



CAPAC® impressed current cathodic protection systems

The best choice for ship corrosion protection

With thousands of world-wide installations, CAPAC® impressed current cathodic protection (ICCP) systems are the long-term solution for preventing electrolysis and galvanic corrosion from attacking submerged surfaces. The system consists of anodes, reference electrodes, shaft grounds and power supply/controllers. It delivers a controlled amount of DC current to submerged surfaces to prevent the electrochemical action of galvanic corrosion.

CAPAC systems have long been recognized as the superior alternative to other cathodic protection systems, which require frequent replacement and experience increased fuel and maintenance costs. They are approved by all classification societies for all types of vessels. CAPAC systems are the ultimate solution for protecting the hulls of naval and commercial ships, ferries and workboats, as well as small boats and luxury yachts.

Xylem has been a trusted supplier of CAPAC systems to naval forces around the world for over 70 years.



CAPAC system power supply controller (PSC)

Capac system features

- Simple operation through automatically controlled equipment ensures reliable operation
- Anodes, reference cells and control systems maintain just the right amount of protection for underwater hulls

Capac system benefits

- Only one installation required for the life of the vessel
- Increases life of rudders, shafts, struts and propellers
- Decreases drydock maintenance
- Reduces operational costs
- Reduces fuel consumption

Applications

- Naval vessels
- Commercial vessels
- Cruise ships
- Ferries
- Work boats
- Yachts and small crafts
- Structures

Power supply controller

The CAPAC® system power supply controller (PSC) is an automatic controller with a high frequency switch mode DC power supply with up to four (4) output circuits to power the anodes. A painted carbon steel, IP54 wall-mounted enclosure contains filtered fan cooling and a touch screen for intuitive, state-of-the-art user operation.

The touch screen displays operating parameters, including total anode current and hull potential, system set point, data trending, system self-diagnostics and system condition assessment for reporting “Normal”, “Over” and “Under” hull protection conditions. A dry contact for alarm annunciation to a remote alarm indicator is also included. The PSC also provides a manual override capability and 0% leakage current.

Zone-to-zone communication control is available via ethernet connection. Communication to the ship’s systems is available via a RS485 connection. System parameter history is accessible through data logs stored in an easily retrievable USB thumb drive.

PSC parameters

Input power	400–480 volts AC, 3 phase, 50/60 Hz, 8.8 FLA@440VAC or 110–230 volts AC, 1 phase, 50/60Hz, 28 FLA @440VAC
Output power	28 Volts DC nominal, up to 200 Amps DC (3 phase units), up to 100 Amps DC (1 phase units)
Approximate dimensions	24"H x 20"W x 12"D
Approximate weight	100 lbs. (3 phase units), 86 lbs. (1 phase units)



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CAPAC system power supply controller (PSC)

PSC features

- Compact design
- Easy to read, intuitive color HMI display
- Configurable up to three zones
- Data logging for record of system operation
- Trending screens for system monitoring
- Remote alarm annunciation
- Automatic or manual operation

