

**CONTROLLERS | MOTION | CLOUD & ACCESSORIES**

# ON*E*

— INTEGRATED —  
SOLUTION

for Control & Automation

Programmable Logic Controllers

Motion Control

Powerful Software

Cloud Platform



 **UNITRONICS®**

 UniCloud  
By UNITRONICS

**PLC**  
**+HMI**  
ALL IN ONE



# **ONE INTEGRATED SOLUTION FOR CONTROL & AUTOMATION**

PLC | HMI | I/O | VFD | Servo | Cloud

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# UNITRONICS

## SOLUTIONS THAT SIMPLIFY COMPLEX TASKS

**35**  
**YEARS**  
OF COMMITMENT  
TO EXCELLENCE

Unitronics' goal is to simplify automation for machine builders, system integrators, and manufacturers.

We design and manufacture a complete range of PLCs with integrated HMIs, AC Servo Drives & Motors, VFDs, I/Os, and communication modules—all backed by powerful, intuitive programming software and a fully integrated IIoT platform.

Unitronics eliminates complexity—our hardware components, software, and IIoT platform all work together transparently, out of the box.

**No hidden costs, no recurring fees, just reliable automation that works.**



Our products are trusted worldwide across industries such as manufacturing, water treatment, food processing, energy, medical, HVAC, data centers, and more. Our global network includes over 185 distributors worldwide, ensuring local support in your language, whenever you need it.

## WHY CHOOSE UNITRONICS?

### A COMPLETE INDUSTRIAL AUTOMATION SOLUTION

PLCs, HMIs, I/Os, AC Servo Drives, VFDs, and a complete IIoT platform—all designed to work together seamlessly.

### ONE PROGRAMMING ENVIRONMENT

PLC, HMI, Motion, Fieldbus and Industry 4.0 connectivity—all easily configured and programmed within a single, free software platform. No licensing fees, no hidden costs.

### NO RECURRING COSTS

Software, software updates, and 24/7 technical support—all at no charge.

### ENGINEERED FOR REAL-WORLD DEMANDS

Unitronics products are built on real-world insight—earned through close partnerships with the engineers who use them. With millions of installations worldwide, our all-in-one approach simplifies control architecture, while rugged hardware and reliable operation keep systems running—day after day, year after year.

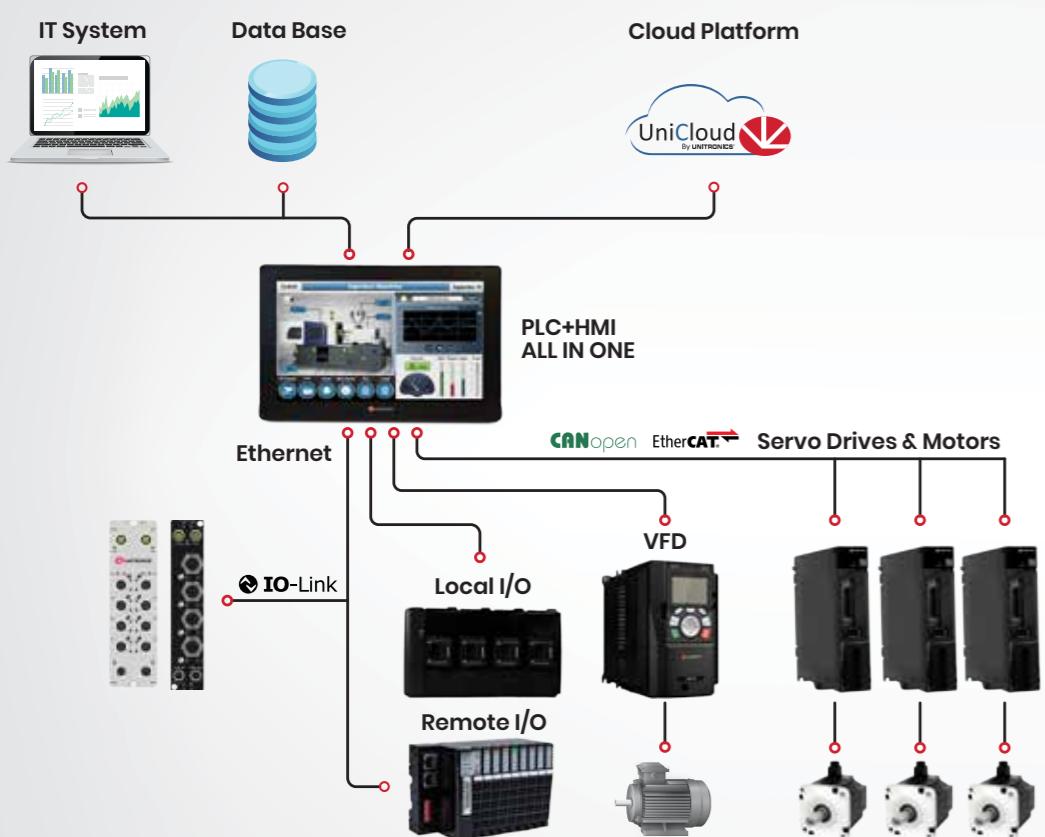
### CUSTOMIZED

Supports customization for end users, OEMs, or specialized applications.

# UNITRONICS

## ALL-IN-ONE, SEAMLESS INTEGRATION

FULL RANGE OF POWERFUL PLCs AND HMI |  
COMPLETE LINES OF VFDS AND SERVOS | CLOUD PLATFORM |  
NO CHARGE FOR SOFTWARE & SUPPORT.



## ONE — INTEGRATED — SOLUTION

for Control & Automation

THE SINGLE-  
SOURCE CONCEPT  
ELIMINATES  
COMPATIBILITY  
ISSUES

### A TRULY INTEGRATED AUTOMATION PLATFORM

- ✓ **Everything Works Together – Because It Was Built Together.**  
PLCs, HMIs, AC Servo Drives, VFDs, and IIoT tools are all developed as one complete system.
- ✓ **Lower Costs, Fewer Surprises** – No license fees, no hidden charges, and no recurring costs.  
What you see is what you get—including software updates and tech support.
- ✓ **Scales with You** – Whether you're building a compact machine or managing a multi-site system,  
the same platform scales according to your needs—no added complexity, no new tools to learn.

# CONTROL & AUTOMATION

## CONTROLLERS: A COMPLETE RANGE

PLC + HMI, PLC, Cloud-inside controllers.

- **UniStream** - Easily execute challenging projects
- **Vision** - For advanced machines & automation projects
- **Samba** - Ideal for small machines that require graphic display
- **Jazz** - Great for simple control—text-only HMI + keypad

## MOTION CONTROL: COMPLETE LINES OF VFDS & SERVOS

**Motion made Simple.**

- Easy to use **drag and drop**
- **Built-in Diagnostics**
- **Communications:** Instant with all Unitronics products
- **VFDs:** High performance, cost-effective
- **Servos:** Ready-made Motion code, PLCopen function blocks

## ALL-IN-ONE PROGRAMMING SOFTWARE

**At no extra charge.**

- **Program** control tasks
- **Design** HMI & Web pages
- **Motion-** VFDs and AC Servo Drives
- **Configure** Hardware and Communications



## NO-CODE IIOT CLOUD PLATFORM: UNICLOUD

**Designed for Machine Builders.**

- **Increase Profit** - Analyze data to reduce costs
- **Secure** - ISO27017 certified
- **Simple** - No IT knowledge needed
- **Get up and running within 30 minutes**

# PROGRAMMABLE LOGIC CONTROLLERS

High performance control solutions that meet the demands of diverse industries. With an extensive range of configurations, seamless integration, user-friendly programming, and scalable functionality, Unitronics PLCs offer reliable control for everything from basic machines to complex automation systems.



## UNISTREAM SERIES

### Award-winning PLCs Series

Powerful controllers with rich embedded communications, rugged durability, and built-in IIoT capabilities—available as PLC with integrated HMI or as a standalone PLC.

## VISION SERIES

All-in-one PLCs with built-in HMI and I/Os—ideal for reducing wiring and panel space in small to medium applications.

## SAMBA SERIES

Designed for small-scale automation, this controller combines a full-function PLC, onboard I/Os, and touchscreen—ideal where panel space and cost matter.

## JAZZ SERIES

Text-display controller with built-in I/Os and full PLC capabilities—reliable, space-saving, and well-suited for simple control applications.

# UNISTREAM SERIES

## SCALABLE, DURABLE, AND IIOT-ENABLED. AWARD WINNING CONTROLLERS.

Award-winning UniStream controllers, powered by UniLogic® software, simplify complex automation with flexible control, broad I/O options, and a comprehensive range of built-in communications. Designed for reliable performance in demanding environments.

### 4 designs to match your application



- Mini USB (Programming)
- Ethernet Port
- USB (Host)
- microSD



- Built-in I/Os
- I/O Expansion Adapter
- Ethernet Port
- COM Modules



- USB (Host)

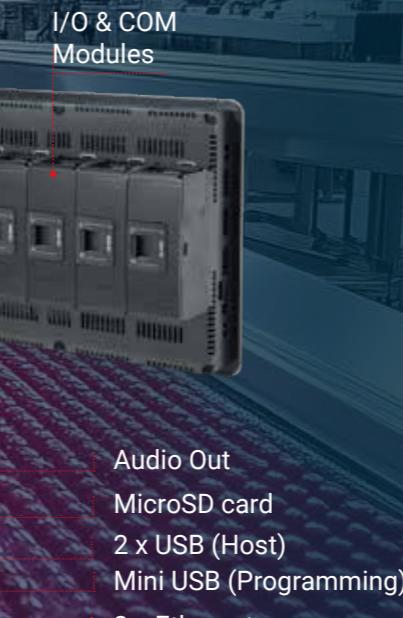


- 2 x Ethernet Ports
- Built-in I/Os

- Mini USB (Programming)
- microSD



- CANbus
- RS485



- CPU
- I/O & COM Modules

- Audio Out
- MicroSD card
- 2 x USB (Host)
- Mini USB (Programming)
- 2 x Ethernet Ports

- Built-in speaker



## UNISTREAM BUILT-IN

**Space-saving PLCs that deliver the functionality for complex machine control.**

PLC+HMI+I/O in one unit, in a range of built-in I/O configurations and HMI panels.

## UNISTREAM PLC

**Powerful, Robust Controller with Virtual HMI.**

PLC+Virtual HMI+I/O; the CPU runs both the control and HMI applications—viewable via any device ( PC/Tablet/ Mobile/HMI).

## UNISTREAM MODULAR

**Flexible control solution, tailored to your needs.**

Select an HMI panel and CPU, then add any I/O or communication modules required for your specific application.

## UNISTREAM CLOUD

All UniStream controllers are available with an embedded 5-year UniCloud subscription.

# UNISTREAM SERIES KEY FEATURES

## POWERFUL & FLEXIBLE CONTROL

Available as PLC+HMI integrated controllers or as standalone PLCs, with diverse I/O configurations and multiple communication options.

## HIGH-PERFORMANCE MACHINE CONTROL

Industrial controllers with touchscreen ranging from 5" to 21.5", supporting both horizontal and portrait installation.

## SEAMLESS CONNECTIVITY

Extensive OT & IT protocols support for smooth integration with industrial and Industry 4.0 cloud systems.

## BUILT-IN WEB SERVER

Remote HMI access with full functionality.

## MULTILINGUAL SUPPORT

User interface and system available in any language, including Asian characters.

## SCALABLE DATA STORAGE

Expand storage capacity via USB Flash Drive and microSD card.

## RUGGED AND DURABLE

Robust design, wide temperature tolerance, and reliable operation in demanding environments.

## CLOUD-ENABLED

Gain real-time machine insights and provide secure remote support through the UniCloud IIoT platform.

## CERTIFIED FOR GLOBAL STANDARDS

CE, UL, cUL, UKCA, EAC, and Hazardous Locations approvals.

## CUSTOM BRANDING OPTIONS

Available in non-branded or OEM-customized designs.

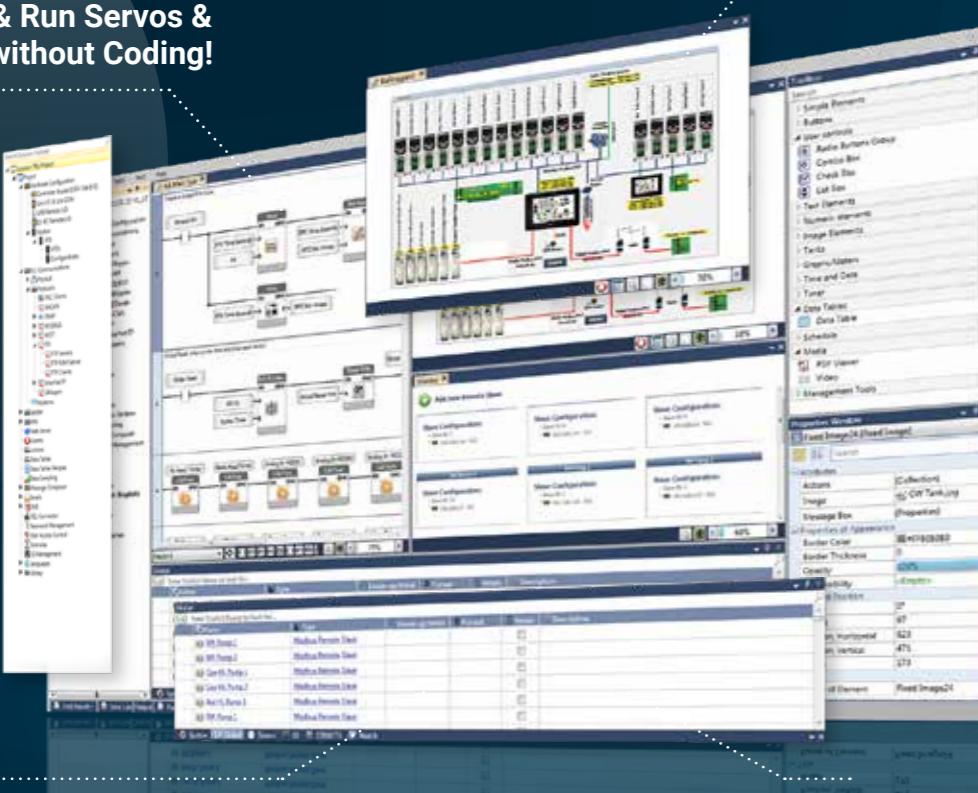
	SERVER / SLAVE	CLIENT / MASTER	COMMENTS
 EtherNet/IP	Yes	Yes	<ul style="list-style-type: none"> <li>Explicit and Implicit messages support</li> <li>EDS files support</li> </ul>
 Modbus RTU	Yes	Yes	
 Modbus TCP	Yes	Yes	
 EtherCAT		Yes	
 CANopen	No	Yes	<ul style="list-style-type: none"> <li>PDO and SDO message types</li> <li>EDS files support</li> </ul>
 OPC UA	Yes	No	
 SQL Client	No	Yes	<ul style="list-style-type: none"> <li><b>Supported server types:</b> <ul style="list-style-type: none"> <li>Microsoft SQL</li> <li>PostgreSQL</li> <li>MySQL</li> </ul> </li> </ul>
 MQTT	Irrelevant	Irrelevant	<ul style="list-style-type: none"> <li>Can act as Publisher and Subscriber</li> <li>Support JSON or Raw data formats</li> <li>Supported brokers: <ul style="list-style-type: none"> <li>Standard (e.g On-Premise, AWS, Web Brokers)</li> <li>Google Cloud IoT</li> </ul> </li> </ul>
 REST API	No	Yes	<ul style="list-style-type: none"> <li>Supports HTTP and HTTPS</li> <li>Supported methods: <ul style="list-style-type: none"> <li>GET / POST / DELETE / PUT</li> </ul> </li> <li>JSON, XML, Text / Plain data formats are supported</li> </ul>
 FTP	Yes	Yes	<ul style="list-style-type: none"> <li>Including secure channel SFTP and FTPS support</li> </ul>
 BACnet	Yes	Yes	<ul style="list-style-type: none"> <li>BACnet IP server is integrated into all UniStream controllers. Additional software license required.</li> <li>BACnet MSTP and BACnet IP clients are integrated into the UniStream PLC and Built-in series only. Additional software license required.</li> <li>Additional BACnet functionalities supported via GW-BAC1 gateway.</li> </ul>
 SNMP	Yes	Yes	<ul style="list-style-type: none"> <li>V1, V2, and V3 supported</li> </ul>
 OCPP	Yes	No	<ul style="list-style-type: none"> <li>EV charging protocol, version 1.6</li> <li>Additional software license required</li> <li>PRO models only (B10)</li> </ul>
 Redfish	Yes	No	<ul style="list-style-type: none"> <li>CDU (Cooling Distribution Unit) and CoolingLoops data models only</li> <li>Built-in standard and pro models only</li> </ul>
 IO-Link	Yes	No	<ul style="list-style-type: none"> <li>Wide range of IO-Link Master and Hub options</li> </ul>
 HART	No	Yes	<ul style="list-style-type: none"> <li>Using UIA-0800NH, 8-channel analog input module</li> </ul>
 CANBUS	Yes	Yes	<ul style="list-style-type: none"> <li>Raw CAN, J1939</li> </ul>
 RS232/RS485 /USB	Yes	Yes	<ul style="list-style-type: none"> <li>Data exchange with any serial communication device using the Message Composer (Machine-To-Machine, Barcode readers, Printers, etc.)</li> </ul>
 Emails	No	Yes	

# UNILOGIC

Designed to simplify and accelerate development, UniLogic provides a unified environment for PLC programming, HMI design, and motion control—all in a single intuitive platform.

## MOTION

**Ready-Made Motion Code:**  
SetUp & Run Servos &  
VFDs, without Coding!



## BUILD IT ONCE

Reuse Library: Functions,  
HMI & Webpages

## CONTEXT-SENSITIVE

Unified Toolbox for Ladder, HMI & Web Elements

## BUILT-IN DIAGNOSTIC TOOLS

Integrated tools for fast,  
accurate troubleshooting



SCAN TO DOWNLOAD  
UNILOGIC SOFTWARE!

**UNILOGIC**  
Studio

- 21 CFR, part 11

- Data Tables & Recipes

- Web Server

- Alarms

- Trends

- Languages

- User & Network Access Control

- Camera & Image Processing



## ONE INTUITIVE SOFTWARE FOR ALL

## EFFICIENT DEVELOPMENT

## EASY MOTION CONTROL

## FLEXIBLE HMI & WEB INTEGRATION

## SCALABLE & ADAPTIVE

## BUILT-IN DIAGNOSTICS

Develop PLC, HMI, Servo and VFD Motion applications within the same platform, eliminating the complexity of multiple tools.

Supports Ladder Diagram, Structured Text, and C, for easy, flexible programming.

PLCopen function blocks enable precise, synchronized multi-axis control with automatic hardware integration.

Extensive widget and image libraries, simple drag-and-drop interface; instantly convert HMI screens to web pages.

Scale up: add local, remote or IO-Link. Click to adapt an application to different models.

Advanced debugging tools for both logic and motion control ensure smooth commissioning and troubleshooting.

# UNISTREAM PLC SERIES

## KEY FEATURES

### POWERFUL PLC PERFORMANCE

High-speed, robust controller for demanding industrial automation tasks.

### MODULAR & SCALABLE

Supports a wide range of I/Os and communication modules for tailored solutions.

### VIRTUAL HMI

Full HMI functionality with various resolution options (via VNC protocol).



**UNISTREAM®**

### PRODUCT DESIGNATION

PLC	No. Key	Description
USC - <b> </b> - <b> </b>	1	Product Line USC=UniStream Controller
<b>1    2    3</b>	2	Version type B3= Basic. B5= Standard. C5= Standard with embedded 5 years UniCloud start-up license included. B10= Pro. C10= Pro with embedded 5 year UniCloud start-up license included.
Example: USC-B5-T42	3	Built-in I/O type See pages 20–21 for details. The Basic (B3) is available only with R20 & T20 models.

### EXPANDABLE STORAGE & DATA MANAGEMENT

microSD slot enables data logging, cloning, media storage, and more.

### REMOTE ACCESS & CONTROL

- Built-in VNC server for local and remote monitoring.
- Built-in Web-based HMI for intuitive operation from any location.
- For secure remote access, use UniCloud.

PLC Model	USC- <b>5</b> - <b> </b> USC- <b>10</b> - <b> </b>	USC- <b>3</b> - <b> </b>
<b>CPU (built-in)</b>	Real-time application size	1 MB
	Non-retained memory	2 MB
	Retained memory	256 kB
	Battery backup	Model: 3V CR2032 Lithium battery 4 years typical at 25°C / 77°F, battery back-up for memory and RTC
	Real-time Clock (RTC)	Yes
<b>Virtual HMI</b>	Virtual HMI Display resolution	Up to 1366 x 768
	Virtual HMI Display technology	VNC Server
	Internal memory	RAM
		FLASH
	Standard Version (B5 / C5)	512 MB 3 GB System, 1 GB User
<b>Communication &amp; Connectivity</b>	Pro Version (B10 / C10)	1 GB 6 GB System, 2 GB User
	Ethernet ports	2
	microSD card	1
	USB port (programming)	mini-B
	USB Host ports	1 (Type A)
<b>I/O &amp; Communication Expansion</b>	UniCloud	* C10 models: 5 year start-up license included. * B10 models: UniCloud-ready; requires a separate license.
	Built-in I/O, model dependent (pg. 20-21)	Yes
	Total local modules (pg. 28-29)	Up to 85
	Serial ports	3 Max
		Up to 3 UNI-COM Modules "UAC-CB- <b> </b> " (pg. 30)
<b>Power Supply</b>	Combination of 1 x CANBUS and 2 x RS232 / RS485	Up to 2 UNI-COM Modules "UAC-CB- <b> </b> "
	Local I/O Expansion (pg. 29)	Combination of 1 x CANBUS and 1 x RS232 / RS485
	Remote I/O via Ethernet (pg. 32-33)	Use Local Expansion Adapters UAG-XKXXXX, according to model
	EtherCAT support	Up to 8 URB family adapters
	Operating Voltage	Using UAC-01EC2 EtherCAT Master
<b>Operating Conditions</b>	Ingress Protection Rating	IP20, NEMA1
	Operating Temperature	(-20)°C to 55°C / (-4)°F to 131°F
	Approvals	CE, UKCA, UL, EAC, UL Hazardous Locations (C1D2 model dependant)

# UNISTREAM

## BUILT-IN

### KEY FEATURES

#### COMPACT & POWERFUL

All-in-One industrial controller: PLC, HMI, and I/Os built into a single unit.

#### SPACE-SAVING DESIGN

Optimized footprint reduces panel space and wiring complexity.

#### EXPANDABLE STORAGE & DATA MANAGEMENT

microSD and USB host slots support data logging, cloning, media storage, and more.



## UNISTREAM®

#### PRODUCT DESIGNATION

PLC	No.	Key	Description
US	1	Product Line & Display Size	US= UniStream PLC = 5 / 7 / 10 / 15 (display size)
1 2 3	2	Version type	B5= Standard C5= Standard with embedded 5 year UniCloud start-up license included. B10= Pro C10= Pro with embedded 5 year UniCloud start-up license included.
Example: US7-B5-T42	3	Built-in I/O	See pages 20-21 for details.

PLC Model	US5- <b>5</b> - <b>5</b>	US7- <b>5</b> - <b>5</b>	US10- <b>5</b> - <b>5</b>	US15-B10-B1	
CPU (built-in)	Real-time application size	1 MB			
	Non-retained memory	2 MB			
	Retained memory	256 kB			
	Battery backup	Model: 3V CR2032 Lithium battery 4 years typical at 25°C / 77°F, battery back-up for memory and RTC			
	Real-time clock (RTC)	Yes			
HMI Panel	Display size (Inch)	5"	7"	10.1"	15.6"
	Display resolution	800 x 480 (WVGA)		1024 x 600 (WSVGA)	1366 x 768 (WXGA)
	Touchscreen	Resistive, Analog			
	Viewing area Width x Height (mm)	108 x 64.8	154.08 x 85.92	222.72 x 125.28	344.23 x 193.53
	Color depth	65,536 (16 bit)			16 M (24 bit)
	Internal memory	RAM		FLASH	
		Standard Version (B5 / C5)	512 MB		3 GB System, 1 GB User
	Panel Orientation	Pro Version (B10 / C10)	1 GB		6 GB System, 2 GB User
		Landscape / Portrait			
	Cut-Out Width x Height (mm)	148.2 x 93.2	196 x 134	266.6 x 177.3	395 x 249
Communication & Connectivity	Ethernet ports	1			2
	microSD card	1			
	USB port (programming)	mini-B			Type C
	USB Host ports	1 (Type A)			
	Audio jack 3.5mm	1 for Pro versions only (B10 / C10)			
	UniCloud	* C10 models: 5 year start-up license included. * B10 models: UniCloud-ready; requires a separate license.			
I/O & Communication Expansion	Built-in I/O, model dependent (pg. 20-21)	Yes			-
	Total local modules (pg. 28-29)	Up to 80			
	Add-on I/O modules	-			Up to 5 slim or 3 wide Uni-I/O Modules
	Serial ports	Up to 3 UNI-COM Modules "UAC-CX- <b>5</b> " (see page 30).			
		Possible combination of up to 2 serial modules (RS232 / RS485) and 1 CANbus module			
	Local I/O Expansion (pg. 29)	Use UAG-CX-XKP <b>5</b> expansion adapter for the first expansion			Via either UAG-CX-XKP <b>5</b> or UAGBACK-IODAP.
	Remote I/O via Ethernet (pg. 32-33)	Up to 8 URB adapters (pg. 30).			
	EtherCAT support	-			Via UAG-BACK-IODAP adapter + UAC-01EC2 EtherCAT Master
Power Supply	Operating Voltage	24 VDC / 12 VDC for B1 models			24 VDC or 12 VDC (Add-on I/O module dependant)
	Ingress Protection Rating	IP66 / NEMA4X when panel-mounted			
	Operating Temperature	(-20)°C to 55°C / (-4)°F to 131°F		0°C to 50°C / 32°F to 122°F	
Operating Conditions	Approvals	CE, UKCA, UL, EAC, UL Hazardous Locations (C1D2 model dependant)			

# UNISTREAM PLC & UNISTREAM BUILT-IN I/O CONFIGURATIONS

Built-in I/O Model	Summary	Inputs					Outputs					Operating Voltage
		Total Digital (Isolated) <sup>1</sup>	HSC / Shaft-Encoder <sup>1</sup>	Analog	Temperature Inputs, RTD / TC	Transistor (Isolated)	PWM <sup>2</sup>	Relay	Analog			
B1	No built-in I/Os	—	—	—	—	—	—	—	—	—	—	12 / 24 VDC
TR22	<b>Inputs:</b> 10 Digital 2 Analog <b>Outputs:</b> 2 Transistor, npn, incl. 2 PWM & 8 Relay	10 Sink / Source	—	2 0 - 10 V 0 - 20 mA 4 - 20 mA 12-bit	—	2 (npn)	2 30 kHz	8	—	—	—	24 VDC
T24	<b>Inputs:</b> 10 Digital, 2 Analog <b>Outputs:</b> 12 Transistor, pnp, incl. 2 PWM	10 Sink / Source	—	2 0 - 10 V / 0 - 20 mA / 4 - 20 mA 12-bit	—	12 (pnp)	2 3 kHz	—	—	—	—	24 VDC
RA28	<b>Inputs:</b> 14 Digital incl. 2 HSC, 2 Analog, 2 Temperature <b>Outputs:</b> 8 Relay 2 Analog	14 Sink / Source	2 90 kHz 32-bit	2 0 - 10 V / 0 - 20 mA / 4 - 20 mA 14-bit	2x (isolated) Thermocouple / PT 100 / NI 100 / NI 120 / PT 1000 / NI 1000	—	—	8	2 0-10 V 12-bit / ±10 V 11-bit + sign / 0-20 mA, 4-20 mA 12-bit	—	24 VDC	
TA30	<b>Inputs:</b> 14 Digital incl. 2 HSC, 2 Analog, 2 Temperature <b>Outputs:</b> 10 Transistor, pnp incl. 2 PWM 2 Analog	14 Sink / Source	2 90 kHz 32-bit	2 0 - 10 V / 0 - 20 mA / 4 - 20 mA 14-bit	2x (isolated) Thermocouple / PT 100 / NI 100 / NI 120 / PT 1000 / NI 1000	10 (pnp)	2 3 kHz	—	2 0-10 V 12-bit, ±10 V 11-bit + sign 0-20 mA, 4-20 mA 12-bit	—	24 VDC	
TA32	<b>Inputs:</b> 13 Digital incl. 2 HSC, 6 Analog, 2 Temperature <b>Outputs:</b> 8 Transistor, pnp, incl. 2 PWM outputs, 3 Analog outputs	13 Sink / Source	2 90 kHz 32-bit	2 0 - 10 V, 0 - 20 mA / 4 - 20 mA / 14-bit 4x (non-isolated) 0 - 10 V, 0 - 20 mA / 4 - 20 mA / 12-bit	2x (isolated) Thermocouple / PT 100 / NI 100 / NI 120 / PT 1000 / NI 1000	8 (pnp)	2 3 kHz	—	3 0-10 V 12-bit, ±10 V 11-bit + sign 0-20 mA, 4-20 mA 12-bit	—	24 VDC	
R38	<b>Inputs:</b> 24 Digital incl. 4 HSC, 2 Analog <b>Outputs:</b> 12 Relay	24 Sink / Source	4 90 kHz 32-bit	2 0 - 10 V / 0 - 20 mA / 4 - 20 mA 12-bit	—	—	—	12	—	—	—	24 VDC
T42	<b>Inputs:</b> 24 Digital incl. 4 HSC, 2 Analog, <b>Outputs:</b> 16 Transistor, pnp, incl. 2 PWM	24 Sink / Source	4 90 kHz 32-bit	2 0 - 10 V / 0 - 20 mA / 4 - 20 mA 12-bit	—	16 (pnp)	2 3 kHz	—	—	—	—	24 VDC
USC-B3-R20	<b>Inputs:</b> 10 Digital, 2 Analog <b>Outputs:</b> 8 Relay	10 Sink / Source	—	2 0 - 10 V / 0 - 20 mA / 4 - 20 mA 12-bit	—	—	—	8	—	—	—	24 VDC
USC-B3-T20	<b>Inputs:</b> 10 Digital, 2 Analog <b>Outputs:</b> 8 Transistor, pnp incl. 2 PWM	10 Sink / Source	—	2 0 - 10 V / 0 - 20 mA / 4 - 20 mA 12-bit	—	8 (pnp)	2 3 kHz	—	—	—	—	24 VDC

<sup>1</sup> Note that the high-speed inputs are included in the total number of digital inputs.<sup>2</sup> Note that the PWM outputs are included in the total number of transistor outputs.

# UNISTREAM PLC & UNISTREAM BUILT-IN MODEL COMPARISON

	Feature	Basic (B3)	Standard (B5)	Pro (B10)
Ports	microSD	–	1	
	USB Host		1	
	mini USB Programming	–	1	
	Ethernet	2		up to 2
Uni-COM Add-ons	CANbus		1	
	RS232	1		up to 2
	RS485			
I/O	Uni-I/O Expansion	–		Yes
	Unistream Remote I/O Adapters	1		8
	IO-Link masters	1		8
Communication	Modbus Slaves	Up to 8		Unlimited
	EtherNet / IP Scanners	1		16
	EtherNet / IP Adapters	8		32
	FTP	–		Server / Client
	Send mail	Without Attachments		Yes
	Web Server	–		Yes
	SQL Client	–		Yes
	Unitronics VFD	2		32
Other	System memory	3 GB		6 GB
	Saving Data Tables to SD	–		Yes
	Screenshots	–		Yes
	PID Loops	2		64
	Data Sampler / Trends	–		Yes
	CSV files: creating / reading	–		Yes

Note for B3 Models:  
SD card-based features are not supported. Alarm History is also cleared after a PLC reset.

# MILLIONS OF INSTALLATIONS WORLDWIDE

REAL USE CASES.  
REAL IMPACT.



LOOK AT OUR  
USE CASES

# UNISTREAM MODULAR

## KEY FEATURES

### FLEXIBLE EXPANSION

Backplane add-on supports any combination of I/O and serial communication modules.

### HIGH CONNECTIVITY

Supports up to 10 serial ports for maximum flexibility.

### REMOTE ACCESS & CONTROL

- Built-in VNC server for direct access to local and remote units.
- Built-in Web-based HMI for intuitive remote operation.



**UNISTREAM®**

### PRODUCT DESIGNATION

PLC	No.	Key	Description
USP -  -	1	Display Size	USP= UniStream Panel
1    2    3	2	Panel Size	070= 7 Inch 104= 10.4 Inch 156= 15.6 Inch
Example: USP-104-B10	3	Version type	B10= Pro version C10= Pro with embedded 5 year UniCloud start-up license included. M10= Multi-touch panel

	Panel Model	USP-070-B10 USP-070-C10	USP-104-B10 USP-104-C10 USP-104-M10	USP-156-B10 USP-156-C10		
CPU	<b>Model</b>	USC-P-B10 Must be ordered separately (mandatory)				
	<b>RS485 port</b>					
	<b>CANbus port</b>	1				
	<b>Real-time application size</b>	1 MB				
	<b>Non-retained memory</b>	2 MB				
	<b>Retained memory</b>	256 kB				
	<b>Battery backup</b>	Model: 3V CR2032 Lithium battery 4 years typical at 25°C / 77°F, battery back-up for memory and RTC				
HMI Panel Spec	<b>Real-time Clock (RTC)</b>	Yes				
	<b>Display size (Inch)</b>	7"	10.4"	15.6"		
	<b>Multi-touch</b>	—	Only on USP-104-M 10	—		
	<b>Display resolution</b>	800 x 480 (WVGA)	800 x 600 (SVGA)	1366 x 768 (WXGA)		
	<b>Touchscreen</b>	Resistive, Analog	Resistive, Analog / Capacitive (M10)	Resistive, Analog		
	<b>Viewing Area Width x Height (mm)</b>	152.4 x 91.44	211.2 x 158.4	344.23 x 193.53		
	<b>Color depth</b>	65,536 (16 bit)	16 M (24 bit)			
	<b>Internal memory</b>	RAM: 512 MB , ROM: 3 GB system memory, 1 GB user memory				
	<b>Cut-Out Width x Height (mm)</b>	196 x 134	281 x 214	395 x 249		
Communication & Connectivity	<b>Ethernet ports</b>	2				
	<b>Serial ports</b>	8 Max	10 Max			
		Include the communication ports built-in on the USC-P-B10				
		Up to 3 UNI-COM Modules "UAC-[X]" (pg. 30).	Up to 4 UNI-COM Modules "UAC-[X]" (pg. 30).			
	<b>microSD card</b>	1				
	<b>mini USB (programming)</b>	1				
	<b>USB Host ports</b>	2 (Type A)				
	<b>Audio jack 3.5mm</b>	1				
	<b>Internal speaker</b>	Audio compatibility: mono MP3 files. Frequency range: 500 Hz to 20 KHz				
	<b>UniCloud enabled</b>	* C10 models: 5 year start-up license included. * B10 models: UniCloud-ready; requires a separate license.				
I/O & Communication Expansion	<b>Total local modules (pg. 28-29)</b>	Up to 85				
	<b>Add-on I/O modules</b>	Fit up to 3 slim or 2 wide Uni-I/O Modules	Fit up to 5 slim or 3 wide Uni-I/O Modules			
	<b>Local I/O Expansion (pg. 29)</b>	Using local expansion adapters UAG				
	<b>Remote I/O via Ethernet (pg. 32-33)</b>	Up to 8 URB adapters				
	<b>Power Supply</b>	<b>Operating Voltage</b>	24 VDC or 12 VDC According to I/O module model			
Operating Conditions	<b>Ingress Protection rating</b>	IP66 / NEMA4X when panel-mounted				
	<b>Operating Temperature</b>	(-20)°C to 55°C / (-4)°F to 131°F		0°C to 50°C / 32°F to 122°F		
	<b>Approvals</b>	UL, CE, UKCA, EAC, UL Hazardous Locations (C1D2 model dependant)				

# UNISTREAM HMI DISPLAYS FOR UNISTREAM SERIES

Designed to complement the UniStream series, UniStream HMI displays provide a clear, responsive interface for industrial automation applications. Available in a range of sizes, these high-resolution touchscreens ensure intuitive operation, real-time data visualization, and enhanced user experience.

## AVAILABLE MODELS:



5" DISPLAY USL-050-B05



7" DISPLAY USL-070-B05



10.1" DISPLAY USL-101-B05



15.6" DISPLAY USL-156-B05



21.5" DISPLAY USL-215-B05

Coming Soon

**UNISTREAM®**

## PRODUCT DESIGNATION

DISPLAY		
USL	-	-
1	2	3

Example: USL-101-B05

No.	Key	Description
1	Product Line	USL= UniStream Light Panel
2	Panel Size	050= 5 Inch 070= 7 Inch 101= 10.1 Inch 156= 15.6 Inch 215= 21.5 Inch
3	Version	B05= Standard Version

Coming Soon

	PLC Model	USL-050-B05	USL-070-B05	USL-101-B05	USL-156-B05	USL-215-B05
<b>HMI Panel Spec</b>	<b>Display size (Inch)</b>	5"	7"	10.1"	15.6"	21.5"
	<b>Display resolution</b>	800 x 480 (WVGA)	1024 x 600 (WSVGA)	1366 x 768 (WXGA)	1920 x 1080 <sup>1</sup> (FHD)	
	<b>Touchscreen</b>	Resistive, Analog				
	<b>Viewing Area Width x Height (mm)</b>	108 x 64.8	154.08 x 85.92	222.72 x 125.28	344.23 x 193.53	476.064 x 267.786
	<b>Color depth</b>	65,536 (16 bit)			16M (24 bit)	
	<b>Panel Orientation</b>	Landscape / Portrait				
	<b>Mounting options</b>	Panel mounting				Panel mounting /Vesa
	<b>Cut-Out Width x Height (mm)</b>	148.2 x 93.2	196 x 134	266.6 x 177.3	395 x 249	529 x 320.5
	<b>Ethernet Ports</b>	1		2	1	
<b>Communication &amp; Connectivity</b>	<b>USB Host ports</b>	1 (Type A)		2 (Type A)	1 (Type C)	
	<b>Protocol</b>	VNC Client over Ethernet				
	<b>Power Supply</b>	<b>Operating Voltage</b>	12 / 24 VDC			24 VDC
<b>Operating Conditions</b>	<b>Panel IP rating</b>	IP66 / NEMA4X when panel-mounted				
	<b>Operating Temperature</b>	(-20)°C to 55°C / (-4)°F to 131°F			0°C to 50°C / 32°F to 122°F	
	<b>Approvals</b>	CE, UKCA, UL, EAC, UL Hazardous Locations (C1D2 model dependant)				CE, UKCA, UL (pending), EAC

<sup>1</sup>The maximum supported resolution for UniStream products is 1366 x 76.

# UNI-I/O: LOCAL EXPANSION FOR UNISTREAM SERIES

Broad range of digital, analog, and temperature I/O for UniStream Modular, Built-in, and UniStream PLC, up to 2048 I/O.

## LOCAL EXPANSION ADAPTERS

		Inputs				Outputs				
	Article Number	Slim / Wide	Digital (Isolated)	HSC / Shaft-Encoder <sup>1</sup>	Analog	Temperature Measurement	Transistor <sup>2</sup> (Isolated)	PWM / HSO <sup>2</sup>	Relay	Analog
Digital	UID-1600	Slim	16 Sink / Source	—	—	—	—	—	—	—
	UID-0808T	Slim	8 Sink / Source	—	—	—	8 Source (pnp)	—	—	—
	UID-W1616T <sup>3</sup>	Wide	16 Sink / Source	—	—	—	16 Source (pnp)	—	—	—
	UID-0808THS <sup>4</sup>	Slim	8 Sink / Source	2 250 kHz 32 bit	—	—	8 Source (pnp)	2 250 kHz 2 3 kHz	—	—
	UID-0016T	Slim	—	—	—	—	16 Source (pnp)	—	—	—
	UID-0808R	Slim	8 Sink / Source	—	—	—	—	—	8	—
	UID-W1616R <sup>3</sup>	Wide	16 Sink / Source	—	—	—	—	—	16	—
	UID-0016R	Slim	—	—	—	—	—	—	16	—
Analog & Temperature	UIA-0006	Slim	—	—	—	—	—	—	—	6 (Isolated) 0 - 10V, 14 - bit / ±10V 13 - bit+sign / 0 - 20mA, 4 - 20mA 13-bit
	UIA-0402N	Slim	—	—	4 0 - 10 V / 0 - 20 mA / 4 - 20 mA 13 - bit	—	—	—	—	2 0-10V, 14 - bit / ±10V, 13 - bit+sign / 0 - 20mA, 4 - 20mA 13 - bit
	UIA-0800N	Slim	—	—	8 0 - 10 V, 0 - 20 mA, 4 - 20 mA 13-bit	—	—	—	—	—
	UIA-0800NH	Slim	—	—	8 0 - 20 mA, 4 - 20 mA With HART communication	—	—	—	—	—
	UIS-04PTN	Slim	—	—	—	4 PT 100 / NI 100 / NI 120	—	—	—	—
	UIS-04PTKN	Slim	—	—	—	4 PT 1000 / NI 1000 / NI 1200	—	—	—	—
	UIS-08TC	Slim	—	—	—	8 (Isolated) Thermocouple	—	—	—	—
Combo	UIS-WCB1 <sup>4</sup>	Wide	10 Sink / Source	2 10 kHz 32 bit	2 (Isolated) 0 - 10 V, 0 - 20 mA, 4 - 20 mA 14 - bit	2 (Isolated) Thermocouple / PT 100 / NI 100 / NI 120	2 (Non isolated) Sink (npn)	2 250 kHz	8	2 0 - 10V, 14 - bit / ±10V, 13 - bit+sign / 0-20mA, 4-20mA 13-bit
	UIS-WCB2 <sup>4</sup>	Wide	10 Sink / Source	2 10 kHz 32 bit	2 (Isolated) 0 - 10 V / 0 - 20 mA / 4 - 20 mA 14 - bit	2 (Isolated) Thermocouple / PT 100 / NI 100 / NI 120	8 Source (pnp) 2 (Non isolated) Sink (npn)	2 250 kHz (Sink outputs only)	—	2 0 - 10V, 14 - bit / ±10V, 13 - bit+sign / 0 - 20mA, 4 - 20mA 13 - bit

### UniStream Built-in Series

UAG-CX-XKP125	UniStream CX IO Exp.Kit 1.25m
UAG-CX-XKP300	UniStream CX IO Exp.Kit 3m
UAG-CX-XKPLXXXX	Long Range + embedded Power Supply, lengths: 6, 12, 15, 20, 30m

### UniStream Modular & UniStream PLC Series

UAG-XK125	Short Range Kit, 1.25 m
UAG-XKP125	Short Range + embedded Power Supply Kit, 1.25 m
UAG-XK300	Short Range Kit, 3 m
UAG-XKP300	Short Range Kit + embedded Power Supply, 3 m
UAG-XKPLXXXX	Long Range + embedded Power Supply, lengths: 6, 12, 15, 20, 30 m

<sup>1</sup>Note that the high-speed inputs are included in the total number of digital inputs

<sup>2</sup>Note that the high-speed outputs are included in the total number of digital outputs.

<sup>3</sup>2 outputs are high-speed, up to 250kHz: function as normal or high-speed PWM (same freq. and different duty-cycles).

2 outputs are normal speed: function as normal-speed PWM outputs (same freq. and same duty cycle).

<sup>4</sup>This module utilizes two high speed blocks that can each be assigned either to the inputs or to the outputs.

# UNI-COM: COMMUNICATION MODULES FOR UNISTREAM SERIES

## UniStream PLC Communication Modules

UAC-CB-01RS2	1 x RS232 port
UAC-CB-01RS4	1 x RS485 port
UAC-CB-01CAN	1 x CANbus port
UAC-01EC2	1 X EtherCAT master port

## UniStream Built-in Communication Modules

UAC-CX-01RS2	1 x RS232 port
UAC-CX-01RS4	1 x RS485 port
UAC-CX-01CAN	1 x CANbus port
UAC-01EC2	1 X EtherCAT master port (For US15 only)

## UniStream Modular Communication Modules<sup>1</sup>

UAC-01RS2	1 x RS232
UAC-02RS2	2 x RS232
UAC-02RSC	1 x RS232 port and 1 x RS485 port

<sup>1</sup>Add-on Modules, I/O and COM: the total number of modules, both I/O and COM that you can snap onboard an HMI panel is limited by the size of the panel.

**SHAPED BY  
INDUSTRY.  
REFINED BY USE.**

The UniStream Series was built with direct input from industrial professionals – modular, powerful, and designed to meet real application demands in control, communication, and visualization.

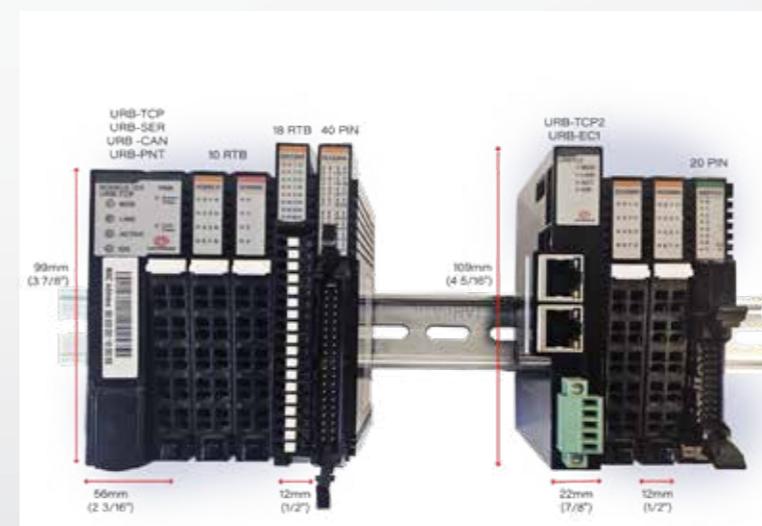
# REMOTE I/O VIA ETHERNET

- Ethernet based
- Up to 63 I/O modules per adapter
- Slim modules - only 12mm
- 16-bit Analog Resolution
- Operating temperature: (-40°)C to 70°C / -40°F to 158°F



<b>Network Adapter</b>	URB-TCP	Modbus TCP, Ethenet / IP Adapter. 63 Modules
	URB-TCP2	Modbus TCP, Ethenet / IP Adapter. 6 Modules
	URB-CAN	CANopen Adapter. 63 Modules
	URB-EC1	EtherCAT Adapter. 6 Modules
	URB-PNT	ProfiNET Adapter. 63 Modules
	URB-SER	Modbus RTU Adapter. 63 Modules
<b>Digital Inputs</b>	URD-0800	DI 8, Universal, 24 VDC, 10 RTB
	URD-1600-8	DI 16, Universal, 24 VDC, 18 RTB
	URD-3200-4	DI 32, Universal, 24 VDC, 40 Pin
	URD-0400B	DI 4, 120 V, 10 RTB
	URD-0400C	DI 4, 240 V, 10 RTB
	URD-0200D	2 x Encoder Input, 5 VDC, 10 RTB
	URD-0200E	2 x High Speed Counter, 24 VDC, 10 RTB
<b>Digital Outputs</b>	URD-0008CH	DO 8, Source, 24 VDC / 0.5 A, 10 RTB
	URD-0008CI	DO 8, Source, 24 VDC / 2 A, 10 RTB
	URD-0016CG-8	DO 16, Source, 24 VDC / 0.3 A, 18 RTB
	URD-0032CG-4	DO 32, Source, 24 VDC / 0.3 A, 40 Pin IDC
	URD-0008NH	DO 8, Sink, 24 VDC / 0.5 A, 10 RTB
	URD-0008NI	DO 8, Sink, 24 VDC / 2 A, 10 RTB
	URD-0016NG-8	DO 16, Sink, 24 VDC / 0.3 A, 18 RTB
	URD-0032NG-4	DO 32, Sink, 24 VDC / 0.3 A, 40 Pin IDC
	URD-0004RH	RO 4, 24 VDC / AC, 2A, 10 RTB
	URD-0004SK	RO 4, MOS, 240 VDC / AC, 0.5 A, 10 RTB
	URD-0004SM	RO 4, MOS, 110 VDC / AC, 1 A, 10 RTB
	URD-0004SN	RO 4, MOS, 24 VDC / AC, 2 A, 10 RTB
	URD-0008SK-8	RO 8, MOS, 240 VDC / AC, 0.5 A, 18 RTB
	URD-0008SM-8	RO 8, MOS, 110 VDC / AC, 1 A, 18 RTB
	URD-0008SN-8	RO 8, MOS, 24 VDC / AC, 2 A, 18 RTB
<b>Analog Inputs</b>	URD-02PU	DO 2 PULSE, 24 VDC, 0.5 A, 10 RTB
	URD-02PW	DO 2 PWM, 24 VDC, 0.5 A, 10 RTB
	URD-02PWH-8	DO 2 PWM, 24 VDC, 2 A, 18 RTB
	URD-04PW	DO 4 PWM, 24 VDC, 0.5 A, 10 RTB
	URA-04000	AI 4, 0~20, 4~20 mA, 12 Bits, 10 RTB
	URA-08000	AI 8, 0~20, 4~20 mA, 12 Bits, 10 RTB
	URA-16000-8	AI 16, 0~20, 4~20 mA, 12 Bits, 18 RTB
	URA-0400P	AI 4, 0~10, 0~5, 1~5 VDC, 12 Bits, 10 RTB
	URA-0800P	AI 8, 0~10, 0~5, 1~5 VDC, 12 Bits, 10 RTB

<b>Analog Inputs</b>	URA-1600P-8	AI 16, 0~10, 0~5, 1~5 VDC, 12 Bits, 18 RTB
	URA-0400T	AI 4, 0~20, 4~20 mA, 16 Bits, 10 RTB
	URA-0800T	AI 8, 0~20, 4~20 mA, 16 Bits, 10 RTB
	URA-1600T-8	AI 16, 0~20, 4~20 mA, 16 Bits, 18 RTB
	URA-0400U	AI 4, 0~10, 0~5, 1~5 VDC, 16 Bits, 10 RTB
	URA-0800U	AI 8, 0~10, 0~5, 1~5 VDC, 16 Bits, 10 RTB
	URA-1600U-8	AI 16, 0~10, 0~5, 1~5 VDC, 16 Bits, 18 RTB
	URA-0004W	AO 4, 0~20 mA, 12 Bits, 10 RTB
<b>Analog Outputs</b>	URA-0008W	AO 8, 0~20 mA, 12 Bits, 10 RTB
	URA-0004X	AO 4, 0~10 VDC, 12 Bits, 10 RTB
	URA-0008X	AO 8, 0~10 VDC, 12 Bits, 10 RTB
	URA-0016X-8	AO 16, 0~10 VDC, 12 Bits, 18 RTB
	URA-0004Y	AO 4, 0~20 mA, 16 Bits, 10 RTB
	URA-0008Y	AO 8, 0~20 mA, 16 Bits, 10 RTB
	URA-0004Z	AO 4, 0~10V DC, 16 Bits, 10 RTB
	URA-0008Z	AO 8, 0~10 VDC, 16 Bits, 18 RTB
	URA-0016Z-8	AO 16, 0~10VDC, 16 Bits, 18 RTB
	URA-0004J	AO 4, (-10)~10 VDC, 12 Bits, 10 RTB
	URA-0004K	AO 4, (-10)~10 VDC, 16 Bits, 10 RTB
	URS-04RT	4 x RTD, 10 RTB
<b>Temperature and Special modules</b>	URS-08RT-8	8 x RTD, 18 RTB
	URS-08RT-2	8 x RTD, 20 Pin IDC
	URS-04TC	4 x Thermocouple, 10 RTB
	URS-08TC-8	8 x Thermocouple, 18 RTB
	URS-08TC-2	8 x Thermocouple, 20 Pin IDC
	URA-0404PX-8	AI 4, AO 4, 0~10 VDC, 12 bits, 18 RTB
	URS-01PMA	3 Phase Power Monitor, 5 A, 10 RTB
	URS-08NT-8	8 x NTC, 18 RTB
	URS-02LC-8	2 x Loadcell / Strain Gauge, 18 RTB
	URC-01RS2	1 x RS232, Full Duplex, 10 RTB
<b>Power</b>	URS-08PT-8	8 x PTC, 18RTB
	URC-02RS2	2 x RS232, Full Duplex, 10 RTB
	URC-01RS48	1 x RS485, Half Duplex, 10 RTB
	URC-02RS48	2 x RS485, Half Duplex, 10 RTB
<b>Optional parts</b>	URC-02SSI	2 x SSI, 1 0RTB
	URP-PS24V	Expansion Power Supply, 24 VDC, 1 A
	ADP-BBOARD20	20 Pin IDC Breakout Board, 1m (3'3") Cable
	ADP-BBOARD40	40 Pin IDC Breakout Board, 1m (3'3") Cable



**Dimensions:** 12mm (1/2" slice width).

#### High Density:

Up to 32 I/O points per slice, more than 1500 I/Os on an 800 mm (31 1/2") DIN-rail.

#### Advanced Mechanical Design:

Cabling suspension, RTB release button, DIN-rail locking.

#### Certifications:

CE, UL, FCC

#### Wide Operating Temperature Range:

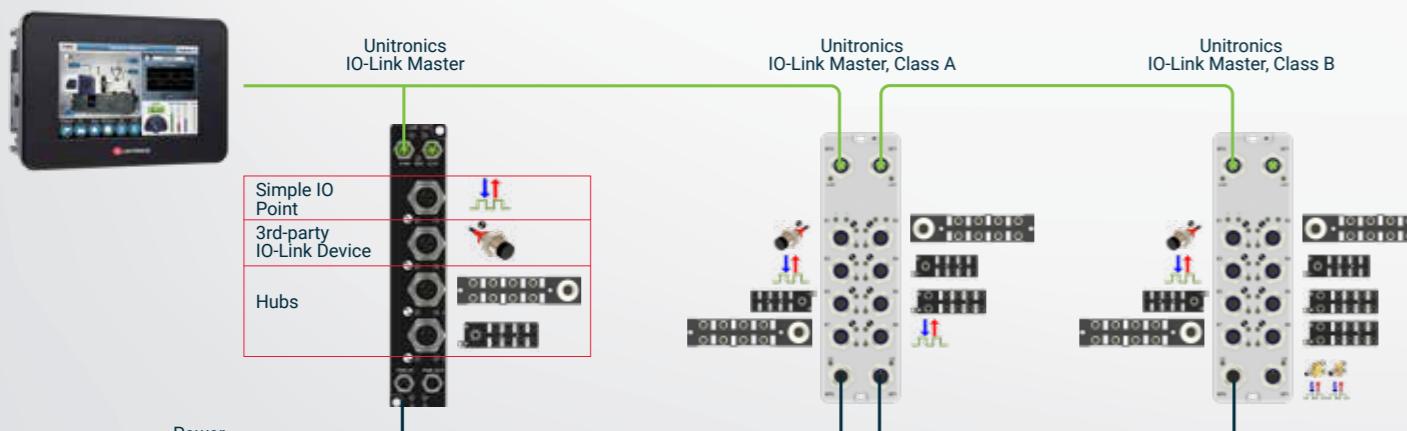
UL: (-40°C) ~ 70°C / (-20°C) ~ 60°C  
UL: (-40°F) ~ 158°F / (-4°F) ~ 140°F

# IO-LINK: SEAMLESS INTEGRATION WITH UNISTREAM SERIES

UniStream controllers support IO-Link MASTER via EtherNet/IP with simple drag & drop setup—no coding needed!

## IO-Link Master and Hub Modules

Article Number	Description
ULK-EIP-4AP6	MASTER, 4 Ports class A, EthernetIP, IP67
ULK-EIP-8AP6	MASTER, 8 Ports class A, EthernetIP, IP67
ULK-EIP-4A4BP6	MASTER, 4 port class A + 4 port class B, EthernetIP, IP67
ULK-0808P-M8P6	IO-LINK Digital HUB, 8 I/O, PNP, M8, IP67
ULK-0808N-M8P6	IO-LINK Digital HUB, 8 I/O, NPN, M8, IP67
ULK-1616P-M2P6	IO-LINK Digital HUB, 16 I/O, PNP, M12, IP67
ULK-1616N-M2P6	IO-LINK Digital HUB, 16 I/O, NPN, M12, IP67
ULK-1616P2-M2P6	IO-LINK Digital HUB, 16 I/O, PNP, 2A, M12, IP67
ULK-0808AIO-M2P6	IO-LINK Analog HUB, 8A I/O, M12, IP67



## Accessories

Article Number	Primary side	Secondary Side	Length	Used for
ADP-M12AM4-2M12F4	M12, A-coded, Male, 4 pins	2 x M 12 A-coded, Female, 4 pins	-	M 12 HUBS splitter for M 12 sensors /actuators easy wiring
ADP-M12AM4-2M8F3	M12, A-coded, Male, 4 pins	2 x M 8 A-coded, Female, 3 pins	-	M 12 HUBS splitter for M 8 sensors /actuators easy wiring
CBL-M12DM4-RJ-2	M12, D-coded, Male, 4 pins	RJ 45 Ethernet	2m	Ethernet cable, PLC / Switch to Master 8 ports
CBL-M12DM4-RJ-5	M12, D-coded, Male, 4 pins	RJ 45 Ethernet	5m	Ethernet cable, PLC / Switch to Master 8 ports
CBL-M12DM4-M12DM4-2	M12, D-coded, Male, 4 pins	M 12, D-coded, Male, 4 pins	2m	Ethernet cable, daisy chain between 2 of 8 ports Masters
CBL-M12DM4-M12DM4-5	M12, D-coded, Male, 4 pins	M 12, D-coded, Male, 4 pins	5m	Ethernet cable, daisy chain between 2 of 8 ports Masters
CBL-M8AM4-RJ-2	M8, A-coded, Male, 4 pins	RJ 45 Ethernet	2m	Ethernet cable, PLC / Switch to Master 4 ports
CBL-M8AM4-RJ-5	M8, A-coded, Male, 4 pins	RJ 45 Ethernet	5m	Ethernet cable, PLC / Switch to Master 4 ports
CBL-M8AM4-M8AM4-2	M8, A-coded, Male, 4 pins	M 8, A-coded, Male, 4 pins	2m	Ethernet cable, daisy chain between 2 of 4 ports Masters
CBL-M8AM4-M8AM4-5	M8, A-coded, Male, 4 pins	M 8, A-coded, Male, 4 pins	5m	Ethernet cable, daisy chain between 2 of 4 ports Masters
CBL-M12LF5-OP-2	M12, L-coded, Female, 5 pins	Open lead wires	2m	Power cable, power supply to Master 8 ports
CBL-M12LF5-OP-5	M12, L-coded, Female, 5 pins	Open lead wires	5m	Power cable, power supply to Master 8 ports
CBL-M12LM5-M12LF5-2	M12, L-coded, Male, 5 pins	M 12, L-coded, Female, 5 pins	2m	Power cable, daisy chain between 2 of 8 ports Masters
CBL-M12LM5-M12LF5-5	M12, L-coded, Male, 5 pins	M 12, L-coded, Female, 5 pins	5m	Power cable, daisy chain between 2 of 8 ports Masters
CBL-M8AF4-OP-2	M8, A-coded, Female, 4 pins	Open lead wires	2m	Power cable, power supply to Master 4 ports
CBL-M8AF4-OP-5	M8, A-coded, Female, 4 pins	Open lead wires	5m	Power cable, power supply to Master 4 ports
CBL-M8AM4-M8AF4-2	M8, A-coded, Male, 4 pins	M 8, A-coded, Female, 4 pins	2m	Power cable, daisy chain between 2 of 4 ports Masters
CBL-M8AM4-M8AF4-5	M8, A-coded, Male, 4 pins	M 8, A-coded, Female, 4 pins	5m	Power cable, daisy chain between 2 of 4 ports Masters
CBL-M8AM4-OP-2	M8, A-coded, Male, 4 pins	Open lead wires	2m	Power cable, power supply output from Master 4 ports to general purpose
CBL-M8AM4-OP-5	M8, A-coded, Male, 4 pins	Open lead wires	5m	Power cable, power supply output from Master 4 ports to general purpose
CBL-M8AM3-OP-2	M8, A-coded, Male, 3 pins	Open lead wires	2m	M 8 HUB for M 8 sensors / actuators
CBL-M8AM3-OP-5	M8, A-coded, Male, 3 pins	Open lead wires	5m	M 8 HUB for M 8 sensors / actuators
CBL-M12AM4-OP-2	M12, A-coded, Male, 4 pins	Open lead wires	2m	M 12 master / hub ports to 4 pin open lead wires
CBL-M12AM4-OP-5	M12, A-coded, Male, 4 pins	Open lead wires	5m	M 12 master/hub ports to 4 pin open lead wires
CBL-A-M12AM4-M12AF4-2	M12, A-coded, Male, 4 pins	M 12, A-coded, Female, 4 pins	2m	M 12 Class A IO-Link Devices connection to Master 4 / 8 ports
CBL-A-M12AM4-M12AF4-5	M12, A-coded, Male, 4 pins	M 12, A-coded, Female, 4 pins	5m	M 12 Class A IO-Link Devices connection to Master 4 / 8 ports
CBL-B-M12AM5-M12AF5-2	M12, A-coded, Male, 5 pins	M 12, A-coded, Female, 5 pins	2m	M 12 Class B IO-Link Devices connection to Master 8 ports
CBL-B-M12AM5-M12AF5-5	M12, A-coded, Male, 5 pins	M 12, A-coded, Female, 5 pins	5m	M 12 Class B IO-Link Devices connection to Master 8 ports
ADP-ULKCFG	USB	M 12, A-coded, Female +2 wires supply 24 V	-	Configure the IO-Link devices "parameters" **IO-Link devices "parameters" Can be set also via IO-Link masters.

For other cable lengths or types, contact Unitronics.

EtherNet/IP™

IO-Link

# VISILOGIC

## VISION & SAMBA PLC SERIES PROGRAMMING SOFTWARE

DEVELOP PLC LOGIC AND HMI APPLICATIONS IN A SINGLE, INTUITIVE ENVIRONMENT.



### HARDWARE CONFIGURATION

Intuitive set up: controller, I/Os, and COM channels



### PROGRAMMING

Rapidly drag & drop elements and Function Blocks



### HMI APPLICATION

Create beautiful HMI displays – includes rich image library



### ALARMS: BUILT-IN SCREENS

Effectively alert staff via Alarm screens



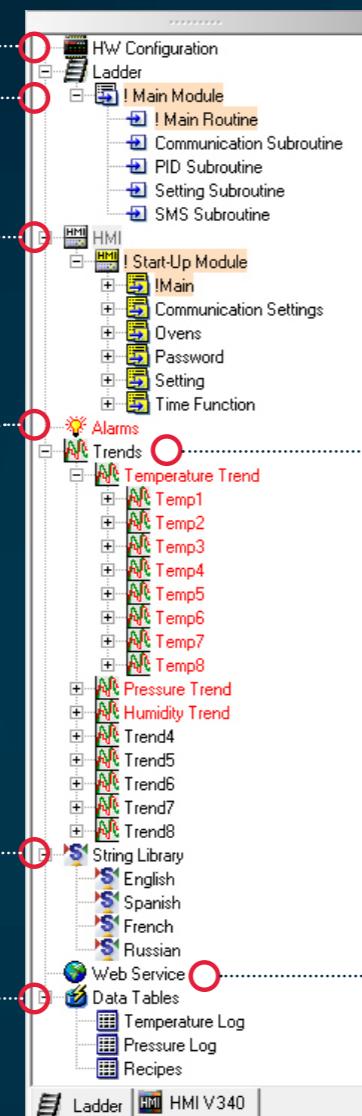
### LANGUAGES - STRING LIBRARY

Instantly switch HMI language via screen touch



### DATA TABLES

Create logs, import/export data, implement recipes



### Remote Access

Monitor and control your machine from PC, tablet or phone.



### TREND GRAPHS

Display dynamic values in real-time



### WEB SERVER

Display and edit application values via browser



SCAN TO DOWNLOAD  
VISILOGIC SOFTWARE!

**VISILOGIC**

# VISION PLC SERIES

**VISION 560 // 570 // 700 // 1040 // 1210**

## KEY FEATURES

### RELIABLE & VERSATILE

PLC + HMI combination for seamless control and monitoring.

### COLOR TOUCHSCREEN DISPLAY

Available in 5.7" to 12.1" for intuitive operation.

### SCALABLE I/O EXPANSION

Supports up to 1,000 I/Os for diverse automation needs.

### BUILT-IN SERIAL COMMUNICATION

RS485 and CANbus ports ensure seamless industrial networking.



**VISION**

### ADVANCED DATA MANAGEMENT

microSD slot for data logging, cloning, and storage.

### REMOTE ACCESS & CONTROL:

- Operate via PC or mobile application for real-time monitoring.
- Built-in Web Server HMI for seamless remote interaction.

### ETHERNET CONNECTIVITY

Ensures fast and reliable industrial communication.

	PLC Model	V560-T25B V570-57-T20B-J	V700-T20BJ	V1040-T20B	V1210-T20BJ					
<b>CPU</b>	<b>Real-time application size</b>	2 MB								
	<b>Non-retained memory</b>	1024 X-bits, 512 X-integers, 256 X-long integers, 64 X-double words								
	<b>Retained memory</b>	8192 coils, 4096 registers, 512 long integers (32 bit), 256 double words (32 bit unsigned), 64 memory floats, 384 timers, 32 counters.								
	<b>Battery backup</b>	7 years typical at 25°C / 77°F, battery back-up for all memory sections and RTC								
	<b>Real-time Clock (RTC)</b>	Yes								
<b>HMI Panel Spec</b>	<b>Display size (Inch)</b>	5.7"	7"	10.4"	12.1"					
	<b>Display resolution</b>	320 x 240 (QVGA)	800 x 480 (WVGA)	800 x 600 (SVGA)						
	<b>Touchscreen</b>	Resistive, Analog								
	<b>Color depth</b>	65,536 (16 bit)								
	<b>Internal memory</b>	Images: 16 MB Fonts: 1 MB	Images: 32 MB Fonts: 1 MB							
	<b>Keypad</b>	24 Functional Keys (V560 only)	—							
	<b>Viewing Area Width x Height (mm)</b>	115.2 x 86.4	154.08 x 85.92	210 x 157.5	246.8 x 185.3					
<b>Communication &amp; Connectivity (Built-in)</b>	<b>Cut-Out Width x Height (mm)</b>	V 560= 209 x 126.0 V 570= 182 x 124.5	193 x 125	274 x 230	297 x 228.5					
	<b>Ethernet ports</b>	—	1	—						
	<b>Serial ports</b>	2 Isolated RS485 / RS232	1 Isolated RS485 / RS232	2 Isolated RS485 / RS232						
	<b>CANbus ports</b>	1	—	1						
	<b>microSD card</b>	1								
	<b>USB port (programming)</b>	mini-B, excluding V560-T25B								
<b>I/O &amp; Communication Expansion Options</b>	<b>UniCloud</b>	Via UCR routers								
	<b>Snap-in I/O modules (pg. 40)</b>	Snap-in I/O Modules plug directly to the back								
	<b>Additional Ethernet port (pg. 41)</b>	1	—	1						
	<b>Additional Serial port (pg. 41)</b>	1								
	<b>Additional CANbus ports (pg. 41)</b>	—	1	—						
	<b>Local I/O Expansion (pg. 46-47)</b>	Use Local Expansion Adapters (EX- to add up to 8 modules								
<b>Power Supply</b>	<b>Remote I/O Expansion (pg. 46-47)</b>	* EX-RC1 (CANbus) adapters allow for additional I/O expansion. * URB remote I/O adapters support both Ethernet and CANbus communication.								
	<b>Operating Voltage</b>	24 VDC or 12 VDC when no Snap-in I/O mounted								
	<b>Ingress Protection rating</b>	IP66 / NEMA4X when panel-mounted	IP65 / NEMA4X when panel mounted							
<b>Operating Conditions</b>	<b>Operating Temperature</b>	0°C to 50°C / 32°F to 122°F								
	<b>Approvals</b>	UKCA, UL, CE, EAC, UL Hazardous Locations, Class I, Division2 (model dependent)								

# VISION SERIES SNAP-IN I/O MODULES.

## COMPATIBLE WITH:

**V560 // V570 // V700 // V1040 // V1210**

Article Number	Inputs				Outputs				Operating Voltage
	Digital (isolated) <sup>1</sup>	HSC/Shaft-Encoder <sup>1</sup>	Analog	Temperature Measurement	Transistor (isolated) <sup>2</sup>	PWM/HSO <sup>2</sup>	Relay	Analog	
V200-18-E1B	16 pnp / npn	2 10 kHz 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 10-bit	—	4 pnp / npn	2 pnp 0.5 kHz npn 50 kHz	10	—	24 VDC
V200-18-E2B	16 pnp / npn	2 10 kHz 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 10-bit	—	4 pnp / npn	2 pnp 0.5 kHz npn 50 kHz	10	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 12-bit	24 VDC
V200-18-E3XB	18 pnp / npn	2 10 kHz 32-bit	4 (Isolated) Thermocouple, PT 100, 0-10 V, 0-20 mA, 4 - 20 mA, 14-bit		2 pnp / npn	2 pnp 0.5 kHz npn 50 kHz	15	4 (Isolated) 0 - 10 V, 4 - 20 mA 12-bit	24 VDC
V200-18-E4XB	18 pnp / npn	2 10 kHz 32-bit	4 (Isolated) Thermocouple, PT 100, 0 - 10 V, 0 - 20 mA, 4 - 20 mA, 14-bit		15 pnp 2 npn / npn	2 pnp 0.5 kHz npn 50 kHz	—	4 (Isolated) 0 - 10 V, 4 - 20 mA 12-bit	24 VDC
V200-18-E5B	18 pnp / npn	2 10 kHz 32-bit	3 0 - 10 V, 0 - 20 mA, 4 - 20 mA 10-bit	—	15 pnp 2 npn / npn	2 pnp 0.5 kHz npn 50 kHz	—	—	24 VDC
V200-18-E6B	18 pnp / npn	2 10 kHz 32-bit	2 Thermocouple, PT 100, 0 - 10 V, 0 - 20 mA, 4 - 20 mA, 14-bit 3 0 - 10 V, 0 - 20 mA, 4 - 20 mA 10-bit		2 pnp / npn	2 pnp 0.5 kHz npn 50 kHz	15	2 (Isolated) 0 - 10 V, 4 - 20 mA 12-bit	24 VDC
V200-18-E46B	18 pnp / npn	2 10 kHz 32-bit	6 0 - 10V, 0 - 20 mA, 4 - 20 mA 14-bit 3 0 - 10V, 0 - 20 mA, 4 - 20 mA 10-bit	—	2 pnp / npn	2 pnp 0.5 kHz npn 100 kHz	15	2 (Isolated) 0 - 10 V, 4 - 20 mA 12-bit	24 VDC
V200-18-E62B <sup>3</sup>	30 pnp / npn	2 100 kHz 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 10-bit	—	28 pnp 2 npn / npn	2 pnp 0.5 kHz npn 100 kHz	—	—	24 VDC

<sup>1</sup> The total number of digital inputs listed includes high-speed inputs.

<sup>2</sup> The total number of digital outputs listed includes high-speed outputs.

<sup>3</sup> Not UL certified

## Vision & Samba COM Modules

Enhance Vision's communication capabilities

Model	Ethernet	RS232 / RS485	Isolated RS232 / RS485	CANbus	Profibus
SAMBA	V100-17-ET2	V100-17-RS4	V100-17-RS4X	V100-17-CAN	—
V130, V350, V430 <sup>1</sup>	V100-17-ET2, V100-S-ET2 <sup>5,3</sup>	V100-17-RS4	V100-17-RS4X	V100-17-CAN, V100-S-CAN <sup>5,3</sup>	V100-17-PB1
V560, V570, V1040, V1210 <sup>2</sup>	V200-19-ET2	—	V200-19-RS4-X	Built-in	—
V700 <sup>4</sup>	Built-in	V100-17-RS4	V100-17-RS4X	V100-17-CAN	V100-17-PB1

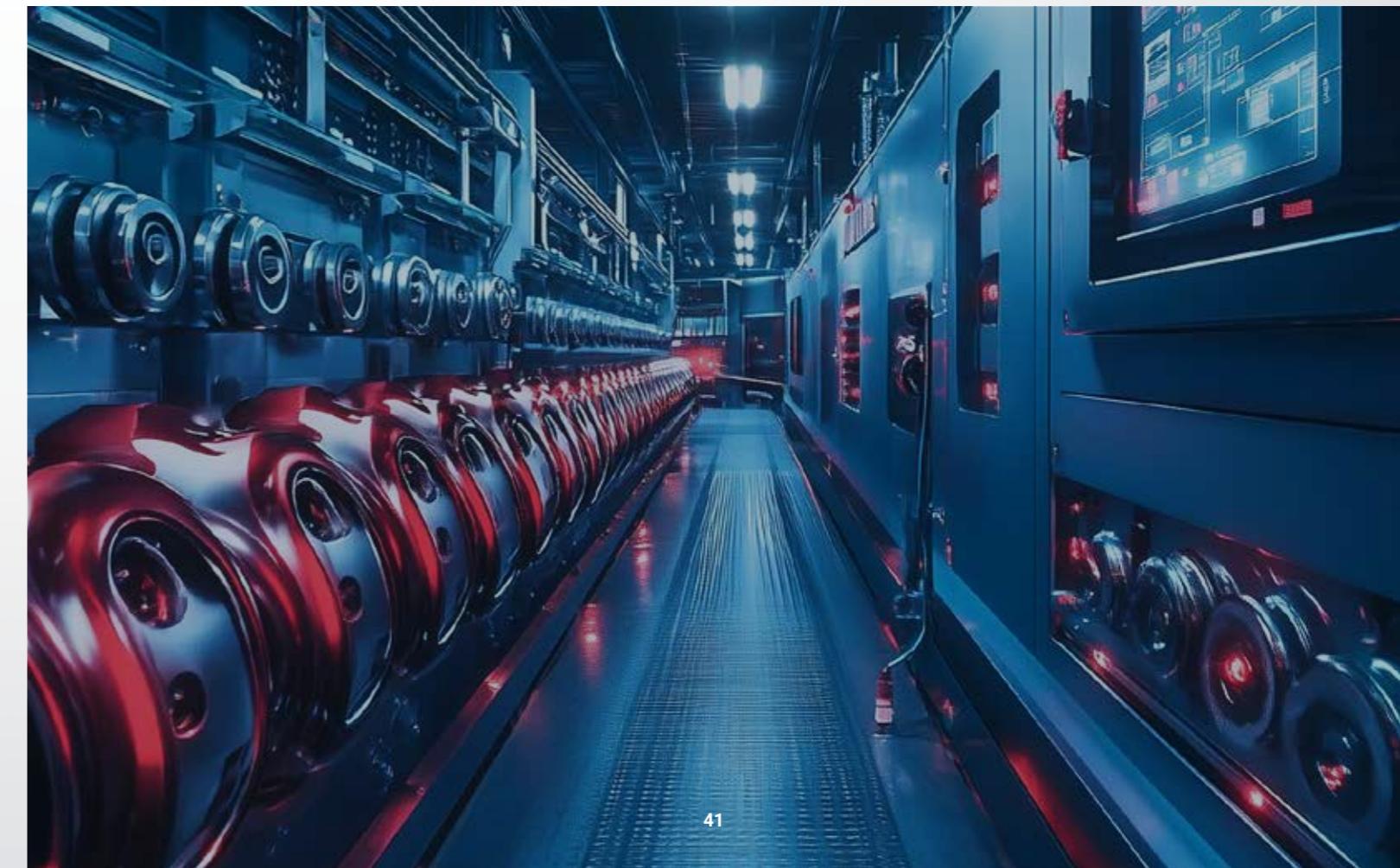
<sup>1</sup> V130/V350/V430: Two ports may be added: 1 for Serial/Ethernet/Profibus and 1 for CANbus.

<sup>2</sup> V560/V570/V1040/V1210: 1 port may be added: Serial/Ethernet.

<sup>3</sup> Extended temperature cards, operational temperature : -30°C to 60°C (-22°F to 140°F) - for V350-JS-TA24 only.

<sup>4</sup> V700 is supplied with an Built-in Ethernet port. One port may be added: Serial/Profibus, and CANbus.

<sup>5</sup> Not UL certified



# VISION PLC SERIES

## VISION 130 // 350 // 430

### KEY FEATURES

#### VERSATILE HMI OPTIONS

2.4", 3.5", and 4.3" display sizes.

#### HIGH-QUALITY DISPLAYS

- Vision 350 & 430: color touchscreens
- Vision 130: monochrome display.

#### SCALABLE I/O EXPANSION

Expand up to 512 I/Os (V 350 & V 430) and 256 I/Os (V 130).

#### INTEGRATED SERIAL COMMUNICATION

Built-in RS232 / RS485 for reliable connectivity.



Vision 130

Vision 350

Vision 430

#### FLEXIBLE COMMUNICATION PORTS

Optional Serial/Ethernet/Profibus + CANbus

#### REMOTE ACCESS & CONTROL:

- PC & Mobile – Monitor and control systems remotely.
- Web-Based HMI – Built-in Web Server for intuitive remote operation.

#### ADVANCED DATA HANDLING

microSD slot for data logging, application storage, and more.

	PLC Model	V130	V350	V430
CPU	Real-time application size	488 KB	1 MB	1 MB
	Non-retained memory	1024 X-bits, 512 X-integers, 256 X-long integers, 64 X-double words		
	Retained memory	4096 coils, 2048 registers, 256 long integers (32-bit), 64 double words (32-bit unsigned), 24 floats, 192 timers (32-bit), 24 counters	8192 coils, 4096 registers, 512 long integers (32 bit), 256 double words (32 bit unsigned), 64 memory floats, 384 timers, 32 counters	
	Battery backup	7 years typical at 25°C / 77°F, battery back-up for all memory sections and RTC		
HMI Panel Spec	Real-time Clock (RTC)		Yes	
	Display size (Inch)	2.4"	3.5"	4.3"
	Display resolution	128 x 64	320 x 240 (QVGA)	480 x 272
	Touchscreen	–	Resistive, Analog	
	Color depth	Monochrome display		65,536 (16-bit)
	Internal memory	Images: 128 KB Fonts: 128 KB	Images: 8 MB Fonts: 512 K	Images: 12 MB Fonts: 512 K
	Viewing Area Width x Height (mm)	58 x 30.5	72 x 54.5	96.7 x 55.5
	Cut-Out Width x Height (mm)		92 x 92	122.5 x 91.5
	Keys	20 programmable		5 programmable
Communication & Connectivity (Built-in)	Serial ports		1xRS485 / RS232	
	microSD card		1	
	USB port (programming)	–		mini - B
	UniCloud			Via UCR routers
I/O & Communication Expansion Options	Built-in I/O, model dependent (pg. 44-45)		Yes, According to model (See Built-in I/Os model table)	
	Additional Ethernet port (pg. 41)		1	
	Additional Serial port (pg. 41)		1	
	Additional CANbus ports (pg. 41)		1	
	Additional Profibus port (pg. 41)		1	
	Local I/O Expansion (pg. 46-47)		Use Local Expansion Adapters (EX-*) to add up to 8 modules	
	Remote I/O Expansion (pg. 46-47)		* EX-RC1 (CANbus) adapters allow for additional I/O expansion. * URB remote I/O adapters support both Ethernet and CANbus communication.	
Power Supply	Operating Voltage		24 VDC / 12 VDC for B1 models	
Operating Conditions	Panel IP rating		IP66 / NEMA4X when panel-mounted	
	Operating Temperature	0°C to 50°C / 32°F to 122°F	0°C to 50°C / 32°F to 122°F For V350 - JS - TA24: (-30°C to 60°C / (-22°F to 140°F)	0°C to 50°C / 32°F to 122°F
	Approvals	UL, CE, EAC, UL Hazardous Locations, Class I, Division2 (model dependent)		

# VISION PLC SERIES I/O CONFIGURATIONS

## VISION 130 // 350 // 430 MODELS

Article Number <sup>5</sup>	Summary	Inputs <sup>1</sup>				Outputs				
		Digital <sup>2</sup>	HSC / Shaft-Encoder <sup>2</sup>	Analog	Temperature Measurement	Transistor <sup>3</sup>	PWM/HSO <sup>3</sup>	Relay	Analog	Operating Voltage
V130-J-B1 V350-J-B1 V430-J-B1	No onboard I/Os	—	—	—	—	—	—	—	—	12 / 24 VDC
V350-J-TR20 V430-J-RH2 V130-J-TR20	10 Digital, 2 D/A Inputs <sup>1</sup> 6 Relay Outputs 2 High-speed Transistor Outputs <sup>6</sup>	12	3 200 kHz, 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 10-bit	—	2 npn <sup>6</sup>	2 (2 PTO) 200 kHz max <sup>6</sup>	6	—	24 VDC
V350-J-R34 V430-J-R34 V130-J-R34	20 Digital, 2 D/A Inputs <sup>1</sup> 12 Relay Outputs	22	3 30 kHz, 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 10-bit	—	—	—	12	—	24 VDC
V350-J-TR34 V430-J-TR34 V130-J-TR34	20 Digital, 2 D/A Inputs <sup>1</sup> 8 Relay, 4 High-speed Transistor Outputs	22	3 200 kHz, 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 10-bit	—	4 npn	4 (3 PTO) 200 kHz max	8	—	24 VDC
V350-J-TR6 V430-J-RH6 V130-J-TR6	6 Digital, 2 D/A <sup>1</sup> , 4 Analog Inputs 6 Relay Outputs 2 High-speed Transistor Outputs <sup>6</sup>	8	1 200 kHz, 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA and 4 0 - 20 mA, 4 - 20 mA 10-bit	—	2 npn <sup>6</sup>	2 (2 PTO) 200 kHz max <sup>6</sup>	6	—	24 VDC
V350-J-RA22 V430-J-RA22 V130-J-RA22	8 Digital, 2 D/A, 2 TC/PT100/ Digital Inputs <sup>1</sup> 4 Relay, 2 Analog Outputs	12	1 30 kHz, 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 14-bit	2 Thermocouple, PT 100	—	—	8	2 0 - 10 V, 4 - 20 mA 12-bit	24 VDC
V350-J-TRA22 V430-J-TRA22 V130-J-TRA22	8 Digital, 2 D/A, 2 TC/PT100/ Digital Inputs <sup>1</sup> 4 Relay, 2 Analog, 4 High-Speed Transistor Outputs	12	1 200 kHz, 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 14-bit	2 Thermocouple, PT 100	4 npn	4 (2 PTO) 200 kHz max	4	2 0 - 10 V, 4 - 20 mA 12-bit	24 VDC
V350-J-T2 V430-J-T2 V130-J-T2	10 Digital, 2 D/A Inputs <sup>1</sup> 12 Transistor Outputs	12	3 30 kHz, 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 10-bit	—	12 pnp	7 0.5 kHz	—	—	24 VDC
V350-J-T38 V430-J-T38 V130-J-T38	20 Digital, 2 D/A Inputs <sup>1</sup> 16 Transistor Outputs	22	2 30 kHz, 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 10-bit	—	16 pnp	7 0.5 kHz	—	—	24 VDC
V350-J-TA24 V350-JS-TA24 <sup>4</sup> V430-J-TA24 V130-J-TA24	8 Digital, 2 D/A, 2 TC/PT100/ Digital Inputs <sup>1</sup> 10 Transistor, 2 Analog Outputs	12	1 30 kHz, 32-bit	2 0 - 10 V, 0 - 20 mA, 4 - 20 mA 14-bit	2 Thermocouple, PT 100	10 pnp	5 0.5 kHz	—	2 0 - 10 V, 4 - 20 mA 12-bit	24 VDC

<sup>1</sup> In some models certain inputs are adaptable via wiring and software settings, and can function as digital, high-speed, analog, and in certain models as TC or PT 100. Adapting requires input pins. This reduces the number of digital inputs. Pin requirements:

- Each high-speed requires 1 or 2 pins
- Each analog input requires 1 pin.
- The first PT input requires 3 pins, and two additional pins for each additional PT input.
- Each TC input requires 2 pins.

<sup>2</sup> The total number of digital inputs listed includes high-speed and adaptable inputs.

<sup>3</sup> The total number of digital outputs listed includes high-speed outputs.

<sup>4</sup> Extended temperature unit

<sup>5</sup> To order a classic V 350 and V 130 with a Bezel panel, switch the 'J' in the model number to 33 = V 130 / 35 = V 350, ex. V350, V 350-33-TR 20

<sup>6</sup> Refers only to V 350 and V 130 Models

Example: V350-35-RA22 offers 12 digital inputs.

Implementing 2 TC inputs requires 4 pins, leaving 8 pins free.

Implementing 2 PT inputs uses 5 input pins.

# VISION SERIES

## I/O EXPANSION MODULES & ACCESSORIES

	Article Number	Inputs						Outputs				
		Digital <sup>5</sup>	HSC <sup>5</sup>	Analog	Temperature Measurement	Weight Measurement	Transistor <sup>6</sup>	PWM/HSO <sup>6</sup>	Relay	Analog	Operating Voltage	
<b>Digital</b>	IO-DI8-T08	8 pnp / npn	1 5 kHz 16-bit	—	—	—	8 pnp	—	—	—	24 VDC <sup>8</sup>	
	IO-DI8-R04	8 pnp / npn	1 5 kHz 16-bit	—	—	—	—	—	4	—	24 VDC <sup>8</sup>	
	IO-DI8-R08	8 pnp / npn	1 5 kHz 16-bit	—	—	—	—	—	8	—	24 VDC <sup>8</sup>	
	EX90-DI8-R08 <sup>3</sup>	8 pnp / npn	1 5 kHz 16-bit	—	—	—	—	—	8	—	24 VDC	
	IO-DI16	16 pnp / npn	1 5 kHz 16-bit	—	—	—	—	—	—	—	24 VDC <sup>9</sup>	
	IO-T016	—	—	—	—	—	16 pnp	—	—	—	24 VDC	
	IO-R08	—	—	—	—	—	—	—	8	—	24 VDC <sup>9</sup>	
	IO-R016	—	—	—	—	—	—	—	16	—	24 VDC <sup>9</sup>	
	IO-DI8ACH	8 AC	—	—	—	—	—	—	—	—	110 / 220 V	
<b>Analog, Temperature and Weight / Strain Measurements</b>	IO-AI4-A02	—	—	4 0 - 10 V, 0 - 20 mA / 4 - 20 mA 12-bit	—	—	—	—	—	2 ±10 V 12-bit + sign, 0 - 20 mA, 4 - 20 mA 12-bit	24 VDC	
	IO-PT400	—	—	—	4 PT 100/ NI 100/ NI 120	—	—	—	—	—	Not relevant	
	IO-PT4K	—	—	—	4 PT 1000 / NI 1000	—	—	—	—	—	Not relevant	
	IO-AO6X	—	—	—	—	—	—	—	—	6 (Isolated) 0 - 10 V, 0 - 20 mA, 4 - 20 mA 12-bit	24 VDC	
	IO-LC1	1 pnp	—	—	—	1 Loadcell / Strain gauge	2 pnp	—	—	—	24 VDC	
	IO-LC3	1 pnp	—	—	—	3 Loadcell / Strain gauge	2 pnp	—	—	—	24 VDC	
	IO-ATC8	—	—	8 Thermocouple, 0 - 10 V, 0 - 20 mA, 4 - 20 mA 14-bit	—	—	—	—	—	—	Not relevant	
	IO-AI8	—	—	8 0 - 10 V, 0 - 20 mA / 4 - 20 mA 14-bit	—	—	—	—	—	—	Not relevant	
<b>Combo</b>	IO-D16A3-R016	16 pnp / npn	2 30 kHz 32-bit	3 0 - 20 mA, 4 - 20 mA 10-bit	—	—	—	—	16	—	24 VDC	
	IO-D16A3-T016	16 pnp / npn	1 30 kHz 32-bit	3 0 - 20 mA, 4 - 20 mA 10-bit	—	—	15 pnp, 1 pnp / npn	1 pnp 0.5 kHz pnp 50 kHz	None	—	24 VDC	
	EX-D16A3-R08 <sup>7</sup>	16 pnp / npn	2 30 kHz 32-bit	3 0-20 mA, 4 - 20 mA 10-bit	—	—	None	None	8	—	24 VDC	
	EX-D16A3-T016 <sup>7</sup>	16 pnp / npn	1 30 kHz 32-bit	3 0-20 mA, 4 - 20 mA 10-bit	—	—	15 pnp 1 pnp / npn	1 pnp 0.5 kHz pnp 50 kHz	None	—	24 VDC	
<b>High-speed Remote I/O Module</b>	EXF-RC15 <sup>2,4,9</sup>	9 pnp / npn	3 200 kHz 32-bit	—	—	—	4 pnp	4 (up to 3 PTO)	2	—	24 VDC	

## I/O EXPANSION MODULE ADAPTERS

Article	Description
EX-A2X <sup>1</sup>	Local I/O module adapter, Galvanic isolation. Up to 8 modules may be connected to a single PLC <sup>1</sup> . Supports both 12 / 24 VDC
EX-RC1 <sup>1,4</sup>	Remote I/O module adapter, via CANbus. Multiple adapters may be connected to a single PLC, with up to 8 modules to each adapter <sup>1</sup> . Supports both 12 / 24 VDC.

<sup>1</sup>Number of supported I/Os & I/O modules varies according to module.

<sup>2</sup>The EXF-RC15 functions as a node in a Vision UniCAN network and connects to the Vision controller via CANbus and programmed in VisiLogic.

The EXF-RC15 cannot be extended as regular I/O unit. High-speed inputs are configurable as either high-speed counter (HSC) or shaft-encoder.

<sup>3</sup>The EX 90 is housed in an open casing. Only one EX90 can be connected per PLC, as a single expansion module; Expansion adapter not required.

<sup>4</sup>Supported by Samba, Vision and UniStream series.

<sup>5</sup>The total number of digital inputs listed includes high-speed inputs.

Example: the IO-D16A3-T016 offers a total of 16 pnp/npn inputs. You can configure I4 as a HSC and I5 as a Counter reset; this reduces the available number of digital inputs to 14.

<sup>6</sup>The total number of digital outputs listed includes high-speed outputs.

Example: the IO-D16A3-T016 offers a total of 16 transistor outputs. You can configure 1 to High-speed output, reducing the number of available digital outputs to 15.

<sup>7</sup>Functions as local adapter. Can support up to 7 I/O modules.

<sup>8</sup>Also available as 12 VDC – contact us for part number.

<sup>9</sup>One HSC may be configured as a shaft encoder.

# SAMBA SERIES

## KEY FEATURES

### COMPACT & COST-EFFECTIVE

All-in-One PLC + HMI for small-scale automation.

### COLOR TOUCHSCREEN DISPLAY

Available in 3.5", 4.3", and 7" sizes.



### FLEXIBLE COMMUNICATION

Optional Serial / Ethernet + CANbus ports.

### REMOTE ACCESS & CONTROL

Operate via PC or mobile application.

# SAMBA

	PLC Model	SM35-J-*	SM43-J-*	SM70-J-*
CPU built-in	Real-time application size	80 KB	192 KB	192 KB
	Non-retained memory	64 X-bits, 32 X-integers, 16 X-long integers, 16 X-double words (32-bits unsigned)		
	Retained memory	512 coils, 256 registers, 32 long integers (32-bit), 32 double words (32-bit unsigned), 24 floats, 32 timers (32-bit), 16 counters		
	Battery backup	7 years typical at 25°C, battery back-up for all memory sections and RTC		
	Real-time Clock (RTC)		Yes	
HMI Panel Spec	Display size (Inch)	3.5"	4.3"	7"
	Display resolution	320 x 240 (QVGA)	480 x 272	800 x 480 (WVGA)
	Touchscreen		Resistive, Analog	
	Color depth		65,536 (16-bit)	
	Internal memory	Images: 1.5 MB Fonts: 320 KB	Images: 3 MB Fonts: 320 KB	Images: 8 MB Fonts: 512 KB
	Viewing Area Width x Height (mm)	72 x 54.5	96.4x55.2	153.7 x 86.7
	Cut-Out Width x Height (mm)	92 x 92	122.5 x 91.5	193 x 125
Communication & Connectivity (Built-in)	Serial ports	1 x RS232	—	—
	USB port (programming)	—	mini - B	
	UniCloud		Via UCR routers	
I/O & Communication Expansion Options	Built-in I/O (pg. 50)		Yes, According to model (See Built-in I/Os model table)	
	Additional Ethernet port (pg. 41)		1	
	Additional Serial port (pg. 41)		1	
	Additional CANbus ports (pg. 41)		1	
	Remote I/O Expansion (pg. 47)		* EX-RC1 (CANbus) adapters allow for additional I/O expansion. * URB remote I/O adapters support both Ethernet and CANbus communication.	
	Power Supply	Operating Voltage	24 VDC	
Operating Conditions	Ingress Protection rating		IP 66 / NEMA4X when panel-mounted	
	Operating Temperature		0°C to 50°C / 32°F to 122°F	
	Approvals		UKCA, UL, CE, EAC, UL Hazardous Locations, Class 1 Division 2 (model dependent)	

# SAMBA BUILT-IN I/O CONFIGURATIONS

Article	Summary	Digital <sup>2</sup>	Inputs <sup>1</sup>			Outputs					
			HSC / Shaft-Encoder <sup>2</sup>	Analog	Temperature Measurement	Transistor <sup>3</sup>	PWM/ HSO <sup>3</sup>	Relay	Analog	Operating Voltage	
SM35-J-R20	10 Digital Inputs / 2 D/A Inputs <sup>4</sup> / 8 Relay Outputs	12	1	30 kHz, 32-bit	2 0 - 10 V / 0 - 20 mA / 4 - 20 mA 10-bit	—	—	—	8	—	24 VDC
SM43-J-R20											
SM70-J-R20											
SM35-J-T20	10 Digital, 2 D/A Inputs / 8 Transistor Outputs	12	3	30 kHz, 32-bit	2 0 - 10 V / 0 - 20 mA / 4 - 20 mA 10-bit	—	8 pnp	7 0.5 kHz	—	—	24 VDC
SM43-J-T20											
SM70-J-T20											
SM35-J-RA22	12 Digital Inputs/1 HSC / Shaft-encoder, 2 Analog Inputs/ 2 PT100 / TC, 8 Relay Outputs, 2 Analog Outputs	12	1	30 kHz, 32-bit	2 0 - 10 V / 0 - 20 mA / 4 - 20 mA 14-bit	2 PT100 / Thermocouple	—	—	8	2 0-10 V / 4-20 mA / 12-bit	24 VDC
SM43-J-RA22											
SM70-J-RA22											
SM35-J-TA22	12 Digital Inputs/ 1 HSC/ Shaft / encoder, 2 Analog Inputs/ 2 PT100/TC/ 8 Transistor Outputs/ 2 Analog Outputs	12	1	30 kHz, 32-bit	2 0 - 10 V / 0 - 20 mA / 4 - 20 mA 14-bit	2 PT100 / Thermocouple	8 pnp	5 0.5kHz	—	0-10V / 4-20 mA / 12-bit2	24 VDC
SM43-J-TA22											
SM70-J-TA22											

<sup>1</sup> In some models certain inputs are adaptable via wiring and software settings, and can function as digital or analog.

Adapting requires input pins. This reduces the number of digital inputs.

Pin requirements: Each analog input requires 1 pin. Example: SM35-J-R20 offers 12 digital inputs. Implementing 2 analog inputs requires 2 pins, leaving 10 pins free.

<sup>2</sup> The total number of digital inputs listed includes highspeed and adaptable inputs.

<sup>3</sup> The total number of digital outputs listed includes high-speed outputs.

<sup>4</sup> When selecting npn for the digital inputs, the 2 Analog inputs cannot be used.

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NOT  
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YouTube Channel



# JAZZ SERIES

## KEY FEATURES

### ALL-IN-ONE PLC + HMI

Affordable solution for small-scale automation.

### REMOTE MONITORING & CONTROL

Operate via PC or mobile application.



# JAZZ

### FLEXIBLE I/O OPTIONS

Digital, analog, temperature, and high-speed inputs / outputs.

### OPTIONAL SERIAL / ETHERNET PORTS

Expand connectivity as needed.

	PLC Model	JZ20-J-□
CPU	Real-time application size	48 K
	Non-retained memory	—
	Retained memory	256 coils, 256 registers, 64 timers
	Battery backup	7 years typical at 25°C / 77°F, battery back-up for all memory sections and RTC
	Real-time Clock (RTC)	Yes
HMI Panel Spec	Display resolution	2 lines, 16 characters
	Touchscreen	—
	Cut-Out Width x Height (mm)	117 x 89
Communication & Connectivity (Built-in)	USB port (programming)	mini-B
	UniCloud	Via UCR routers
I/O & Communication Expansion Options	Built-in I/O (pg. 54-55)	Yes, According to model (See Built-in I/Os configuration table) <sup>1</sup>
	Additional Ethernet port (pg. 54)	1
	Additional Serial port (pg. 54)	1
Power Supply	Operating Voltage	24 VDC
Operating Conditions	Ingress Protection rating	IP 65 / NEMA4X when panel mounted
	Operating Temperature	0°C to 50°C / 32°F to 122°F
	Approvals	UKCA, UL, CE, EAC

# JAZZ BUILT-IN I/O CONFIGURATIONS

Article <sup>4</sup>	Summary	Inputs <sup>1</sup>				Outputs					
		Digital	HSC <sup>2</sup>	Analog	Temperature Measurement	Transistor	PWM/HSO	Relay	Analog	Operating Voltage	
JZ20-J-R16	6 Digital Inputs, 2 D/A Inputs, 2 Analog Inputs <sup>1</sup> 6 Relay Outputs	8	2 10 kHz, 16 - bit	2 0 - 10 V 12 - bit 2 0 - 20 mA, 4 - 20 mA	—	—	—	6	—	24 VDC	
JZ20-J-R16HS	6 Digital Inputs, 3 HSC/Shaft-encoder, 2 D/A Inputs, 2 Analog Inputs, 6 Relay Outputs	8	3 10 kHz, 16 - bit	2 0 - 10 V 12 - bit 2 0 - 20 mA, 4 - 20 mA	—	—	—	6	—	24 VDC	
JZ20-J-R31	16 Digital Inputs, 2 D/A Input, 2 Analog Inputs <sup>1</sup> 11 Relay Outputs	18	2 10 kHz, 16 - bit	2 0 - 10 V 12 - bit 2 0 - 20 mA, 4 - 20 mA 10 or 12 - bit	—	—	—	11	—	24 VDC	
JZ20-J-T18	6 Digital Inputs, 2 D/A Input, 2 Analog Inputs <sup>1</sup> 8 Transistor Outputs	8	2 10 kHz, 16 - bit	2 0 - 10 V 12 - bit 2 0 - 20 mA, 4 - 20 mA 12-bit	—	8 pnp	—	—	—	24 VDC	
JZ20-J-T20HS	6 Digital Inputs, 3HSC / Shaft-encoder, 2 D/A Inputs, 2 Analog Inputs, 10 Transistor Outputs	8	3 10 kHz, 16 - bit	2 0-10 V 12 - bit 2 0-20 mA, 4 - 20 mA 10 or 12 - bit	—	8 pnp 2 npn	3 3 kHz pnp 2 32 kHz npn	—	—	24 VDC	
JZ20-J-T40	16 Digital Inputs, 2 D/A Input, 2 Analog Inputs <sup>1</sup> 20 Transistor Outputs	18	2 10 kHz, 16 - bit	2 0 - 10 V 12 - bit 2 0 - 20 mA, 4 - 20 mA 12-bit	—	20 pnp	—	—	—	24 VDC	
JZ20-J-UA24	9 Digital Inputs, 1 HSC, 2 D/A Inputs, 2 Analog Inputs, 2 TC / PT 100, 5 Relay Outputs, 2 Transistor Outputs, 2 Analog Outputs	11	1 10 kHz, 16 - bit	2 0 - 10 V 12 - bit 2 0-20 mA, 4-20 mA 12-bit	2 Thermocouple, PT 100	2 pnp	2	5	2 +/-10 V, 4-20 mA 12-bit	24 VDC	
JZ20-J-UN20	9 Digital Inputs, 2 D/A Input <sup>1</sup> , 1 Analog Inputs 1 TC / PT 100 Inputs <sup>1</sup> 5 Relay Outputs 2 Transistor Outputs	11	1 10 kHz, 16 - bit	2 0 - 10 V 12 - bit 1 0 - 20 mA, 4 - 20 mA 10 or 12 - bit	1 Thermocouple, PT 100	2 pnp	2	5	—	24 VDC	

<sup>1</sup>In some models certain inputs are adaptable, and can function as either digital or analog.  
Adapting requires input pins. This reduces the number of digital inputs. Pin requirements:  
Each analog input requires 1 pin.

<sup>2</sup>Note that the high speed inputs and adaptable inputs (D/A Inputs) are included in the total number of digital inputs (model dependent).

<sup>3</sup>Note that the high-speed outputs are included in the total number of npn/pnp digital outputs

<sup>4</sup>To order a classic Jazz with a Bezel panel, omit the 'J' from the model number, ex. JZ20-R16

<sup>5</sup>Can be used as a shaft encoder

## Jazz Add-on Ports and Accessories

COM Port kit

Ethernet Communication Port

Program Cloner module

RS232 / RS485 (isolated)  
Article No.: JZ-RS4

Article No.: MJ20-ET1<sup>1</sup>

Article No.: MJ20-MEM1



# UNICLOUD: THE NO-CODE IIOT PLATFORM BUILT FOR MACHINE BUILDERS

**Connect. Monitor. Optimize. In Less Than 30 Minutes.**

UniCloud is a fully integrated Industrial IIoT platform designed specifically for OEMs and machine builders. With zero coding required, you can securely connect machines, monitor performance, and optimize operations—without IT teams, complex setup, or hidden costs.

## TURN DATA INTO BUSINESS VALUE

### Convert Machine Data Into Insights, Revenue & Savings



## BUILT FOR FAST RESULTS – NO CODE, NO IT HEADACHES

### Convert Machine Data Into Insights, Revenue & Savings

UniCloud helps OEMs and machine builders deploy smarter solutions quickly—without needing dedicated developers or integrators.



#### UP AND RUNNING IN UNDER 30 MINUTES

Create live dashboards with drag-and-drop widgets, no experience needed.



#### REMOTE MONITORING & TROUBLESHOOTING

Monitor equipment in real time, spot issues early, and reduce downtime.



#### PREDICTIVE MAINTENANCE

Reduce service calls and **eliminate unplanned failures** by analyzing alarm trends and historical data.



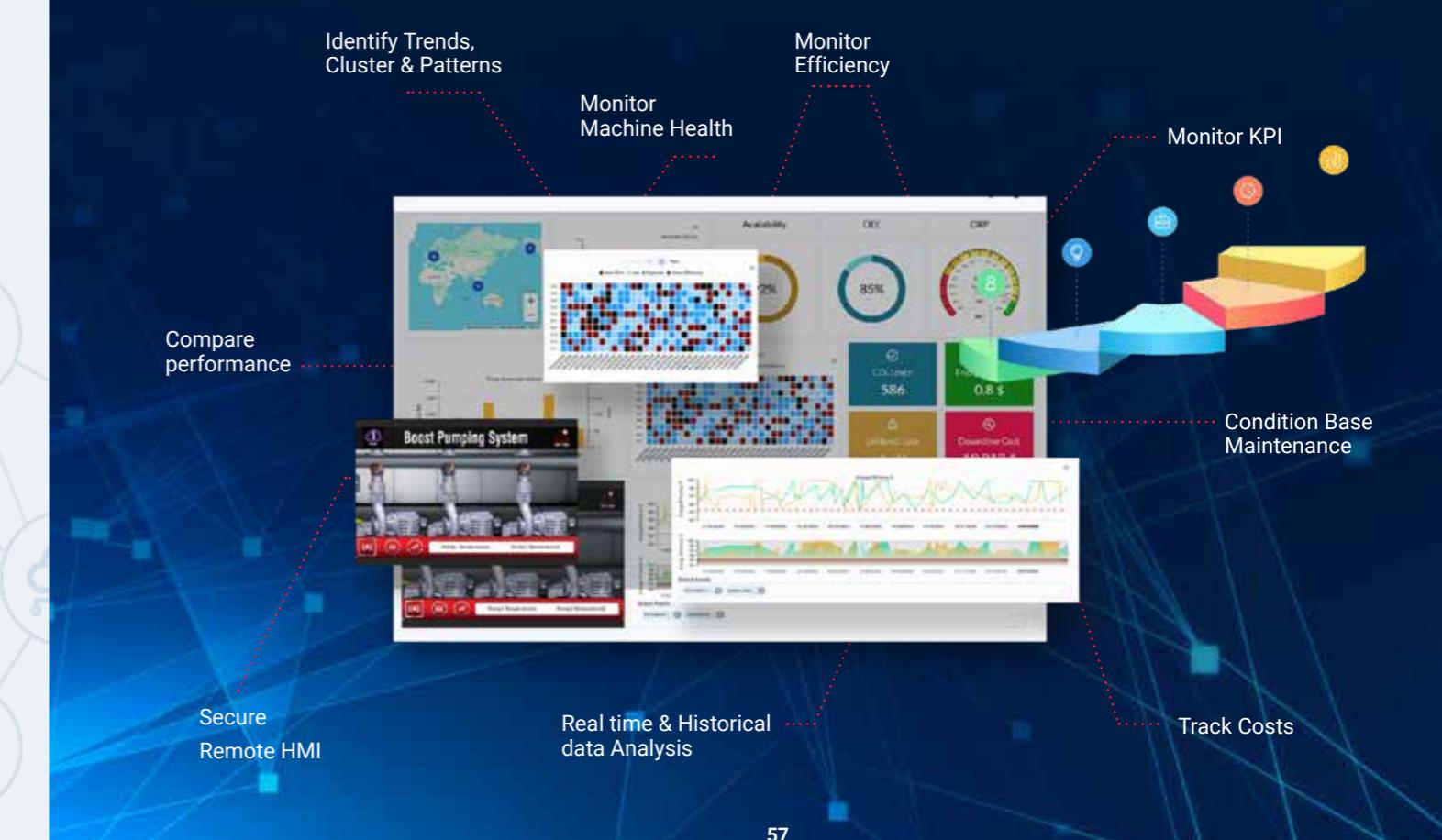
#### DATA OWNERSHIP

Own your data. No reliance on IT or third-party services.



#### MULTI-LAYERED SECURITY

Protect your data with encryption, user roles, and full access control.





# AUGMENTED REALITY (AR): SEE BEYOND THE MACHINE

## SMARTER MAINTENANCE, FASTER TROUBLESHOOTING.

UniCloud AR overlays real-time PLC data directly onto machines, transforming maintenance and troubleshooting into an intuitive, visual experience.



### Accelerated Troubleshooting

Technicians and operators can visualize live machine data directly on equipment. You get step-by-step guidance eliminating guesswork.



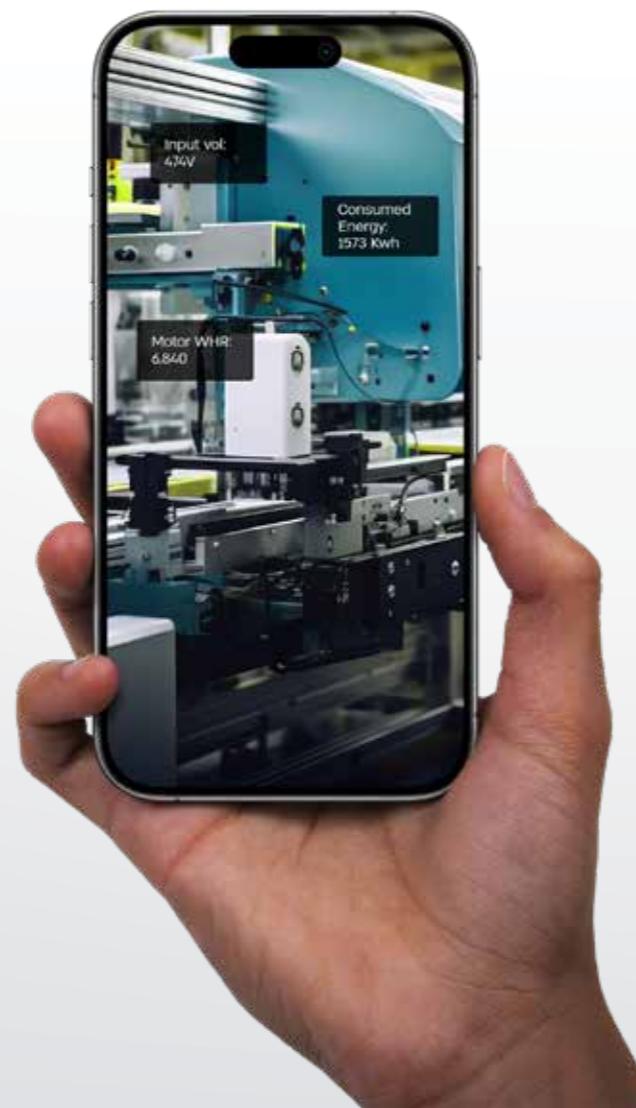
### Increase Spare Parts & Consumables Sales

AR can highlight wear-and-tear components in real-time, prompting proactive replacements. Ensures faster maintenance and increased sales opportunities.

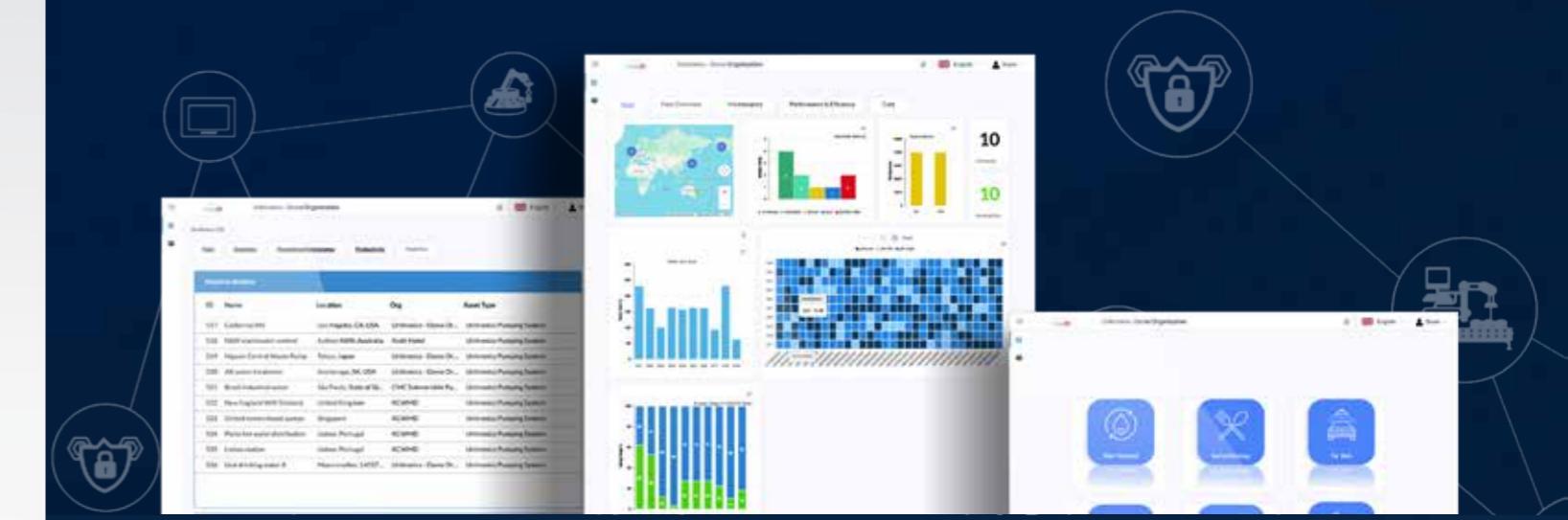


### See Machine Data in Context

Get performance metrics right where they matter—on the machine itself.



UniCloud AR doesn't just improve efficiency—it transforms how teams interact with machines, making troubleshooting, and maintenance simpler, faster, and more effective.



## FUTURE PROOF YOUR MACHINES WITH UNICLOUD

Designed for OEMs and machine builders, UniCloud helps you move fast today—and grow smarter tomorrow. Whether you're managing 10 or 10,000 machines, UniCloud scales with your business and lets you adapt to new models, services, and customer expectations.



## GET STARTED WITH A 3-MONTH FREE TRIAL

SEE THE POWER OF UNICLOUD FIRSTHAND—NO RISK, NO COMMITMENT.

Visit [www.unitronics.cloud](http://www.unitronics.cloud) to get started!

SCAN AND TRY FREE



# ROUTERS

## 4G LTE CONNECTIVITY . FLEXIBLE . SECURE . SIMPLE

Use as a standalone industrial router, UniCloud gateway, or to enable secure remote access for Unitronics controllers—one device, multiple roles.

**Dual functionality:** serves as a cellular 4G LTE router and as a UniCloud gateway for Vision, Samba, Jazz, and 3rd party devices.

- Embedded Firewall for Robust Security, Remote Monitoring and Control
- Geo-Location via GNSS (GPS)
- Send SMS via Ethernet
- On-board Digital & Analog I/O

### BUILT-IN FIREWALL

Protects networks with embedded security features.



### CONNECTIVITY

WAN / LAN / Cellular / Wifi



### SMS OVER ETHERNET

Send/receive text messages through network interface.

### GPS TRACKING

Location services for asset monitoring and fleet control.

### HARDWARE



**B5 SERIES**  
**UCR-ST-B5**



**B8 SERIES**  
**UCR-ST-B8**

<b>Mobile</b>	4 G (LTE) Cat 4 DL up to 150 Mbps, UL up to 50 Mbps; DC HSPA+; UMTS; TD SCDMA; EDGE; GPRS	
<b>CPU</b>	Atheros Hornet, MIPS 24 Kc, 400 MHz	Atheros Wasp, MIPS 74 Kc, 550 MHz
<b>Memory</b>	16 MB Flash, 64 MB DDR 2 RAM	16MB Flash, 128 MB DDR 2 RAM
<b>Ethernet</b>	2x 10 / 100 Ethernet ports: 1 x WAN (configurable as LAN), 1 x LAN	4x 10 / 100 Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN ports
<b>Power Supply</b>	9 - 30 VDC, 4 pin DC connector	
<b>PoE (passive)</b>	Passive PoE over spare pairs (available from HW revision 0007 and batch number 0010). Possibility to power up through LAN port, not compatible with IEEE 802.3 af and 802.3 at	
<b>Inputs/Outputs</b>	1 x Digital Input, 1 x Digital Open Collector Output on power connector	3 x Inputs (Digital, Digital galvanically isolated, Analog) + 1 x Digital Input on power connector
<b>Connectors</b>	1 x 4 pin DC, 2 x Ethernet, 2 x Mobile SMA, 1 x WiFi RP SMA	1x 4 pin DC, 4 x Ethernet, 2 x Mobile SMA, 2 x WiFi RP SMA, 1 x GPS SMA, 1 x RS232, RS485, 1 x 6 pin
<b>Memory Cards</b>	X	microSD, Hinge Type slot
<b>SIM</b>	1x external SIM holder	2 x external SIM holders
<b>Status LEDs</b>	2 x connection type status, 5 x connection strength, 2 x LAN status, 1 x Power	1x bi color connection status, 5 x connection strength, 4 x LAN status, 1 x Power
<b>Operating Temperature</b>	(-40°) C to 75 C / (-40°)F to 167°F	
<b>Housing</b>	Aluminum housing, plastic panels	
<b>Dimensions (mm)</b>	83 x 74 x 25	100 x 110 x 50
<b>Weight</b>	125 g	287 g

**Software Features**

	B5 Series	B8 Series
Dynamic DNS	✓	✓
Multiple VPN Protocols	✓	✓
Wireless Access Point and Wireless Client	✓	✓
GPS Geo-fencing	✗	✓
Firewall	✓	✓
I/O Control	✓	✓
MQTT Broker	✓	✓
Modbus TCP and Modbus RTU	✓	✓
NTP Server	✓	✓

**Network Coverage**

	Article Number	Region Coverage	Frequency Bands
B5 Series	UCR-ST-B5-US	North America (AT&T), North America (Verizon)	• 4G: (LTE-FDD): B2, B4, B5, B12, B13, B14, B66, B71 • 3G: B2, B4, B5
	UCR-ST-B5-EU	Europe, the Middle East, Africa, Korea, Thailand, Malaysia	• 4G (LTE-FDD): B1, B3, B7, B8, B20, B28A • 3G: B1, B8 • 2G: B3, B8
	UCR-ST-B5-SA	South America, Australia, New Zealand, Taiwan	• 4G: (LTE-FDD): B1, B2, B3, B4, B5, B7, B8, B28 • 4G: (LTE-TDD): B40 • 3G: B1, B2, B5, B8 • 2G: B2, B3, B5, B8
B8 Series	UCR-ST-B8-US	North America (AT&T), North America (Verizon)	• 4G: (LTE-FDD): B2, B4, B5, B12, B13, B14, B66, B71 • 3G: B2, B4, B5
	UCR-ST-B8-EU	Europe, the Middle East, Africa, Korea, Thailand, India, Malaysia	• 4G: (LTE-FDD): B1, B3, B7, B8, B20, B28A • 4G: (LTE-TDD): B38, B40, B41 • 3G: B1, B8 • 2G: B3, B8
	UCR-ST-B8-SA	South America, Australia, New Zealand, Taiwan,	• 4G: (LTE-FDD): B1, B2, B3, B4, B5, B7, B8, B28 • 4G: (LTE-TDD): B40 • 3G: B1, B2, B5, B8 • 2G: B2, B3, B5, B8

For region coverage, please consult your mobile network provider.

**Accessories**

UCR-OP-B5-DIN	UCR B5/B8 DIN RAIL KIT
UCR-ACC-02	B8 LTE ANTENNA (SMA, 3m CBL)
UCR-ACC-03	B8 WiFi ANTENNA (SMA, 1.5m CBL)
UCR-ACC-04	GNSS ANTENNA (SMA, 3m CBL)
UCR-ACC-07	B5 LTE ANTENNA (SWIVEL, SMA)
UCR-ACC-08	B5 WiFi ANTENNA (SWIVEL, SMA)

# UNITRONICS ROUTERS: YOUR UNICLOUD GATEWAY FOR ALL DEVICES



# SERVO DRIVES, MOTORS & VFDS

## SIMPLICITY IN EVERY MOVE

Unitronics motion products – **Servo Drives, Motors, and Variable Frequency**

**Drives (VFDs)** – deliver a complete, easy-to-use solution for motion control. Designed for **seamless integration with Unitronics PLCs**, they eliminate complexity, reduce setup time, and provide unparalleled performance.

Each device can operate as a standalone solution, giving you full flexibility to match your application needs.

### MOTION MADE SIMPLE

Built to remove complexity—Unitronics Motion products helping you get machines up and running faster, with no steep learning curve.

#### Works Seamlessly with Unitronics PLCs

Build a unified, end-to-end system without relying on third-party integration.

#### Ready-Made Motion Code Included

Get started faster with PLCopen-compatible motion code you can use, edit, or expand as needed.

#### Flexible Standalone Use

Servo Drives and VFDs can operate independently or within a Unitronics PLC environment.

#### Single Software Environment

Program, configure, and monitor both motion and logic control in a single intuitive interface.

#### Industry-Standard Communication

Supports multiple protocols, ensuring compatibility with other automation systems.

#### Cost-Effective Solution

Save on hardware, integration, and long-term maintenance with a unified, all-in-one approach.

Unitronics Motion products are built to make motion control easier—whether you're building a complete automation system or just need smart, standalone motion components.

### READY-MADE MOTION CODE - GET MOVING IMMEDIATELY – NO PROGRAMMING NEEDED!

**Free Ready-Made Motion code** is available for VFDs and Servos, and comprises HMI screens and Motion control functions.

Simply download the code to your application, and tap a panel – even mobile – to:

Set motion parameters

Monitor Axis behavior and I/Os

Execute movements, such as Point-to-Point, Jog, and Homing

**Motion Control programming:**  
drag & drop function blocks



Test & view performance via built-in powerful, high-speed scope

Add Axes, drag & drop actuators; UniLogic automatically converts units

UniLogic automatically defines the correct configuration & sets up communications

Analyzes mechanical properties, and recommends safe values



# VARIABLE FREQUENCY DRIVES

**RELIABLE, HIGH-PERFORMANCE DRIVES FOR MACHINES AND PROCESS CONTROL.**

- Simple to use • Robust • Broad power & Voltage range •

## B1 SERIES

### KEY FEATURES

Power range from 0.4 kW (0.5 hp) up to 110 kW (150 hp)

Built-in Sensorless Control: Vector, Torque, Volts per Hz

Built-in EMI filters and braking units

RS485: Modbus RTU Fieldbus

Wide voltage support: 220V – 480V

Safe Torque Off (STO)

Heavy-Duty overload capacity, up to 200%

Certified: UL, cUL, TÜV-SÜD Safety, and CE

Coated PCBs – added protection from dust and humidity

Multiple mounting options: wall, flange, and DIN rail

### FLEXIBLE INTEGRATION

Use B1 Series drives as **stand-alone inverters**—or optimize your application by combining them with Unitronics' All-in-One controllers and our **free, ready-made motion control code**.

### PRODUCT DESIGNATION KEY

UMI - **0022** **E** **U** - **B1**

No.	Key	Description
1	Product Line	Unitronics Motion Inverters
2	Power Range	0004: 400W / 0.5hp 0022: 2.2kW / 3hp
3	Power Rating	A: 1 ph 110 V – 120 V B: 1 ph 200 V – 240 V E: 3 ph 380 V – 440 V / 480 V
4	Certification	U – UL Certified, E – TUV-SUD Certified*
5	Product series	B1

\* 0.4-11kw Drives are UL and cUL certified and support 480

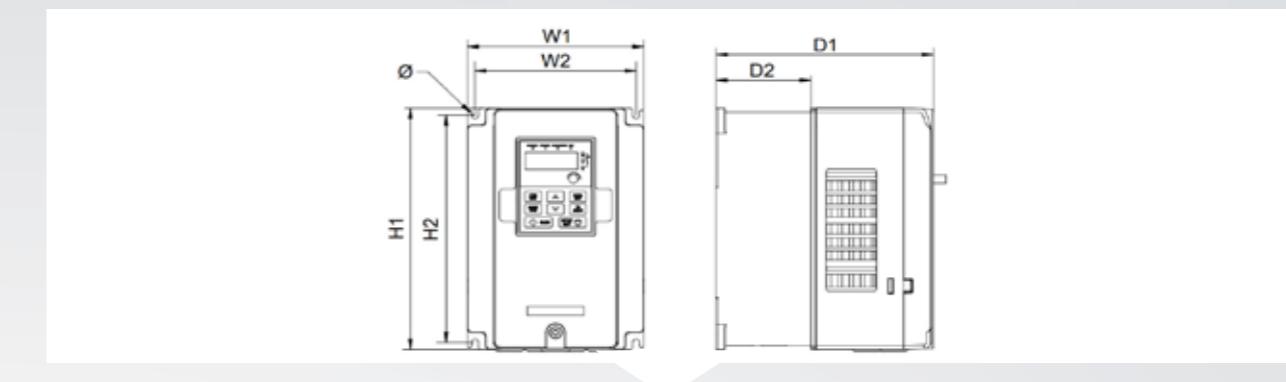
## UMI-B1 SERIES: PRODUCT SPECIFICATIONS

	UMI-B1 (BE / EE)	UMI-B1 AU
Power	Input Voltage	1 Ph 200 - 240 V 3 Ph 200 - 240 V 3 Ph 380 - 440 V 3 Ph 380 - 480 V
	Output Voltage	3 Ph 0 - 240 V 3 Ph 0 - 440 V 3 Ph 0 - 480 V
	Input Frequency	50 Hz or 60 Hz; allowed range: 47 – 63 Hz
	Supported Motors	Three Phase, Asynchronous Induction Motors
	Output Frequency	0 - 400 Hz
	Overload Capacity	150%, 60 seconds
		180%, 10 seconds
		200%, 1 second
Control	Control Method	SVPWM (Space Vector PWM) SVC (Sensorless Vector Control)
	Control Setting	MODBUS, Analog, Digital, PID, Pulse
	Communication	MODBUS RTU RS485
	Keypad	Film Keypad: <4 kW (5 hp) Removable: ≥4 kW (5 hp)
Input	Analog Inputs	Total 2: 1 (AI2) 0 - 10 V / 0 - 20 mA and 1 (AI3) -10 - 10V
	Digital Inputs	Total 5: 4 inputs 1 kHz 1 input 50 kHz
Output	Analog Outputs	Up to 2: 1 output 0 - 10 V / 0 - 20 mA ≤2.2 kW / 3 hp. (2nd output available from >2.2 kW / 3 hp)
	Digital Outputs	1 output sink / source + 1 Relay output 2 Relay outputs for >2.2 kW / 3 hp
Features	Dynamic Braking Unit (DBU)	Built-in (≤37 kW / 50 hp) Optional DBU (>37 kW / 50 hp)
	EMC	Built-in C3 (≥4 kW / 5 hp), complies with IEC / EN 61800 - 3
		Optional C3 (<4 kW / 5 hp), complies with IEC / EN 61800 - 3
		Optional C2, complies with IEC / EN 61800 - 3
	Operating Temperature	(-10)°C / 14°F - 50°C / 122°F (de-rated by 1% for every 1°C / 2°F above 40°C / 104°F)
General	Altitude	2000 m / 6600 ft (de-rated by 1% for every additional 100 m / 330 ft above 1000 m / 3300 ft)
	Ingress Protection Rating	IP20
	Mounting Options	Wall and Rail (≤2.2 kW / 3 hp)
		Wall and Flange (>2.2 kW / 3 hp)
	Cooling	Air-cooling
	Safe Torque Off	✓
	Compliance	CE, TÜV-SUD Safety Mark UL and cUL (≤11 kW only / 15 hp only)
		CE, UL, cUL



# UMI-B1 SERIES MODELS

POWER (kW / hp)	Input / Output Voltage	Article Number	Rated Output Current (A)	Safety (TUV SUD)	UL & cUL
0.4 / 0.5	1 Ph 110 - 120 V / 3 Ph 0 - 240V	UMI-0004AU-B1	2.5	—	✓
	1 Ph 200 - 240V / 3 Ph 0 - 240V	UMI-0004BE-B1	2.5	STO	✓
	3 Ph 200 - 240V / 3 Ph 0 - 240V	UMI-0004CE-B1	2.5	STO	✓
0.75 / 1	1 Ph 110-120V / 3 Ph 0-240V	UMI-0007AU-B1	4.2	—	✓
	1Ph 200 - 240V / 3 Ph 0 - 240V	UMI-0007BE-B1	4.2	STO	✓
	3 Ph 200 - 240V / 3 Ph 0 - 240V	UMI-0007CE-B1	4.2	STO	✓
	3 Ph 380 - 480V / 3 Ph 0 - 480V	UMI-0007EE-B1	2.5	STO	✓
1.1 / 1.5	1 Ph 110 - 120V / 3 Ph 0 - 240V	UMI-0011AU-B1	5.8	—	✓
1.5 / 2	1 Ph 200-240V / 3 Ph 0-240V	UMI-0015BE-B1	7.5	STO	✓
	3 Ph 200-240V / 3 Ph 0-240V	UMI-0015CE-B1	7.5	STO	✓
	3 Ph 380-480V / 3 Ph 0-480V	UMI-0015EE-B1	4.2	STO	✓
2.2 / 3	1 Ph 200-240V / 3 Ph 0-240V	UMI-0022BE-B1	10	STO	✓
	3 Ph 200-240V / 3 Ph 0-240V	UMI-0022CE-B1	10	STO	✓
4 / 5	3 Ph 380 - 480V / 0 - 480V	UMI-0022EE-B1	5.5	STO	✓
		UMI-0040EE-B1	9.5	STO	✓
		UMI-0055EE-B1	14	STO	✓
		UMI-0075EE-B1	18.5	STO	✓
		UMI-0110EE-B1	25	STO	✓



Article Number	W1	H1	D1	D2	Weight (kg)
UMI-0004BE-B1	80	160	123.5	120.3	0.9
UMI-0007BE-B1					
UMI-0004BU-B1					
UMI-0007AU-B1	80	185	140.5	137.3	1.2
UMI-0011AU-B1					
UMI-0015BE-B1					
UMI-0004CE-B1					
UMI-0007CE-B1					
UMI-0022BE-B1					
UMI-0015BU-B1					
UMI-0004CU-B1					
UMI-0007CU-B1					
UMI-0022BU-B1					
UMI-0007EE-B1					
UMI-0015EE-B1					
UMI-0022EE-B1	146	256	167	84.5	3.1
UMI-0007EU-B1					
UMI-0015EU-B1					
UMI-0022EU-B1					
UMI-0040EE-B1					
UMI-0022CE-B1					
UMI-0015CE-B1					
UMI-0055EE-B1					
UMI-0075EE-B1	170	320	196.3	113	5.6
UMI-0110EE-B1					
UMI-0150EE-B1					
UMI-0185EE-B1					
UMI-0220EE-B1	200	340.6	184.3	104.5	9
UMI-0300EE-B1					
UMI-0370EE-B1					
UMI-0450EE-B1					
UMI-0550EE-B1	250	400	202	123.5	15.5
UMI-0750EE-B1					
UMI-0900EE-B1					
UMI-1100EE-B1					

# UMI-B1 ACCESSORIES

## Keypads

UMI Series	Keypad Type	Parameters Copy	Article Number
B1	LED Keypad	–	UMI-S0001
	LED Keypad	✓	UMI-S0005
	Keypad Bracket	–	UMI-S0081

All keypad models support standard Ethernet RJ45 cable.

## UMI-B1

Additional external keypads are optional for the B1 product family.

### Models having rated power above:

- 2.2 kW (3 hp), 3 ph, 480 V
- 1.5 kW (2 hp), 3 ph 220 V

Provided with detachable keypads.

## Filters

Inputs filter: Control the electromagnetic interference generated from the VFD

Output filter: Control the interference from the output side of the VFD

## Braking Resistors

Power Rating		Braking Power	Input Voltage	Article Number
kW	hp			
0.4	0.5	250 W	1 / 3 Ph 220 V	UMI-S0051
0.75	1			
1.5	2	500 W	1 / 3 Ph 220 V	UMI-S0052
2.2	3	600 W	1 / 3 Ph 220 V	UMI-S0053
0.75	1	100 W	3 Ph 4800 V	UMI-S0054
1.5	2	260 W	3 Ph 480 V	UMI-S0055
2.2	3	390 W	3 Ph 480 V	UMI-S0056
4	5	600 W	3 Ph 480 V	UMI-S0053
5.5	7.5	1000 W	3 Ph 480 V	UMI-S0058
7.5	10	1500 W	3 Ph 480 V	UMI-S0059
11	15	1560 W	3 Ph 480 V	UMI-S0060
15 - 18.5	20 - 25	3 kW	3 Ph 480 V	UMI-S0061
22 - 110	30 - 150	4.5 kW	3 Ph 480 V	Contact Us

## C3 Filters

UMI Series	Power Rating		Input Voltage	Article Number
	kW	hp		
B1	0.4 - 2.2	0.5 - 3	1 Ph 220 V	UMI-S0030
	0.75 - 2.2	1 - 3	3 Ph 220 V / 480 V	UMI-S0031

## C2 Filters

UMI Series	Power Rating		Input Voltage	Input Filter Article Number	Output Filter Article Number
	kW	hp			
B1	0.4 - 0.75	0.5 - 1	1 Ph 220 V	UMI-S0020	UMI-S0032
	1.5 - 2.2	2 - 3	1 Ph 220 V	UMI-S0021	UMI-S0033
	0.75 - 2.2	1 - 3	3 Ph 220 / 400 / 480 V	UMI-S0022	UMI-S0032
	4 - 5.5	5 - 7.5	3 Ph 220 / 400 / 480 V	UMI-S0023	UMI-S0033
	7.5 - 11	10 - 15	3 Ph 220 / 400 / 480 V	UMI-S0024	UMI-S0036
	15 - 18.5	20 - 25	3 Ph 220 / 400 / 460 V	UMI-S0025	UMI-S0037
	22 - 110	30 - 150	3 Ph 220 / 400 / 460 V	Contact Us	Contact Us

## Flange Mounting Plate

Power Rating		Article Number
kW	hp	
1.5 - 2.2	2 - 3	UMI-S0070
4 - 5.5	5 - 7.5	UMI-S0071
7.5 - 11	10 - 15	UMI-S0072
15 - 18.5	15 - 25	UMI-S0073
22 - 30	30 - 40	UMI-S0074

# B7 SERIES VFDS

## ETHERNET CONNECTIVITY, FUNCTIONAL SAFETY & CLOSED-LOOP PRECISION

High-performance drives. Simple setup. Smarter motion.

### KEY FEATURES:

#### ETHERNET CONNECTIVITY:

Integrate seamlessly into modern industrial networks via optional communication card.

#### BUILT-IN STO

B7 is Functional Safety certified.

#### BROAD POWER & VOLTAGE RANGE

200-240 V: 0.75 kW–55 kW / 1–75 hp  
380-480 V: 1.5 kW–500 kW / 2–670 hp  
520-600 V: 0.75 kW–110 kW / 1–150 hp

#### CLOSED-LOOP CONTROL – POSITION, SPEED, AND TORQUE

Supports both constant and variable torque loads.

#### STANDARDS

UL & cUL, CE, and Functional Safety certified.

#### BUILT-IN BRAKE UNIT

For VFDs of 220 V ( $\leq$ 15 kW / 20 hp), 460 V ( $\leq$ 30 kW / 40 hp), and 575 V ( $\leq$ 18.5 kW / 25 hp).

#### LCD KEYBOARD

Line text + graphic screen and 'Wizard Mode' makes parameter setup easy.

#### EXPANDABLE ARCHITECTURE

Add expansion cards to fit your needs (communication, PG encoder, I/O).

#### SUPPORTS MULTIPLE MOTOR TYPES

Including Asynchronous Induction Motors and PM Synchronous Motors.

### PRODUCT DESIGNATION KEY

UMI -	0022	E	U	-	B7
1	2	3	4	5	

Example: UMI-0022EU-B7

No.	Key	Description
1	Product Line	Unitronics Motion Inverters
2	Power Range	0007:750 W / 1 hp 0022:2.2 kW / 3 hp
3	Power Rating	C: 3 Ph 200V - 240 V E: 3 Ph 380 V - 480 V F: 3 Ph 520 - 600 V
4	Certification	U: CE, UL and cUL certified
5	Product series	B7

### SIMPLIFIED INTEGRATION. REDUCED ENGINEERING TIME.

B7 inverters are engineered for **quick setup, smooth commissioning**, and reduced energy consumption. With **automatic integration and ready-made motion code**, you can go from unboxing to production faster—with fewer errors and less overhead. Use them independently or as part of your Unitronics All-in-One automation solution.



# UMI-B7 SERIES

## Product Specifications

	Product Specifications	
Power	<b>Input Voltage</b>	3 Ph, 200 - 240 V 3 Ph, 380 - 480 V 3 Ph, 520 - 600 V
	<b>Input Frequency</b>	50 / 60 Hz (47 - 63 Hz)
	<b>Supported Motors</b>	Asynchronous Induction Motors, Permanent Magnet Synchronous
	<b>Output Frequency</b>	0 - 400 Hz
	<b>Overload Capacity</b>	150%, 60 seconds, 180%, 10 seconds, 200%, 1 second
Control	<b>Control Method</b>	SVPWM (Space Vector PWM) VC (Closed loop vector control) SVC (Sensorless Vector Control)
	<b>Control Setting</b>	MODBUS, Analog, Digital, PID, Pulse, variety of communication cards
	<b>Communication</b>	Build in MODBUS RTU RS485 + optional communication cards
	<b>Keypad</b>	Removable: All power range
Input	<b>Analog Inputs</b>	Total 2: AI1: 0 - 10 V / 0 - 20 mA , AI2: (-10) - 10 V
	<b>Digital Inputs</b>	4 regular inputs; max.frequency: 1 kHz; internal impedance: 3.3 kOhm 2 high-speed inputs ; max frequency:50 kHz
Output	<b>Analog Outputs</b>	1 output, A O1: 0 - 10 V / 0 - 20 mA
	<b>Digital Outputs</b>	Total 2: 1 output sink / source, 1 output 50 kHz
	<b>Relay Outputs</b>	Total 2 Programmable Multi - functional outputs
Features	<b>Dynamic Braking Unit (DBU)</b>	Built-in for VFDs of 220 V (15 kW / 20 hp), 480 V (30 kW / 40 hp), and 575 V (18.5 kW / 25 hp) Optional DBU Units for VFDs of 220 V (18.5-55 kW / 25-75 hp), 480 V (37-500 kW / 50-670 hp), 575 V (22-110 kW / 30-150 hp)
	<b>EMC Filters</b>	For 230 / 480 VFDs Built-In C3, Comply with IEC / 61800-3
	<b>Expansion Cards</b>	Max number of Expansion Cards: 2 for drives 5.5 kW and 3 for drives 7.5 kW
General	<b>Operating Temperature</b>	(-10)°C / 14°F – 50°C / 122°F (de-rated by 1% for every 1°C / 2°F above 40°C / 104°F)
	<b>Ingress Protection Rating</b>	IP20
	<b>Mounting Options</b>	Wall, floor, flange mounting
	<b>Cooling</b>	Air-cooling
	<b>Safe Torque Off</b>	Integrated STO (SIL2)
	<b>Compliance</b>	CE, UL and cUL

# TRUSTED. RECOGNIZED. AWARDED.

Voted best by engineers.

Unitronics has received top 14 industry awards – voted the best by engineers.

From automation innovation to interface design, our solutions are recognized where it matters most: by the people who use them.



**ONE**  
INTEGRATED  
**SOLUTION**  
for Control & Automation

**UNISTREAM®**

**VISION**

**SAMBA**

**JAZZ**



# UMI-B7 SERIES

## Power Rated Specifications

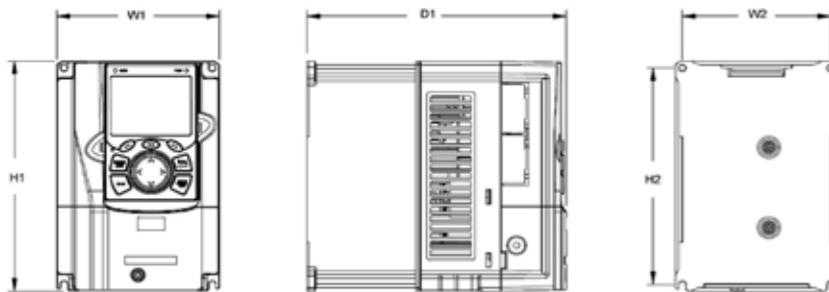
Article Number	Rated Output Power (kW / hp)	Rated Output Current (A)	Rated Power Frequency (Hz)	Rated Power Voltage (V)
UMI-0007CU-B7	0.75 / 1	4.5		
UMI-0015CU-B7	1.5 / 2	7		
UMI-0022CU-B7	2.2 / 3	10		
UMI-0040CU-B7	4 / 5	16		
UMI-0055CU-B7	5.5 / 7.5	20		
UMI-0075CU-B7	7.5 / 10	30		
UMI-0110CU-B7	11 / 15	42		
UMI-0150CU-B7	15 / 20	55		
UMI-0185CU-B7	18.5 / 25	70		
UMI-0220CU-B7	22 / 30	80		
UMI-0300CU-B7	30 / 40	110		
UMI-0370CU-B7	37 / 50	130		
UMI-0450CU-B7	45 / 60	160		
UMI-0550CU-B7	55 / 75	200		
UMI-0015EU-B7	1.5 / 2	3.7		
UMI-0022EU-B7	2.2 / 3	5		
UMI-0040EU-B7	4 / 5	9.5		
UMI-0055EU-B7	5.5 / 7.5	14		
UMI-0075EU-B7	7.5 / 10	18.5		
UMI-0110EU-B7	11 / 15	25		
UMI-0150EU-B7	15 / 20	32		
UMI-0185EU-B7	18.5 / 25	38		
UMI-0220EU-B7	22 / 30	45		
UMI-0300EU-B7	30 / 40	60		
UMI-0370EU-B7	37 / 50	75		
UMI-0450EU-B7	45 / 60	92		
UMI-0550EU-B7	55 / 75	115		
UMI-0750EU-B7	75 / 100	150		
UMI-0900EU-B7	90 / 120	180		
UMI-1100EU-B7	110 / 150	215		
UMI-1320EU-B7	132 / 175	260		
UMI-1600EU-B7	160 / 215	305		
UMI-1850EU-B7	185 / 250	340		
UMI-2000EU-B7	200 / 300	380		
UMI-2200EU-B7	220 / 300	425		
UMI-2500EU-B7	250 / 335	480		
UMI-2800EU-B7	280 / 375	530		
UMI-3150EU-B7	315 / 420	600		
UMI-3500EU-B7	350 / 470	650		
UMI-4000EU-B7	400 / 535	720		
UMI-5000EU-B7	500 / 670	860		

Article Number	Rated Output Power (kW / hp)	Rated Output Current (A)	Rated Power Frequency (Hz)	Rated Power Voltage (V)
UMI-0007FU-B7	0.75 / 1	2.1		
UMI-0015FU-B7	1.5 / 2	3.2		
UMI-0022FU-B7	2.2 / 3	4.5		
UMI-0040FU-B7	4 / 5	6.5		
UMI-0055FU-B7	5.5 / 7.5	9		
UMI-0075FU-B7	7.5 / 10	12		
UMI-0110FU-B7	11 / 15	16		
UMI-0150FU-B7	15 / 20	21		
UMI-0185FU-B7	18.5 / 25	27		
UMI-0220FU-B7	22 / 30	35		
UMI-0300FU-B7	30 / 40	45		
UMI-0370FU-B7	37 / 50	52		
UMI-0450FU-B7	45 / 60	62		
UMI-0550FU-B7	55 / 75	86		
UMI-0750FU-B7	75 / 100	98		
UMI-0900FU-B7	90 / 125	120		
UMI-1100FU-B7	110 / 150	150		



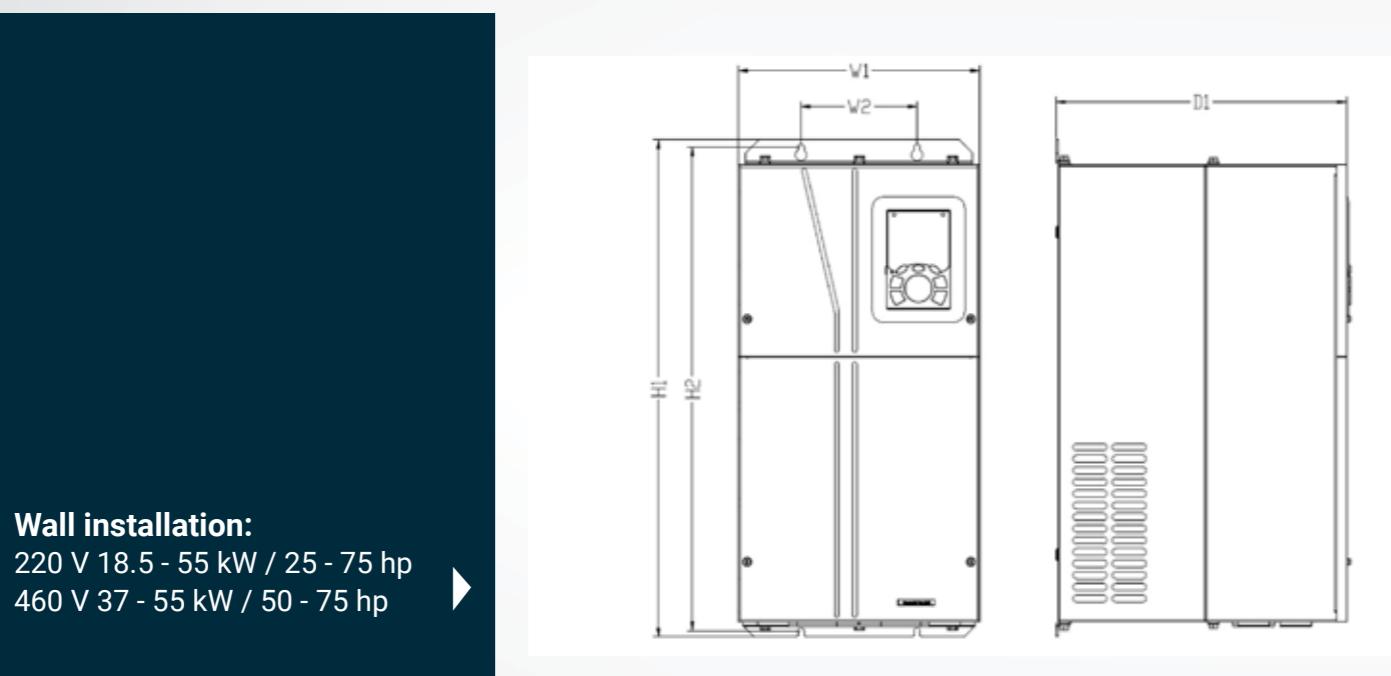
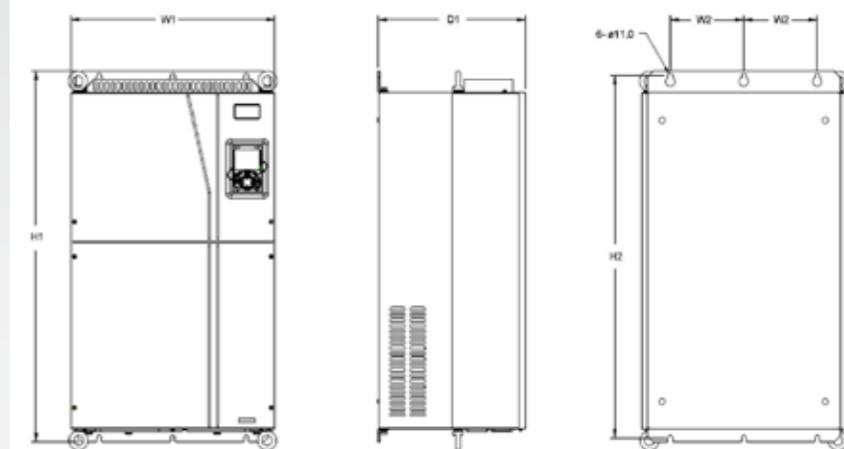
# UMI- B7 SERIES

## DRIVE DIMENSIONS



Wall installation:  
220 V 0.75 - 15 kW / 1- 20 hp  
480 V 1.5 - 30 kW / 2 - 40 hp

Wall installation:  
460 V 132 - 200 kW / 175 - 270 hp

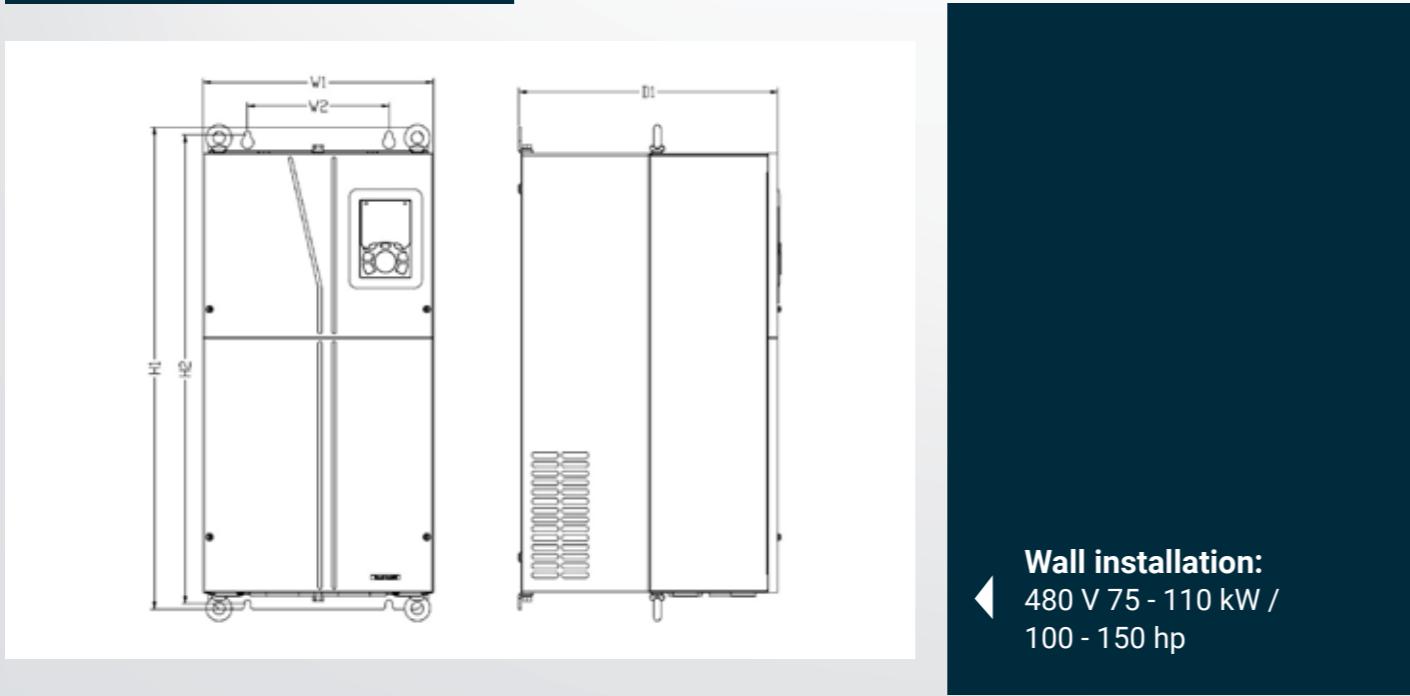


Wall installation:  
220 V 18.5 - 55 kW / 25 - 75 hp  
460 V 37 - 55 kW / 50 - 75 hp

## UMI- B7 SERIES: DRIVE DIMENSIONS

Wall installation dimensions of 220 V 0.75-55 kW (unit:mm)

Power Rating	W1	W2	H1	H2	D1	Installation Hole
0.75 kW / 1 hp	126	115	186	175	185	Ø5
1.5 - 2.2 kW / 2 - 3 hp	146	131	256	243.5	192	Ø5
4 - 5.5 kW / 5 - 7.5 hp	170	151	320	303.5	219	Ø6
7.5 kW / 10 hp	230	210	330	311	217	Ø6
11 - 15 kW / 15 - 20 hp	255	237	400	384	242	Ø7
18.5 - 30 kW / 25 - 40 hp	270	130	557	540	325	Ø7
37 - 55 kW / 50 - 75 hp	325	200	682	661	365	Ø9.5



Wall installation:  
480 V 75 - 110 kW /  
100 - 150 hp

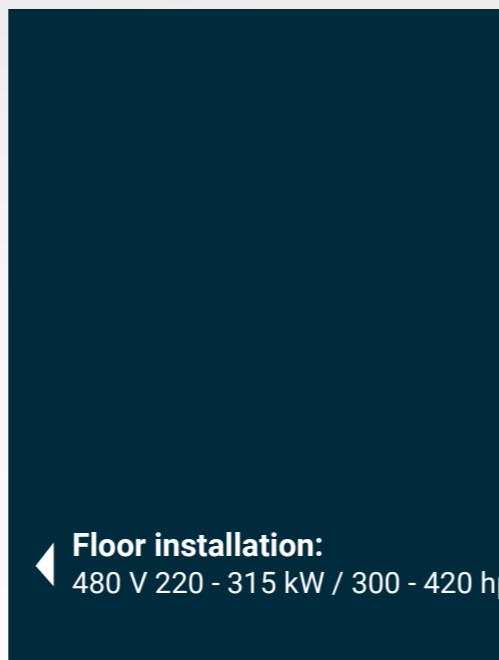
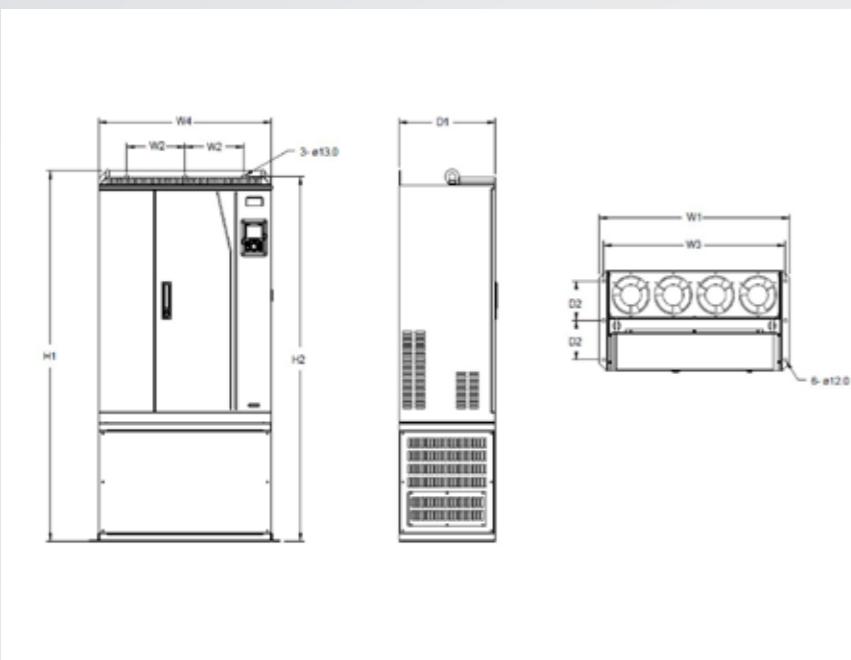
Wall installation dimensions of 460V VFDs (unit:mm)

Power Rating	W1	W2	H1	H2	D1	Installation Hole
1.5 - 2.2 kW / 2 - 3 hp	126	115	186	175	185	Ø5
4 - 5.5 kW / 5 - 7.5 hp	146	131	256	243.5	192	Ø5
7.5 - 11 kW / 10 - 15 hp	170	151	320	303.5	219	Ø6
15 - 18.5 kW / 20 - 25 hp	230	210	330	311	217	Ø6
22 - 30 kW / 30 - 40 hp	255	237	400	384	242	Ø7
37 - 55 kW / 50 - 75 hp	270	130	557	540	325	Ø7
75 - 110 kW / 100 - 150 hp	325	200	682	661	365	Ø9.5
132 - 200 kW / 175 - 270 hp	500	180	872	850	360	Ø11

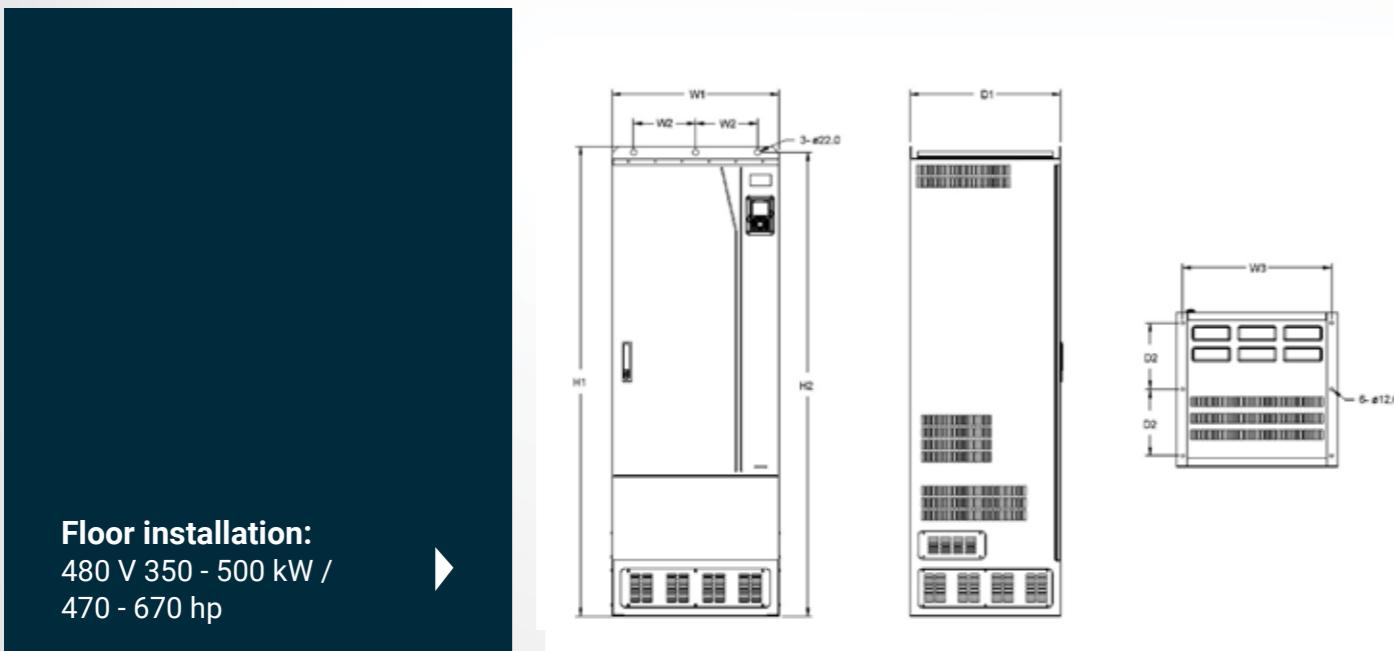


# UMI-B7 SERIES

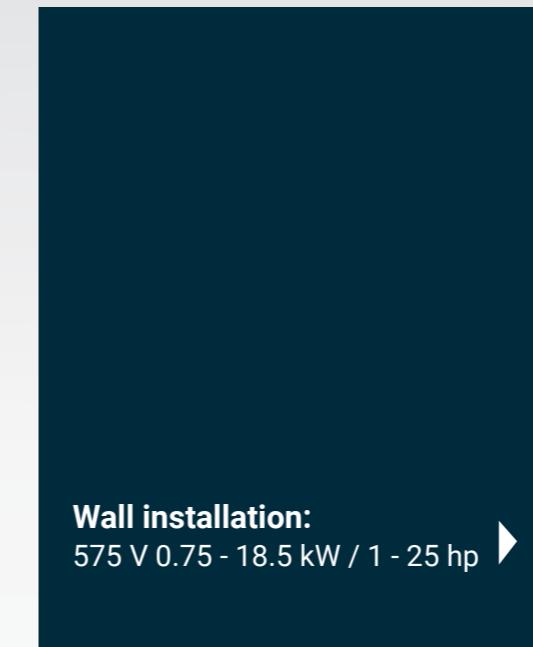
## DRIVE DIMENSIONS



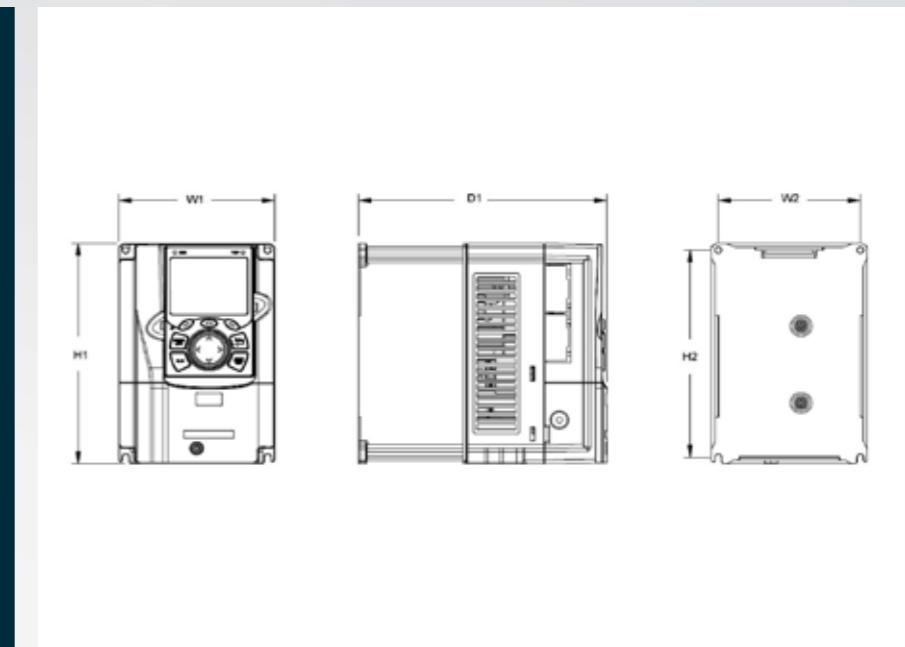
**Floor installation:**  
480 V 220 - 315 kW / 300 - 420 hp



**Floor installation:**  
480 V 350 - 500 kW /  
470 - 670 hp

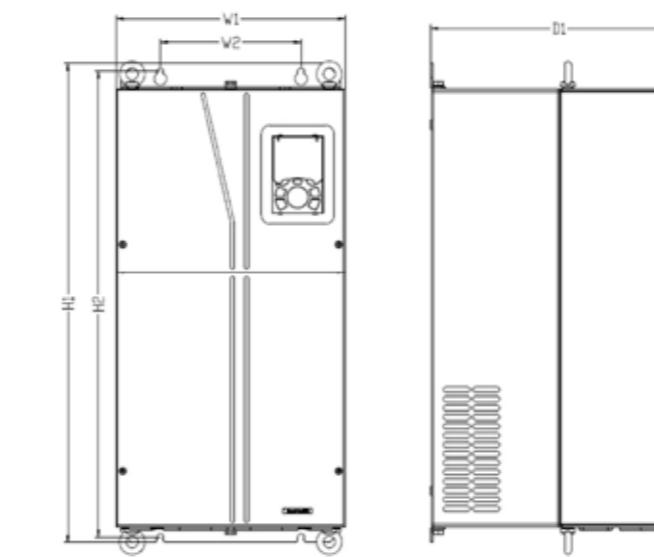


**Wall installation:**  
575 V 0.75 - 18.5 kW / 1 - 25 hp



**Wall installation dimensions of 575 V 0.75 - 18.5 kW / 1-25 hp (unit:mm)**

Power Rating	W1	W2	H1	H2	D1	Installation hole
0.75 - 2.2 kW / 1 - 3 hp	146	131	256	243.5	192	Ø5
4 - 7.5 kW / 5 - 10 hp	170	151	320	303.5	219	Ø6
11 - 18.5 kW / 15 - 25 hp	230	210	330	311	217	Ø6



**Wall installation:**  
575 V 22 - 110 kW / 30 - 150 hp

**Floor installation dimensions of 480 V 350 - 500 kW / 470 - 670 hp (unit:mm)**

Power Rating	W1	W2	W3	W4	H1	H2	D1	D2	Installation hole
220 - 315 kW / 300 hp - 420 hp	750	230	714	680	1410	1390	380	150	Ø13/12
350 - 500 kW / 470 - 670 hp	620	230	572	-	1700	1678	560	240	Ø22/12

**Wall installation dimensions of 575 V 22 - 110 kW / 30 - 150 hp (unit:mm)**

Power Rating	W1	W2	H1	H2	D1	Installation Hole
22 - 37 kW / 30 - 50 hp	270	130	557	540	325	Ø7
45 - 110 kW / 60 - 150 hp	325	200	682	661	365	Ø9.5

# UMI-B7 ACCESSORIES

## Keypad

Article Number	Keypad Type
UMI-S0083	B7 LCD Keypad
UMI-S0082	B7 Keypad mounting bracket

All keypad models support standard Ethernet RJ45 cable.

## Extension Cards

Article Number	Description
UMI-S0006	CANopen communication card
UMI-S0008	EtherCAT communication card
UMI-S0007	EthernetIP communication card
UMI-S0009	Modbus TCP communication card
UMI-S0015	PROFINET communication card
UMI-S0170	I/O card
UMI-S0011	Multifunction incremental PG card
UMI-S0013	Resolver PG card
UMI-S0014	Sin/Cos PG card
UMI-S0010	24 V incremental PG card

## Braking Resistors 10% ED 3 Ph 220 V

Article Number	Power Rating		Resistance / Breaking Power	Input Voltage
	kW	hp		
UMI-S0400	0.75	1	150 Ω / 390 W	3 Ph, 220 V
UMI-S0401	1.5	2	85 Ω / 260 W	3 Ph, 220 V
UMI-S0402	2.2	3	65 Ω / 390 W	3 Ph, 220 V
UMI-S0403	4	5	36 Ω / 600 W	3 Ph, 220 V
UMI-S0404	5.5	7.5	26 Ω / 1000 W	3 Ph, 220 V
UMI-S0405	7.5	10	20 Ω / 1500 W	3 Ph, 220 V
UMI-S0406	11 - 15	15 - 20	8.2 Ω / 3000 W	3 Ph, 220 V

For 18.5 kW / 20 hp external DBU (Dynamic Braking Unit) is required.

## Braking Resistors 10% ED 3 Ph 400 V

Article Number	Power Rating		Resistance / Breaking Power	Input Voltage
	kW	hp		
UMI-S0407	1.5	2	250 Ω / 260 W	3 Ph, 400 \ 480 V
UMI-S0400	2.2	3	150 Ω / 390 W	3 Ph, 400 \ 480 V
UMI-S0408	4	5	100 Ω / 600 W	3 Ph, 400 \ 480 V
UMI-S0409	5.5	7.5	85 Ω / 1000 W	3 Ph, 400 \ 480 V
UMI-S0410	7.5	10	65 Ω / 1500 W	3 Ph, 400 \ 480 V
UMI-S0411	11	15	40 Ω / 1560 W	3 Ph, 400 \ 480 V
UMI-S0412	15 - 18.5	20 - 25	27 Ω / 3000 W	3 Ph, 400 \ 480 V
UMI-S0413	22 - 30	30 - 40	20 Ω / 6000 W	3 Ph, 400 \ 480 V

For 37 kW / 20 hp external DBU (Dynamic Braking Unit) is required.

## Input / Output C2 Filters with Drive Reference

Article Number	Description	Input Filter C2 Article Number	Output Filter C2 Article Number
UMI-0007CU-B7	0.75 kW / 1 hp, 230 V, 3 Ph	UMI-S0022	UMI-S0032
UMI-0015CU-B7	1.5 kW / 2 hp, 230 V, 3 Ph	UMI-S0023	UMI-S0033
UMI-0015EU-B7	1.5 kW / 2 hp, 480 V, 3 Ph	UMI-S0022	UMI-S0032
UMI-0022CU-B7	2.2 kW / 3 hp, 230 V, 3 Ph	UMI-S0023	UMI-S0033
UMI-0022EU-B7	2.2 kW / 3 hp, 480 V, 3 Ph	UMI-S0022	UMI-S0032
UMI-0040CU-B7	4 kW / 5hp, 230 V, 3 Ph	UMI-S0024	UMI-S0036
UMI-0040EU-B7	4 kW / 5hp, 480 V, 3 Ph	UMI-S0023	UMI-S0033
UMI-0055CU-B7	5.5 kW / 7.5 hp, 230 V, 3 Ph	UMI-S0024	UMI-S0036
UMI-0055EU-B7	5.5 kW / 7.5 hp, 480 V, 3 Ph	UMI-S0023	UMI-S0033
UMI-0075CU-B7	7.5 kW / 10 hp, 230 V, 3 Ph	UMI-S0025	UMI-S0037
UMI-0075EU-B7	7.5 kW / 10 hp, 480 V, 3 Ph	UMI-S0024	UMI-S0036
UMI-0110CU-B7	11 kW / 15 hp, 230 V, 3 Ph	UMI-S0026	UMI-S0038
UMI-0110EU-B7	11 kW / 15 hp, 480 V, 3 Ph	UMI-S0024	UMI-S0036
UMI-0150CU-B7	15 kW / 20 hp, 230 V, 3 Ph	UMI-S0026	UMI-S0038
UMI-0150EU-B7	15 kW / 20 hp, 480 V, 3 Ph	UMI-S0024	UMI-S0037
UMI-0185CU-B7	18.5 kW / 25 hp, 230 V, 3 Ph	UMI-S0027	UMI-S0039
UMI-0185EU-B7	18.5 kW / 25 hp, 480 V, 3 Ph	UMI-S0025	UMI-S0037
UMI-0220CU-B7	22 kW / 30 hp, 230 V, 3 Ph	UMI-S0027	UMI-S0039
UMI-0220EU-B7	22 kW / 30 hp, 480 V, 3 Ph	UMI-S0026	UMI-S0038
UMI-0300CU-B7	30 kW / 40 hp, 230 V, 3 Ph	UMI-S0028	UMI-S0040
UMI-0300EU-B7	30 kW / 40 hp, 480 V, 3 Ph	UMI-S0026	UMI-S0038
UMI-0370CU-B7	37 kW / 50 hp, 230 V, 3 Ph	UMI-S0028	UMI-S0040
UMI-0370EU-B7	37 kW / 50 hp, 480 V, 3 Ph	UMI-S0027	UMI-S0039
UMI-0450CU-B7	45 kW / 60 hp, 230 V, 3 Ph	UMI-S0042	UMI-S0044
UMI-0450EU-B7	45 kW / 60 hp, 480 V, 3 Ph	UMI-S0027	UMI-S0039
UMI-0550CU-B7	55 kW / 75 hp, 230 V, 3 Ph	UMI-S0043	UMI-S0045
UMI-0550EU-B7	55 kW / 75 hp, 480 V, 3 Ph	UMI-S0028	UMI-S0040
UMI-0750EU-B7	75 kW / 100 hp, 480 V, 3 Ph	UMI-S0028	UMI-S0040
UMI-0900EU-B7	90 kW / 125 hp, 480 V, 3 Ph	UMI-S0029	UMI-S0041
UMI-1100EU-B7	110 kW / 150 hp, 480 V, 3 Ph	UMI-S0029	UMI-S0041
UMI-1320EU-B7	132 kW / 175 hp, 480 V, 3 Ph	UMI-S0029	UMI-S0041
UMI-1600EU-B7	160 kW / 215 hp, 480 V, 3 Ph	UMI-S0250	UMI-S0300
UMI-1850EU-B7	185 kW / 250 hp, 480 V, 3 Ph	UMI-S0250	UMI-S0300
UMI-2000EU-B7	200 kW / 270 hp, 480 V, 3 Ph	UMI-S0250	UMI-S0300
UMI-2200EU-B7	220 kW / 300 hp, 480 V, 3 Ph	UMI-S0251	UMI-S0306
UMI-2500EU-B7	250 kW / 335 hp, 480 V, 3 Ph	UMI-S0251	UMI-S0306
UMI-2800EU-B7	280 kW / 375 hp, 480 V, 3 Ph	UMI-S0251	UMI-S0306
UMI-3150EU-B7	315 kW / 420 hp, 480 V, 3 Ph	UMI-S0252	UMI-S0301
UMI-3500EU-B7	350 kW / 470 hp, 480 V, 3 Ph	UMI-S0252	UMI-S0301
UMI-4000EU-B7	400 kW / 535 hp, 480 V, 3 Ph	UMI-S0252	UMI-S0301
UMI-5000EU-B7	500 kW / 670 hp, 480 V, 3 Ph	UMI-S0253	UMI-S0302

**NEMA1 Enclosure**

Article Number	Applied to VFD Power Range
UMI-S0500	480 V, 1.5 - 2.2 kW / 2 - 3 hp 230 V, 0.75 kW / 1 hp
UMI-S0501	480 V, 4 - 5.5 kW / 5 - 7.5 hp 230 V, 1.5 - 2.2 kW / 2 - 3 hp
UMI-S0502	480 V, 7.5 - 11 kW / 10 - 15 hp 230 V, 4 - 5.5 kW / 5 - 7.5 hp
UMI-S0503	480 V, 15 - 18.5 kW / 20 - 25 hp 230 V, 7.5 kW / 10 hp
UMI-S0504	480 V, 22 - 30 kW / 30 - 40 hp 230 V, 11 - 15 kW / 15 - 20 hp
UMI-S0505	480 V, 37 - 55 kW / 50 - 75 hp 230 V, 18.5 - 30 kW / 25 - 40 hp
UMI-S0506	480 V, 75 - 110 kW / 100 - 150 hp 230 V, 37 - 55 kW / 50 - 75 hp
UMI-S0507	480 V, 132 - 200 kW / 175 - 270 hp

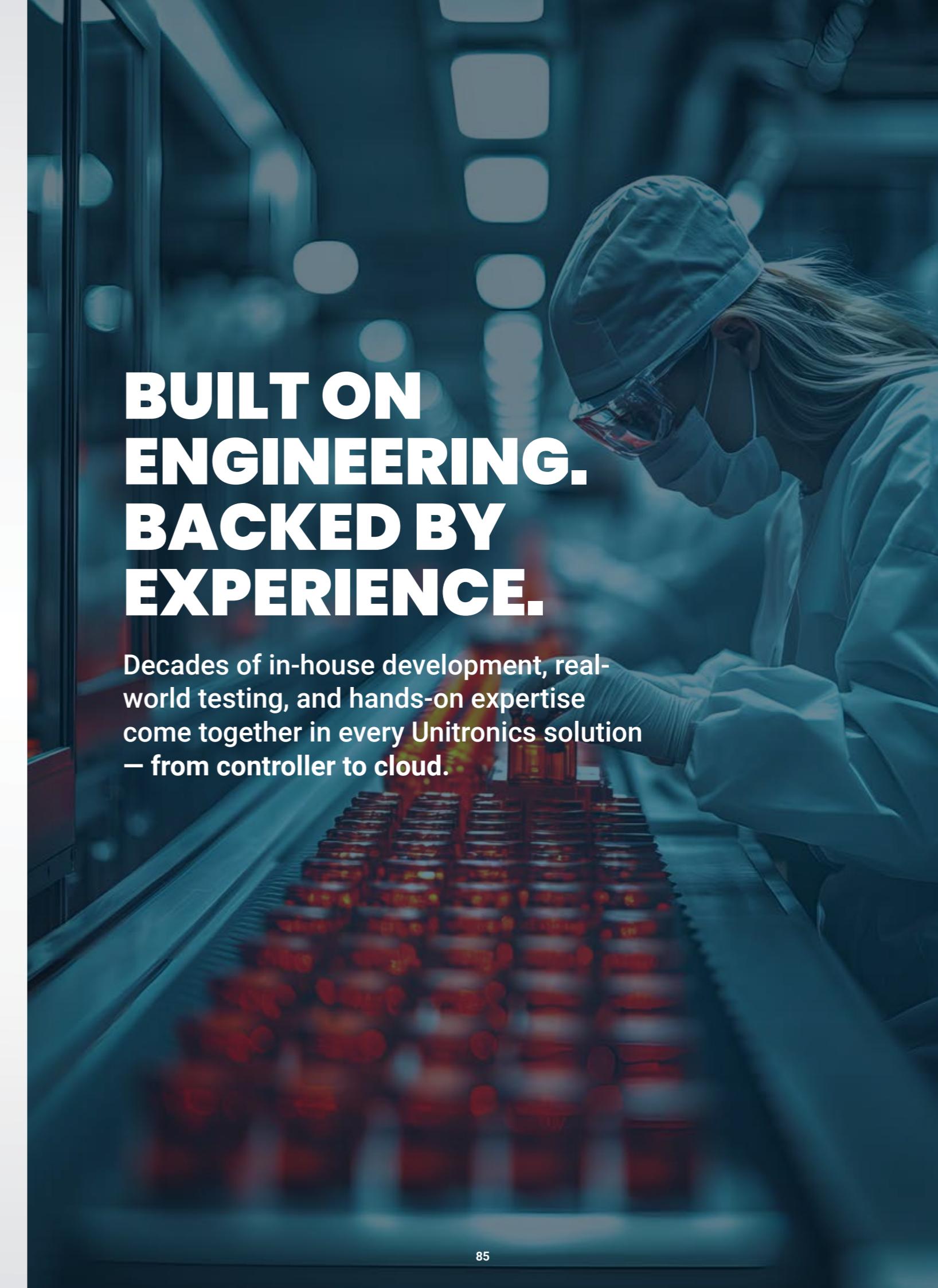
**Flange Mounting Plate for B7**

Power Rating		Article Number
kW	hp	
1.5 - 2.2	2 - 3	UMI-S0075
4 - 5.5	5 - 7.5	UMI-S0076
7.5 - 11	10 - 15	UMI-S0077
15 - 18.5	20 - 25	UMI-S0078
22 - 30	30 - 40	UMI-S0079

Drives 37 - 200 kW / 50 - 268 hp, no flange is needed.

# BUILT ON ENGINEERING. BACKED BY EXPERIENCE.

Decades of in-house development, real-world testing, and hands-on expertise come together in every Unitronics solution – from controller to cloud.



# SERVO DRIVES & MOTORS

## B5 & E5-S SERIES

### SERVO MADE SIMPLE:

**PRECISION MOTION. INTEGRATED SIMPLICITY.**



Unitronics Servo Drives & Motors deliver fast, accurate, and reliable motion control. Built for seamless integration with Unitronics PLCs, they offer complete, synchronized control—**without complex setup or third-party tools**.

Whether you're designing a machine from scratch or upgrading an existing application, Unitronics offers a complete motion solution: **servo drives, motors, PLC + HMI, and free software—all from one vendor**.

### HARDWARE

Wide servo power range: 50W to 7.5 kW / 0.06 – 10 hp

Motors: Low and medium inertia motors

23-bit high-resolution absolute encoders

Built-in communications: EtherCAT or CANopen

Common DC bus saves energy

Built-in braking resistors<sup>1</sup>

Built-in STO<sup>2</sup>

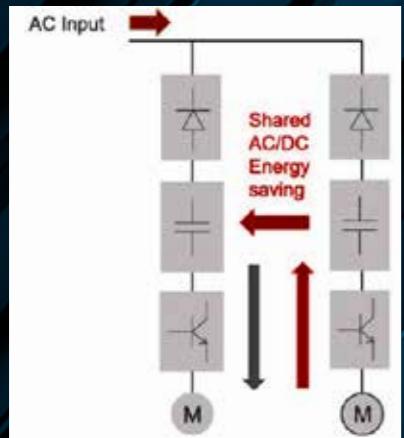
IP 65 / 67 motors<sup>3</sup>

<sup>1</sup> 50 W - 400 W products without built-in brake. 750 W and above provides built-in braking resistor.

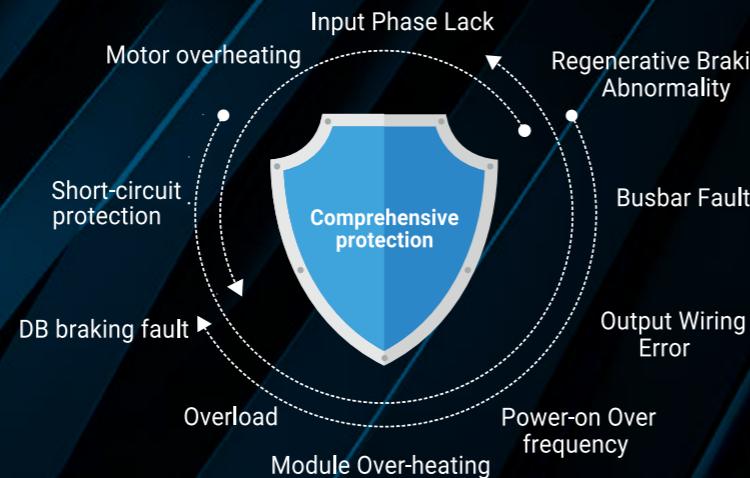
<sup>2</sup> Only for EtherCAT drives.

<sup>3</sup> Depends on motor series.

### SAVE ENERGY & IMPROVE EFFICIENCY



### COMPREHENSIVE PROTECTION



### BETTER TOGETHER: SERVO AND PLC IN SYNC.

#### SOFTWARE

Combine Unitronics Servos with our PLCs and get full control, fast.

##### Drag & Drop PLCopen FBs

Software automatically suggests safe limit values

##### Synchronized

Multi Axis Motion Control

##### Free, Ready-Made Motion Code

Commission & test your system

##### Control up to 8 Axes

##### Auto-tuning

No trial-and-error

##### Touch Probe Function



# PRODUCT DESIGNATION

Drive			
UMD	-	XXXX	XX
1		2	3
			4

Example: UMD-0001B-B5

No.	Key	Description
1	Product Line	Unitronics Servo Drive
2	Rated Power	<b>0001:</b> 100 W <b>0010:</b> 1 kW
3	Input Voltage	<b>B:</b> 1 Ph 200 - 240 V <b>C:</b> 3 Ph 200 - 240 V <b>CU:</b> 1 / 3 Ph 200 - 240 V <b>E:</b> 3 Ph 380 V - 480 V
4	Product Series	<b>B5:</b> CANopen, Pulse <b>E5-S:</b> EtherCAT + STO

Motor					
UMM	-	XXXX	X	A	XX
1		2	3	4	5
				6	

Example: UMM-0001BAB-B5

No.	Key	Description
1	Product Line	Unitronics Servo Motor
2	Rated Power	<b>0001:</b> 100 W <b>0010:</b> 1 KW
3	Input Voltage	<b>B:</b> 1 Ph 200 V - 230 V <b>C:</b> 3 Ph 200 V - 240 V <b>E:</b> 3 Ph 380 V - 480 V
4	Encoder	<b>A:</b> Absolute
5	Brake	<b>None:</b> No Brake <b>B:</b> With Brake
6	Product Series	B5 / B6

Cables				
UMC	-	XXX	-	XX
1		2	<th>3</th>	3
				4

Example: UMC-B5A-PN-05, UMC-B5-FA-10

No.	Key	Description
1	Product Line	Unitronics Servo Cable
2	Motor Series + Size Range	<b>For Px (power cable):</b> <b>B5 motor Series</b> <b>B5A=</b> 50 W~400 W <b>B5B=</b> 750 W~1 kW <b>B5C6A=</b> 1.5 kW~3 kW <b>B5D=</b> 4 kW~5 kW <b>B6 motor Series</b> <b>B5C6A=</b> 850 W~1.8 kW <b>B6B=</b> 2.9 kW <b>B6C=</b> 4.4 kW~5.5 kW <b>B6D=</b> 7.5 kW <b>For FA (Encoder cable):</b> <b>B5 motor Series</b> <b>B5=</b> 50 W~1 kW <b>B56=</b> 1.5 kW- 5kW <b>B6 motor Series</b> <b>B56=</b> For all B6 series
3	Cable Functionality	<b>PN-</b> Power cable without brake <b>PB-</b> Power cable with brake <b>FA-</b> Feedback cable absolute encoder
4	Cable type	<b>None:</b> Standard cable <b>R:</b> Robotic cable
5	Cable length	03 / 05 / 10 / 20 Meters



## Product Offering

Drive Article Number <sup>1</sup>	Input Voltage	Drive Power (kW / hp)	Suitable Motor <sup>2</sup>	Frame Size (mm)	Rated Motor Current (A)	Peak Current (A)	Rated Motor Torque (Nm / lb-in)	Peak Torque (Nm / lb-in)	Rated Speed (rpm)	Max Speed (rpm)	Encoder Type	
UMD-0000B-05-H	1Ph 220 V	0.05 / 0.06	UMM-0000BAH-B5	40	0.9	3.3	0.159 / 1.4	0.557 / 4.92	3000	7000	Absolute 23bit	
UMD-0001B-05-H		0.1 / 0.13	UMM-0001BAH-B5	40	1.1	4	0.318 / 2.81	1.11 / 9.82	3000	7000		
UMD-0002B-05-H		0.2 / 0.26	UMM-0002BAH-B5	60	1.5	5.8	0.637 / 5.63	2.23 / 19.73	3000	7000		
UMD-0004B-05-H		0.4 / 0.53	UMM-0004BAH-B5	60	2.9	11.5	1.27 / 11.23	4.46 / 39.47	3000	7000		
UMD-0007CU-05-H	1 / 3 Ph 220 V	0.75 / 1	UMM-0007CAH-B5	80	5.1	19.5	2.39 / 21.15	8.37 / 74.07	3000	7000		
UMD-0010CU-05-H		1 / 1.34	UMM-0008CAH-B6	130	6.8	22.6	5.41 / 47.87	16.2 / 143.37	1500	3000		
UMD-0015CU-05-H			UMM-0010CAH-B5	80	6.9	21	3.18 / 28.14	9.54 / 84.42	3000	7000		
UMD-0015CU-05-H		1.5 / 2.01	UMM-0013CAH-B6	130	9.7	29.7	8.28 / 73.27	24.8 / 219.48	1500	3000		
			UMM-0015CAH-B5	100	9.5	31.6	4.78 / 42.3	14.3 / 126.55	3000	5000		
UMD-0020C-05-H	3 Ph 220 V	2 / 2.68	UMM-0018CAH-B6	130	14.5	42	11.5 / 101.77	31 / 274.35	1500	3000	Absolute 23bit	
			UMM-0020CAH-B5	100	12.6		6.37 / 56.37	19.1 / 169.03	3000	5000		
UMD-0010E-05-H		1 / 1.34	UMM-0008EAH-B6	130	3.4	10.9	5.41 / 47.87	16.2 / 143.37	1500	3000		
UMD-0015E-05-H		1.5 / 2.01	UMM-0013EAH-B6	130	5	15.6	8.28 / 73.27	24.8 / 219.48	1500	3000		
			UMM-0015EAH-B5	100	4.9	16.3	4.78 / 42.3	14.3 / 126.55	3000	5000		
UMD-0020E-05-H		2 / 2.68	UMM-0018EAH-B6	130	7.1	21.2	11.5 / 101.77	31 / 274.35	1500	3000		
			UMM-0020EAH-B5	100	6.4	20.5	6.37 / 56.37	19.1 / 169.03	3000	5000		
UMD-0030E-05-H		3 / 4.02	UMM-0029EAH-B6	180	11.5	37	18.6 / 164.61	55.8 / 493.83	1500	3000		
			UMM-0030EAH-B5	130	10.5	33	9.8 / 86.73	29.4 / 260.19	3000	5000		
UMD-0050E-05-H		5 / 6.7	UMM-0040EAH-B5	130	13	40	12.8 / 113.28	38.4 / 339.84	3000	5000		
			UMM-0044EAH-B6	180	16.8	49.5	28.4 / 251.34	80 / 708	1500	3000		
			UMM-0050EAH-B5	130	15.9	50	15.9 / 140.71	47.7 / 422.145	3000	5000		
UMD-0075E-05-H	7.5 / 10.05	UMM-0055EAH-B6	180	20.3	64	35 / 309.75	105 / 929.25	1500	3000			
		UMM-0075EAH-B6		26.5	70	48 / 424.8	120 / 1062					

All motors are offered with oil seal as standard.

<sup>1</sup> Ordering:

Product Numbers:

- CANopen models - include the letter B as shown here: UMD-0000B-B5

- EtherCAT models - include E and S as shown here: UMD-0000B-E5-S

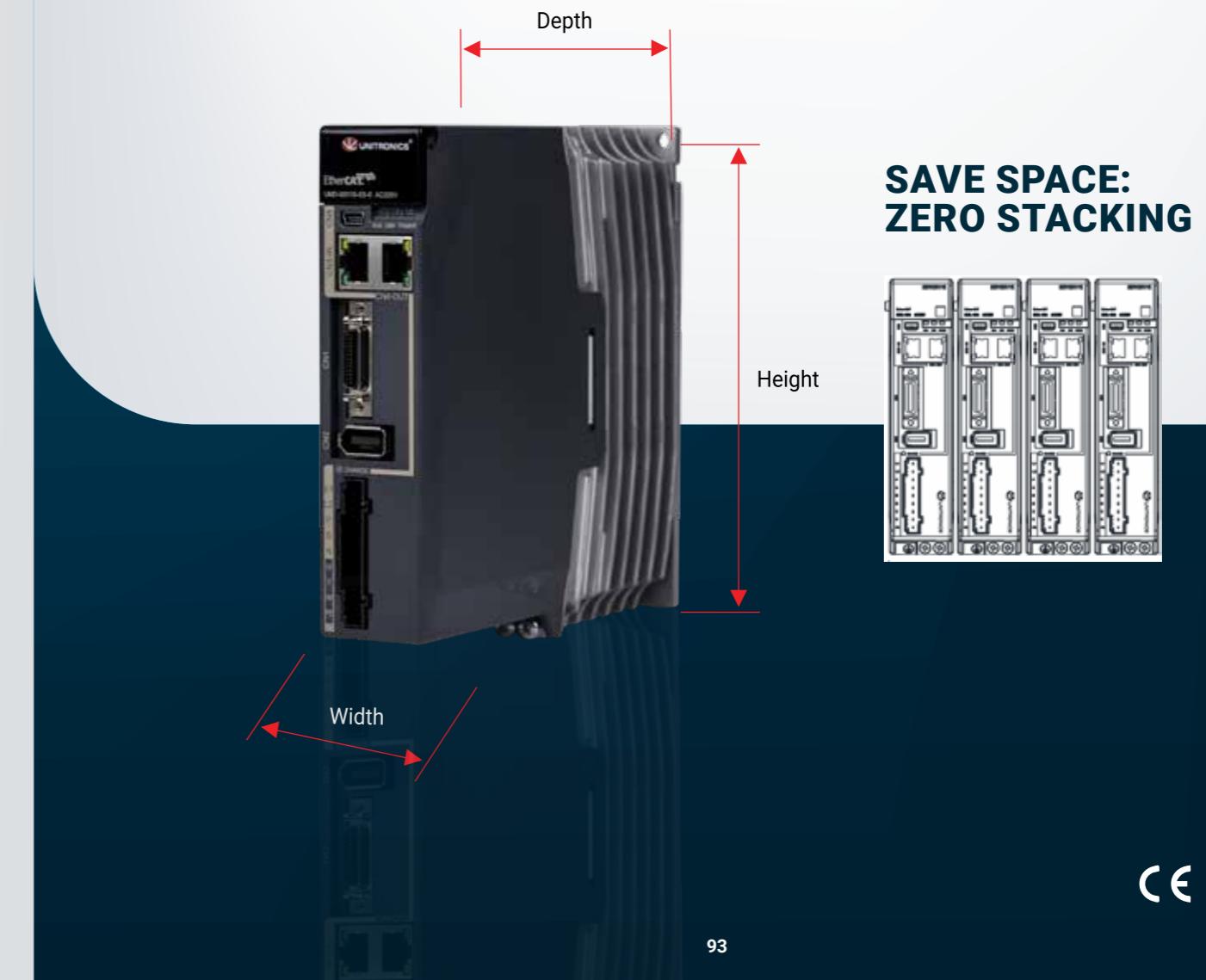
<sup>2</sup> Motors – to order a motor with holding brake, include the letter B in the square as shown here: UMM-0000BAH-B5 -> UMM-0000BAB-B5

**Drive Specification**

General Specification			Description
Input Power	Input Power		1 Ph AC 200 - 240 V, -15% - +10%, 50 Hz / 60 Hz 3 Ph AC 200 - 240 V, -15% - +10%, 50 Hz / 60 Hz (Power ≥ 0.75 kW)
	400 V		3 Ph AC 380 - 480 V, -15% - +10%, 50 Hz / 60 Hz
Operation Condition	Work environment	Temperature	When used on a single device: (-5°C - 55°C / 23°F - 131°F) When multiple devices are installed snugly: (-5°C - 40°C / 23°F to 104°F)
		Humidity	5% to 95% (with no condensation)
	Storage environment	Temperature	(-20°C - 85°C / (-4°F) - 185°F)
		Humidity	5% to 95% (with no condensation)
	Ingress Protection rating	IP20	
	Altitude	Below 1000 m	
	Vibration resistance impact resistance	Vibration Resistance: 4.9 m / s <sup>2</sup> Shock Resistance: 19.6 m / s <sup>2</sup>	
Power system			TN System
Installation Structure			Base-mounted
Performance	Coefficient of speed fluctuation	±0.01% of rated speed max. (For a load fluctuation of 0% to 100%) 0% of rated speed max. (For a load fluctuation of ± 10%) ±0.1% of rated speed max. (For a temperature fluctuation of 25°C ± 25°C / (-13°F) ± 45°F)	
	Soft start time setting	0s to 10s (Can be set separately for acceleration and deceleration.)	
Display			5 bit digital tube
Panel Operator			4 Buttons
Regenerative Braking			50 W - 400 W products without built-in brake resistance Other power products have built-in brake resistance
Protection Function			Overcurrent, Overvoltage, Undervoltage, Overload, Regeneration Error, Overspeed, etc.
Utility Functions			Alarm recording, JOG running, load inertia recognition, etc
I/O Signals	Input Signals	CANopen	10 Digital Inputs (2 of them are occupied by Touch probe feature) Allowable voltage range: 24 VDC±20%
		EtherCAT	5 Digital Inputs (2 of them are occupied by Touch probe feature) Allowable voltage range: 24 VDC±20%
	Output Signals	CANopen	4 Digital outputs
		EtherCAT	3 Digital outputs (1 of them fixed for Servo Alarm)

**Servo Drive Dimensions**

Drive rated power kW / hp	200 V W x H x D (mm)	400 V W x H x D (mm)
0.05 / 0.06	40 x 172 x 180	—
0.1 / 0.13	40 x 172 x 180	—
0.2 / 0.26	40 x 172 x 180	—
0.4 / 0.53	40 x 172 x 180	—
0.75 / 1	55 x 172 x 180	—
1 / 1.34	55 x 172 x 180	60 x 172 x 180
1.5 / 2.01	70 x 172 x 180	60 x 172 x 180
2 / 2.68	70 x 172 x 180	85 x 172 x 180
3 / 4.02	—	85 x 172 x 180
5 / 6.7	—	90 x 260 x 230
7.5 / 10.05	—	90 x 260 x 230

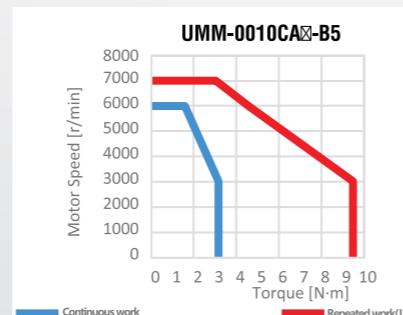
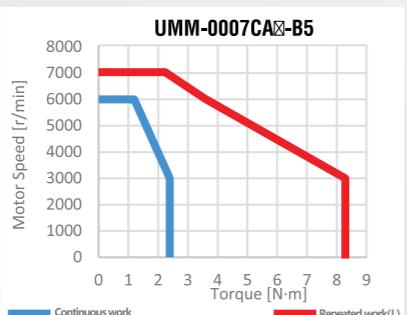
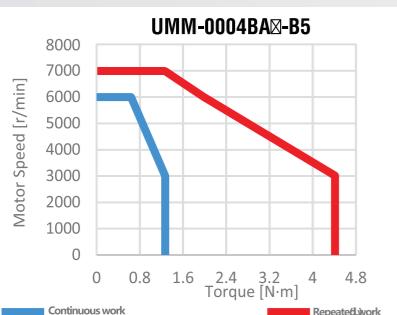
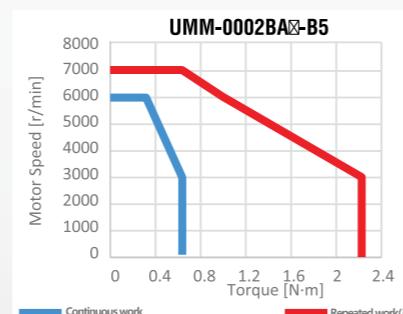
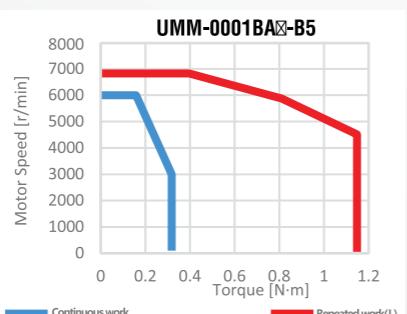
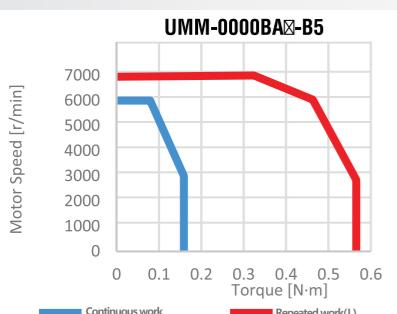


# SERVO MOTOR SPECIFICATION

B5 Series (50 W - 1 kW / 0.06 - 1.34 hp) 3000 / 7000 rpm 200 V - Small Capacity, High Speed, Low Inertia

UMM	0000BA-B5	0001BA-B5	0002BA-B5	0004BA-B5	0007CA-B5	0010CA-B5
Flange [mm]	40	40	60	60	80	80
Rated power [kW / hp]	0.05 / 0.06	0.1 / 0.13	0.2 / 0.26	0.4 / 0.53	0.75 / 1	1 / 1.34
Rated speed [rpm]	3000	3000	3000	3000	3000	3000
Maximum speed [rpm]	7000	7000	7000	7000	7000	7000
Rated torque [N·m / lb-in]	0.159 / 1.4	0.318 / 2.81	0.637 / 5.63	1.27 / 11.23	2.39 / 21.15	3.18 / 28.14
Peak torque [N·m / lb-in]	0.557 / 4.92	1.11 / 9.82	2.23 / 19.73	4.46 / 39.47	8.37 / 74.07	9.54 / 84.42
Rated current [Arms]	0.9	1.1	1.5	2.9	5.1	6.9
Maximum current [Arms]	3.3	4	5.8	11.5	19.5	21
Motor inertia [kg·m^2x10^-4 / lb-in^2]	0.0230 (0.0268) / 0.0078 (0.00915)	0.0428 (0.0465) / 0.01462 (0.01588)	0.147 (0.179) / 0.0502 (0.0611)	0.244 (0.276) / 0.0833 (0.0943)	0.910 (1.07) / 0.3109 (0.3656)	1.14 (1.30) / 0.3895 (0.4442)
Encoder type (Absolute)	23 bit	23 bit	23 bit	23 bit	23 bit	23 bit
Brake specification	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC
Holding torque [N·m / lb-in]	≥0.32 / 2.832	≥0.32 / 2.832	≥1.5 / 13.276	≥1.5 / 13.276	≥3.2 / 28.32	≥3.2 / 28.32
Weight [kg / lb]	0.4 (0.6) / 0.881 (1.322)	0.5 (0.7) / 1.102 (1.543)	0.9 (1.3) / 1.984 (2.866)	1.3 (1.7) / 2.866 (3.747)	2.6 (3.2) / 5.732 (7.054)	3.1 (3.8) / 6.834 (8.377)
Ingress Protection Rating	IP 67					
Heat resistance class	F					

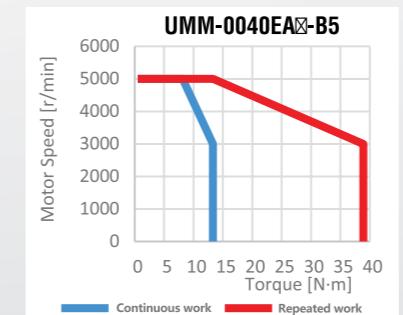
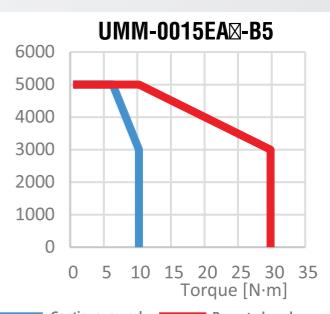
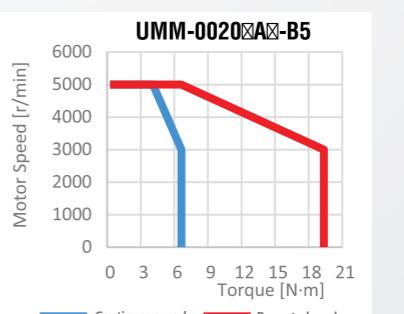
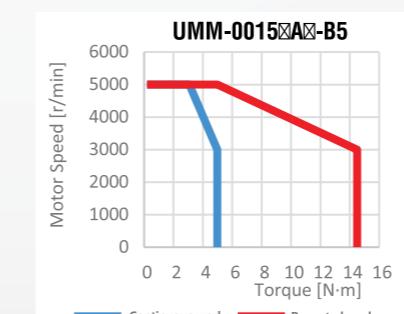
Note: The values in parentheses "()" or "B(B)" represent the values of motors with brakes.



B5 Series (1.5-5 kW / 2.01-6.7 hp) 3000 / 5000 rpm - Medium Capacity, High Speed, Low Inertia

UMM	200 V		400 V				
	0015CA-B5	0020CA-B5	0015EA-B5	0020EA-B5	0030EA-B5	0040EA-B5	0050EA-B5
Flange [mm]	100	100	100	100	130	130	130
Rated power [kW / hp]	1.5 / 2.01	2 / 2.68	1.5 / 2.01	2 / 2.68	3 / 4.02	4 / 5.3	5 / 6.7
Rated speed [rpm]	3000	3000	3000	3000	3000	3000	3000
Maximum speed [rpm]	5000	5000	5000	5000	5000	5000	5000
Rated torque [N·m / lb-in]	4.78 / 42.3	6.37 / 56.3	4.78 / 42.3	6.37 / 56.3	9.8/86.73	12.8/113.28	15.9/40.72
Peak torque [N·m / lb-in]	14.3 / 126.56	19.1 / 169.04	14.3 / 126.56	19.1 / 169.04	29.4 / 260.21	38.4 / 339.86	47.7 / 422.18
Rated current [Arms]	9.5	12.6	4.9	6.4	10.5	13	15.9
Maximum current [Arms]	31.6	42	16.3	20.5	33	40	50
Motor inertia [kg·m^2x10^-4 / lb-in^2]	2.33 (3.10) / 0.7962 (1.0593)	2.95 (3.72) / 1.008 (1.2711)	2.33 (3.10) / 0.7962 (1.0593)	2.95 (3.72) / 1.008 (1.2711)	7.72 (9) / 2.638 (3.0754)	10.2 (11.6) / 3.4855 (3.9639)	14 (15.4) / 4.784 (5.2624)
Encoder type (Absolute)	23 bit	23 bit	23 bit	23 bit	23 bit	23 bit	23 bit
Brake specification	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC
Holding torque [N·m / lb-in]	≥8 / 70.8	≥8 / 70.8	≥8 / 70.8	≥8 / 70.8	≥20 / 177.01	≥20 / 177.01	≥20 / 177.01
Weight [kg / lb]	5.1 (6.4) / 11.24 (14.109)	6.1 (7.5) / 13.448 (16.535)	5.1 (6.4) / 11.24 (14.109)	6.1 (7.5) / 13.448 (16.535)	10 (12)	12 (14)	5.5 (17.5)
Ingress Protection Rating	IP 65						
Heat resistance class	F						

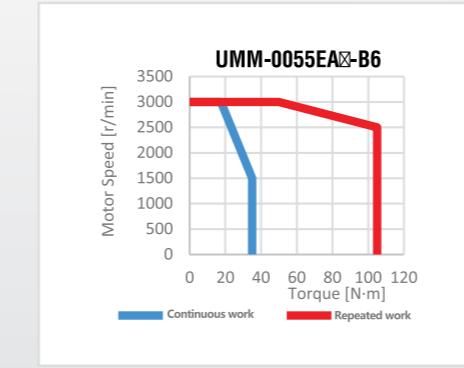
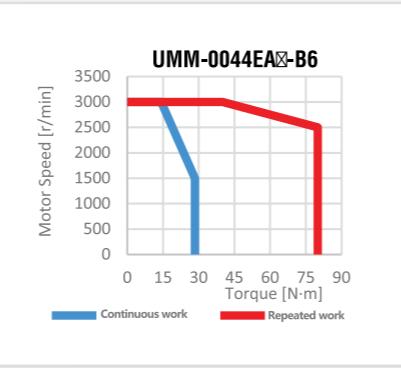
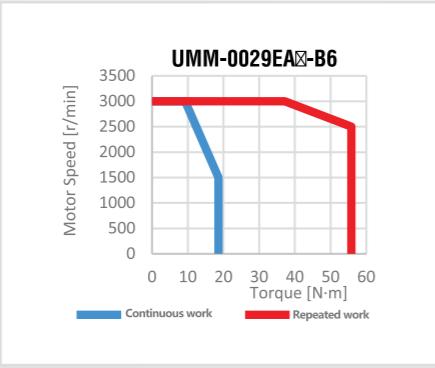
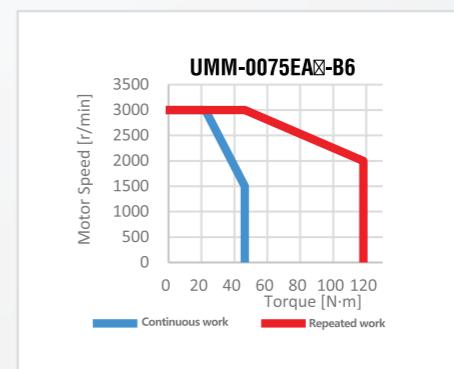
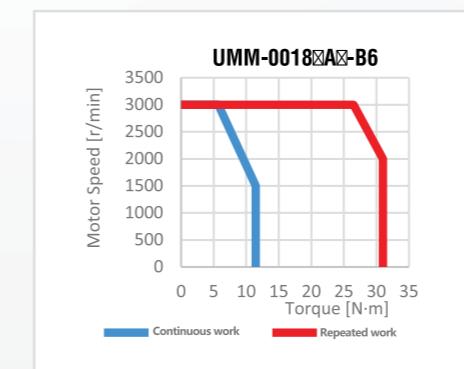
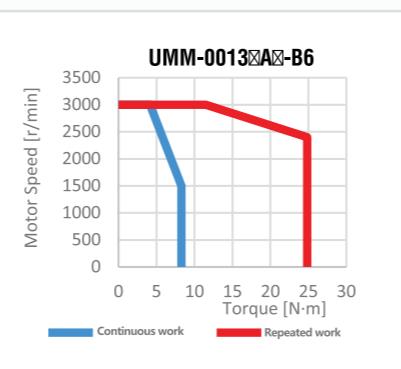
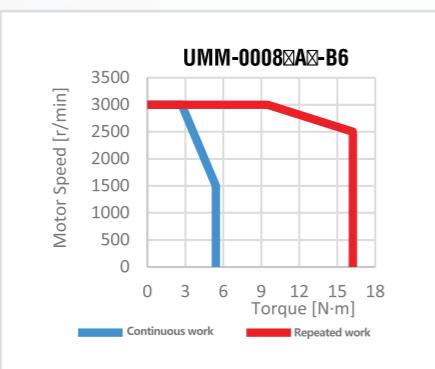
Note: The values in parentheses "()" or "B(B)" represent the values of motors with brakes.



**B6 Series (850 W - 7.5k W / 1.13 - 10 hp) 1500 / 3000 rpm - Medium Capacity, Medium Speed, Medium Inertia**

UMM	200 V				400 V					
	0008CA-B6	0013CA-B6	0018CA-B6	0008EA-B6	0013EA-B6	0018EA-B6	0029EA-B6	0044EA-B6	0055EA-B6	0075EA-B6
Flange [mm]	130	130	130	130	130	130	180	180	180	180
Rated power [kW / hp]	0.85 / 1.13	1.3 / 1.74	1.8 / 2.41	0.85 / 1.13	1.3 / 1.74	1.8 / 2.41	2.9 / 3.88	4.4 / 5.89	5.5 / 7.37	7.5 / 10
Rated speed [rpm]	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Maximum speed [rpm]	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Rated torque [N·m / lb-in]	5.41 / 47.88	8.28 / 73.28	11.5 / 101.78	5.41 / 47.88	8.28 / 73.28	11.5 / 101.78	18.6 / 164.62	28.4 / 251.36	35 / 309.77	48 / 424.83
Peak torque [N·m / lb-in]	16.2 / 143.38	24.8 / 219.49	31 / 274.37	16.2 / 143.38	24.8 / 219.49	31 / 274.37	55.8 / 493.87	80 / 708.05	105/929.32	120 / 1,062.08
Rated current [Arms]	6.8	9.7	14.5	3.4	5	7.1	11.5	16.8	20.3	26.5
Maximum current [Arms]	22.6	29.7	42	10.9	15.6	21.2	37	49.5	64	70
Motor inertia [kg·m <sup>2</sup> ·2x10 <sup>-4</sup> / lb-in <sup>2</sup> ]	11.9 (12.5) / 4.066 (4.271)	17.3 (17.9) / 5.911 (6.116)	22.3 (22.9) / 7.62 (7.825)	11.9 (12.5) / 4.066 (4.271)	17.3 (17.9) / 5.911 (6.116)	22.3 (22.9) / 7.620 (7.825)	43.4 (49.2) / 14.830 (16.812)	58.8 (64.6) / 20.092 (22.074)	85.5 (91.5) / 29.216 (31.267)	117 (123) / 39.98 (42.031)
Encoder type (Absolute)	23 bit	23 bit	23 bit	23 bit	23 bit	23 bit	23 bit	23 bit	23 bit	23 bit
Brake specification	Rated voltage	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC
	Holding torque [N·m/lb-in]	≥20 / 177					≥44 / 389.4	≥44 / 389.4	≥72 / 637.2	≥72 / 637.2
Weight [kg / lb]	5.6 (7.3)	7.0 (8.7)	8.3 (10.0)	5.6 (7.3)	7.0 (8.7)	8.3 (10.0)	14.6 (18.8)	17.6 (21.8)	23.2 (27.8)	29.0 (33.6)
Ingress Protection Rating	IP 65				IP 65					
Heat resistance class	F				F					

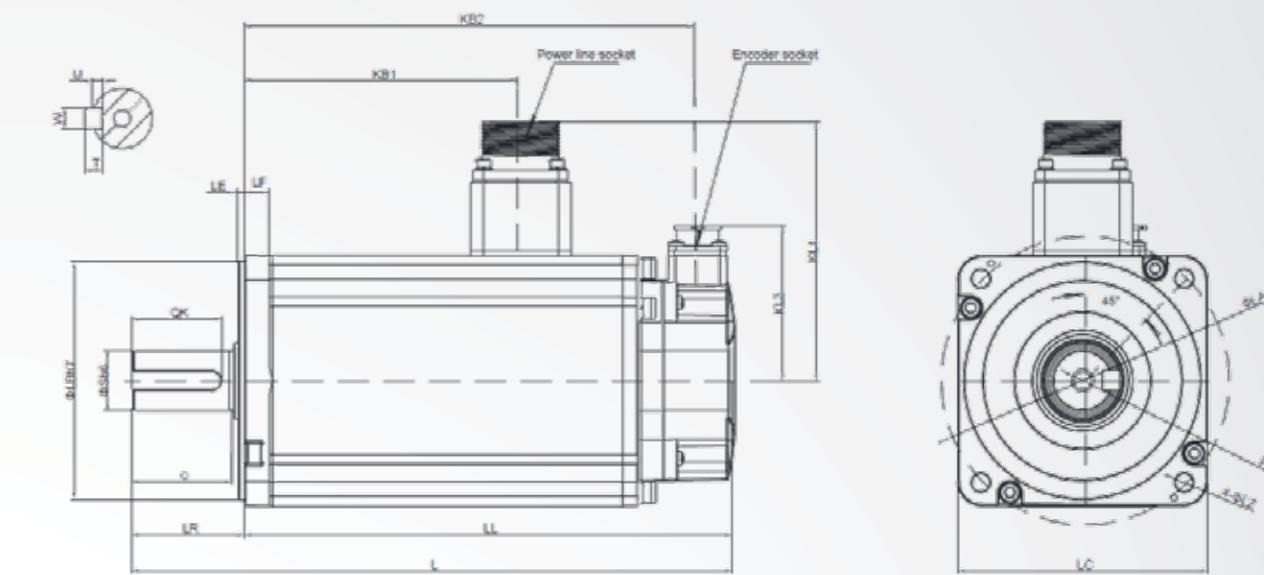
Note: The values in parentheses "()" or "(B)" represent the values of motors with brakes.



# SERVO MOTOR DIMENSIONS

B5 Series (50 W - 1 kW / 0.06 - 1.34) 3000 / 7000 rpm 200 V

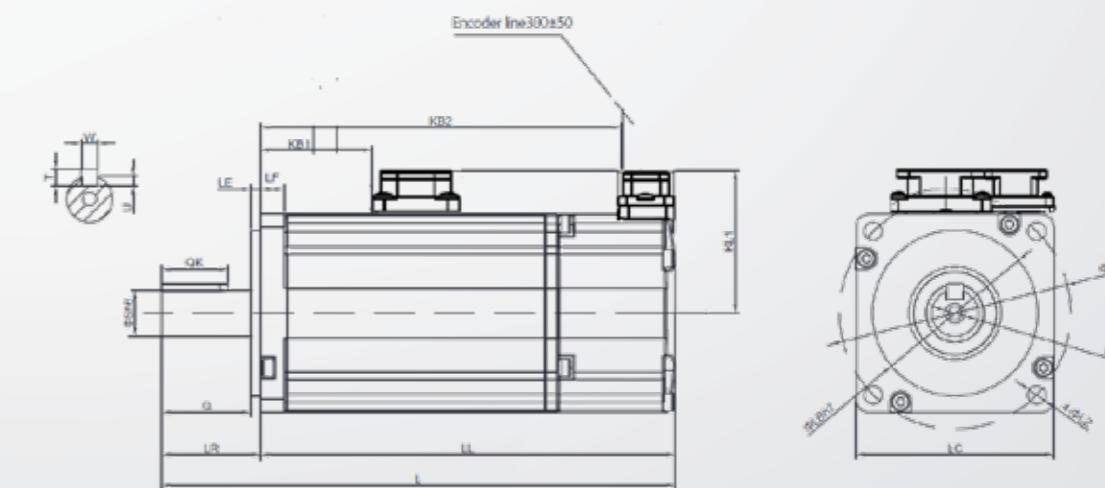
Article Number	L	LL	KB1	KB2	KL1	Flange Dimensions (mm)							S	P	Key				
						LR	LE	LF	LC	LA	LB	LZ			QK	Q	W	T	U
UMM-0000BA-B5	87.5 (121)	62.5 (96)	22.9	52.9 (86.4)	29.3	25	2.5	5	40	46	30	4.3	8	M3 × 6	14	22	3	3	1.8
UMM-0001BA-B5	103.5 (137)	78.5 (112)	38.8 (38.3)	68.9 (102.4)	29.3	25	2.5	5	40	46	30	4.3	8	M3 × 6	14	22.5	3	3	1.8
UMM-0002BA-B5	108 (137)	78 (107)	37.4	65.1 (94.1)	39.4	30	3	7	60	70	50	5.5	14	M5 × 12	20	27	5	5	3
UMM-0004BA-B5	129 (158)	99 (128)	57.8	86.1 (114.8)	39.4	30	3	7	60	70	50	5.5	14	M5 × 13	20	27	5	5	3
UMM-0007CA-B5	151 (184)	111 (144)	66.8	97.6 (130.6)	49.6	40	3	8	80	90	70	6.6	19	M6 × 12	25	37	6	6	3.5
UMM-0010CA-B5	165 (198)	125 (158)	80.8	111.6 (144.6)	49.6	40	3	8	80	90	70	6.6	19	M6 × 12	25	37	6	6	3.5



B5 Series 50 W-1 kW / 0.06 - 1.34 hp

B5 Series (1.5-5 kW / 2.01-6.7 hp) 3000 / 5000 rpm

Article Number	L	LL	KB1	KB2	KL1	KL2	Flange Dimensions (mm)							S	P	Key				
							LR	LE	LF	LC	LA	LB	LZ			QK	Q	W	T	U
UMM-0015CA / 0015EA-B5	210 (240)	165 (195)	97 (109)	150 (180)	102	60	45	3	10	100	115	95	7	24	M 8 × 16	36	40	8	7	4
UMM-0020CA / 0020EA-B5	230 (260)	185 (215)	117 (129)	170 (200)	102	60	45	3	10	100	115	95	7	24	M 8 × 16	36	40	8	7	4
UMM-0030EA-B5	257 (289.5)	194 (226.5)	160.5	179 (211.6)	110	60	63	6	12	130	145	110	9	28	M 8 × 16	54	55	8	7	4
UMM-0040EA-B5	284 (316.5)	221 (253.5)	187.5	206 (238.5)	110	60	63	6	12	130	145	110	9	28	M 8 × 16	54	55	8	7	4
UMM-0050EA-B5	324 (356.5)	261 (293.5)	227.5	246 (278.5)	110	60	63	6	12	130	145	110	9	28	M 8 × 16	54	55	8	7	4



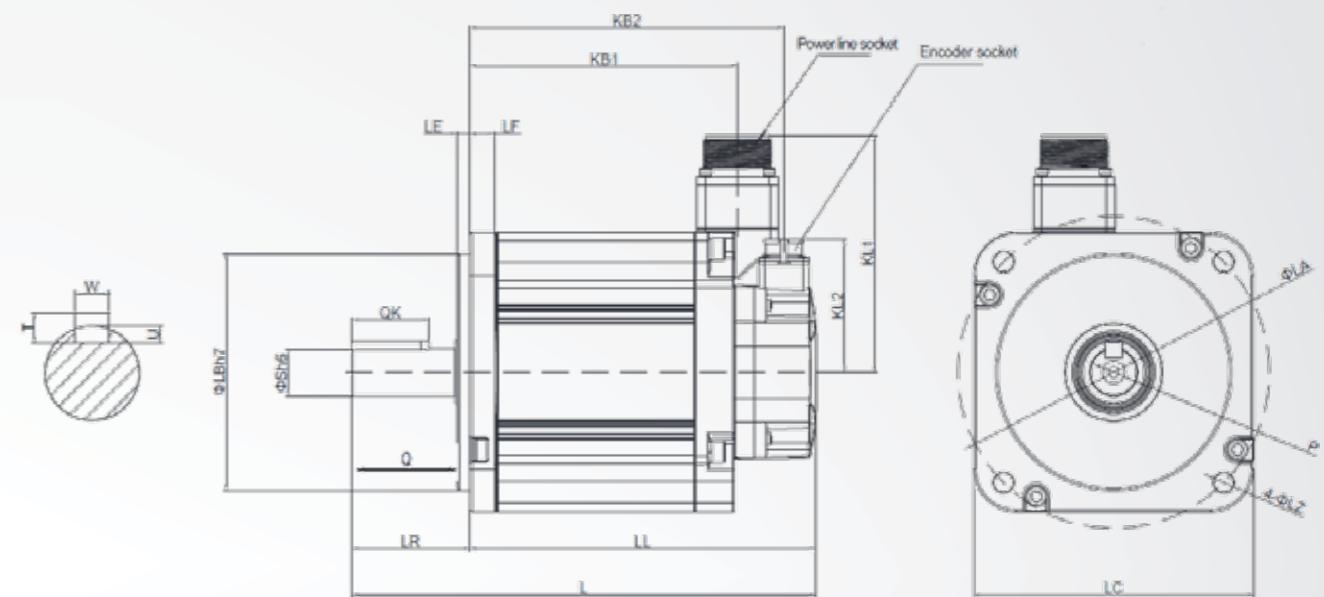
B5 Series 1.5-5 kW / 2.01-6.7 hp

Note: The values in parentheses represent the values of motors with brakes.

# SERVO MOTOR DIMENSION

**B6 Series (850 W - 7.5 kW / 1.13-10 hp) 1500 / 3000 rpm**

Article Number	L	LL	KB1	KB2	KL1	KL2	Flange Dimensions (mm)								S	P	Key				
							LR	LE	LF	LC	LA	LB	LZ	QK	Q	W	T	U			
UMM-0008CA/008EA-B6	185 (215)	131 (161)	94.5	116 (146)	112	60	55	6	12	130	145	110	9	22	M 6 × 20	32	49	8	7	4	
UMM-0013CA/0013EA-B6	200 (230)	146 (176)	109.5	131 (161)	112	60	55	6	12	130	145	110	9	22	M 6 × 20	32	49	8	7	4	
UMM-0018CA/0018EA-B6	215 (245)	161 (191)	124.5	146 (176)	112	60	55	6	12	130	145	110	9	22	M 6 × 20	32	49	8	7	4	
UMM-0029EA-B6	239 (284)	160 (205)	135.5 (139.8)	145.5 (190.2)	142	60	79	3.2	18	180	200	114.3	13.5	35	M 12 × 25	65	75.8	10	8	5	
UMM-0044EA-B6	258 (303)	179 (224)	154.5 (158.8)	164.5 (209.2)	142	60	79	3.2	18	180	200	114.3	13.5	35	M 12 × 25	65	75.8	10	8	5	
UMM-0055EA-B6	324 (377)	221 (264)	186.5 (198.8)	196.5 (249.2)	142	60	113	3.2	18	180	200	114.3	13.5	42	M 16 × 32	96	109.8	12	10	5	
UMM-0075EA-B6	360 (413)	247 (300)	222.5 (234.8)	232.5 (285.2)	142	60	113	3.2	18	180	200	114.3	13.5	42	M 16 × 32	96	109.8	12	10	5	



**B6 Series 850 W - 7.5 kW / 1.13 - 10 hp**



# B5 & E5 ACCESSORIES

## Filters (EMI filter)

Drive Article Number	Line filter 1 ph PN	Line filter 3 ph PN
UMD-0000B-05-0	UMI-S0020	—
UMD-0001B-05-0	UMI-S0020	—
UMD-0002B-05-0	UMI-S0020	—
UMD-0004B-05-0	UMI-S0020	—
UMD-0007CU-05-0	UMI-S0020	UMI-S0022
UMD-0010CU-05-0	UMI-S0020	UMI-S0023
UMD-0015CU-05-0	UMI-S0021	UMI-S0023
UMD-0010E-05-0	—	UMI-S0022
UMD-0015E-05-0	—	UMI-S0022
UMD-0020E-05-0	—	UMI-S0022
UMD-0030E-05-0	—	UMI-S0023
UMD-0050E-05-0	—	UMI-S0023
UMD-0075E-05-0	—	UMI-S0024

## UMD I/O Terminal Block

Drive Article Number	Terminal block PN	Number of pins
UMD-00XX-B5	UMD-00XX-B5	50
UMD-00XX-E5-S	UMA-TB26-E5	26

## Braking Resistors

Braking Resistors		Power Rating		Breaking Power	Input Voltage
Article Number		kW	HP		
UMI-S0052		0.05	0.06	250 W	230 V
		0.1	0.13		230 V
		0.2	0.26		230 V
		0.4	0.53		230 V

- 50W ~ 400 W products without built-in brake resistance  
- Higher power products have built-in brake resistance

## CANBUS Accessories

CANopen to servo kit		Bundle contain
UniSteam Built-in	UMA-CX-CANKit-A	a. UMD-ACC-CANINV x 1 b. UMD-ACC-CANEnd x 2 c. CBLCAN-TB-Y x 1
UniSteam Modular	UMA-CX-CANKit-A	a. UMD-ACC-CANINV x 1 b. UMD-ACC-CANEnd x 2 c. CBLCAN-TB-Y x 1
UniSteam PLC	UMA-CB-CANKit-A	a. UMD-ACC-CANINV x 1 b. UMD-ACC-CANEnd x 1

## USB cable

USB2-CAB200	USB Communication Cable, 2m
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## Battery case for B5 / E5-S

UMA-FA-BatCase1
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MR-CAT-EG2-C5



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