

ATLAS MARINE SYSTEMS



TPA II Series **TecPOWER®** SWITCHBOARDS AND POWER MANAGEMENT



Atlas Marine Systems is the world leader in the design of marine electrical power systems. Atlas can provide electrical engineering services to define the vessel electrical distribution system and application of its TecPOWER® switchboards, load and power management systems, and ShorPOWER® frequency converters. With over 100 years of experience and over 1000 satisfied customers, Atlas supplies products with a field proven history greater than all of its known competitors combined and is supported by a worldwide authorized service network.

APPLICATION:

The TecPOWER® *TPA II series* provides the widest selection of power distribution equipment ranging from a basic switchboard to an ultra sophisticated power management system. We can design your system with various degrees of automation and power management capability, and add motor operated circuit breakers to enable push-button or touch-screen selection of power sources. Many other features can be integrated to create a total power management system, such as automatic generator engine control and generator paralleling. Designed with ergonomics and ease of operation in mind, the *TPA II series* is very user-friendly and simple to operate, even for an inexperienced crew member. All metering and controls are easy to view, and easy to understand. Independent meter groups are provided allowing separate monitoring of each power source. The *TPA II series* can be provided with a standard single-bus circuit breaker panel or optionally configured with a split-bus power section that can operate in either a single-bus or split-bus mode for maximum power source flexibility. Input power circuit breakers are available in 100, 160, 250, 400 or 630 amp frame sizes. Distribution breakers in 100, 160 and 250 amp frame sizes, or higher, are available as options. TecPOWER® enclosures are built of corrosion resistant material and are designed to minimize space requirements. The TecPOWER® *TPA II series* has been designed using defense / aerospace packaging techniques to assure light weight and minimum-sized products.

The TecPOWER® *TPA II series* consists of standard configurations to provide economic solutions and quick delivery. Customizing the TecPOWER® is also an option, for those with special requirements.

The *TPA II-1* configuration is simply a basic AC or DC **switchboard** offered in several ampere ratings. It has been designed to meet the minimal requirements of power distribution at the most economic level.

The *TPA II-2* configuration is a more advanced AC switchboard also offered in several ampere ratings. This switchboard has the larger circuit breakers motor controlled. Several options are offered in support of the *TPA II-2* system. This configuration is moderately priced for those customers who have requirements for improved operating functions.

The *TPA II-3* configuration is more than a switchboard distribution system; it provides the added dimension of **load management**. Various buses are monitored in such a manner as to allow shedding of non-essential loads to prevent unnecessary shutdowns during peak operating times of the day.

The *TPA II-4, 5 & 6* are **power management** systems contain the attributes of the *TPA II-1, 2 & 3* (depending upon selection), and in addition provide the world's most comprehensive group of generator and frequency converter source management systems known to the yachting community. These power management systems are offered at varying levels of technical sophistication, each providing improved power management capability in a more user-friendly manner.

TecPOWER® emergency switchboard with emergency standby and night generator modes are also available.

The switchboards, load management and power management configurations are offered with many individual features and options to select from, and will meet most requirements. Reference to **Table 1** will assist you in determining what configurations best meet your individual needs. Specific mechanical information needed to properly facilitate the TecPOWER® selected is available by contacting Atlas Marine Systems to obtain a comprehensive proposal.

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ATLAS MARINE SYSTEMS - TecPOWER® TPA II Series

SWITCHBOARDS	TPA II-1	TPA II-2				
LOAD MANAGEMENT SYSTEM				TPA II-3		
POWER MANAGEMENT SYSTEMS				TPA II-4	TPA II-5	TPA II-6
Compact and light weight design	F	F	F	F	F	F
Drip proof enclosure with upper drip shield and gasketed doors	F	F	F	F	F	F
Keyed hinged doors, with roller latching and held open with door stays	F	F	F	F	F	F
Non-conductive safety handrails on front	F	F	F	F	F	F
Control circuit breakers throughout - no fuses anywhere	F	F	F	F	F	F
Source circuit breaker electrical interlock	F	F	F	F	F	F
Power available lights package	F	F	F	F	F	F
Analog metering package	F	F	F	F	F	F
Din rail distribution circuit breaker section	F	F	F	F	F	F
Single bus design	F	F	F	F	F	F
Pushbutton operated motorized source circuit breakers		F	F	F	F	F
Ground Fault metering package	O	O	F	F	F	F
Seamless power transfer system - analog				F	F	F
Generator paralleling and load sharing system - analog				F	F	F
Synchronization monitoring system				F	F	F
Total power management system						F
Touchscreen display and control panel						F
Digital metering package					O	F
Load shedding system (internal - distribution breakers)			F	O	F	F
Load shedding system (external - three levels)						F
Load shedding system (external - one level)			O		O	
Generator alarm interface package						F
Generator start / stop control - automatic						F
Ground fault alarm system	O	O	O	O	O	F
DC power interior lighting	O	O	O	O	O	O
Analog kW metering package					O	O
Overload indicator light			O		O	O
Emergency stop pushbuttons		O	O	O	O	O
Remote touchscreen display						O
Remote communications package (RS232, RS485 or ethernet)						O
Molded case distribution circuit breakers section	O	O	O	O	O	O
Integrated ShorPOWER frequency converter system	O	O	O	O	O	O
Non integrated ShorPOWER frequency converter system	O	O	O	O	O	O
Multiple shore cord selector switches		O	O	O	O	O
Shore cord phase rotation indicator	O	O	O	O	O	O
Shore cord phase rotation correction system	O	O	O	O	O	O
Split bus design package	O	O	O	O	O	O
Hot swap source breaker option	O	O	O	O	O	O
Hot swap distribution breaker option	O	O	O	O	O	O
Classification by any marine agency	O	O	O	O	O	O
Generator paralleling and load sharing system - digital				O	O	O
Generator engine speed controller system				O	O	O
Generator engine start / stop control - manual				O	O	O
Generator manual paralleling controls with synchroscope				O	O	O
Generator manufacturer supplied controls mounted on door				O	O	O
Generator paralleling for bow thruster load				O	O	O
Generator heater controls				O	O	O
Load bank interface				O	O	O
Motor control center option				O	O	O

NOTE: ' F ' indicates a feature of a TPA II configuration and ' O ' indicates an option

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