

POWER & CONTROL

# OPTIMUS EPS 5000 SERIES

Electronic Power Steering (EPS) system suitable for vessels requiring RINA classification.

**ACTIVE SENSITIVITY**  
ADAPTIVE STEERING

**FULL REDUNDANCY**  
FOR SAFE OPERATION

**CLASS CERTIFICATION**  
RINA



Mobile living made easy.

 **DOMETIC**

# FOR RINA CLASS VESSELS LESS THAN 500 GROSS TONNES.



The class certified Optimus EPS 5000 series system meets RINA's stringent "fit for purpose" safety standard.

With RINA type approval this class certified system is ready to install out of the box, simplifying vessel inspection and the final sign off process.

The incredible feel you get when you're behind the wheel of a boat equipped with Optimus EPS is the result of an innovative array of technology and engineering. Each component has been designed to complement the other, resulting in a seamless experience of steering control in virtually every situation on the water. The high level of engineering also extends to the reliability of the system, with quality materials, careful manufacturing and redundant systems, all to stand up to the rigors of life on the water.

As the captain of your vessel you know how important it is to have command of your yacht. Optimus EPS gives you the steering control, performance and comfort you expect. With Optimus EPS, you can take command of your yacht without having to arm-wrestle for control.

## SPECIFICATIONS

### ENVIRONMENTAL

Operating temperature: -18°C to +77°C [ISO 25197]

Storage temperature: -40°C to +85°C [ISO 25197]

Corrosion resistance: 300 hours salt spray [ASTM B117]

Water ingress protection: IPX7 [IEC 60529]

Random vibration: 0.0284 g<sup>2</sup>/Hz [ABYC P-28]

Resonant vibration: 4 G zero-peak, 20-2000 Hz [ABYC P-28]

Mechanical shock: 50 G, 11 m-sec half-sine shape [ISO 25197]

Ignition protection: SAEJ-1171

Meets EN60945 electro-magnetic compatibility requirement



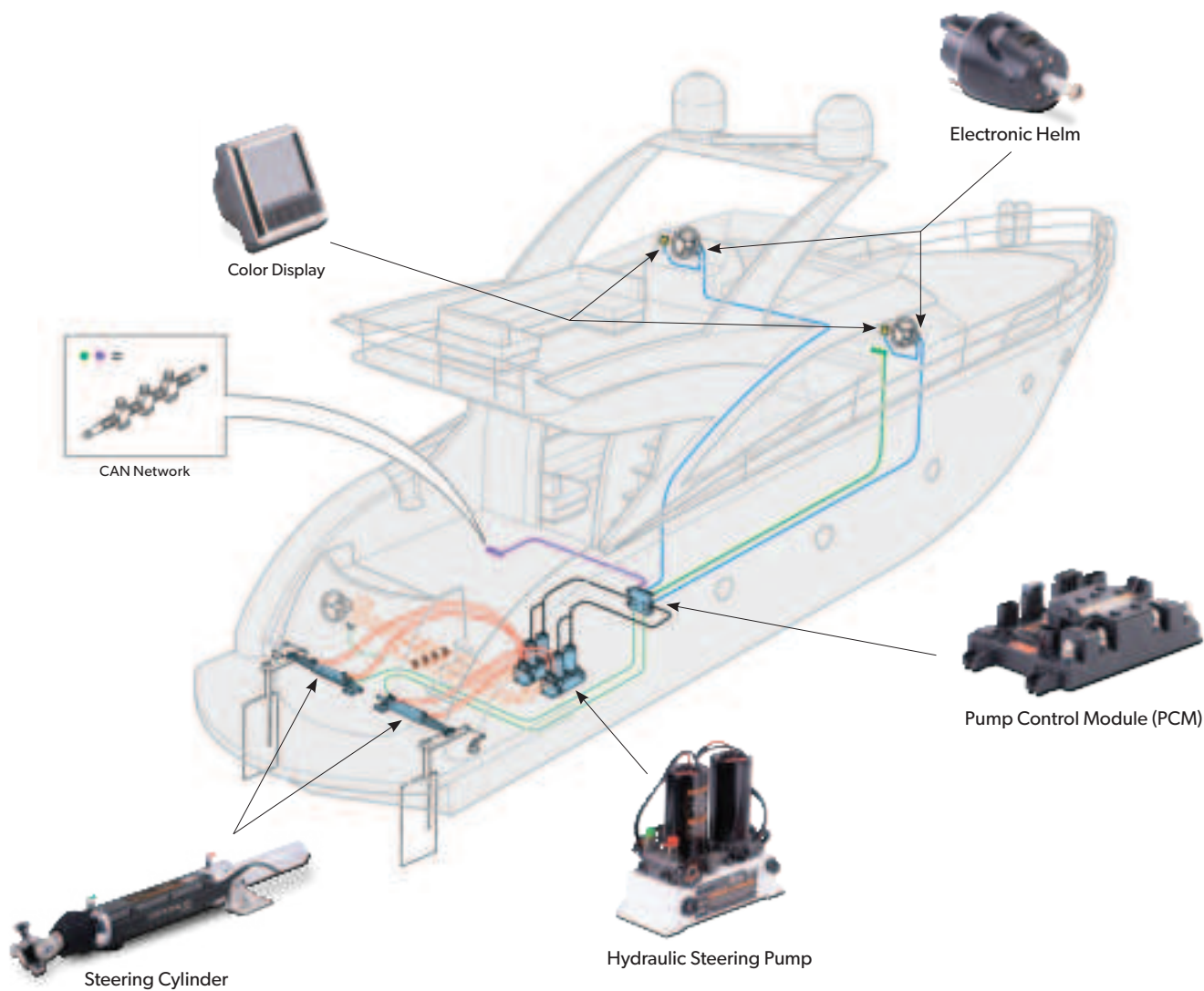
## FEATURES

- Up to three helm stations
- Automatic battery management with sensing, warnings & best battery selection
- On demand hydraulic steering pump minimizes power consumption
- No oil at the helm
- Rugged electronics for 24 VDC applications
- Color dash display showing rudder command and rudder position graphic
- Displays system health
- Display provides system setup interface
- Communicates faults and any special handling instructions to the operator
- Simple software updating via USB port
- Programmable number of turns lock to lock with speed
- Auto-adjusting steering end stops and resistance with speed
- Dual redundant position sensing on all moving components
- Helm offers both 3/4" taper or 1" straight shaft options
- Utilizes fault tolerant CAN network
- Full autopilot CANbus connectivity and integration
  - No additional pumps or sensors required
- Adjustable with speed, maximum rudder angle to 70 degrees
- Rudder toe in or out up to 5° auto adjusts with speed
- Position proportional rudder gain for faster steering response near neutral rudder position
- RPM input: NMEA 2000, J1939 or analog pulse compatible
- Pump features an integrated service/bypass valve for manual rudder centering
- Meets or exceeds ABYC, ISO and SAE electrical and environmental requirements

# A HIGHER LEVEL OF ENGINEERING SOPHISTICATION.



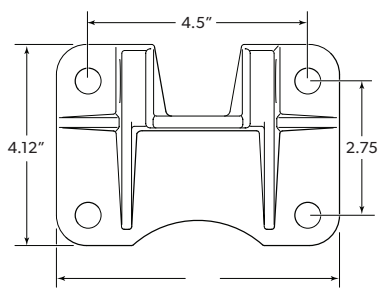
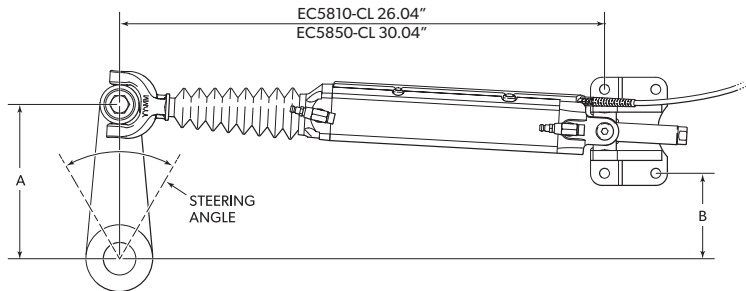
## SYSTEM COMPONENTS



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## TECHNICAL DATA



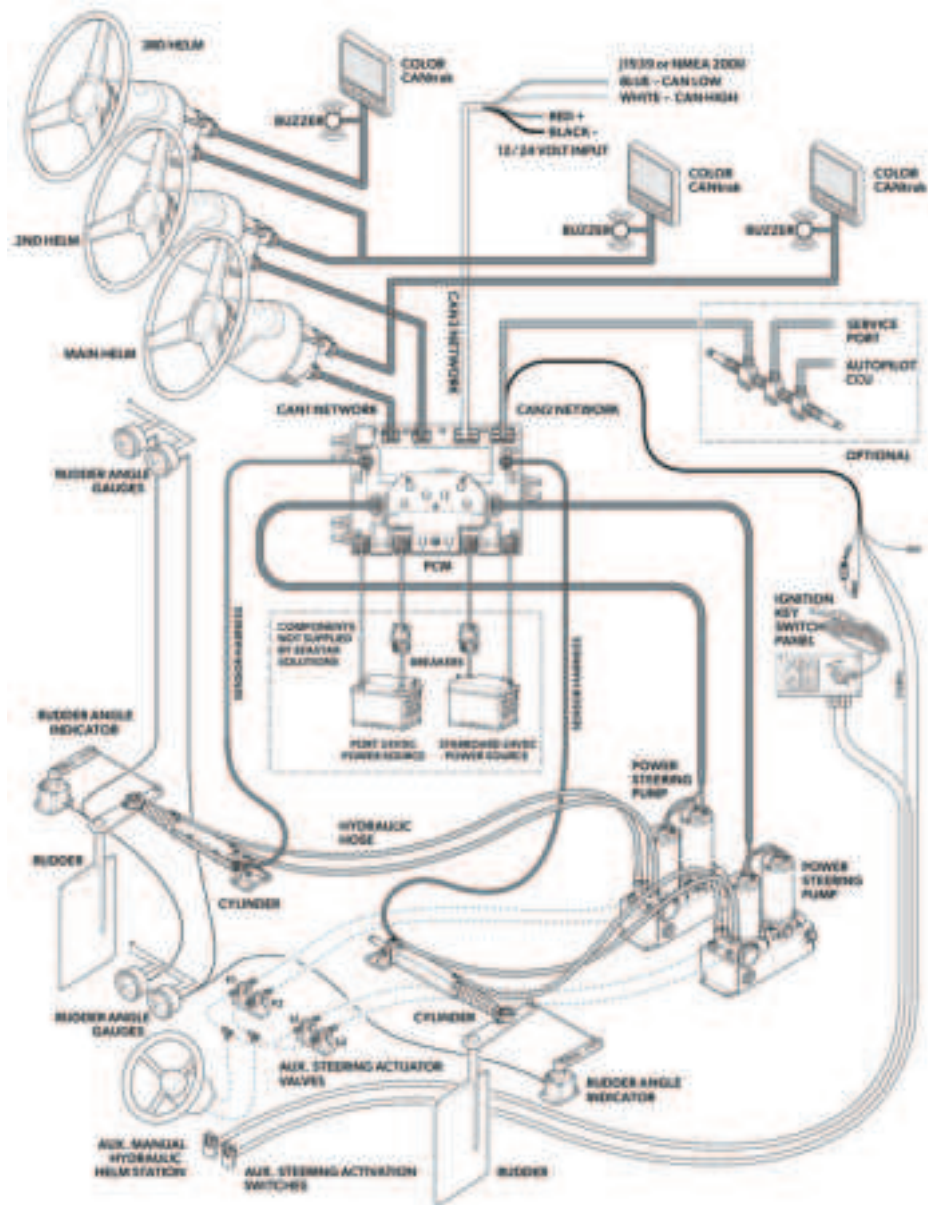
MODEL EC5810-CL	
70° Steering Angle	
A	B
8.25" (210 mm)	4.50" (114 mm)
37,400 in-lbs* (4,191 Nm)*	

MODEL EC5850-CL	
70° Steering Angle	
A	B
10.46" (266 mm)	6.32" (166 mm)
47,100 in-lbs* (5,320 Nm)*	

Manual hydraulic steering system shown in schematic. Kit number HA6501 contains:

- HH5271-3 hydraulic helm
- 214457 shut off valve kit inc fittings
- 682684 electrical switch
- 60065 Hydraulic Tee
- 343088 Straight Hydraulic fitting

Dometic reserves the right to make changes to specifications without notice.



Example of twin rudder system schematic.