion engine



RECOMMENDED USE

The Triton 22 is engineered for displacement boats 50 - 70 feet.

SECURITY AND COMFORT

An electric motor starts every time - just turn the key, adjust the throttle and GO. With our electric motor, the power kicks in immediately, making harbor maneuvering easier and more accurate.

The system is virtually silent and allows people on deck to speak with each other while maneuvering in harbors, making time onboard enjoyable, safer and relaxing.

The low weight of the electric motor solution also improves the maneuvering abilities of the boat since the heaviest part of the system (the batteries) can be moved to the keel where weight is best optimized.

ENVIRONMENT AND COMFORT

Not only does an electric motor solution free the harbor and sea from oil spills, it also frees you from the smell of diesel and exhaust fumes. This provides for a clean engine room, making the onboard environment more pleasant.

INSTALLATION

Due to the motor and gearing consoles' low weight, the motor is easy to align without the need for heavy tools.

The motor controller is designed for ease of installation. Throttle, key-lock, charger, battery monitor and DC-DC converter can be connected by "plug and sail".

MAINTENANCE

The cost of maintenance is very low, as only the gearbelt need to be maintained. The gear belt has a life time of 4000 hours and is easy to replace.

FUNCTIONALITY & EFFICIENCY

The electric AC motor has a rotating magnetic field (stator) and a rotating magnetic field (rotor) that either attract or repel each other, thereby creating rotation.

An "ordinary" AC motor has a standard rotor which only has high efficiency when close to full output. The permanent magnets in the rotor for the Triton 22 make the motor extremely powerful and highly efficient at low rpm's. The frequency of the rpm's are regulated by the motor controller.

POWER CHARACTERISTICS

An internal combustion engine idles at 700-800 rpm and must turn the shaft at 1500- 2000 rpm to create enough torque to drive the boat forward. Since our electric system does not idle, it provides full torque at any speed when it runs at full current and provides the high torque needed for acceleration. The highest amount of power consumption is used to accelerate the boat up to the desired speed, after which the power consumption will drop significantly. These characteristics highlight how an electric motor solution is a feasible and efficient alternative to a combustion engine.

REGENERATION: CHARGING BATTERIES WHILE SAILING

The Triton 22 has a built in regenerative function (RG).

By RG, the motor works as a generator and sends a positive charge to the battery bank, while the boat is driven by wind/sails. The charging power that is achieved through regeneration is supplemental, much as you receive from wind or solar charging. The effectiveness of the RG function depends on the variables of hull structure, size and placement of the propeller, and the boat speed under sail in relation to the motoring top speed.

For more information on regeneration for your particular boat please speak with your Clean eMarine representative.

Triton 22



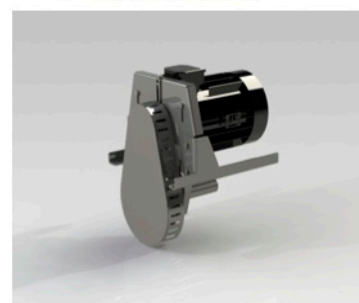
CUSTOMER SERVICE

A standard design proposal for the your specific boat is always included, at no extra charge, as part of our service to each owner.

Technical data

| | |
|---|--|
| Motor type: | LSRPM I32M - C eMarine special version |
| Voltage | 60 V AC-powered by 96V battery system |
| Current: | --- Amps (limited by motor controller) |
| Power output: | 22 KW |
| Average efficiency: | 94% |
| Battery recharge function: | Yes |
| Rated speed engine: | 3.000 rpm |
| Rated torque engine: | 72 Nm |
| Speed constant: | 45 rpm/V |
| Peak current: | --- Amps |
| Peak Power: | 34 KW |
| Peak torque: | 110 NM |
| Reduction: | AM D/03 |
| Standard gearing: | 30:72 wheel combination |
| Gear Belt: | 880 8M50 |
| Standard Rpm propeller shaft: | 1250 Rpm |
| Option Rpm propeller shaft: | 1000 Rpm |
| Option Rpm propeller shaft: | 800 Rpm |
| Weight of motor, console and standard gearing | 75 kilo |
| Total weight of Triton 22 system: | 95 kilo |
| Recommended boat size: | 50-70 feet |

Triton 22



Motor, included console with reduction and mounting rails.



Motor Controller



Key Switch

Additional Components



DUAL OR SINGLE THROTTLE



BATTERY MONITOR