SIDE-POWER
Thruster systems

Product Specifications SP 55 Si IP

Description

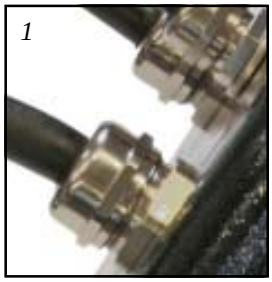
Typical boat size:	29 - 38 foot
Tunnel inside diameter:	185 mm / 7.3“
Propulsion system:	Single 4bl composite
Available for DC system:	12V or 24V
Weight:	17kg /37.5 lbs.

Ignition Protected Features:

- Certified and individually tested to ISO 8846 Igniton Protected standards
- Water Proof (not for fully submerged mounting due to corrosion of metal parts)
- Stainless cable seals
- Secondary overheat switch secures general temperature in housing
- Rugged plastic housing in V0 self extinguishing material
- Supplied with 100 cm/39.4 in main power cables and bulkhead mount terminals for easy and safe hook up of power supply
- Supplied with 10 m/32.8 ft control cable with connector for connection outside or ignition protection area

1. Robust stainless cable seals ensures troublefree electrical connections

2. Ignition protected housing still retains serviceability for internal components



Gearleg:

- Seawater resistant bronce, CNC machined in one process to ensure 100% correct tolerances, angles and measurements.
- Oil filled with header tank and breathing to ensure long lifetime and no contamination of oil
- Marine grade seals with protective lip and mechanically protected by special propeller hub design.
- Lifetime lubricated with special gear-oil.
- Hardened and ground precision spiro-conical gears.
- Propeller shaft with double ball bearings fitted in correct tolerances.
- Driveshaft with ball bearing and special sleeve bearing in correct tolerances.
- Connection between motor and driveshaft by shear-pin, changable from inside the boat.
- Symmetrical 4 bladed composite kaplan propeller.
- Zinc anode protection directly on gearleg, easy to access and change.

Performance and specifications at one tunnel diameter depth * :

	at 10,5V / 21V	**at 12,0V / 24V**
Thrust	57 kg / 125 lbs.	67 kg / 147 lbs.
Output power	3.1 kW / 4 Hp	3.6 kW / 4,7 Hp
Average current draw	320 A / 150A	355 A / 175A
Continous run time (20^{0}C)	3 min.	2 min 40 sec
Approx. long term run time	12% of time	8% of time
Minimum battery CCA rating	300/150 by DIN or 550/225 by BCI/SAE	
Sidepower fuse size:	ANL250/ ANL	

Notes !

* Actual performances, current consumption etc. will vary for each installation depending on many factors. Spesifications here given at one tunnel diameter depth and with voltage at thruster as shown. If you install deeper the thrust will be more as well as the current consumption, and the running time will be reduced. Electromotors power and afficiency tolerances are +/- 6%.

*Thrusters are not only helpful for large yachts, typically a light weight boat with a single out-board or stern-drive are even more difficult and stressful to handle in tight spots than larger yachts that are less effected by the wind. With its outstanding performance, excellent energy efficiency and very compact installation size, the **SP 55 Si IP** includes all the important and unique **Side-***

Easy and safe to install:

- *Pre-fitted main power cables and termination terminals to fasten on a bulkead nearby is included. Provides safe and easy power connection.*
- *Plug and go control wiring.*
- *Fast, easy and safe fitting of propeller with lock-nut as opposed to difficult and un-reliable set-screw fastening.*
- *Self aligning drilling template available for OEM customers.*

Intelligent POWER CONTROL

SIDE-POWER
Thruster systems

Product Specifications SP 55 Si IP

Measurements ref. mm / inch	SP55 Si IP
A	265mm / 10,43"
B	256mm / 10,08"
C	150mm / 5,91"
D	337mm / 13,3"
E	ø300mm / 11,8"
F	ø200mm / 7,84"
G	6x ø9,0mm / 0,35"
H	ø129mm / 5,08"
Inside tunnel dia.	185mm / 7,28"
Max. stern thickness	35mm / 1,38"
Motor output	3,1 KW / 4 HP
Voltage	12 / 24 Volt

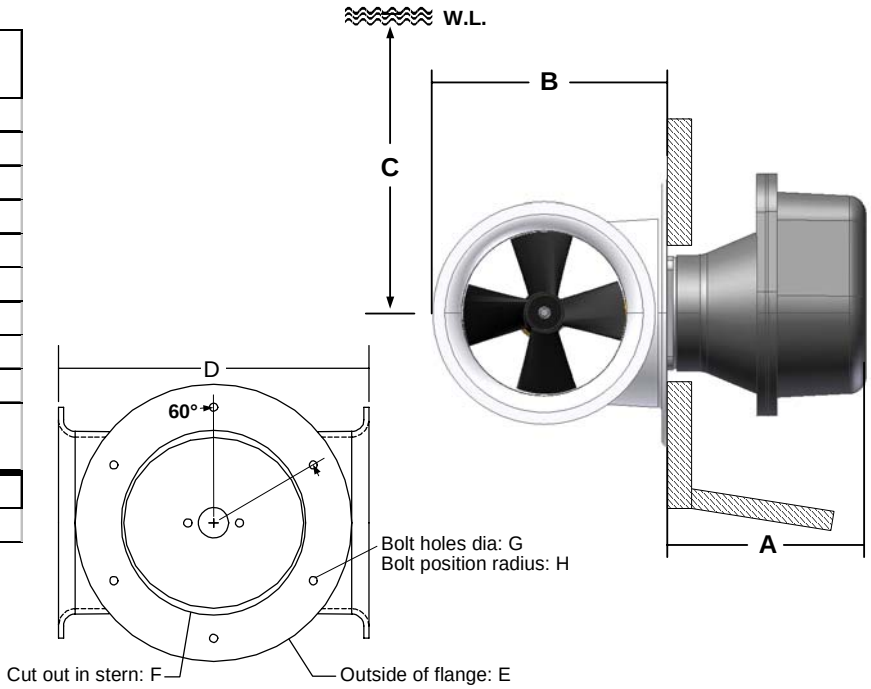


Table for selection of main cable, battery, fuse and main-switch sizes.			up to 7m total + & -		8 - 11m total + & -		12 - 15m total + & -		16 - 19m total + & -		20 - 23m total + & -		24 - 27m total + & -	
Model	**Voltage**	**Current draw**	**Min. Cable dimension**	**Min.Battery CCA by DIN**	**Min. Cable dimension**	**Min.Battery CCA by Din**	**Min. Cable dimension**	**Min.Battery CCA by DIN**	**Min. Cable dimension**	**Min.Battery CCA by Din**	**Min. Cable dimension**	**Min.Battery CCA by DIN**	**Min. Cable dimension**	**Min.Battery CCA by Din**
SP 55 Si IP	**12 V**	330 A	35 mm2 AWG 1	350 CCA Din	60 mm2 AWG 2/O	350 CCA Din	95 mm2 AWG 3/O	350 CCA Din	95 mm2 AWG 4/O	400 CCA Din	120 mm2 AWG 4/0	400 CCA Din	120 mm2 2 x AWG 3/0	400 CCA Din
	24 V	160 A	25 mm2 AWG 4	200 CCA Din	25 mm2 AWG 4	200 CCA Din	35 mm2 AWG 2	200 CCA Din	35 mm2 AWG 2	250 CCA Din	50 mm2 AWG 1	200 CCA Din	50 mm2 AWG 1	200 CCA Din

Safety features on thruster (see seperate sheet for control panels):

- Forced shut-down by overheat sensor in motor
- All internal leads with extra insulation of webbed silicon increase resistance to heat and mechanical wear. Connectors have positive locking so that you have to pull by the insulator to release, can not be pulled off by the wires or loosen by themselves. Self extinguishing solenoid cover.
- IPC Standard electronic control box for protection against:
  - direct drive direction change
  - unique, patented protection of solenoid from extra wear and damages in low voltage situations for example caused by drained or damaged batteries as well as “auto-stop” without the need for the skipper to shut down the main switch immidiately to stop the thruster in case of a solenoid lock-in *
  - auto-stop if control signal is continous for more than 3 minutes to protect against potential short circuit in control cables.

Notes !

* New patented safety features in the thruster controlbox will be available in 2005 model year units.

This document may contain typographical errors, to which Sleipner Motor assumes no responsibility.

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