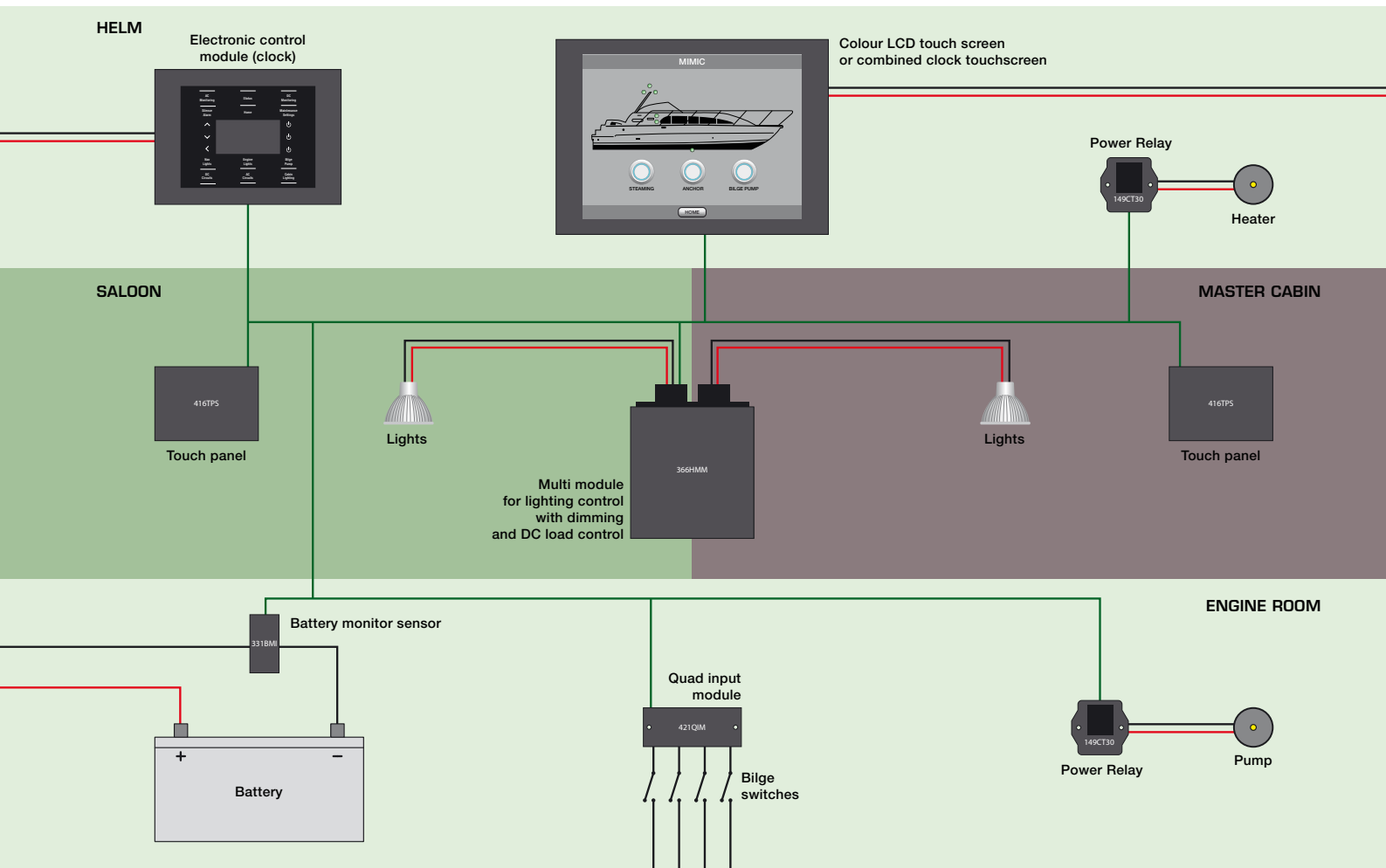


## ES TOUCHCONTROL - Bringing panels to life



### ES TOUCHCONTROL - Next Generation monitoring and control.

- Range of monitoring and control panel systems
- ES design and build panels to bespoke requirements
- Utilising touch screen and non touch screen technology
- Reduced build time and cabling

POWER AT YOUR CONTROL

# ES TOUCHCONTROL

## Full onboard system with bespoke graphics



## The system - E-Plex

E-Plex is the next-generation multiplexing technology for complex vehicles and equipment. The E-Plex product line is comprised of intuitive user interfaces, power distribution modules, machine interface modules, sensors and software. These components electronically connect engines, generators, lighting, HVAC, audio/video and other equipment. The result is a seamless monitoring and control solution with dramatically increased system functionality.

Powered by a patented multiplexing technology that allows power and data to be transported over a simple, two-wire bus, E-Plex offers scalable, flexible solutions at competitive costs.

**Flexibility** – E-Plex has an open architecture that easily integrates with all forms of equipment and other electronic protocols. With the E-Plex building blocks, designers have the flexibility to create a system with features, functionality and even graphics that are truly unique. E-Plex provides a blank slate that customers can use to create differentiated products consistent with their larger product line or brand strategies.

**Scalability** – E-Plex can perform as a simple, stand-alone tank monitoring system or as a fully integrated control system for a megayacht. E-Plex hardware and software has been specifically designed to allow scalability and growth. Many customers deploy E-Plex initially in an extremely simple configuration and then expand it over time either in the field or during model year changes. With E-Plex you can literally “grow as you go”.

**Simplicity of Design & Installation** – Via E-Logic, a new system can be designed, documented and brought to market very quickly. With just two wires, E-Plex provides all the benefits associated with multiplexing with less cost, complexity and weight.

**Diagnostics, Error Detection & Troubleshooting** – The E-Plex architecture is robust and does not require costly shielding or termination resistors. The E-Plex “Clock” module includes error detection protocols, troubleshooting features and redundant programming allowing for “plug & play” field replacement or upgrades.

## The screen - ES TouchControl

### Advantages for vessel owners:

- All controls from one interface
- Contemporary, innovative look
- Bringing technology onboard
- User friendly.

### Advantages for boat builders:

- Reduced build costs and installation times
- Appeals to the ‘iPod’ generation
- Provides competitive edge
- Create your own branded look and feel
- Simple to cope with non standard options - no new wires to pull

### Energy Solutions offer a full consultation and design service for ES TouchControl panels and systems.

- Consultation on requirements
- Range of technology solutions
- Development and design all done in-house
- Innovation – constantly updating
- Sleek, contemporary designs

## Sample control screens



## ENERGY SOLUTIONS & E-PLEX - Next Generation monitoring and control. Bringing panels to life.

Working with key manufacturers of monitor and control systems Energy Solutions have designed systems for boat builders of all sizes.

From mega-yachts to cruisers and work vessels, Energy Solutions have the technology and skills to develop a system with touch screen interface that addresses your needs, your customers wishes, and helps reduce build time and costs.

With integrated systems that allow owners to operate all of their electrical systems from screens or from one panel; up to fully integrated system that allows control and monitoring of all data and equipment such as engines, generators, pumps, navigation etc.

We work with each client to design and build bespoke applications to ensure each project has a unique look.

# E-PLEX MODULES



## User Interfaces

- 350LCD - 10" color LCD touch-screen display, 640 x 480 color
  - Transflective or transmissive display
  - Supports multiple video formats
- 345LCD - 5.7" color LCD touch-screen display, 320 x 240 color
  - Transflective display
- 367TPD - 3" diagonal resistive touch panel display
  - User defined functions/buttons
  - 4-digit numerical display
- 376RSP - Rocker switch panel
  - Optical interrupters (no contacts)
  - Interchangeable cams allows end-user customization



## Multi-purpose I/O Modules

- 325QMM - Quad multi module, 4 channels
  - Up to 5A per channel, up to 2 dimmers per module
  - Unused outputs can be used as inputs or vice versa
- 366HMM - Hexa multi module, 6 channels, up to 2 dimmers
  - 14A max. per channel, 6 override buttons
  - Unused outputs can be used as inputs or vice versa
- 369DRM - Dual reversing module
  - 4 controllable switch relays
  - 10A max., 24Vdc max.
- 422QMM - Quad multi-module with switching, 4 channels
  - Unused outputs can be used as inputs or vice versa
  - 5A max. per channel, 4 override buttons



## DC power & relay modules

- 149CT30 - Single 30 amp relay module,
  - 30A AC/DC switching capacity
- 172QR - Quad relay module, 4 channel
  - Up to 10A per channel
  - 30A max. total, 130VAC max.
- 331BMI - Battery module inductive, 100/200 amp
  - Senses current and voltage
- 405DRP - Distribution relay panel
  - 16 controllable switch relays
  - UL508 and UL 873 approved relays
- 411BAM - Battery auctioneering module
  - Manage the voltage of two linked batteries
  - Can handle 100A continuous



## AC power & lighting modules

- 336PFM - Power frequency module
  - Measures up to 200A, 220 VAC max.
  - Output modules can be scaled accordingly
- 389DMAC - AC distribution module
  - 8 controllable relays, 8 override switches
  - UL1077 recognized circuit breakers
- 406QDM - Quad dimmer switch, 4 channel, AC lighting dimmer
  - 15A max, 110-250VAC
- 407QHM - Quad high amp module, 4 channels
  - 25A max. on 2 paralleled channels
  - Up to 2 dimmers at 14A



## Engine & Equipment modules

- 245EM - Engine monitor, oil, pressure, temperature, RPM
  - 3 active low digital inputs
  - 3 relay outputs
- 335RFE - RF receiver module
  - 5 programmable key fob buttons
  - 30 ft. range
- 360ACI - A/C controller interface
  - Controls multi-zone heating/cooling
- 357AVS - Audio / video switcher, with standard RCA jacks
  - 4 x 4 video switching, 4 x 4 audio switching
  - 3 switch inputs

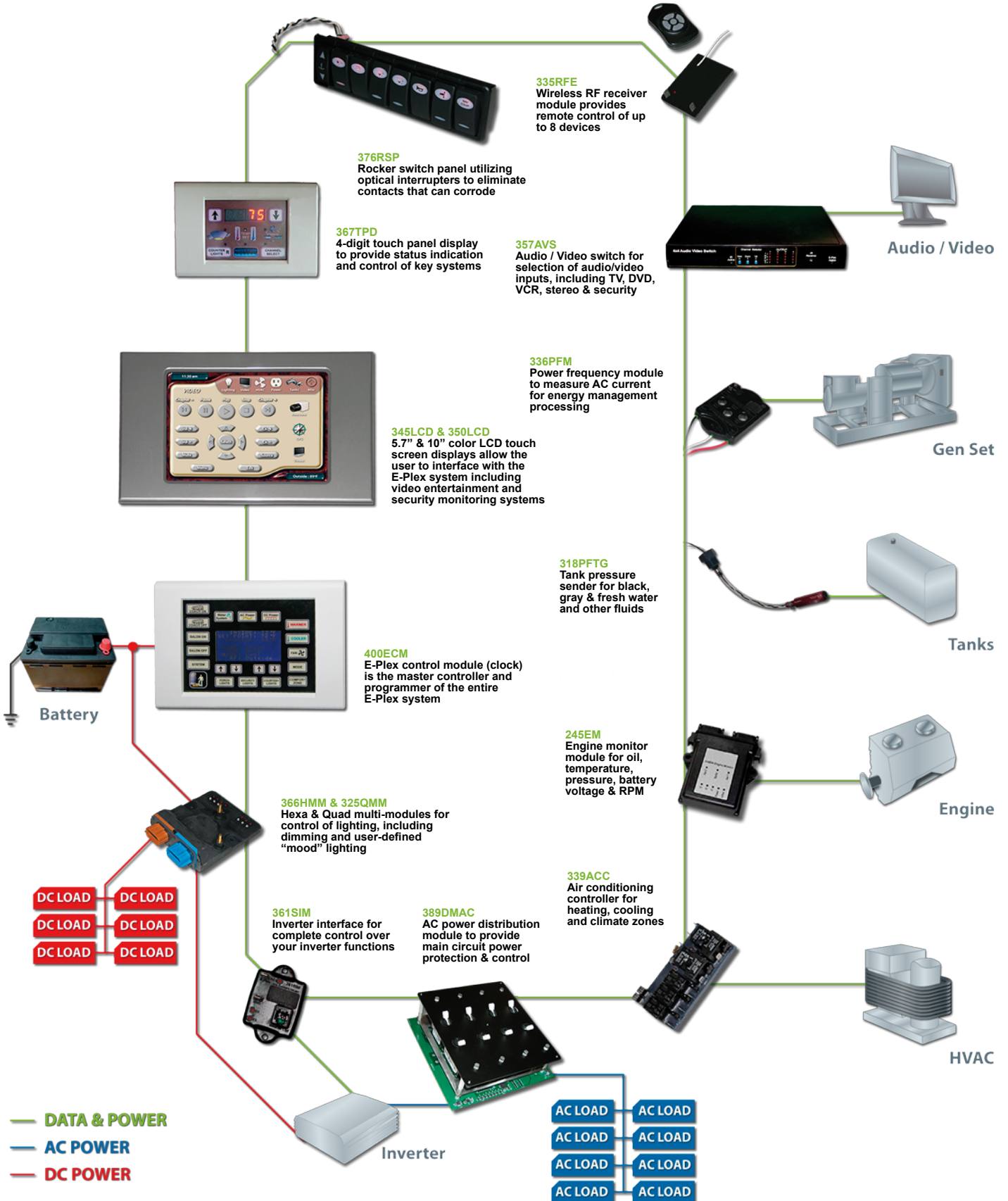


## Sensor modules for tank & HVAC

- 303TM1 - Air temperature module
  - Range -40°C - 125°C
  - Weatherproof
- 318PFTG - Tank pressure sender, used in a variety of fluids
  - Accurate in irregular shaped tanks
  - Not affected by elevation
- 319RSM - Resistive sensor module, 0 - 300 ohms
  - interfaces with standard resistive senders

# E-PLEX OVERVIEW

In a typical application, E-Plex can manage systems like AC & DC power distribution, control and monitor tank levels, generators, engines, air conditioning, hydraulics, motors, pumps, GPS, security and multimedia, or lightng.



Please contact Energy Solutions for further information and order details.