







X2 series

Strong. Stylish. Smart.

The X2 series is the next generation of HMIs from Beijer **Electronics. Six product families combine great design** with strong performance to power your HMI solutions. Create smart integrated solutions boosted by iX HMI software and WARP Engineering Studio.

We offer a two-year standard warranty

for all operator panels in the X2 series.



One family, one great design

X2 panels offer a slim, modern design. Consistent across the entire range, adding visual quality to your solution.



All the performance you need

Power-efficient ARM9 processors all the way up to the latest quad core ARM Cortex-A9 processors deliver fast program execution and screen change. It gives you all the performance you need.



Robust reliability

The robust die cast aluminum body offers great resistance to mechanical stress. We've redesigned the electronics and made other improvements to further enhance solid operation.



Prepared for any environment

X2 panels operate in wide temperature ranges. They offer strong ingress protection and in addition, they hold all the certificates you need to perform in the field.



Integrated CODESYS control

The X2 series offer integrated CODESYS IEC 61131-3 PLC functionality directly in the panel by multicore processors for fast, safe program execution.



A simple path forward

It's easy to upgrade your existing iX HMI solution to the X2 series.







Touch.Keypad.Display

© +86-15876525394

ZYEAR

WARRANTY

A match for every requirement

The X2 series matches almost every requirement and lets you choose from a powerful range of more than 40 models and additional options.











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X2 base

Cost-effective, full functionality HMIs

X2 base panels are cost-effective industrial HMIs with highresolution touch-screens and modern design. The X2 base panels combine IP65 corrosion resistant plastic housing with the full version of the iX software, providing a cost-effective yet advanced HMI solution for small to medium applications.

X2 base panels are available in 5, 7 and 10 inches.





Everything for your HMI running



Touch.Keypad.Display

Features X2 base



Wide screen format

X2 panels offer wide screen format, designed to succeed the traditional 4:3 square aspect ratio.



UL, CE, FCC and **KCC** certificates

The entire X2 range offers a strong standard certification with UL, CE,

FCC and KCC certificates.



iX software - why you'll love our hardware

The iX software gives you smart

communication tools. iX combines top-class vector graphics and easyto-use functions that provide reliable operation, and almost limitless connectivity to your other equipment.



Fast forward engineering with WARP

Create integrated HMI, control, drives and data

communication solutions with WARP Engineering Studio. WARP automatically configures all hardware, software and communication in your application.



Non-branded front

For customers requesting a nonbranded HMI solution we offer X2 panels

without the family name and Beijer Electronics' logo on the front.



Power efficient ARM9 processors

Power efficient ARM9 processor provides strong performance for

small and medium sized applications.



Corrosion resistant IP65 plastic housing

Corrosion resistant plastic housing with IP65 front. Resistant to direct rain,

snow or wash-downs, dirt, grime and dust.



Operating temperature -10°C to +50°C

The -10°C to +50°C operating

temperature range satisfies the demands of most industries.



All the communication ports you need

X2 base offers 1 × Ethernet, 4 × serial,

1 × USB as standard, securing ample communication with other equipment.

X2 pro

High performance HMIs for all automation needs

X2 pro includes a range of high performance industrial panels designed for demanding applications. All with the high performance of powerful ARM Cortex-A9 processors, the latest screen technology and a wide range of connectivity options to cover all your automation needs.

X2 pro panels are available in 4, 7, 10, 12, 15 and 21 inches.



Features X2 pro



Wide screen format

X2 panels offer wide screen format, designed to succeed the traditional 4:3 square aspect ratio.



UL, CE, FCC and KCC certificates*

The entire X2 range offers a strong standard certification with UL, CE,

FCC and KCC certificates.



iX software - why you'll love our hardware

The iX software gives you smart

communication tools. iX combines top-class vector graphics and easyto-use functions that provide reliable operation, and almost limitless connectivity to your other equipment.



Fast forward engineering with WARP

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communication solutions with WARP Engineering Studio. WARP automatically configures all hardware, software and communication in your application.



Non-branded front

For customers requesting a nonbranded HMI solution we offer X2 panels

without the family name and Beijer Electronics' logo on the front.



Powerful ARM Cortex-A9 processor

Powerful single or dual core ARM Cortex-A9 processor delivers

fast screen changes and program execution in demanding applications.



Robust aluminum housing

Robust aluminum housing with IP65, NEMA 4X/12 and UL Type 4X/12

front. Resistant to direct rain, snow or wash-downs, dirt, grime and dust.



SD memory card

Marine certifications*

normally carried by HMIs, making them

suitable for all onboard locations.

The X2 panels meet

extended classes of

marine certifications not

CiX CAN. Profibus

and MPI module

It's easy to interface

with controllers

using optional CiX

Card holder and USB connection are located behind the lid on the back of the panel for

smart memory expansion, project backup and application loading.

CAN, Profibus or MPI modules.



temperature -10°C

temperature range satisfies the demands of most industries.



Wide operating to +60°C*

The wide -10°C to +60°C operating













Everything for your HMI running

21 offers UL, CE and FCC and certificates, no marine certifications and a temperature range of 0° C to $+50^{\circ}$ C*. See page 22-23 for .com

> Touch.Keypad.Display

X2 marine

Built for life at sea

X2 marine offers user-friendly, reliable operation offshore, on ships and in other maritime applications. With black frame and nautical society certifications, X2 marine panels are suitable for mounting on the bridge, in the engine room and inside cabins. X2 marine panels are available with optional high brightness display and integrated CODESYS PLC functionality.

X2 marine panels are available in 7 and 15 inches with optional high brightness display and integrated CODESYS PLC functionality.















Everything for your HMI running

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> Touch.Keypad.Display

Features X2 marine



Wide screen format

X2 panels offer wide screen format, designed to succeed the traditional 4:3 square aspect ratio.



UL. CE. FCC and **KCC** certificates

The entire X2 range offers a strong standard certification with

UL, CE, FCC and KCC certificates.



iX software - why you'll love our hardware

The iX software gives you smart

communication tools. iX combines top-class vector graphics and easyto-use functions that provide reliable operation, and almost limitless connectivity to your other equipment.



Fast forward engineering with WARP

Create integrated HMI, control, drives and data

communication solutions with WARP Engineering Studio. WARP automatically configures all hardware, software and communication in your application.



Non-branded front

For customers requesting a nonbranded HMI solution we offer X2 panels

without the family name and Beijer Electronics' logo on the front.



Powerful ARM Cortex-A9 processor

Powerful single, dual or quad core ARM Cortex-A9 processor

delivers fast screen changes and program execution in demanding applications.



Robust aluminum housing

Robust aluminum housing with IP65, NEMA 4X/12 and UL Type 4X/12

front. Resistant to direct rain, snow or wash-downs, dirt, grime and dust.



Wide operating temperature -10°C to +60°C

The wide -10° to +60°C operating

temperature range satisfies the demands of most industries.



Marine certifications

The X2 panels meet extended classes of marine certifications not normally carried by HMIs,

making them suitable for all onboard locations.



CiX CAN. Profibus and MPI module

It's easy to interface with controllers using optional CiX

CAN, Profibus or MPI modules.



SD memory card

Card holder and USB connection are located behind the lid on the back of the panel

for smart memory expansion, project backup and application loading.



Dimmable backlight

Comfortable and safe operation in high and low ambient light. Backlight is continuously

dimmable to less than one cd/m².



High brightness display

Optional 1,000 cd/m² backlight provides excellent readability in

high ambient light levels such as sunlight.



Add control by **CODESYS**

Choose optional IEC 61131-3 PLC functionality by CODESYS, running

on dedicated CPU cores for safe and fast program execution. Just add remote I/Os for a scalable, cost-effective solution.



Built-in digital outputs

X2 marine panels with high brightness option have built-in

digital outputs for direct connection of alarms, signal lights, etc.



Internal isolation

Internal isolation conforms to marine standards for both burst and surge immunity.



X2 control

Integrated CODESYS control

X2 control panels combine industrial HMI and CODESYS PLC functionality in the same compact hardware. Panels range from ultra-compact 4-inch to 15-inch panels designed for demanding applications. Add standard distributed I/Os and you'll get an elegant, scalable and cost-effective solution that's cutting-edge.

X2 control panels are available in 4, 7, 10, 12 and 15 inches.













Features X2 control



Wide screen format

X2 panels offer wide screen format, designed to succeed the traditional 4:3 square aspect ratio.



UL. CE. FCC and **KCC** certificates

The entire X2 range offers a strong standard certification with

UL, CE, FCC and KCC certificates.



iX software - why vou'll love our hardware

The iX software gives you smart

communication tools. iX combines top-class vector graphics and easyto-use functions that provide reliable operation, and almost limitless connectivity to your other equipment.



Fast forward engineering with WARP

Create integrated HMI, control, drives and data

communication solutions with WARP Engineering Studio. WARP automatically configures all hardware, software and communication in your application.



Non-branded front

For customers requesting a non-branded HMI solution we offer X2 panels without the family name

and Beijer Electronics' logo on the front.



Powerful ARM Cortex-A9 processor

Powerful dual or quad core ARM Cortex-A9 processor delivers

fast screen changes and program execution in demanding applications.



Robust aluminum housing

Robust aluminum housing with IP65. NEMA 4X/12 and UL Type 4X/12 front.

Resistant to direct rain, snow or washdowns, dirt, grime and dust.



Wide operating temperature -10°C to +60° C

The wide -10°C to +60°C operating

temperature range satisfies the demands of most industries.



Marine certifications

The X2 panels meet extended classes of marine certifications not normally carried by

HMIs, making them suitable for all onboard locations.



CiX CAN, Profibus and MPI module

It's easy to interface with controllers using optional CiX

CAN, Profibus or MPI modules.



SD memory card

Card holder and USB connection are located behind the lid on the back of the panel

for smart memory expansion, project backup and application loading.



2 Ethernet ports as standard

Panels have two built-in Ethernet ports as standard for

communication with other equipment.



EtherCAT as standard

X2 panels support communication with super-fast EtherCAT as standard.



Control by CODESYS

Integrated IEC 61131-3 PLC functionality by CODESYS, running on dedicated CPU cores for safe and fast

program execution. Just add remote I/Os for a scalable, cost-effective solution.



Built-in digital outputs

10, 12 and 15 inch panels have built-in digital outputs for direct

connection of alarms, signal lights, etc.



Configuration freedom

Applications remain elegantly slim with integrated control in the

panel. Add remote I/Os to fit your needs, and select between three major fieldbuses - EtherCAT, Modbus RTU and Modbus TCP.



Less risk of error with one system

Two separate PLC and HMI systems mean twice the risk of error. X2 control

changes all that. Simply configure your system with WARP and you're done. It's never been easier to create applications.

Everything for your HMI running

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> Touch.Keypad.Display

X2 motion

Integrated CODESYS motion and control

X2 motion panels deliver intuitive HMI with integrated CODESYS motion and PLC functionality in the same compact hardware. Panels range from ultra-compact 4-inch to 15-inch panels designed for demanding applications. Our lean yet powerful hardware with super-fast EtherCAT communication provides the speed you want with the stability you need.

X2 motion panels are available in 4, 7, 10, 12 and 15 inches.













Features X2 motion



Wide screen format

X2 panels offer wide screen format, designed to succeed the traditional 4:3 square aspect ratio.



UL, CE, FCC and **KCC** certificates

The entire X2 range offers a strong standard certification with UL, CE,

FCC and KCC certificates.



iX software – why vou'll love our hardware

The iX software gives you smart

communication tools. iX combines top-class vector graphics and easyto-use functions that provide reliable operation, and almost limitless connectivity to your other equipment.



Fast forward engineering with WARP

Create integrated HMI, control, drives and data

communication solutions with WARP Engineering Studio. WARP automatically configures all hardware, software and communication in your application.



Non-branded front

For customers requesting a non-branded HMI solution we offer X2 panels without the family name

and Beijer Electronics' logo on the front.



Powerful ARM Cortex-A9 processor

Powerful dual or quad core ARM Cortex-A9 processor delivers

fast screen changes and program execution in demanding applications.



Robust aluminum housing

Robust aluminum housing with IP65, NEMA 4X/12 and UL Type 4X/12 front.

Resistant to direct rain, snow or washdowns, dirt, grime and dust.



Wide operating temperature -10°C to +60° C

The wide -10°C to +60°C operating

temperature range satisfies the demands of most industries.



Marine certifications

The X2 panels meet extended classes of marine certifications not normally carried by HMIs,

making them suitable for all onboard locations.



CiX CAN, Profibus and MPI module

It's easy to interface with controllers using optional CiX CAN, Profibus or MPI modules.



SD memory card

Card holder and USB connection are located behind the lid on the back of the panel for

smart memory expansion, project backup and application loading.



2 Ethernet ports as standard

Panels have two built-in Ethernet ports as standard for

communication with other equipment.



EtherCAT as standard

X2 panels support communication with super-fast EtherCAT as standard.



Motion and control by CODESYS

Integrated CODESYS motion and IEC 61131-3 PLC functionality running

on dedicated CPU cores for safe and fast program execution. Connect directly to a BSD servo drive and add I/Os for a scalable, cost-effective solution.



Built-in digital outputs

10, 12 and 15 inch panels have built-in digital outputs for direct

connection of alarms, signal lights, etc.



Configuration freedom

Applications remain elegantly slim with integrated control/

motion in the panel. Add BSD servo drives and remote I/Os to fit your needs, and take advantage of the super-fast EtherCAT communication.



Get a head start

You're off to a flying start with our readymade template project which sets up all the

basic settings for iX and CODESYS. Download the project, adapt it to your application and you're good to go.



Servo drives and motors fitting seamlessly

Our servo drives and motors give you

great functions such as auto detect of motor and encoder, online auto tuning, advanced filters, open high-speed EtherCAT network, safe torque-off, etc.

Everything for your HMI running

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X2 extreme

Rugged HMIs for tough environments

X2 extreme panels are certified by all major classification societies. Designed to perform in rugged marine environments and in hazardous areas where gases, vapors and dust are present. Extended environmental capabilities include operating temperatures from -30°C to +70°C, high vibrations and highpressure wash-downs. X2 extreme panels are available with optional high brightness display, integrated CODESYS PLC functionality and in a fully sealed version.

X2 extreme panels are available in 7, 12 and 15 inches, all in 3 versions. A standard version, a high performance version with high brightness display and integrated CODESYS PLC functionality, and a fully sealed version.























Wide screen format

X2 panels offer wide screen format, designed to succeed the traditional 4:3 square aspect ratio.



UL. CE. FCC and **KCC** certificates

The entire X2 range offers a strong standard certification with UL, CE,

FCC and KCC certificates.



iX software - why you'll love our hardware

The iX software gives you smart

communication tools. iX combines top-class vector graphics and easyto-use functions that provide reliable operation, and almost limitless connectivity to your other equipment.



Fast forward engineering with WARP

Create integrated HMI, control, drives and data

communication solutions with WARP Engineering Studio. WARP automatically configures all hardware, software and communication in your application.



Non-branded front

For customers requesting a nonbranded HMI solution we offer X2 panels

without the family name and Beijer Electronics logo on the front.



.com

Powerful ARM Cortex-A9 processor

Powerful dual or quad core ARM Cortex-A9 processor delivers

fast screen changes and program nanding applications.

Everything for your HMI running



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Features X2 extreme



Robust aluminum housing

Robust aluminum housing with IP66, NEMA 4X/12 and UL

Type 4X/12 front. Resistant to direct rain, snow or high-pressure washdowns, dirt, grime and dust.



Extreme operating temperature -30°C to +70°C

Extreme -30°C to +70° C operating temperature

range guarantees trouble-free use in the harshest environments.



Marine certifications

The X2 panels meet extended classes of marine certifications not normally carried

by HMIs, making them suitable for all onboard locations.



Integrated CiX CAN bus

It's easy to interface with controllers using the integrated CiX bus.



SD memory card

Card holder and USB connection are located behind the lid on the back of the panel

for smart memory expansion, project backup and application loading.



Dimmable backlight

Comfortable and safe operation in high and low ambient light conditions. Backlight is continuously

dimmable to less than one cd/m².



High brightness display

The high performance version features 1,000 cd/m² backlight

providing excellent readability in high ambient light levels such as sunlight.



Add control by CODESYS

The high performance version offers integrated CODESYS IEC 61131-3

PLC functionality running on dedicated CPU cores for safe and fast program execution. Just add remote I/Os for a scalable, cost-effective solution.



Certified for hazardous environments

Certified for use in hazardous areas where

gases, vapors and dust are present.



Internal isolation

Internal isolation conforms to marine standards for both burst and surge immunity.



High vibration

Panels are tested to 4 g RMS sweep sine for vibration and 40 g 11 ms half sine for shock.



Extensive testing

We perform extensive testing to ensure our panels meet high environmental

standards and guarantee reliable operation in challenging environments.



Fully sealed version

A fully sealed version for all sizes holds IP66, NEMA 4X/12 and UL Type 4X/12

ingress protection rating for the entire product. Equipped with M12 connectors, X2 extreme conforms to ATEX Zone 2 and ATEX Zone 22 certification.

X2 extreme is scheduled for release in mid 2017.

Please refer to www.beijerelectronics.com for our current range of rugged HMIs.

iX software — why you'll love our hardware The iX software gives you smart communication tools. It combines top-class vector graphics and easy-to-use functions that provide reliable operation, and almost limitless connectivity to your other equipment.

Fast forward engineering

Create integrated HMI, control, drives and data communication solutions with WARP Engineering Studio. WARP automatically configures all hardware, software and communication in your application. What used to take days to set up, can be up and running in a few minutes.



Efficient workflow

Speed up engineering in an intuitive development environment filled with shortcuts. Pre-styled objects, a customizable workspace, a component library and a smart property grid are some of the features that'll boost your workflow. Share your customized objects and advanced script modules with colleagues.

Complete HMI functionality

It's easy to get your application up and running. All essential functions you need are included such as data logging, recipes, alarms, trends and audit trail. Take advantage of ready-made objects with built-in functionality, vector-based symbols and graphics that can be easily inserted into the screen.

Functionality for advanced users

iX has support for .NET technology, providing options to design specialized functionality. Use C# scripting or .NET components. Take advantage of third party objects and import .NET assemblies to extend the functionality

further. Control and exchange data with multiple controllers and enjoy connectivity via SQL, FTP, OPC and web.

Connect to all automation brands

An extensive driver list enables communication with hundreds of unique PLCs and automation equipment from all major manufacturers. Share information easily between users and have safe control of complex systems, even over long distances. Transfer files and control panels remotely with FTP and VNC servers.



Features

- Seamless integration of Beijer Electronics products
- Structured and integrated workflow with drag & drop
- Auto-configuration of all hardware, software and communication settings
- · Simply draw lines to interconnect devices
- Avoid mistakes and work failsafe with auto-resolve
- Access all individual application program editors automatically
- Smart objects with embedded functionality such as PLC code or HMI screens
- Easy distribution, backup and recovery of projects
- · Shortcuts to important documentation
- Generate bill of material for simplified purchase

Save time with smart objects

A great feature of WARP Engineering Studio is the introduction of smart objects. A smart object includes ready-made, embedded functionality such as PLC code, HMI screens, etc. Drag a smart object into your workspace and just drop it on a device. All embedded code is then injected into the targeted devices. Smart and time-saving.

Industrial apps in Smart Store

The future of automation engineering is object-oriented, visual and user-community based. With the introduction of our Smart Store, you will find a growing multitude of industrial apps – smart objects, software and software updates that you can download and use immediately.





Download iX HMI software

Go to smartstore.beijerelectronics.com and try out the free demo version of iX.



Download WARP Engineering Studio

Go to smartstore.beijerelectronics.com and try out the full version of WARP Engineering Studio for free.

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⋈ sales@vicpas.com

Technical data – X2 base
Technical data - X2 marine







	X2 base 5	X2 base 7	X2 base 10
General description			
Part number	630005105	630005205	630005305
Certifications	0,000,00	0,500,20,5	0,000,000
General		CE, FCC, KCC	
Marine		-	
UL		UL 61010-2-201	
Mechanical	I .	020.0.0 220.	
Mechanical size	170 × 107 × 49 mm	196 × 146 × 52 mm	284 × 187 × 52 mm
Touch type	7, 2, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,	Resistive	20, 10, 32,
Cut-out size	161 × 93 mm	186 × 136 mm	275 × 177 mm
Weight	0.5 kg	0.7 kg	1.3 kg
Housing material	3	Plastic (PC+ABS), Gray	12 0
Power			
Input voltage		wer supply must conform with the require ower supply must conform with the require	
Power consumption	6W	9.6W	10.8W
Input fuse		Internal DC fuse	1
System			
CPU		ARM9 400 MHz	
RAM		128 MB	
FLASH	2	256 MB, 200 MB free for application storag	že
Display		,	
Size diagonal	5" diagonal	7" diagonal	10.1" diagonal
Resolution		800 × 480 pixels	
Backlight	LED Backlight		
Backlight life time		20 000 hours	
Backlight brightness	300 cd/m ² 400 cd/m ²		350 cd/m²
Backlight dimming		Industrial Dimming	,
Display type	TFT-LCD with LED backlight		
Display pixel error		Class I (ISO9241-307)	
Communication serial		· ·	
Number of serial ports		2 Port 9pin DSUB	
Serial port 1		RS 232 (RTS/CTS)	
Serial port 2		RS422/485	
Serial port 3		RS 232	
Serial port 4		RS 485	
Ethernet communication			
Number of ethernet ports		1	
Ethernet port 1		1 × 10/100 Base-T (shielded RJ45)	
Ethernet port 2		=	
Expansion interface			
Expansion port		No	
SD card		No	
USB	1× USB 2.0 500mA		
Environmental			
Operating temperature		-10°C to +50°C	
Storage temperature		-20° to +60°C	
Shock	15:	g, half-sine, 11ms according to IEC60068-2	2-27
Vibration		1g, according to IEC 60068-2-6, Test Fc	
Sealing front		IP65	
Sealing back		IP20	
Humidity		5% – 85% non-condensed	Everyth
• • • •	Every ti		





	X2 marine 7 (HB, SC, HB SC)	X2 marine 15 (HB, SC, HB SC)	
General description			
Part number	630002505 (HB: 630008705, SC: 630008605, HB SC: 630008805)	640003305 (HB: 640003505, SC: 640009005, HB SC: 640009405)	
Certifications*		,	
General		CE, FCC, KCC	
Marine	DNV. KR. G	L, LR, ABS, CCS, EN60945	
UL		UL 61010-2-201	
Mechanical			
Mechanical size	204 × 143 × 50mm	410 × 286 × 61mm	
Touch type	23, 1,2 23	Resistive	
Cut-out size	189 × 128mm	394 × 270mm	
Weight	0.8 kg	3.85 kg	
Housing material		coated aluminum, Black	
Power	Tonder	Sacca atammam, Black	
Input voltage	24 V DC (18 to 32 VDC) CE: The power supply must confo UL and cUL: The power supply must conform with the re	orm with the requirements according to IEC 60950 and IEC 61558-2-4 guirements for class II power supplies.	
Power consumption	14.4W (HB: 21.6W, SC: 14.4W, HB, SC: 21.6W)	31.2W (HB: 33.6W, SC: 31.2W, HB SC: 33.6W)	
Input fuse		nternal DC fuse	
System			
СРИ	i.MX6Solo Single Cortex-A9 1.0GHz 512kBL2cache (HB, HB SC: Quad ARMCortex-A9, SC: Dual Cortex-A9)	i.MX6Quad, Quad ARMCortex-A91.0GHz1MBL2cache	
RAM	512 MB (HB, HB SC: 2 GB, SC: 1 GB)	2 GB	
FLASH	2GB SSD(eMMC), 1	.5GB free for application storage	
Display		·	
Size diagonal	7" diagonal	15.4" diagonal	
Resolution	800 × 480 pixels	1280 × 800 pixels	
Backlight	LED Backlight		
Backlight life time	50 000 hours 50 000 hours (HB, HB SC: 30000 hours)		
Backlight brightness	500 cd/m² (HB, HB SC: 1000 cd/m²) 450 cd/m² (HB, HB SC: 1000 cd/m²)		
Backlight dimming		ed dimming, down to 0,5 cd/m ²	
Display type		D with LED backlight	
Display pixel error	Class I (IS09241-307)		
Softcontrol		(111)	
Codesys runtime version	-	(SC, HB SC: 3.5)	
Codesys EtherCAT		(SC, HB SC: Yes)	
Codesys Modbus Ethernet		(SC, HB SC: Yes)	
Codesys Modbus RTU		(SC, HB SC: Yes)	
Digital IO		(0.5, 1.1. 0.0. 1.1.)	
Digital output	- (HB. HB SC: 2×D0) Solid state relay, 0.5A@24VDC)	
Communication serial	(,)		
Number of serial ports	1	Port 9pin DSUB	
Serial port 1		S 232 (RTS/CTS)	
Serial port 2		RS422/485	
Serial port 3	RS485 (only if COM 2 is RS485)	
Ethernet communication	13403 (
Number of ethernet ports	1 (HB, SC, HB SC: 2)	2	
Ethernet port 1		D Base-T (shielded RJ45)	
Ethernet port 2	- (HB/SC/HB SC: 1×10/100 Base-T - shielded RJ45)	1×10/100 Base-T (shielded RJ45)	
Expansion interface	(1	
Expansion port	Vac ri	X expansion module	
SD card	ies, c	SD and SDHC	
USR	1× USB 2.0 500mA (HB/HB SC: 2xUSB 2.0 500mA)	2×USB 2.0 500mA	
running	1 030 2.0 300mm (110/110 3C. 2x030 2.0 300mm)	2 ^ 0.3 D 2.0 JUUIIIA	
Operating temperature		-10°C to +60°C	
Storage temperature		-20°C to +70°C	
Charl		ms according to IEC60068-2-27	







	X2 pro 4	X2 pro 7	
General description			
Part number	630000105	630000205	
Certifications*			
General	CE, FCC	C, KCC	
Marine	DNV, KR, GL, I		
UL	UL 61010		
Mechanical			
Mechanical size	145 × 104 × 50 mm	204 × 143 × 50 mm	
Touch type	Resis		
Cut-out size	130 × 89 mm	189 × 128mm	
Weight	0.5 kg	0.8 kg	
Housing material	Powder-coated a		
Power	1 owaci coulcu		
Input voltage	24 V DC (18 to 32 VDC) CE: The power supply must confo IEC 61558-2-4. UL and cUL: The power supply must confo		
Power consumption	12W	14.4W	
Input fuse	Internal	DC fuse	
System			
CPU	i.MX6Solo Single Cortex-A	A9 1.0GHz 512kBL2cache	
RAM	512 /	MB	
FLASH	2GB SSD(eMMC), 1.5GB fre	ee for application storage	
Display	, , ,	11	
Size diagonal	4.3" diagonal	7" diagonal	
Resolution	480 × 272 pixels	800 × 480 pixels	
Backlight	LED Bac	· · · · · · · · · · · · · · · · · · ·	
Backlight life time	50 000 hours	20 000 hours	
Backlight brightness	300 cd/m ² 350 cd/m ²		
Backlight dimming		· · · · · · · · · · · · · · · · · · ·	
Display type	Industrial Dimming TFT-LCD with LED backlight		
Display pixel error	Class I (ISO9241-307)		
	Class (1307241 707)		
Communication serial	4 Deat Out	in DCUD	
Number of serial ports	1 Port 9pi		
Serial port 1	RS 232 (RTS/CTS)		
Serial port 2	RS422	•	
Serial port 3	RS485 (only if Co	OM 2 is RS485)	
Ethernet communication			
Number of ethernet ports	1		
Ethernet port 1	1×10/100 Base-T	· · · · ·	
Ethernet port 2	NA		
Expansion interface			
Expansion port	Yes, ciX expan	nsion module	
SD card	SD and	SDHC	
USB	1× USB 2.0	0 500mA	
Environmental			
Operating temperature	-10°C to	+60°C	
Storage temperature	-20°C to	+70°C	
Shock	15g, half-sine, 11ms acco	rding to IEC60068-2-27	
Vibration	1g, according to IEC		
Sealing front	IP66, NEMA 4X/12 and UL Type 4X/12	IP65, NEMA 4X/12 and UL Type 4X/12	
Sealing back	IP2	20	

 $^{{\}it *Certifications pending. Please refer to www.beijerelectronics.com/x2 for detailed status.}$









X2 pro 10	X2 pro 12	X2 pro 15	X2 pro 21
,	•	•	, ·
630000305	640000205	640000305	640009505
	CE, FCC, KCC		CE, FCC
	DNV, KR, GL, LR, ABS, CCS		_
	UL 6101	10-2-201	
292×194×52mm	340×242×57 mm	410 × 286 × 61mm	556 × 347 × 65mm
		stive	
275 × 177mm	324×226mm	394×270mm	539 × 331mm
1.65 kg	2.6 kg	3.85 kg	7,38 kg
	Powder-coated	aluminum, Gray	'
	PVDC) CE: The power supply must conf L and cUL: The power supply must con		
21.6W	28.8W	31.2W	45,6W
	Internal	DC fuse	
i.MX6D	ualLite, Dual Cortex-A9 1.0GHz 512kBL	.2cache	i.MX6Quad, Quad ARMCortex-A 1.0GHz 1MBL2cache
	1 GB		2 GB
	2GB SSD(eMMC), 1.5GB fr	ree for application storage	
10.1" diagonal	12.1" diagonal	15 / diagonal	21 E" diagonal
10.1" diagonal 1024×600 pixels	12.1 diagonal 1280 × 800 pixels	15.4" diagonal 1280 × 800 pixels	21,5" diagonal 1920 ×1080 pixels
1024 × 000 pixets	·	ncklight	1920 × 1000 pixets
) hours	
500 cd/m ²	400 cd/m²	450 cd/m²	250 cd/m²
		l Dimming	,
	TFT-LCD with	LED backlight	
	Class I (ISC	09241-307)	
	1 Port 9p	oin DSUB	
		RTS/CTS)	
		2/485	
	RS485 (only if C	COM 2 is RS485)	
		า	
		2 T (shielded RJ45)	
		T (shielded RJ45)	
	,	. (4	
	Yes, ciX expa	nsion module	
	SD and	d SDHC	
	2 × USB 2	.0 500mA	
	-10°C to +60°C		0°C to +50°C
	-20°C to +70°C		-20°C to +60°C
	4F= 1-16-t 44-	audin = to IECCOOCO 2 27	
		ording to IEC60068-2-27	
	1g, according to IEC	60068-2-6, Test Fc	
	1g, according to IEC IP65, NEMA 4X/12		



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	X2 control 4	X2 control 7	
General description			
Part number	630001705	630001805	
Certifications*	12.11.1.12		
ieneral	CE, FCC, k	KCC	
Marine	DNV, KR, GL, LR,		
JL	UL 61010-2		$\overline{}$
Mechanical			
Mechanical size	145 × 104 × 50mm	204×143×50mm	
Touch type	Resistiv		
Cut-out size	130 × 89mm	189×128mm	
Weight	0.5 kg	0.8 kg	
Housing material	Powder-coated alu		
ower			
nput voltage	Input voltage 24 V DC (18 to 32 VDC) CE: The power supp to IEC 60950 and IEC 61558-2-4. UL and cUL: The power class II powers	supply must conform with the requirements	
Power consumption	12W	14.4W	
nput fuse	Internal DC	fuse	
System			
PU	i.MX6DualLite, Dual Cortex-A	9 1.0GHz 512kBL2cache	
AM	1 GB		
LASH	2GB SSD(eMMC), 1.5GB free f	for application storage	
Display			
ize diagonal	4.3" diagonal	7" diagonal	
esolution	480 × 272 pixels	800 × 480 pixels	
acklight	LED Backl	ight	
acklight life time	50 000 hours	20 000 hours	
acklight brightness	300 cd/m²	350 cd/m²	
acklight dimming	Industrial Dir	mming	
splay type	TFT-LCD with LED	backlight	
isplay pixel error	Class I (ISO9241-307)		
oftcontrol			
odesys runtime version	3.5		
odesys EtherCAT	Yes		
odesys Modbus Ethernet	Yes		
odesys Modbus RTU	Yes		
ommunication serial			
umber of serial ports	1 Port 9pin I	DSUB	
erial port 1	RS 232 (RTS	/CTS)	
erial port 2	RS422/4	85	
erial port 3	RS485 (only if CON	1 2 is RS485)	
thernet communication			
lumber of ethernet ports	2		
Ethernet port 1	1×10/100 Base-T (s	hielded RJ45)	
thernet port 2	1×10/100 Base-T (s		
xpansion interface	.,	, , ,	
Expansion port	Yes, ciX expansio	on module	
D card	SD and SD		
ISB	1× USB 2.0 5		
nvironmental	1030 2.0 9		
perating temperature	-10°C to +6	00°C	
torage temperature	-20°C to +7		Е.
hock	15g, half-sine, 11ms accordi		E۱
ibration	1g, according to IEC 60	-	_
ealing front	IP66, NEMA 4X/12 and UL Type 4X/12	IP65, NEMA 4X/12 and UL Type 4X/12	_
		11 03, NEMA 4A/ 12 and OL Type 4A/ 12	_
Sealing back	IP20		_

5% – 85% non-condensed







X2 contro	10	X2 control 12	X2 control 15
63000190	5	640002205	640002405
		CE, FCC, KCC	
		DNV, KR, GL, LR, ABS, CCS	
		UL 61010-2-201	
292×194×52	mm	340 × 242 × 57 mm	410 × 286 × 61 mm
32 31 32		Resistive	7.0 200 0
275×177 m	m	324 × 226 mm	394 × 270mm
1.65 kg		2.6 kg	3.85 kg
		Powder-coated aluminum, Gray	-
Input voltage 24 V DC (18		ower supply must conform with the requirements accor upply must conform with the requirements for class II p	
21.6W		28.8W	31.2W
		Internal DC fuse	1
		i.MX6Quad, Quad ARMCortex-A9 1.0GHz 1MBL2cache	
		2 GB	
		2GB SSD(eMMC), 1.5GB free for application storage	
10.1" diagor	nal	12.1" diagonal	15.4" diagonal
1024 × 600 pi	xels	1280 × 800 pixels	1280 × 800 pixels
		LED Backlight	
		50 000 hours	
500 cd/m	2	400 cd/m²	450 cd/m²
		Industrial Dimming	
		TFT-LCD with LED backlight	
		Class I (ISO9241-307)	
		3.5	
		Yes	
		Yes	
		Yes	
		1 Port 9pin DSUB	
		RS232 (RTS/CTS)	
		RS422/485	
		RS485 (only if COM 2 is RS485)	
		2	
		2 1×10/100 Base-T (shielded RJ45)	
		1×10/100 Base-1 (shielded RJ45)	
		1 10, 100 Base 1 (Sincided R)43)	
		Yes, ciX expansion module	
		SD and SDHC	
		2×USB 2.0 500mA	
		-10°C to +60°C	
		-20°C to +70°C	
I running		15g, half-sine, 11ms according to IEC60068-2-27	
		1g, according to IEC 60068-2-6, Test Fc	
		IP65, NEMA 4X/12 and UL Type 4X/12	
		IP65, NEMA 4X/12 and UL Type 4X/12 IP20	



Humidity

^{*}Certifications pending. Please refer to www.beijerelectronics.com/x2 for detailed status.





	X2 motion 4	X2 motion 7	
ieneral description			
Part number	630008305	630008405	
Certifications*	050000505	0,000040	
General	CE, FCC, k	«rr	
Marine	DNV, KR, GL, LR,		
UL	UL 61010-2		
Mechanical	UL 01010-2	-201	
Mechanical size	145 × 104 × 50mm	204×143×50mm	
Touch type	Resistiv		
Cut-out size	130 × 89mm	189 × 128mm	
Weight	0.5 kg	0.8 kg	
Housing material	Powder-coated alu		
Power	Fowder-coated atu	illiliulii, Gray	
Input voltage	24 V DC (18 to 32 VDC) CE: The power supply must confo		
	and IEC 61558-2-4. UL and cUL: The power supply must supplies		wer
Power consumption	12W	14.4W	
Input fuse	Internal DC	fuse	
System			
CPU	i.MX6DualLite, Dual Cortex-A	9 1.0GHz 512kBL2cache	
RAM	1 G B		
FLASH	2GB SSD(eMMC), 1.5GB free f	for application storage	
Display			
Size diagonal	4.3" diagonal	7" diagonal	
Resolution	480 × 272 pixels	800×480 pixels	
Backlight	LED Backl	ight	
Backlight life time	50 000 hours	20 000 hours	
Backlight brightness	300 cd/m²	350 cd/m²	
Backlight dimming	Industrial Di	<u> </u>	
Display type	TFT-LCD with LED		
Display pixel error	Class I (ISO92		
Softcontrol	The state of the s		
Codesys runtime version	3.5		
Codesys EtherCAT	Yes		
Codesys Modbus Ethernet	Yes		
Codesys Modbus RTU	Yes		
Communication serial	Tes		
Number of serial ports	1 Port 9pin I	DSUB	
Serial port 1	RS232 (RTS)		
Serial port 2	RS422/4		
Serial port 3	RS485 (only if CON	1 2 15 K3463)	
Ethernet communication	2		
Number of ethernet ports	2	1:11 19(5)	
Ethernet port 1	1×10/100 Base-T (s		
Ethernet port 2	1×10/100 Base-T (s	hielded RJ45)	
Expansion interface	T		
Expansion port	Yes, ciX expansion		
SD card	SD and SE		
USB	1×USB 2.0 5	00mA	
Environmental			
Operating temperature	-10°C to +6		
Storage temperature	-20°C to +7	70°C	E١
Shock	15g, half-sine, 11ms accord	ing to IEC60068-2-27	
Vibration	1g, according to IEC 60	068-2-6, Test Fc	
Sealing front	IP66, NEMA 4X/12 and UL Type 4X/12	IP65, NEMA 4X/12 and UL Type 4X/12	
Sealing back	IP20		
Humidity	5% _ 85% non-c	ondancad	

5% – 85% non-condensed

Humidity

26







X2	motion 10	X2 motion 12	X2 motion 15
X2			
6	30008905	640002305	640002505
		CE, FCC, KCC	
		DNV, KR, GL, LR, ABS, CCS	
		UL 61010-2-201	
292	×194×52mm	340 × 242 × 57mm	410 × 286 × 61mm
		Resistive	
2	75×177mm	324 × 226mm	394 × 270mm
	1.65 kg	2.6 kg	3.85 kg
		Powder-coated aluminum, Gray	
2/ // DC	(40 to 22 VDC) CF. The manual of	To the second se	(0050 and IEC (4550 2 (III and all)
24 V DC		supply must conform with the requirements according to IEC supply must conform with the requirements for class II powe	
	21.6W	28.8W	31.2W
		Internal DC fuse	*··-··
		i.MX6Quad, Quad ARMCortex-A9 1.0GHz 1MBL2cache	
		2 GB	
		2GB SSD(eMMC), 1.5GB free for application storage	
10	.1" diagonal	12.1" diagonal	15.4" diagonal
	4 × 600 pixels	1280 × 800 pixels	1280 × 800 pixels
102	FA 000 PIACIS	LED Backlight	1200 × 000 pixets
		50 000 hours	
	500 cd/m ²	400 cd/m²	450 cd/m²
		Industrial Dimming	
		TFT-LCD with LED backlight	
		Class I (IS09241-307)	
		3.5 Yes	
		Yes	
		Yes	
		···	
		1 Port 9pin DSUB	
		RS 232 (RTS/CTS)	
		RS422/485	
		RS485 (only if COM 2 is RS485)	
		2	
		1x10/100 Base-T (shielded RJ45)	
		1x10/100 Base-T (shielded RJ45)	
		Yes, ciX expansion module	
		SD and SDHC	
		2xUSB 2.0 500mA	
		-10°C to +60°C	
100		-20°C to +70°C	
running 🗌		15g, half-sine, 11ms according to IEC60068-2-27	
9		1g, according to IEC 60068-2-6, Test Fc	
		IP65, NEMA 4X/12 and UL Type 4X/12	
		11 05, NEMIX 477, 12 and 02 Type 477, 12	
		IP20 5% – 85% non-condensed	

 $^{{\}it *Certifications pending. Please refer to www.beijerelectronics.com/x2 for detailed status.}$



	X2 extreme 7 / X2 extreme 7 HP	
General description		
Part number	TBD	
Certifications		
General	CE, FCC, KCC TBD	
Marine	DNV, KR, GL, LR, ABS, CCS TBD	
JL	UL 61010/Class I Div 2, ATEX Zone 2, IECEx Zone 2, Zone 22	
Mechanical		
Mechanical size	204×143×50 mm (estimated)	
Touch type	Resistive	
Cut-out size	189 × 128 mm (estimated)	
Veight	1 kg (estimated)	
Housing material	Powder-coated aluminum	
Power		
nput voltage	24 VDC (18 to 32 VDC) or 12 VDC (9 to 16 VDC) (HP: 24 VDC (18 to 32 VDC))
Power consumption	TBD	
nput fuse	Internal DC fuse	
System		
CPU	i.MX6 version TBD	
RAM	TBD	
FLASH	TBD	
Display		
Size diagonal	7" diagonal	
Resolution	800 × 480 pixels	
Backlight	LED Backlight	
Backlight life time	TBD	
Backlight brightness	TBD (HP: γ = 1000 cd/m ² TBD)	
Backlight dimming	TBD (HP: Marine)	
Display type	TFT-LCD with LED backlight	
Display pixel error	Class I (ISO9241-307)	
Softcontrol		
Codesys runtime version	- (HP: 3.5)	
Codesys EtherCAT	- (HP: Yes)	
Codesys Modbus Ethernet	- (HP: Yes)	
Codesys Modbus RTU	- (HP: Yes)	
Communication serial		
Number of serial ports	2	
Serial port 1	TBD	
Serial port 2	TBD	
Serial port 3	•	
Ethernet communication		
Number of ethernet ports	2	
Ethernet port 1	1×10/100 Base-T (shielded RJ45)	
Ethernet port 2	1×10/100 Base-T (shielded RJ45)	
Expansion interface		
Expansion port	No, however has integrated CAN Bus	
SD card	SD and SDHC	
JSB	2×USB 2.0 500mA	
Invironmental		
Operating temperature	-30°C to +70°C	
Storage temperature	-40°C to +80°C	
Shock	40g, half-sine, 11ms	Eventhing for your L
/ibration	4g	Everything for your H
Sealing front	IP66, NEMA 4X/12 and UL Type 4X/12	
Sealing back	IP20	VICDAC®
1	F0/ OF0/ non condensed	

5% – 85% non-condensed

TBD: To be determined

Humidity

Preliminary data – X2 extreme is scheduled for release in mid 2017.



etermined |ata – X2 extreme is scheduled for release in mid 2017.



X2 extreme 12 / X2 extreme 12 HP	X2 extreme 15 / X2 extreme 15 HP
	TBD
	100
	CE, FCC, KCC TBD
	DNV, KR, GL, LR, ABS, CCS TBD
UL 61010/0	Class I Div 2, ATEX Zone 2, IECEx Zone 2, Zone 22
340 × 242 × 57mm (estimated)	410 × 286 × 61mm (estimated)
324 × 226 mm (estimated)	Resistive 394 × 270 mm (estimated)
2.6 kg (estimated)	3.8 kg (estimated)
2.0 kg (estimated)	Powder-coated aluminum
	24 V DC (18 to 32 VDC)
	TBD
	Internal DC fuse
	i.MX6 version TBD
	TBD
	TBD
12.1" diagonal	15.4" diagonal
	1280 × 800 pixels
	LED Backlight
	TBD
	TBD (HP: \geq 1000 cd/m ² TBD)
	TBD
	TFT-LCD with LED backlight
	Class I (ISO9241-307)
	- (HP: 3.5)
	- (HP: Yes)
	- (HP: Yes)
	- (HP: Yes)
	2
	TBD
	TBD -
	2
	1×10/100 Base-T (shielded RJ45)
	1×10/100 Base-T (shielded RJ45)
	No, however has integrated CAN Bus
	SD and SDHC
	2xUSB 2.0 500mA
	-30°C to +70°C
	-40°C to +80°C
	40g, half-sine, 11ms
running	4g
running —	
	IP66, NEMA 4X/12 and UL Type 4X/12
	IP66, NEMA 4X/12 and UL Type 4X/12 IP20 5% – 85% non-condensed

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A simple path forward

It's easy to upgrade your existing iX HMI solution

Hardware upgrade to X2 series

Use the migration tables to find the right panel when you want to upgrade your existing iX HMI solution to the X2 panel series.

From iX HMI Industrial to X2 pro

iX HMI panel	X2 panel	Comment
iX T4A	X2 pro 4	-
iX T7A	X2 pro 7	-
iX T10A	X2 pro 10	Different cut-out size
iX T7B	X2 pro 7	-
iX T12B	X2 pro 12	-
iX T15B	X2 pro 15	-
-	X2 pro 21	-

From iX HMI Marine to X2 marine

iX HMI panel	X2 panel	Comment
iX T7AM	X2 marine 7	-
-	X2 marine 7 HB	-
-	X2 marine 7 SC	New 7-inch panel with integrated control
-	X2 marine 7 HB SC	New 7-inch panel with integrated control and high brightness display
iX T15BM	X2 marine 15	-
iX T15BM-HB	X2 marine 15 HB	-
-	X2 marine 15 SC	New 15-inch panel with integrated control
-	X2 marine 15 HB SC	New 15-inch panel with integrated control and high brightness display

From iX HMI SoftControl to X2 control

X2 panel	Comment
X2 control 4	-
X2 control 7	-
X2 control 10	Different cut-out size
X2 control 7	-
X2 control 12	-
X2 control 15	-
	X2 control 4 X2 control 7 X2 control 10 X2 control 7 X2 control 12

From iX HMI SoftMotion to X2 motion

iX HMI panel	X2 panel	Comment
-	X2 motion 4	New 4-inch panel with integrated motion and control
iX T7B-SM	X2 motion 7	-
-	X2 motion 10	New 10-inch panel with integrated motion and control
iX T12B-SM	X2 motion 12	-
iX T15B-SM	X2 motion 15	-
-	-	-

From iX HMI TxF-2 series to X2 base

iX HMI panel	X2 panel	Comment
iX T5F-2	X2 base 5	-
iX T7F-2	X2 base 7	-
iX T10F-2	X2 base 10	-

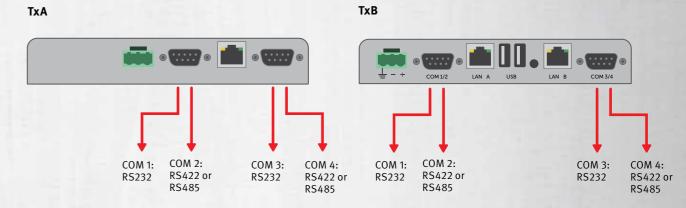
iX application upgrade



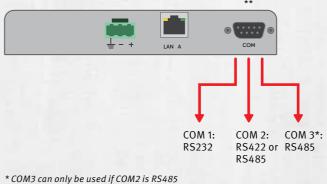
30

X2 panels are software compatible with iX 2.20 SP2 and forwards. Watch the video on www.beijerelectronics.com/X2 to see how easily you update an existing iX application to an X2 panel.

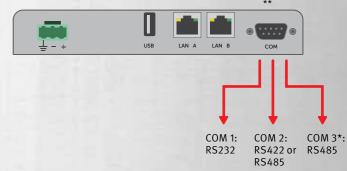
Serial port layout



X2 pro 4 and X2 pro 7



X2 pro 10, X2 pro 12 and X2 pro 15



** CAB150 splitter cable provides the connectivity for the three serial ports.



If you use COM3 for RS232 in TxA or TxB:

Change to COM 1

If you use 2 × RS485:

- Change COM4 to COM3
- COM 2 needs to be RS485

* COM3 can only be used if COM2 is RS485

OPC DA communication



.com

imunication is not supported in X2 platform OPC UA instead



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About Beijer Electronics

Beijer Electronics is a high technology company active in industrial automation and data communication. The company develops and markets competitive products and solutions that focus on the user. Since its start-up in 1981, Beijer Electronics has evolved into a multinational group with sales of 1,375 MSEK 2015. The company is listed on the NASDAQ OMX Nordic Stockholm Small Cap list under the ticker BELE. www.beijerelectronics.com

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UNITED KINGDOM Nottingham

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Everything for your HMI running



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