CATALOG 2012

# **Control** at your fingertips



## innovative control

information feedback system power supply



innovative control information fe power supply

# **ive control** information feedback system



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# innovative control information feedback system power supply



## **CAPI2 POWER DISTRIBUTION SYSTEM**

Capi2 is a digital power distribution system for motor and sailing yachts. The system is based on advanced bus technology. It consists of two main cables [power supply] and a data cable, and replaces traditional cable looms

Capi2 stands for 'Communication And Power In 2 Wires'. The Capi2 power system was designed for DIY and professional yacht builders. The system is really easy to install and maintain, which makes it the logical choice for yacht builders and marine fitters.

## Benefits for fitters

- ✓ Faster and more efficient installation means saving money on materials, time and personnel
- $\checkmark$  No expensive stocks needed; all products can be delivered immediately
- $\checkmark$  More effective after sales via practical Internet desktop sharing

## Bus system

The nodes and the switchboard are part of a ring system. All electrical equipment, such as lights and pumps, are connected to the nodes. The commands to open or close a node (to activate equipment) are given by digital signals.



## Why Capi2?

- The reduced amount of cabling not only makes the system reliable, but also decreases risks of, for example, fire.
- Nodes are insensitive to vibrations and are completely encased, which makes them completely weather-proof.
- Quick error diagnostics using Capi2 software and desktop sharing via the Internet.
- If a device malfunctions, only node to which it is connected will shut down, the rest will continue to operate.
- Multi-configuration possible; a node can be programmed to have several functions.
- Low power consumption in stand-by mode: 0.01-0.04mA per node.

					L '			
ship length	1-8 m	6-10 m	1-8 m	6-10 m	10-12 m	13-16 m	10-12 m	13-16 m
Capi2 panels serie								
Capi2 Touch Screen 3" /	-	-	-	-	-	1	1	1
Switch interface	1	2	2	3	4	5	4	5
Capi2 Touch screen 5.7" or Push-button board 21 keys or								
Monitouch 10.4"	-	-			1	1	1	1
Bus generator	1	1	1	1	1	1	1	1
Installation software								
Capi2 Studio (easy install)	1	1	1	1	1	1	1	1
AC/DC Power modules								
Compact power module	1	2	2	3		-		
DC Power node module	-	-	-	-	4	5	5	7
DC Power/sensor module	-	-	-/1	1	1	2	1	2
AC Relay module for 12V system	-	-/1		-/1	1	2	-	
	-	-		-/1	2	2	3	4
AC Relay module for 24V system								
Lighting modules (LED)								
AC Relay module for 24V system Lighting modules (LED) Light control module	1	1	1	1-2	2	3-5	4	6
Lighting modules (LED)	1	1	1	1-2	2	3-5	4	6
Lighting modules (LED)	1	1	1	1-2	2	3-5	4	6
Lighting modules (LED) Light control module	1	1	1	<u>1-2</u>	2	3-5	4	6 
Lighting modules (LED)	-/1				2 - -/1			



With Capi2 Studio<sup>®</sup> you can program and configure your complete Capi2 system. Capi2 Studio<sup>®</sup> is unique and has numerous self-learning features.



CONFIGURATION SOFTWARE DOWNLOADABLE FROM THE SITE



TALOR-MADE CONFIGURATION

of all the firmware for Capi2 hardware products and the software required to reprogram the devices. Download the latest version of Capi2 Studio from the Capi2 website to update the firmware on your devices.

## The following can be programmed with Capi2 Studio®

- ✓ 12V or 24V operation
- ✓ Digital fuses of the power node modules 3/6/10/13/16 Amp
- ✓ Timer functions; bilge pump, propane relays, departure lights
- ✓ Alarms; defective lamp broken cable, high water
- ✓ Dimmer functions for halogen and several types of LED lights
- ✓ Momentary/Toggle switch

## **EASY CONFIGURATION**

- Capi2 Studio<sup>®</sup> contains the latest versions

- ✓ Multiple inputs to create lighting combination such as navigation/saloon lights, etc.
- ✓ Multiple loads/group of loads to one switch or single switch for all lights
- ✓ Acoustic and visual feedback for bilge pumps
- ✓ Standby function of loads when system is shut down; refrigerator and bilge pumps
- ✓ Power management priorities with automatic shutdown of low priorities at low current
- ✓ Automatic start-up of high priority loads if digital communication fails
- **√** Tank monitoring





## Capi2 Studio **EASY SOFTWARE**

## Download Capi2 Studio

Make configuration easy by downloading the Capi2 Studio® software. It contains the latest versions of all the firmware for Capi2 hardware products and the software required to reprogram the devices. Download the latest version of Capi2 Studio from the Capi2 website to update the firmware on your devices.



## Start configuration

into the system.

- Step 2 Choose your input modules [A]
- Step 3 Choose your output modules [B]
- Step 4 Setup the functionalities of the input and output modules
- Step 5 Pull the visual cables [C] between input and output modules

tion for your own administration system and can always be uploaded for future changes.

2	B
C	udation /
	tut <mark>s</mark> tata /

Create a complete setup in 6 steps. After this you will be ready to download the configuration

- Step 1 Fill in system settings such as date, project name, setup voltage etc.

Download the configuration from your computer to the installed Capi2 system. Print configura-

Note: the configuration will be stored into the bus generator which is connected to the Capi2



## **SWITCHING**

Control via digital energy-electronics using standard ship cables and screw terminals makes installation really easy. The switchboards are designed to withstand the toughest conditions at sea.





SWITCH INTERFACE 8 KEYS



21 PUSHBUTTON PANEL



TOUCH SCREEN 5,7"



TOUCH SCREEN 3"

The Capi2 switching panels product group contains a comprehensive series of articles ranging from traditional switches to ultramodern touch screens. The 8-switch interface enables, for example, the renovation of existing control panels or dashboards. The touch screens can display real-time data and increase the interactivity with your boat. The screen design and programming can, if necessary, be completely customised in accordance with your wishes.

## Plug and Play

The switchboards in this advanced bus system are easy to use and install. No soldering or protective cabling is needed, which reduces the installation time. All products

WWW.CAPI2.COM

are supplied with a clear user manual and you can, of course, contact Capi2 if you have any questions or problems with installation.



CLEAR USER MANUALS

## Capi2 Touchscreen 3"

# Ρug

This is a three inch color touch screen that will control up to six different loads. It includes not only switch functions but also alarms for short circuit and broken lamp cable or blown bulb. The alarm will show the type of alarm/location of node/ name of node and serial number of node, all for very easy fault findings.

The unit can be mounted in horizontal or vertical position. Because of the small mounting depth the screen can be easily integrated into nearly any dash panel or console.

SIZES: MM/INCH	D: 70 / 2.8	H: 4 / 0.16	L: 7 / 0.28
A: 100 / 3.9	E: 56.6 / 2.2	I: 6 / 0.24	M: 15 / 0.59
B: 81.5 / 3.2	F: 44.4 / 1.7	J: 81.6 / 3.2	
C: 59 / 2.3	G: 2.4 / 0.09	K: 64 / 2.5	

## **Technical specifications**

OPERATING VOLTAGE:	12V-24V	STORAGE TEMP:
AMOUNT OF SWITCHES:	4 OR 6	-30°C/
STANDBY POWER CONSUN	APTION: 5.9MA	OPERATIONAL TE -20°C
ACTIVE POWER CONSUMP	TION:	WEIGHT:
	28.3MA	PRINT BOARD HA
ENCAPSULATION:	IP 64	SURFACE
RECOMMENDED LOCATIO	N:	IGNITION PROTE
RAIN PROTE	CTED AREA	FRONT COLOR: WH

OIG GETENT.			
-30°C/	/-22°F TO 80°C/17	6°F	OPE
PERATIONAL TE	MP:		AMO
-20°C	C/-4°F TO 70°C/15	8°F	STAI
EIGHT:	104G/0.22	LBS	
RINT BOARD HA JRFACE	s a coated		ACT
NITION PROTE	CTED:	NO	ENC
RONT COLOR:			REC
WH	ITE, BLACK OR SIL	VER	

#### [ART. 100600] Capi2 Touchscreen 5.7

[ART. 100610]



Control up to 50 different loads/groups spread over 5 pages. Integration with the newest high precision battery monitors from Victron Energy.

- ✓ Control up to 50 loads/groups
- **√** 5 Pages
- ✓ Calculate ampere-hours consumed [i.c.w. interface]
- ✓ Calculate the state of charge of a battery [i.c.w. interface] ✓ Tank monitoring
- ✓ Victron battery monitoring, inverter/charger control.



#### Technical specifications

PERATING VOLTAGE:	12V-24V	STORAGE TEMP:	
MOUNT OF SWITCHES:	50	-30°C	/-22°F TO
TANDBY POWER CONSUM	APTION: 5.9 MA	OPERAT. TEMP: -20°	C/-4°F TO
CTIVE POWER CONSUMP	- /-	WEIGHT:	500
	35 MA	PRINT BOARD H	AS A COAT
NCAPSULATION:	IP 64	SURFACE	
ECOMMENDED LOCATION	N:	IGNITION PROTE	CTED:
RAIN PROTE	CTED AREA		

TORAGE	TEMP:
	-30°C/-22°F TO 80°C/176°F
OPERAT. T	EMP:
	-20°C/-4°F TO 70°C/158°F
VEIGHT:	500 G/100 IBS
RINT BO	ARD HAS A COATED
URFACE	

NO

### Monitouch Touch Screen 10.4"

[ART. 100430]



This Monitouch Touch screen is developed for larger yachts and with the possibility to control all 24V and 220V loads.

- ✓ For indoor use only
- ✓ IP65 front proof
- ✓ Anti-corrosion
- ✔ Resistive touch
- ✓ Anti-reflictive protection glass



## **Technical specifications**

OPERATING VOLTAGE:	24V DC	TFT:	COLOL	JR LCD
INRUSCH CURRENT	20A, 2MS	STORAGE TEA	۸P:	
ACTIVE POWER CONSUM	PTION:	-10°C/-50°F TO 50°		/122°F
	25 W	WEIGHT:		2,5 KG
CONTROL BUTTON:		COATED SUR	ACE:	YES
VARIO	US OPTIONS	IGNITION PRO	DTECTED:	NO
SWITCHING: MOMENTA	ARY/ TOGGLE	IP PROOF:	IP65 WITH GA	SKET /
INDICATOR: VARIO	US OPTIONS		IP20 FRON	A REAR
VISUAL/ AUDIBLE ALARM	:	CERTIFICATIO	NS: EN61000-6-2,	
VARIO	US OPTIONS	EN61000-6-4	, UL 50B, UL1604,	CE,
RESOLUTION:	800 X 600 PX	FCC, DNV		

## Push-button board 21 keys

[ART. 100150]



The push-button board can be placed parallel with other Capi2 panels. The options include a customized overlay.

## Includes functions such as

- ✓ Momentary or toggle switching
- ✓ Timer functions
- ✓ Visual and audible warning for low current
- **√** Resetting electronic fuses in the nodes
- ✓ Defective cable/lamp indicator
- ✓ Adjustable backlight and replaceable symbols



## **Technical specifications**

21 KEYS	
OPERATING VOLTAGE:	12 V-24 V
STANDBY POWER	
CONSUMPTION:	<0,1MA
ACTIVE POWER	
CONSUMPTION:	100MA
SPLASH WATERPROOF	
STORAGE TEMP:	
-20°C/4°F TC	70°C/158°F

OPERATIONAL TEMP:	
-4°C/24°	°F TO 50°C/122°F
WEIGHT:	564 G/1.24 LBS
PRINT BOARD HAS A	
COATED SURFACE	
IGNITION PROTECTED	D: NO

## Switch interface 8 keys



Customized switch panels can be built using the 8-key switch interface. Toggle or momentary switches can be used.

Dual commands is an option on bigger boats; a parallel set-up with other Capi2 panels facilitates dual commands, e.g. on the fly bridge or in the living room to control various lighting options. This switch interface can be used as a main panel on smaller boats.

## **Customized indicator panel**

Use this interface to build customized indicator panels for navigation lighting, bilge pumps and alarms

### Alarm

This interface can also be used to indicate 8 different open/ close signals for alarms such as high water, open hatch, open window etc.



#### **Technical specifications**

OPERATING VOLTAGE:	12V-24V	LED OUTPUT		MAX. 3V
TIN-PLATED SCREW CONNECTIONS		PRINT BOARD H	AS A COATED	SURF-
8 TOGGLE SWITCHES OR 4 MOMENTARY SWITCHES OR		IGNITION PROTE	CTION:	NO
AND 4 LED		POLARITY PROTE	CTION:	YES
8 LED 8 OPEN/CLOSE SIGNALS		WEIGHT:	76 G/	0.17 LBS

## Applications

- ✓ To build customized panels
- ✓ Create dual commands on boats
- ✓ Control various lighting options

#### [ART. 100300] **Bus generator**

[ART. 300100]



#### **Technical specifications**

OPERATING VOLTAGE	E: 12V/24V	CON
SCREW CONNECTOR	R TIN-PLATED	
SCREW CONNECTOR	2	POV
MAX CURRENT:	10A	IP P
COMPUTER INTERFA RS232 OR USB/R	.CE: S232 CONVERTER	STO
PRINT BOARD HAS A SURFACE	COATED	OPE
IGNITION PROTECTE	D: NO	WEI
POLARITY PROTECTIO	ON: YES	
WEIGHT:	92 G/0.21 LBS	
CERTIFICATIONS:	CE, ABYC	_

CONNECTION RS23		ONNECTION
POWER OUTLE	TS:	13 W
IP PROOF:		IP64
STORAGE TEM -20		70°C/158°F
OPERAT. TEMP -4'		50°C/122°F

DOMOTICA FOR YACHTS **CAPI2 NAVETICA** 

efficiency.



You often have to leave your boat unattended in a marina miles away, but you still need to know whether there is, for example, enough fuel on board for heating in the winter. If there is a storm, it is also certainly reassuring to be able to check the situation on board from wherever you happen to be in the world.

# Every boat needs a bus generator so that digital messages can be created.

Capi2 Navetica integrates all electrical systems, devices and equipment in yachts for increased comfort, convenience, safety, security and energy-

## Features

- ✓ 24/7 on-board control
- ✓ information feedback system
- ✓ comfort and safety

## CAPI2 NAVETICA TOTAL CONTROL OF YOUR BOAT ... WHENEVER AND WHEREVER



## **Optimal control**

The Capi2 Navetica system continually monitors the status of your boat. In an emergency, a text message can be sent to you or the harbour master and you can switch equipment on and off remotely via a WiFi or 3G connection.

## Safety

For security and monitoring the situation on and around your boat, a sophisticated camera system (CCTV) is fitted on board. Live images can be viewed remotely via a smartphone or PC and footage of alarm situations can be saved. It is even possible to operate the cameras remotely.

The camera images can also be displayed on your on-board TV circuit or on a monitor in the wheel house. This makes the cameras a useful aid in navigating and mooring.

## Internet - AV - Entertainment

A yacht is not complete if it is not fitted with good communication equipment. It is impossible to imagine life today without the Internet and Capi2 supplies a simple yet reliable connection. An X-box and PlayStation can also be installed on board.

## Comfort

Capi2 Navetica gives you control of everything on board, including, for example, the heating, air conditioning, interior and exterior lighting and even the window blinds.

Capi2 Navetica radically simplifies operating the equipment you have on board, such as a TV, DVD-player, etc. by replacing all the remote controls with a single unit.

## **Position tracking**

A boat's GPS location is continually read. This data can also be logged with an adjustable timer that allows the route that the boat has sailed to be displayed in Google Maps. This tracking system is really practical for rented yachts. A Smartphone or PC can be used to check where the boat is sailing or at anchor.

## Installation

Capi2 can configure your boat entirely in accordance with your wishes. Capi2 is the market leader in and has the specialist expertise required for fitting marine power supply and control systems.



## LIGHTING

Capi2 has developed a light control module [LCM] that gives you optimal performance, connectivity and usability. Control and dim your lights cost-effectively.





LCM [LIGHT CONTROL MODULE]

duced on the market. A common problem is how to control and dim them in a costeffective manner. Capi2 has developed a Light Control System [LCM] that gives you optimal performance, connectivity and usability. Control and dim your lights cost-effectively. The LCM can be used in different ways; for controlling light groups [all type of led lights] that need to be dimmed or in a existing Capi2 installation. No special expensive thirdparty unit is needed any more. Just connected It to the information cable (C-2) and the common.

The light control module is a small unit to which both halogen and several types of LED lights can be connected and fully controlled. It can be incorporated into a digital stand-alone light system or, alternatively, a complete digital system from Capi2. It is both easy to install and to program.

- ✓ Full remote control
- ✓ 2 Dimming zones
- ✓ Soft start
- ✓ Direct, digital and analogue dimming
- ✓ Short circuit protection
- ✓ Advanced hotel switching with multiple locations
- ✓ Power width modular (PWM) technology



[ART. 200900]

NO



## Approved suppliers

Capi2 has tested several types of LED lights from different suppliers. The following suppliers have been approved by Capi2

EXAMPLE SCHEME



## **INTERFACES**

Modern boats contain a large amount of equipment, such as navigation instruments, depth gauges, and automatic steering gear, that each have their own communication protocols such as NMEA, SeaTalk or variations of CAN-bus or Modbus.

#### LED VOLTAGE: 12V-24V INDUCTIVE LOADS:

POWER OUTLET, SWITCH INF	PUT: 2,1	REMOTE CONTR	ROL: YES
FUSE: DIGITAL 2,5A, BLADE	FUSE 4A	FUNCTIONS:	DIMMERS, TIMERS
SOFT START:	YES	WEIGHT:	88 G
IGNITION PROTECTED:	NO		

#### Measurements

**Technical specifications** 





CANMOD-BUS INTERFACE



can communicate with several of these systems. Capi2 interfaces include a NMEA interface, a universal interface, a Victron Interface and a CAN/MOD bus interface. All our interfaces are specially designed to increase the ease of use for our customers. The Capi2 protocol is compatible with software and interfaces developed by other manufacturers.



**BMV VICTRON INTERFACE** 



NMEA INTERFACE



22 | MARITIME 2012



## **NMEA** interface

## [ART. 100570]

Capi2 has developed a gateway for interfacing our products to the NMEA 2000 bus. Through this interface can all appliances controlled by Capi2 be monitored and controlled through a NMEA device (plotter/touch screen).

#### NMEA 2000

The National Marine Electronics Association (NMEA) has introduced a standard (NMEA 2000) for data communications among shipboard electronic devices. The NMEA 2000 network can accommodate navigation equipment, power generation, engines and machinery, piloting and steering systems, fire alarm, and controls.

## Technical specifications

OPERATING VOLTAGE:	12V/24V
CAPI2 CONNECTOR: PH	OENIX 3 POLE
NMEA CONNECTOR:	BINDER M12
PRINTBOARD	
HAS COATED SURFACE:	YES
IGNITION PROTECTED:	NO
POLARITY PROTECTION:	YES

WEIGHT:	125 G/0,27 LBS
CERTIFICATIONS:	CE, ABYC, NMEA
IP PROOF	IP64
STORAGE TEMP:	
-20	C/-40F TO 70C/158F
OPERATING TEMP:	
-4	C/-24F TO 50C/122F

## Applications

NMEA plotters, NMEA touchscreens,



WWW.CAPI2.COM







## Victron BMV interface

[ART. 300730]

## Victron energy and Capi2

Capi2 Nederland BV has entered a partnership with Victron Energy BV as part of the integration of Victron products in its Capi2 power distribution system. Now Victron Energy equipment is compatible with Capi2 bus systems. This will allow users to operate and monitor Victron Precision Battery Monitors, Quattro's, Inverters and Inverter/Chargers using their Capi2 systems.



## Uninterrupted Current from Victron Energy

Power specialist Victron is constantly devising new solutions for power supplies in extraordinary locations. The company is a leading supplier of self-sufficient off-grid systems for the maritime, industrial, automotive, off-grid and rehabilitation markets. Its product range includes sinusoidal inverters, charger/inverters,

battery chargers, DC/DC converters, switch panels, and intelligent Battery Monitor, Global Remote and Blue Solar Panel products. Victron Energy has earned itself an enviable and unrivalled reputation in the field of technical innovation, reliability and durability. Its products are regarded worldwide as the no. 1 professional choice for self-sufficient electrical power generation.



The interface makes it possible to read measurements such as battery voltage, discharge and charging status. Data can be displayed in Ampère-hours, (Ah) or in %.

## Applications:

Vicron BMV, Quatro, Multiplus.

## A complete set contains the following:

- Interface
- RS232 kabel.



#### **Technical specifications**

OPERATING VOLTAGE:	12V/24V	WEIGHT:
SCREW CONNECTOR:	TIN-PLATED	CERTIFICATIO
SCREW CONNECTOR MAX CURRENT:	10A	CONNECTION RS23
COMPUTER INTERFACE: RS232 OR USB/RS232	2 CONVERTER	POWER OUTL
PRINT BOARD HAS A CO SURFACE	ATED	STORAGE TEN -20
IGNITION PROTECTED:	NO	OPERAT. TEMP
POLARITY PROTECTION:	YES	-4

WEIGHT:	92 G/0.21 LBS
CERTIFICATIONS:	CE, ABYC
CONNECTION:	
RS232-SCREW	CONNECTION
POWER OUTLETS:	13 W
P PROOF:	IP64
STORAGE TEMP:	
-20°C/-40°F	TO 70°C/158°F
OPERAT. TEMP:	
-4°C/-24°F	TO 50°C/122°F

## **CBBIS**

ART. 300720

## Victron Can/Mod-bus Interface

Operate and monitor Quattro's, Inverters and Inverter/Chargers using a Capi2 5.7" Touchscreen.



## Technical specifications

OPERATING VOLTAGE	12V/24V	WEIGHT	98 G/0.22 LBS
CAPI2 CONNECTOR PHO	ENIX 3 POLE	CERTIFICATIONS	CE, ABYC
CAN CONNECTOR E	BINDER M12	IP PROOF	IP64
MOD CONNECTOR	RJ45	STORAGE TEMP	
PRINTBOARD HAS COATE	D SURFACE	-20°C/-4	40°F TO 70°C/158°F
	YES	OPERATING TEMP	
IGNITION PROTECTED	NO	-4°C/-2	24°F TO 50°C/122°F
POLARITY PROTECTION	YES		

## Applications

VICRON BMV, QUATRO, MULTIPLUS.



CAN/Modbus interface	[ART. 300700]	Universal in
Available first quarter 2012		Available first quarter 2012

Get one step closer to total system integration. The CAN/Modbus Gateway from/to Capi2 is an electronic tool that facilitates two-way communication between CAN-bus or Modbus devices and the Capi2 bus.

Now nothing stands in the way of using the car-industry philosophy 'Different bus systems for different functions'.

- ✓ Control the inverter, charger or air-conditioning in combination with other equipment from a Capi2 touchscreen.
- ✓ Install CAN-bus or Modbus based touchscreens with integrated motor management and control your electrical appliances and lights, which are connected to Capi2.
- ✓ Victron Energy equipment is compatible for use with Capi2 bus systems. It allows users to operate and monitor Quattros, Inverters and Inverter/Chargers using their Capi2 5.7" Touchscreen. See under Victron CAN/Modbus Interface.



## Applications

Inverters, chargers, battery monitoring, heating.

#### **Technical specifications:**

OPERATING VOLTAGE	12V/24V	WEIGHT	98G/0.22 LBS
CAPI2 CONNECTOR PHOE	NIX 3 POLE	CERTIFICATIONS	CE ABYC
CAN CONNECTOR BII	NDER M12	IP PROOF	IP64
MOD CONNECTOR	RJ45	STORAGE TEMP	
PRINTBOARD HAS COATED	SURFACE	-20°C/-	40°FTO 70°C/158°F
	YES	OPERATING TEMP	
IGNITION PROTECTED	NO	-4°C/-	24°F TO 50°C/122°F
POLARITY PROTECTION	YES		

	int aufa as
Universal	interface
<b>U</b> III U U U	meenace

[ART. 300740]

Available	
first quarter	
2012	

The Universal Interface is Capi2's multifunctional interface for a total of 4 different applications. Use the Universal Interface to control relays, to switch on/off LED lights, set up alarm indicators and create smart switching on board your ship. Control everything that consumes a max. of 1 Amp.

- ✓ Set up smart switching
- ✓ Indicate open/closed alarms
- ✓ Switch LED lights on/off
- ✓ Control 220V/110V relays, bow thrusters, windlass or remote battery switches.



## Applications

LED lights, light switching, windlass, bow thruster, 220V/110V, and alarms. Available: first quarter 2012

### **Technical specifications:**

OPERATING VOLTAGE	12V/24V	PRINTBOARD HAS CO.	ATED SURFACE
CAPI2/POWER CONNECT	OR		YES
PHC	ENIX 3 POLE	IGNITION PROTECTED	NO
POWER CONNECTOR MA	X CURRENT	POLARITY PROTECTION	N YES
	10A	WEIGHT	105G/0.23LBS
OUTPUTS/INPUTS	8	CERTIFICATIONS	CE ABYC
1-8 SWITCH INPUTS		IP PROOF	IP64
1-8 OPEN/CLOSE INPUT	SIGNALS	STORAGE TEMP	
1-8 POWER OUTPUTS		-20°C/-40°l	F TO 70°C/158°F
MAX CURRENT		OPERATING TEMP	
PER POWER OUTPUT	1 AMP	-4°C/-24°	F TO 50°C/122°F
MAX TOTAL OUTPUT	6 AMP		

fu	inctions





DC POWER/SENSOR MODULE

CPM [COMPACT POWER MODULE]



AC RELAY MODULE

One or more ring system(s) consisting of a red and a black battery cable, and a purple data cable are fitted to the boat's battery. The electronically controlled DC power node modules that provide the lights, instruments and pumps with the correct voltage are installed in the ring systems. A power node module has 4 outlets. Each outlet has a chip that communicates with the Capi2 control panel or touch screen and indicates the exact status of on-board equipment. The power node modules are installed close to power-consuming equipment to reduce the amount of cabling and

weight.

With our free installation software, you can configure your boat entirely according to your wishes. You can, for example, select the preferred amperage (from 3A to 16A) for each outlet, create dimmers, timers or special switching combinations for lighting.

## **POWER MODULES**

Capi2 developed the AC relay module and DC power node modules to increase the on-board comfort level and safety. These power modules provide lights, instruments and pumps with the correct voltage so that, among other things, the risk of overloading is minimised and any malns are made visible immediately.

> try a compact power module is developed for serial production builders who want to integrate the benefits of a digital bus system, but at a reasonable price.

For the auto-

motive indus-

Capi2 developed the AC relay module for connecting 230V devices. With this module, 3 different devices can be hooked up, giving you total control of all the electrical power consumption on board your boat.

## DC Power node module screw connection

[ART. 200100]



Contains power nodes that are programmable for 3A/ 6A/ 10A/ 13A/ 16A power consumption. In the event of an emergency situation, each node can be bypassed using a standard blade fuse. The nodes are fully potted.

- 4 Power nodes
- 12V-24V
- Programmable for 3A/6A/10A/13A/16A
- Screw Connection
- Standard marine cable for digital information
- Polarity protection
- Bypass for each load with a blade fuse



#### **Technical specifications**

OPERATING DC VOL	FAGE:	12V-24V
POWER OUTLETS:		4
DIGITAL FUSE:	3/6/10	/13/16 A
SURGE CAPACITY:	9	0A /2 MS
DEFECTIVE CABLE/L	AMP IND	ICATOR:
		30MA
POWER CONSUMPT	ION	
IN STANDBY:	0.	1-0.4 MA
ELECTRONIC SYSTEM	Λ BYPASS	: YES
IGNITION PROTECTE	D:	NO
POLARITY PROTECTI	ON:	YES
FULLY POTTED:		YES
WEIGHT:	375 G	/0.83 LBS

# CONNECTOR MAIN FEEDER SCREW: 6 MM/0.24 INCHES/BRASS FUSE: 120A

ONNEC	TOR DIGITAL CABLE
CREW:	3 MM/0.12 INCHES/BRASS
USE:	10A

#### CONNECTOR TO LOADS

CREW: 4 MM NICKEL PLATED ERMINAL: BRASS/TIN-PLATED VASHER: STEEL/ZINC CLEAR CHROMATE USE: MAX 16A		
VASHER: STEEL/ZINC CLEAR CHROMATE	CREW:	4 MM NICKEL PLATED
STEEL/ZINC CLEAR CHROMATE	ERMINAL:	BRASS/TIN-PLATED
	VASHER:	
USE: MAX 16A	STEEL/Z	INC CLEAR CHROMATE
	USE:	MAX 16A

## DC Power node module Deutsch connection

[ART. 200200]



The same module as art. 200100 but with a water tight single connector [Deutsch]. The maximum power is 13A in stead of 16A.



## **Technical specifications**

OPERATING DC VOLTAG	E: 12V-24V
POWER OUTLETS:	4
DIGITAL FUSE:	3/6/10/13 A
SURGE CAPACITY:	90 A/ 2MS
DEFECTIVE CABLE/LAM	P INDICATOR: 30MA
POWER CONSUMPTION	0.1-0.4 MA
ELECTRONIC SYSTEM B	YPASS: YES
IGNITION PROTECTED:	NO
POLARITY PROTECTION	: YES
FULLY POTTED:	YES
WEIGHT:	375 G/0.83 LBS

 CONNECTOR MAIN FEEDER

 SCREW:
 6 MM/0.24 INCHES/BRASS

 FUSE:
 120A

CONNECTOR DIGITAL CABLE SCREW: 3 MM/0.12 INCHES/BRASS

10A

#### CONNECTOR TO LOADS

FUSE:

WATERTIGHT DEUTSCH CONNECTOR FUSE: MAX 13A

## DC Power/sensor module screw connection

[ART. 200300]



Contains 2 power nodes that are programmable for power consumption and 2 sensor nodes programmable as dimmers, floaters, switches, alarms, tank monitoring and timer functions.

In the event of an emergency situation, each node can be bypassed using a standard blade fuse.

- 2 Power nodes and 2 sensor nodes
- 12V-24V / Programmable for 3A, 6A, 10A, 13A or 16A
- Polarity protection
- Bypass with a blade fuse
- Screw connection



YES

375 G/ 0.83 LBS

#### Technical specifications

PERATING DC VOLTAGE	: 12V-24V
OWER OUTLETS:	4
DIGITAL FUSE:	3/6/10/13 A
URGE CAPACITY:	90 A/2 MS
DEFECTIVE CABLE/LAMP	INDICATOR:
	30MA
OWER CONSUMPTION	
N STANDBY:	0.1-0.4 MA
LECTRONIC SYSTEM BY	PASS: YES
GNITION PROTECTED:	NO
OLARITY PROTECTION:	YES

CONNEC	TOR	MAIN	FEEDER	
CONNEC			LEDEK	

SCREW:	6 MM/ 0.24 INCHES/BRASS
FUSE:	120A

## CONNECTOR DIGITAL CABLE

SCREW:	3 MM/ 0.12 INCHES/BRASS
FUSE:	10A

#### CONNECTOR TO LOADS

SCREW:	4 MM NICKEL PLATED
TERMINAL:	BRASS/TIN-PLATED
WASHER:	
STEEL,	ZINC CLEAR CHROMATE

**LEVEL MEASURING** 0-300 Ω / 0-5 V

FULLY POTTED:

WEIGHT:

## DC Power/sensor module Deutsch connection

[ART. 200400]



The same module as art. 200300 but with a water tight single connector [Deutsch]. The maximum power is 13A in stead of 16A.



## Technical specifications:

OPERATING DC VOLTAGE	: 12V-24V
POWER OUTLETS:	2
DIGITAL FUSE:	3/6/10/13 A
SURGE CAPACITY:	90 A/2 MS
DEFECTIVE CABLE/LAMP	PINDICATOR: 30MA
POWER CONSUMPTION IN STANDBY:	0.1-0.4 MA
ELECTRONIC SYSTEM BY	PASS: YES
IGNITION PROTECTED:	NO
POLARITY PROTECTION:	YES
FULLY POTTED:	YES
WEIGHT: 37	75 G/ 0.83 LBS

## CONNECTOR MAIN FEEDER

SCREW:	6 MM/ 0.24 INCHES/BRASS
FUSE:	120A

## CONNECTOR DIGITAL CABLE

SCREW:	3 MM/ 0.12 INCHES/BRASS
FUSE:	10A

#### CONNECTOR TO LOADS

WATERTIGHT	DEUTSCH CONNECTOR
FUSE:	MAX 13A

## LEVEL MEASURING

0-300  $\Omega$  / 0-5 V

## **Compact Power Module [CPM]**

[ART. 200800]

This power module is specially developed for serial production builders who want to integrate the benefits of a digital bus system, but at a reasonable price. At the special request of the automotive industry, the module was equipped with standard automotive fuses instead of digital fuses. This means that the Compact Module must be placed at an accessible location.

✓ Automatic start-up of load when the system is turned on

- ✓ Alarm with text message indicating location of blown fuse
- ✔ Automatic shutdown of load when in overload
- ✓ Alarm with text message indicating location of overload
- ✓ Multiple languages
- ✓ Multiple switching, including hotel switching
- ✓ LED indication on module indicating which fuse needs replacing
- ✓ Remote control

## Measurements



#### **Technical specifications**

OPERATING DC VOLTAGE:	12V	CONNECTION MAIN FEEDER		
POWER OUTLETS		SCREW	6MM/ 0,24 IN	
SINGLE/H-BRIDGE	8/4		COPPER TIN P	
FUSE	7 X < 15A		MAX TORQUE	
	1X<30A	FUSE		
TOTAL CURRENT/MODULE	80 A			
IGNITION PROTECTED	NO	CONNECTION	N DIGITAL CABLE	
POLARITY PROTECTED	NO	2 POLE CONN	NECTOR PHOENIX	
WEIGHT	300 G	FUSE		
RELAY				
DOUBLE POLE, DOUBLE THROW		CONNNECTOR TO LOADS		
,		18 PIN. COP	PER TIN PLATED	

# The Universal Interface is Capi2's multifunctional interface

with total 4 different applications. Use the Universal Interface to control relays, to switch on/off LED lights, setup alarm indications and create smart switching on board of your ship. Control everything which consumes max. 1 Amp.

- ✓ Setup smart switching
- ✓ Indicate open/close alarms
- ✓ Switch on/off LED lights
- ✓ Control relays such as 220V/110V, bow thrusters, windlass or remote battery switches.



## Technical specifications

CONTROL POWER:	12V	FUSE TYPE:	GLASS 1	6A 110V/220V
DPERATING AC VOLTAGE: 110V-220V		IGNITION PR	OTECTED:	NO
OWER OUTLETS:	3	ENCAPSULAT	ION:	IP65
OWER OUTLET FUSE:	16A	WEIGHT:		640 G/1.4 LBS

## AC Relay module for 24V

[ART. 200600]

This unit is the same as art. 200500 but with a higher controlpower, 24V in stead of 12V. Available 1st quarter 2012

## Technical specifications

6MM/ 0,24 INCHES

COPPER TIN PLATED MAX TORQUE 9,6 N

120A

ЗA

CONTROL POWER:	24V	FUSE TYPE: GLASS 16A 110V/220V		
OPERATING AC VOLTAGE: 1	IGNITION PROTECTED:		NO	
POWER OUTLETS:	3	ENCAPSULAT	ION:	IP65
POWER OUTLET FUSE:	16A	WEIGHT:		640 G/1.4 LBS

## AC Relay module for 12V

[ART. 200500]



Because the Capi2 only has 50% of the amount of cabling of conventional systems, its environmental impact is significantly lower. This also provides additional advantages, such as a lower total weight and a large reduction in installation time.



control over all on-board equipment.



Because all installed equipment is digitally fused, the Capi2 increases general safety on board. Programmable timer functions, for example, for the windlass and gas solenoid valve so that they automatically shut down after a specific amount of time.



With the supplied software, your boat can be completely programmed to suit your requirements. The desktop sharing function enables remote viewing so we can give you advice whenever you need it.



It is very important that bilge pumps can be activated even when the system is switched off. Capi2 makes this possible because one power node only uses 0.1 mA in standby mode. A complete installation in a 12-meter yacht only uses 0.9 mA in standby mode. For example: a small tiller autopilot uses 40mA in standby mode.



## WHY CAPI2



## **ENVRIONMENT**

## COMFORT

Use universal switches and assign dimmer or timer functions to lighting. Leave your boat feeling safer and let the lights switch off automatically only when you are no longer on board. Capi2 is easy to operate and gives you total



SAFETY

## ASSISTANCE



## **CONSUMPTION**

## **ABOUT CAPI2**

Capi2 Nederland BV is based in Brainport Eindhoven, the smartest region of the world. We develop and produce the Capi2 distributed power system and supply to end users and wholesalers, as well as special applications to wholesalers.

We are offering a broad range of products, including power and sensor modules, circuit breakers, panels, touch screens, fuse boxes, cabling and installation software.

Capi2 is a leading supplier of distributed power systems worldwide, mainly to yacht builders and electricians and is meant both for serial production and one time build in. With Capi2 modern technology in digital power electronics is costeffective for 18ft to 80ft boats. It is fully potted to withstand harsh marine environments. Capi2 is the first manufacturer to also produce power distribution systems for smaller boats.

We are committed to ranking among the leaders who drive the development of new industry standards and groundbreaking developments in distributed power systems.

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kemmekoolen 🥮

CAPI2 COMPLIES WITH 94/25EC 89/336/EEC

INTERNATIONAL STANDARDS ISO 10133

EMC APPROVALS EN 61 000-6-2 EN 61 000-6-3 IEC 60533

CE APPROVAL YES

ABYC





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## **CHBIS**

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