

YASKAWA

Products and Solutions



Content

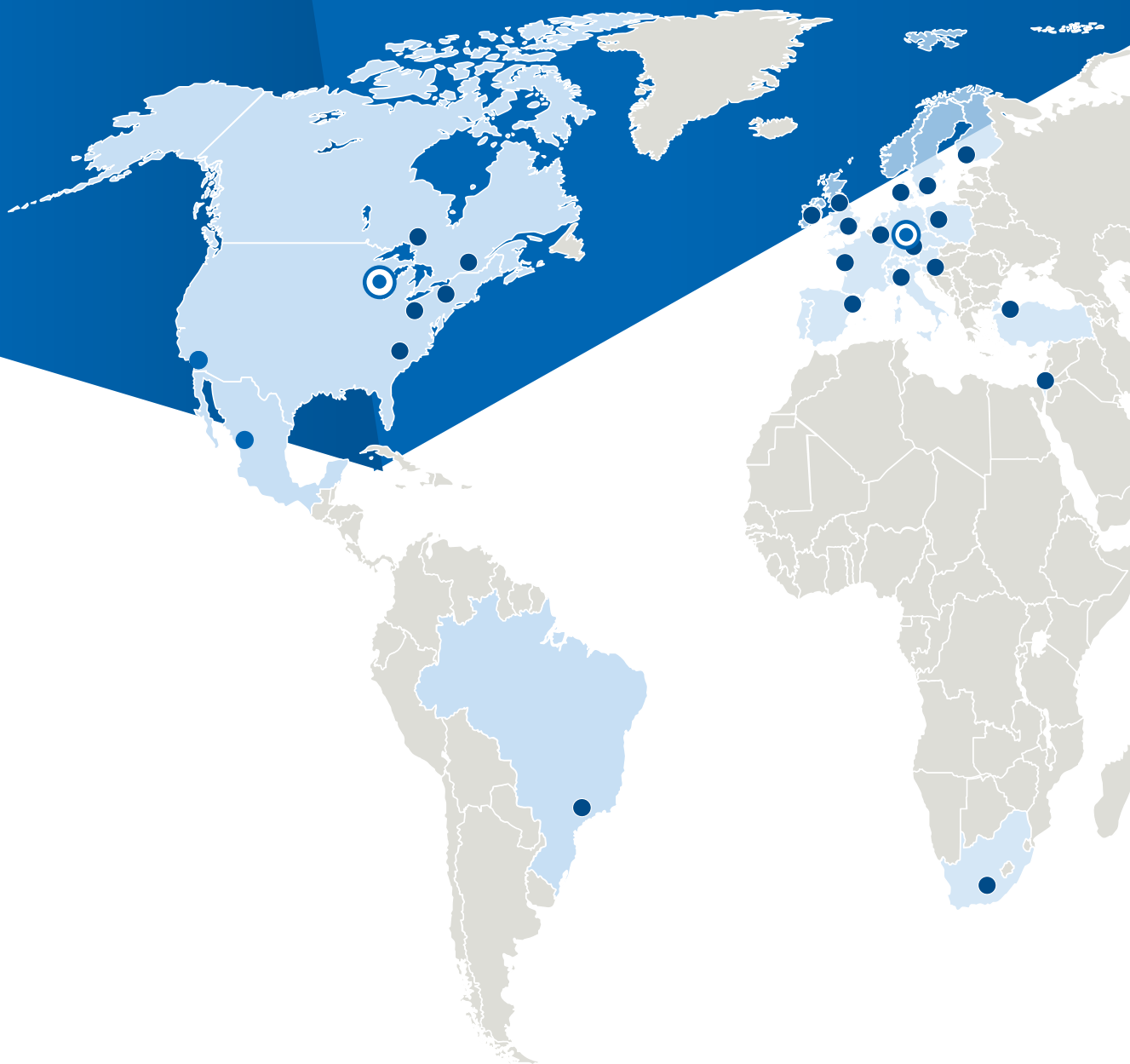
A global company	4
In focus	6
iCube Control	8
Sigma-X	10
Advanced safety modules for Sigma-X	12
Connectivity	14
Singular Control	16
GA500	18
LA500	20
HV600	22
MotoLogix & SRCI	24
Yaskawa Ecosystem	26
Smart Pendant	28
MotoMINI	30
MOTOMAN GP series	32
MOTOMAN HC10DT IP67	34
MOTOMAN HC30PL	36
Weld4Me	38
SLIO	40
Product overview	42
AC drives	43
Servo drives	50
Safety modules	52
Motion controller	53
Control systems	54
HMI	55
profichip® CPUs	56
Robots	58

A global company

We are a company of people pursuing our passion. Driven by the vision of a smarter future with advanced technologies that save precious time and energy. And for us, any given day is a new chance to make progress.

Our goal is to contribute to the evolution of society by improving the nature of its business, increasing the performance and productivity of our industry, and therefore our everyday lives. Naturally we promote renewable resources to ensure a healthy environment.

Shaping the future. Sustainably. Together.





13,000
Employees
Worldwide



2,000
Employees
EMEA-region



5
European
manufacturing locations



21
European entities
Regional presence



2 million
AC drives
Production in 2023

35 million
Accumulated units produced
(as of 2023)



3.4 million
Servo drives and motors
Production in 2023

25 million
Accumulated units produced
(as of 2023)



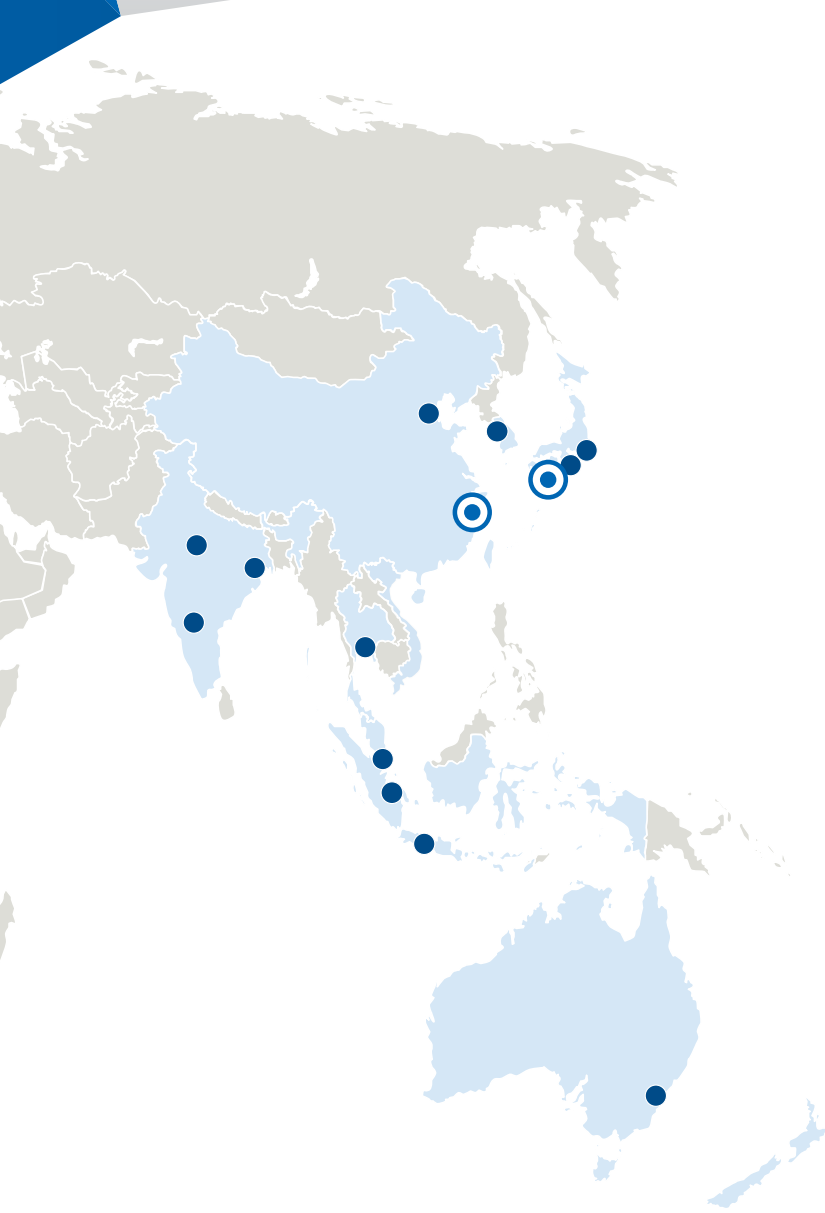
47,000
Industrial robots
Production in 2023

600,000
Accumulated units produced
(as of 2023)



400,000
PLCs & I/Os
Production in 2023

10 million
Accumulated units produced
(as of 2023)



- Top 100 Global Innovator 2016, 2017, 2018, 2019, 2020 and 2021 *)
- 100+ european channel partners
- Network of system integrators

*) Clarivate Analytics (former part of Thomson Reuters)

In focus



The automation
technology that puts
you in control

iCube Control

As individual as your needs

Whether you want the flexibility of open system design, the scalability of modular system integration or the certainty of security and safety—you get it all with the iCube Control platform.

Flexibility

- Program in IEC61131-3, along with high-level languages
- Collaborate securely across teams and geographies
- Choose from a wide variety of Yaskawa servo technology matched to your application

Scalability

- One machine controller and one software engineering tool for Motion, Logic, Safety, HMI and Robotics
- Scale controller features to meet your specific application requirements
- Easily integrate additional components with open network communications

Certainty

- Engineered to ensure the highest quality and long-term product life cycle
- Integrated FailSafe over EtherCAT for a complete machine safety solution
- Secure controller communications and web-based management

Expert support

- Expert engineering resources, from design to development
- Quick, nimble and thorough response, from concept to implementation
- Delivered by Yaskawa, the world's largest manufacturer of robotics and automation systems

Features

Integrated

Smart products that enable the collection and analysis of real-time data

Intelligent

Big Data analysis and AI learning deliver new ways of optimizing the production process at every level

Innovative

Insights gained from the production process trigger improvements to production and quality





Sigma-X

Quality. Precision. Dynamics.

Servo drives of the Sigma-X series stand out due to their uncompromising performance. From consistently simple and fast commissioning in just three minutes to maximum machine throughput.

More than 32 years of experience and several million installed servo drives are the basis for these outstanding servo systems. The Sigma-X series provides performance that can hardly be found in other servo systems and delivers real benefits in terms of cost and time savings.

“Tuning less” mode

The “Tuning less” mode allows many applications to use the drives right out of the box without further adjustments or tuning. In this way the sophisticated algorithms help to save commissioning time.

Versatile application

Thanks to the extended automatic load adjustment, you can cover a wide range of loads and applications with a single motor type. This increases the flexibility of your machine.

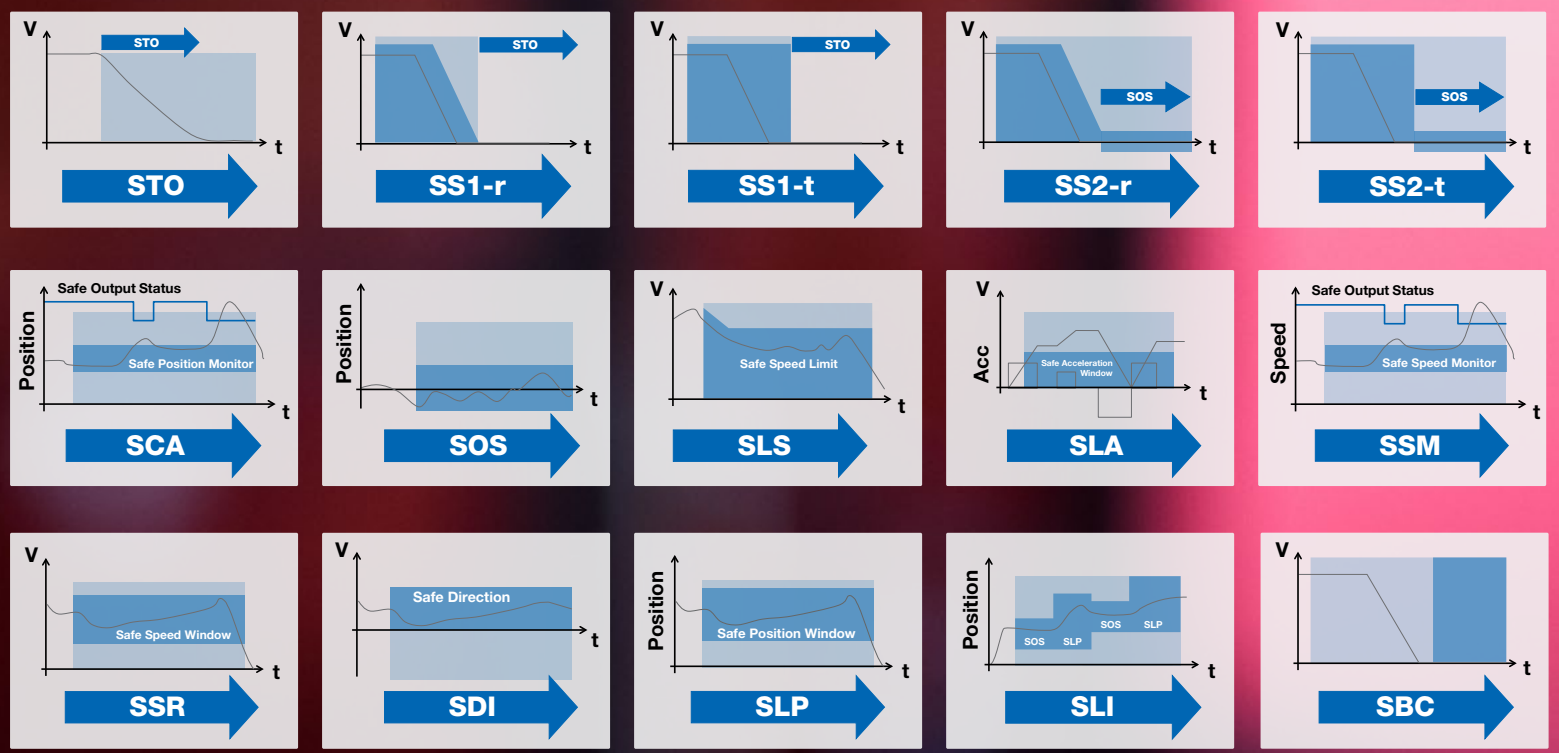
Advanced functions

Functions like vibration suppression, power ripple and friction compensation reduce engineering efforts and help getting the most out of a machine with minimized efforts and at lowest cost.

Function	200 V
Power range	50 W – 15 kW
Encoder	26 bit absolute
Protection class	IP67 by default
Single axis	✓
Dual axis	✓
Triple axis	✓
Rotary motors	✓
Linear motors	✓
Direct drive motors	✓

EtherCAT®

MECHATROLINK



Advanced safety modules for Sigma-X

Open & scalable according to your needs

We offer a new generation of advanced safety modules that are tailored to your requirements. They comply with the latest industry standards with SIL3/ PLe and FSoE (FailSafe over EtherCAT).

In order to find a suitable and economical solution for your application we offer a scalable concept. While Safe Torque Off is integrated in every Servopack, three different option modules can be selected for further requirements:

Features

- Extensive security functions enable a fitting solution for many applications
- All safety functions fulfill SIL3/PL-e (Cat. 3)
- With FSoE (FailSafe over EtherCAT) the safety functions can be controlled and monitored via fieldbus

Option module	Description	Safety functions	I/Os	FSoE
SGDXS-OSA01A	Advanced safety module I/O only	STO, SS1-r, SS1-t, SS2-r, SS2-t, SOS, SLS, SSM, SDI, SLP, SSR, SLI, SCA, SLA, SBC	<ul style="list-style-type: none"> • 6 I/O dual channel SIL3/PL-e Cat3 • 2 I/O single channel SIL2/PLd Cat3 	-
SGDXS-OSAA0A	Advanced safety module FSoE only	STO, SS1-r, SS1-t, SS2-r, SS2-t, SOS, SLS, SSM, SDI, SLP, SSR, SLI, SCA, SLA	-	✓
SGDXS-OSAA1A	Advanced safety module FSoE and I/O	STO, SS1-r, SS1-t, SS2-r, SS2-t, SOS, SLS, SSM, SDI, SLP, SSR, SLI, SCA, SLA, SBC	<ul style="list-style-type: none"> • 5 I/O dual channel SIL3/PL-e Cat3 	✓

The comprehensive safety functions allow you to find a suitable solution for many applications. Each one complies with the latest SIL3/ PLe (Cat. 3) standard. We support you in reducing risks with ease.

The new generation of safety modules also offers FSoE slave functionality. The combination of safety and the open and widely used EtherCAT fieldbus system helps you to implement your safety application with less wiring effort.



CONTROLLER



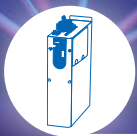
ROBOTS



HMI

4.0

YASKAWA CONNECTED FACTORY



SERVO DRIVES



AC DRIVES

EXPERIENCE
CONNECTIVITY

Connectivity

We speak your language

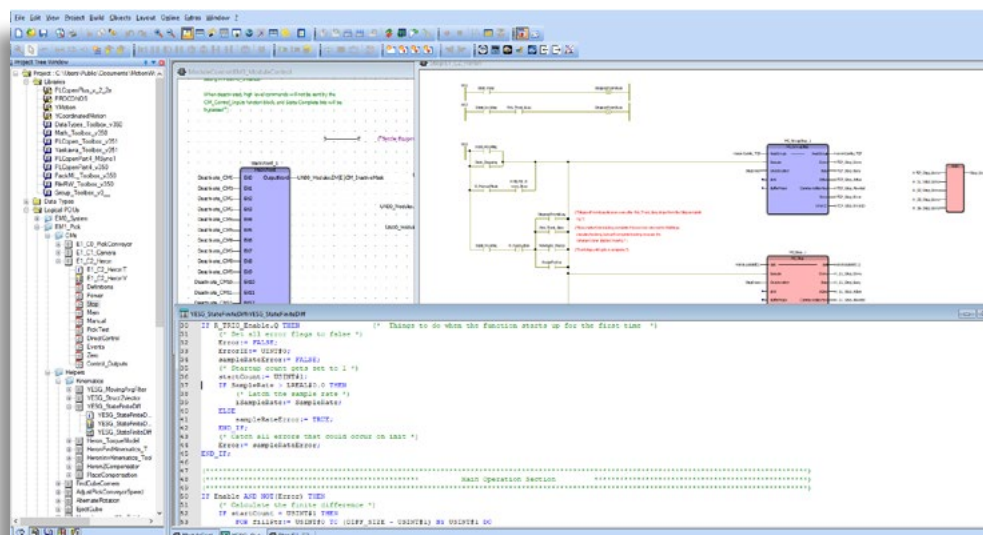
We speak many languages in our support and service, but also with our machines and technology. Providing simple solutions to connect with EtherCAT, Ethernet/IP, PROFINET, MECHATROLINK and many more. Not sure if Yaskawa can connect with your system? Contact us and we'll be sure to find a solution.

Open to all common fieldbus systems



Easy integration and implementation by the use of reliable function blocks

Pre-defined and tested function block library for fast implementation. Thorough documentation available. Free to use, open source for easy modification and adaptation of new features.





YASKAWA

POWER

MP II 3300

MBU-303

CPU-301 16axes

RDY
RUN
ALM
ERR
BAT
M-ALM

ON
→

266IF-

RUN
SYS
SF
OFF
CONF
TEST

MT
BF
ON

CN LK1 LK2



PORT

M-E

CN 1

Singular control

One software. One controller. For everything in motion.

If you're familiar with standard ladder logic and function block programming, you can already program every component in a complete automation system, including robots and servo systems.

ONE SOFTWARE ONE CONTROLLER

What is singular control?

Motion, Robots, VFDs, and I/O on a single controller programmed in a single software environment.

The heart of the solution is the MP3300iec controller, where all of the application programming is performed in one software environment (MotionWorks IEC) using structured text, sequential function chart (SFC), industry-standard PLCopen function blocks and ladder logic, and includes vision integration and conveyor tracking.

The magic of Singular Control: Regardless of the mechanism, the function blocks used for motion programming are the same. This allows you to implement robotics with standard motion control without the need for a programming pendant or a proprietary robotic programming language. If your machine includes standard motion axes, robotics, or special mechanisms, the entire system can be programmed in one software environment. You can upgrade your machines with new mechanisms (to add flexibility or throughput) without the need to change the application program or introduce new controllers into the system.

Features

- One for all:
 - Robots, servo systems, logic control
- Up to 62 axes + 2 virtual axes of motion
- Built-in web server lets you check status or run diagnostics through a standard web browser
- Networking options:
 - Modbus TCP, EtherNet/IP, MECHATROLINK-III and OPC UA
- Simple interface for HMI and I/O solutions
- Manage every system component with one software package running on a motion controller
- Programming robots using MotoLogix interface and function blocks
- Migrate a motion application from servos to robots and back again without changing application code
- Do it all with the IEC 61131-3 programming your team already knows and is comfortable using



GA500

Balancing power to perfection

Cost-saving by optimized application
Efficiency

Experience from 30 million
installed AC drives

Application Reliability by 10 years of
maintenance free drive operation

Flexibility to master any challenge

Maximized machine
Performance

Ease of Use
minimizes setup times



More than 100 years of experience with driving electric motors have led us to develop products which perfectly combine technical superiority with easy handling. The latest result of this evolution is the new GA500 microdrive. Compact in size and flexible in terms of motor type and connectivity, the GA500 is designed to easily master nearly any application.

Simplified system integration

GA500 drives are designed to be easily integrated into systems and machinery. Combining network support, application focused features and great customizability with unparalleled ease of use, the GA500 minimizes efforts to get your automation jobs done.

Fast installation and setup

GA500 drives embed various features eliminating the need for peripherals. This in line with easy wiring plus smart functions for doing a basic setup literally in 5 minutes greatly reduce the time and cost required to having a running system.

Best machine performance

By integrating latest motor control technology for induction, permanent magnet and synchronous reluctance motors, the GA500 drives provide best control performance at minimized energy consumption.

Operation secured

GA500 drives are built to perform reliably. The robust design with coated PCBs allows operation in 50 °C without derating while machine monitoring functions and integrated lifetime prediction prevent sudden failures. Thus GA500 effectively secures operation and prevents production loss.

Features

- Easy network integration
- Robust design. Can be operated in up to 4,000m altitude and 60 °C hot environment
- Coated PCBs
- Embedded braking chopper
- Integrated programming environment
- 24 VDC power input for controller
- USB port
- 10 years maintenance-free design
- Screwless control terminals
- Easily accessible mains terminals
- 24 VDC Power for sensors
- Built-in EMC filter
- One drive for various applications (induction, permanent magnet and synchronous reluctance motors)



Search for

YASKAWA 

on



LA500

Does your lift need a new drive? We have the perfect fit. Our LA500 lift drive comes with integrated safety features, highest ride comfort and outstanding reliability. Installing LA500 to your lift adds sustainability while saving you time and energy.



Features

- Integrated EMC filter with class C2 for EN12015 compliance
- Integrated braking chopper
- Integrated SIL3 STO function for operation without motor contactors
- Flexible control sequence to work with almost any controller
- Setup in lift terminology and units
- Automatic motor data tuning in stand still condition without removing ropes
- Long lasting design
- Maintenance free
- Energy saving with super low stand-by consumption

Simplified system integration

LA500 drives are designed to be easily integrated into lift systems. Embedded safety functions, integrated filters and braking choppers reduce the number of components in the control panel, which does not only reduce the space required but also increases system reliability.

Fast installation and setup

A highly flexible interface allows easy integration with most any lift controller. Easy wiring and smart functions for completing a basic setup in a couple of minutes minimize the time and cost involved in the commissioning of your lift.

Highest ride comfort

With precise motor control and high starting torque, flexibly configurable ride curves and integrated brake control logic, the LA500 provides the key to a smooth ride and accurate landing.

Sustainable systems

Designed for 10 years of operation without maintenance, our LA500 drives are built to perform reliably for a long time. The robust design featuring coated PCBs allows operation in 50 °C without derating, while integrated service lifetime prediction prevents sudden failures and downtime.



LA500 – flexibility, ease of use, and a sustainable design offer the best value proposition for your lift application.

HV600

HVAC drives for fan and pump applications



The HV600 has been specially developed for building automation applications and helps to minimize energy costs and maximize user comfort.

High performance that pushes expectations

Building owners, facility managers, and mechanical contractors specifying AC drives. They all trust Yaskawa to deliver reliable performance in HVAC applications.

The HV600 family of AC drives pushes past industry requirements to establish a new benchmark for industry expectations. In fact, the HV600 addresses all of the most pressing demands, including more flexibility and control, less downtime and more packaging options.

Exceptional design

Available in IP20/UL Type 1 and IP55/UL Type 12 versions, the HV600 can be mounted without the need for an expensive additional enclosure. With a high contrast display HOA (Hand-Off-Auto) keypad, a high visibility status ring, and enhanced pump control functionality, the HV600 is perfectly suited to building automation application needs.

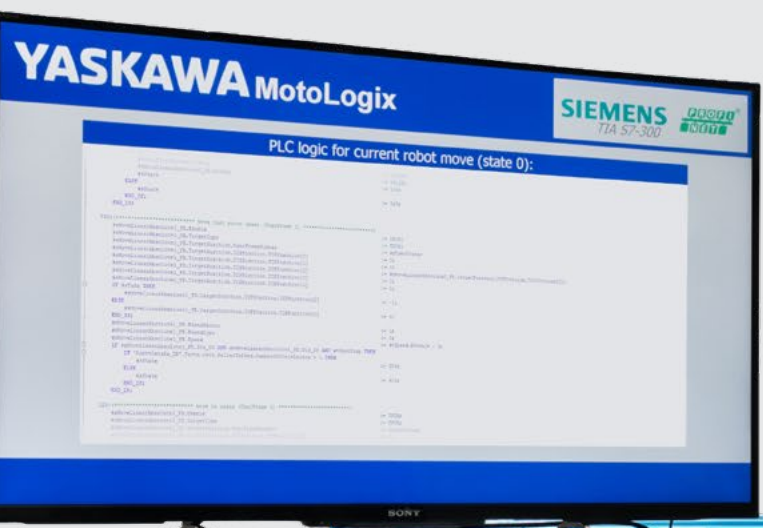
Designed for ease of use

All programming is done through a single keypad with intuitive interface. The electronic bypass cover has a streamlined, visually appealing shape and the HV600 keypad stays with the frame, not the cover, when the cover is removed. The electronic bypass mirrors the AC drives multifunction digital outputs and and serial communication is maintained with building controls while in bypass.

Features

- Simple steps for efficient commissioning
- DriveWizard® and DriveWizard Mobile App support
- Safe programming without main power
- IP20/UL Type 1, IP55/UL Type 12, IP20/protected chassis
- Hand-Off-Auto keypad with LCD display and tactile buttons
- Built-in building automation protocols
- Compliance with global certifications and standards
- Built-in impedance for harmonic reduction
- On board EMC/RFI filter
- Conformal coating for circuit board protection
- Various application presets





MotoLogix & SRCI

Interface for MOTOMAN robot programming and control via PLC

MotoLogix is a software interface for programming and control of MOTOMAN robots by PLC. Being available for all major PLC brands and fieldbuses the software is designed with two primary objectives:

- Enable deep integration of Yaskawa robot systems in PLC controlled machinery
- Easy programming/commissioning/teaching/operating of robots in a machine, without need of specialized knowledge

MotoLogix has two components

1. MotoLogix runtime

Enables the MotoLogix interface on the Yaskawa robot controller, using the fieldbus for communication with the PLC.

2. MotoLogix PLC library + examples

Comprehensive set of function blocks and example programs to write the robot application logic in the PLC.

Standard Robot Command Interface

Just as with MotoLogix, SRCI allows programming the robot trajectory in the PLC instead of in the robot controller. The SRCI specification was created by a working group consisting of a leading PLC vendor and many robot vendors. The goal is to standardize both the data packet and the PLC library functions. This enables users to switch between different robot- and/or PLC vendors without having to rewrite all of their PLC code.

SRCI is not limited to any particular PLC or fieldbus. It is expected that over time, many PLC vendors will support this interface (and create a PLC library).

Features

- Robot programming carried out in PLC language – unified for the whole system
- Connects all peripheral devices (sensor, camera, conveyor) through PLC
- Robot completely integrated in the PLC and HMI environment
- Testing of the complete PLC/HMI robot application using virtualization (MotoSim)
- Assurance of path accuracy (calculation in MOTOMAN controller)
- All DX200, YRC1000 and YRC1000micro robots can be controlled, including the collaborative types such as HC10
- No Teach pendant or Yaskawa robotics knowledge is required for robot programming and operation
- Data stored in the PLC, not in the robot controller
- Control up to 4 robots with one MotoLogix interface
- MotoLogix on a OPC UA equipped PLC can act as a convenient gateway to PC based systems such as LabView

Supported platforms:

YASKAWA
PROFINET

B&R
POWERLINK

SIEMENS
TIA S7-300
PROFINET

Rockwell
EtherNet/IP

SIEMENS
TIA S7-1500
PROFINET

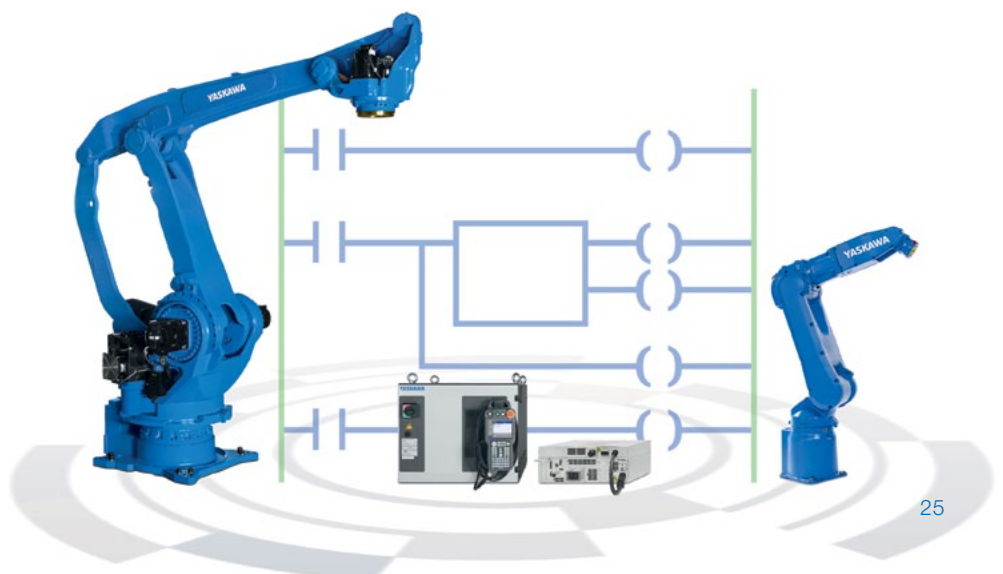
CODESYS
EtherCAT

SIEMENS
SIMOTION
PROFINET

CODESYS
EtherNet/IP

Beckhoff
EtherCAT

CODESYS
PROFINET





Yaskawa Ecosystem

Plug & play!

Simple robot programming & operation

Unlike traditional, more complex robot execution, which requires an upfront investment in training, Smart series technology provides simple, intuitive robot programming and operation methods for your workforce. With a host of grippers and accessories available from our technology partners, Smart series robots can be easily adapted to changing manufacturing requirements and can readily be deployed and redeployed for the next job.

100% industrial

But with all the simplification, our robots in no way lose their 100% industrial functionality. All our Smart series robots are controlled by our compact yet powerful YRC1000micro controller. To make the wide range of applications and functions as user-friendly as possible, programming is done via our Smart Pendant with patented Smart frame function.

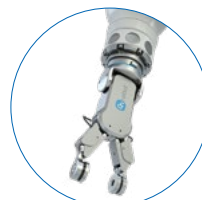
We support you when it comes to implementing your automation solution.

Smart series partner program

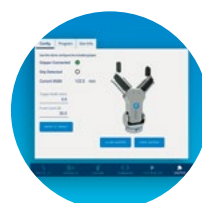
Yaskawa has partnered with leading gripper and accessory manufacturers to provide our customers an ecosystem of ready-to-use plug & play products.



1. Receive your ready to install package



2. Install the gripper on your robot



3. Configure on the Smart Pendant

Features

- Pre-configuration
- User-friendly setup and deployment out of the box
- Perfect for customers that are new to robotics or looking for an easy automation solution



Smart Pendant

Next generation robot control interface

The Smart Pendant has a patented, completely new coordinate system, the “Smart Frame”, which also supports rotation and tilting of the Smart Pendant. This means that you no longer have to calculate or convert movements in coordinate space (X, Y, Z) during teaching, as the system automatically takes its viewing direction towards the robot into account.

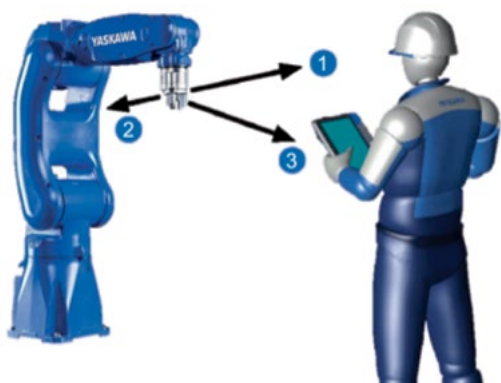
For collaborative robots, the system also supports the “hand guiding” function - manually guiding the robot to a desired position.





Smart frame

The patented “Smart Frame” technology determines the position of the operator in relation to the robot. This means that a conventional coordinate system (X, Y, Z) is no longer required. The intuitive movement of the robot by tilting the Smart Pendant also makes operation easier.



Features

- Large touch screen (10 in / 25.4 cm)
- Ergonomic due to low weight, angled cable exit on the side and integrated emergency stop
- Simple and intuitive operation, short learning curve
- Ideal for users who need to reprogram frequently and appreciate ease of use
- Supports many powerful functions of the MOTOMAN YRC1000
- Context sensitive help and help menu offers many explanations



MotoMINI

Small. Lightweight. Fast.

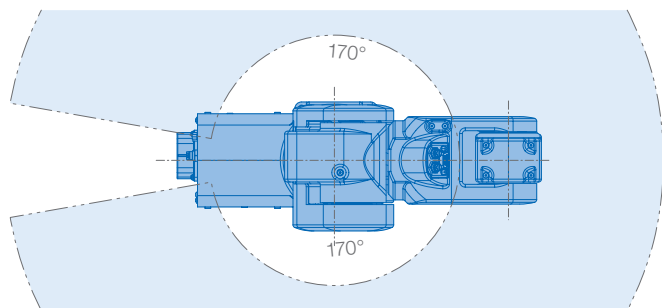
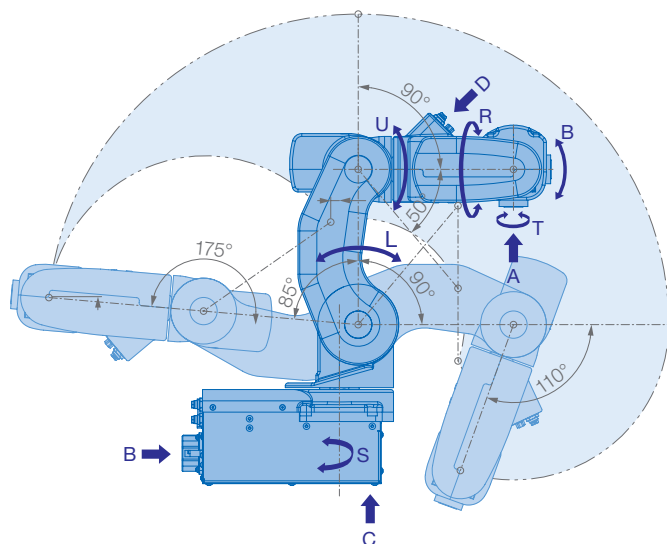
The MotoMINI 6-axis robot was especially designed for handling and assembly of small work pieces. It reduces the size of your production line and helps to increase productivity.

This lightweight high-speed robot provides a payload of 500g and a maximum reach of 350mm. The high repeatability of 0.02mm offers superior performance in small part handling and assembly. It is easy to change the location of MotoMINI according to the line's operating condition or the work piece being manufactured.

This robot is driven by the also small and compact MOTOMAN YRC1000micro controller, which is especially suited to operate small robots.

Features

- Compact and fast
- Lightweight and portable
- Superior performance in small part handling & assembly
- Minimum footprint
- Flexible positioning



reddot award 2019
winner

YASKAWA

MOTOMAN GP8



red dot award 2018
winner



MOTOMAN GP series

Handling & general applications

We complete our range of MOTOMAN industrial robots and now offer models for handling and general applications from 7 to 600 kg. Most models are IP67 rated and can be programmed and controlled with the new and smaller YRC1000 controller. With numerous special application functions that are already implemented in the controller, automation tasks can be implemented with ease.

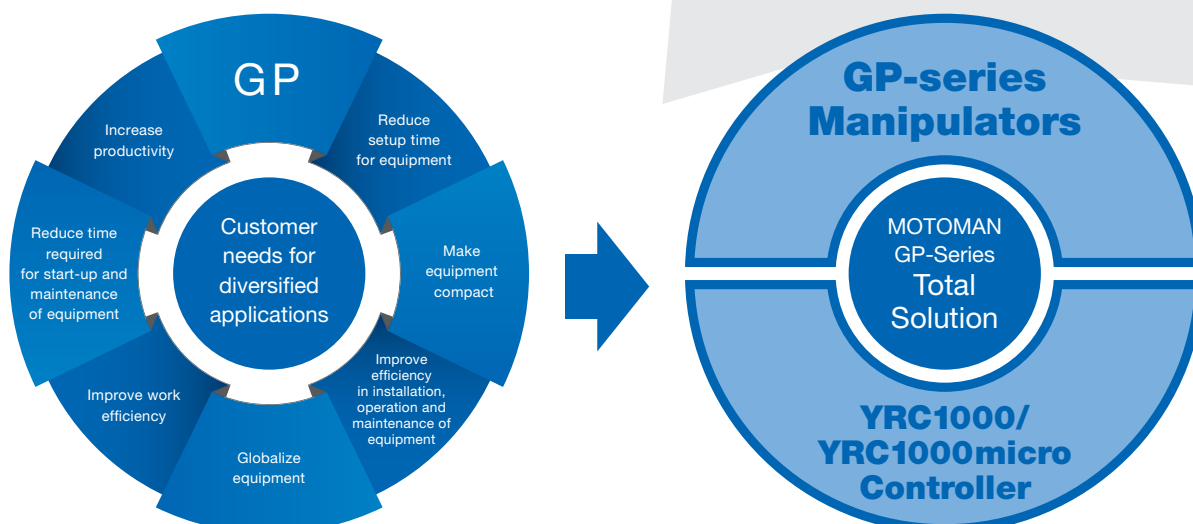
The slim and curvy design allows the manipulator to dive deep into work areas, while the smooth surface makes cleaning the GP robots easier. Only one robot cable is required for the connection between the manipulator and the controller. The advantages of this solution are reduced wear and reduced space requirements, as well as reduced maintenance costs and smaller required spare parts stock.

The robots of the GP series are controlled by the new MOTOMAN YRC1000 control unit. The new drive technology reduces the time required for the actuation process with the aid of minimized movement changes due to different speeds. This extremely compact controller allows for optimal space utilization and is designed to set new standards with robot acceleration and speed.

The YRC1000 controller programmer provides improved cable routing. With only 730 g, it is the lightest programming device in its category and can confirm robot positions via the 3D robot model display. The touch screen allows intuitive operation and thus easy movement and scrolling with the cursor.

Features

- Increase productivity: A variety of workpieces can be transferred and different grippers can be mounted
- Make equipment compact: Slim and easy-to-use structure
- Easy set-up
- Robot surface is designed to prevent adherence of dust
- High environmental performance: Its structure can resist dust and coolants due to its IP67 standard protection class
- Easy maintenance: Data saving feature enables to replace the wire harness in the robot without having to connect to a battery
- Productivity improvement due to reduction in number of cables and connectors



MOTOMAN HC10DT IP67

Human-collaborative robots for harsh environments



MOTOMAN HC10DT IP67 (B10 + B12) are 6 axes human-collaborative robots with a payload of up to 10kg. They comply with EN 60529-IP67 and are dust and waterproof for use in harsh environments. Operator safety is ensured by power and force limiters that stop the robot in the event of contact with the operator.

The robot arm can be hand guided by an operator and robot positions and gripper operation can be registered via “Teach” and “Tool” buttons. These features offer time saving during the robot programming. The robot’s arm geometry was designed to avoid pinch points (finger) and provides internal wiring options (Air (-B10) or Ethernet (-B12)).

The MOTOMAN HC10DT IP67 robots can operate without additional protective measures like a safety fence, depending on the risk assessment. This saves space and costs.

Controlled by
YRC1000

Controlled by
**YRC1000
micro**



reddot award 2020
winner

Features

Controller

- Fully industrial robot controller YRC1000 and YRC1000micro

High safety

- Contact force between operator and robot is limited to a safe level
- Safety by design: rounded edges without pinch points (finger protection)
- Internal cable routing options: Air (-B10) or Ethernet (-B12)
- Safety standards – applications for industrial robots: ISO 10218-1 (5.10.5 power and force limiting)
- Complies to ISO TS 15066
- Safety functions industrial robot controller: ISO 13849-1, PLd, Cat. 3
- Functional safety unit included
- Safe force/torque sensors in all 6 links

Easy teaching

- Move the robot arm directly via hand guiding function: easy teaching mode supported by function buttons at the wrist

No safety fence

- Depending on the application, the MOTOMAN HC10DT can be switched between safe/collaborative mode in phases of human-robot-interaction, and returning into high speed when absence of the operator is detected by additional safety devices

MOTOMAN HC30PL

Human-collaborative robots



MOTOMAN HC30PL is a 6 axes human-collaborative robot with a payload of up to 30 kg. Operator's safety is assured by a power and force limit technology that stops the robot in case of contact with an operator.

The robot arm can be hand guided by an operator and robot positions and gripper operation can be registered via "Teach" and "Tool" buttons. These features offer time saving during the robot programming. The robot's arm geometry was designed to avoid pinch points (finger).

The MOTOMAN HC30PL robot can operate without additional protective measures like a safety fence, depending on the risk assessment. This saves space and costs.

Controlled by
YRC1000

Controlled by
**YRC1000
micro**

Features

Controller

- Fully industrial robot controller YRC1000 and YRC1000micro

High safety

- Contact force between operator and robot is limited to a safe level
- Safety by design: rounded edges without pinch points (finger protection)
- Internal cable routing
- Safety standards – applications for industrial robots: ISO 10218-1 (5.10.5 power and force limiting)
- Complies to ISO TS 15066
- Safety functions industrial robot controller: ISO 13849-1, PLd, Cat. 3
- Functional safety unit included
- Safe force/torque sensors in all 6 links

Easy teaching

- Move the robot arm directly via hand guiding function: easy teaching mode with a switch box

No safety fence

- Depending on the application, the MOTOMAN HC30PL can be switched between safe/collaborative mode in phases of human-robot-interaction, and returning into high speed when absence of the operator is detected by additional safety devices

Weld4Me

Collaborative robotics for easy welding of small series



As an alternative or supplement to manual MIG/MAG welding with air-cooled welding equipment, the Weld4Me robot station offers all the advantages needed. It has a small footprint and is easy to move with a hand pallet truck, and it brings the consistent quality of robotic welding to your production processes.

The hybrid robot mounted on top combines the strength and accuracy of the industrial robot with the safety features necessary for human-robot collaboration. Besides, the IP67 protection class provides superior capabilities for applications in rough welding environments. Due to direct teaching and the customized welding wizard software, operating and programming the Weld4Me robots is easy to learn for welding personnel, even without prior robotics knowledge.

Human-robot safety features

The robot monitors and limits its speed and range, in one or more zones, with the Functional Safety Unit (FSU). In addition to this, the Power and Force Limiting (PFL) function will stop the robot as soon as the detected external force exceeds a threshold value.



Features

Weld4Me base package

- MOTOMAN HC10DT IP67 robot with YRC1000 controller
- EC declaration of incorporation of partly completed machinery, according to Machinery Directive 2006/42/EC, Annex II.1.B.
- Movable robot stand
- Teach box fixture
- Welding wizard for easy robot job creation
- Calibration kit for welding torch

Options

- Complete Fronius welding package (power source TPS320i, welding torch and cable package)
- Welding table 1200 × 800 mm, fixture clamps and glare shield
- Calibration kit with cups and wire cutter
- Clamps for mounting the calibration kit onto the table
- Trolley for welding power source
- Base kit for welding equipment from other suppliers on request
- Robot jacket and wrist cover for heavy sputter applications
- Other colors by customer choice
- Further accessories

Weld4Me CE cell

- Our Weld4Me solution is also available as a CE cell version. Please contact your local Yaskawa representative for up-to-date information on this.

SLIO

The decentralized I/O system

SLIO (= Sliced I/O) is a modular and extremely compact, decentralized I/O system. It can be universally combined and deployed with each of our established systems and nearly all those of other producers.



No matter which CPU you use: the SLIO I/O system minimizes the engineering effort and is quickly implemented. It is not even necessary to adapt the existing circuit diagram layout. Many different interface modules, each equipped with its own power module, support the following fieldbuses:



Safety first

With modules for FailSafe over EtherCAT and PROFIsafe, the SLIO I/O system is suitable for all applications that require functional safety. The safety modules feature automatic shutdown in the event of a fault in accordance with IEC 61508 SIL3 and EN ISO 13849-1, Cat.4 / PL-e.

Modularly expandable

Up to 64 signal and function modules per interface module can be expanded in one line, or with the line extension by up to 8 additional lines (max. 64 modules).

Getting along worldwide

Suppose a German mechanical engineer supplies his plant which is equipped with SLIO to a worldwide production company. In Europe his customer requires PROFINET as a communication basis. In the USA the type of controller has to be an American one which only communicates via EtherNet/IP. And in Asia for example everything works via EtherCAT. SLIO can be used easily for all: only the coupler needs to be exchanged.

Features

- Simple wiring
- Clear status and diagnosis monitoring
- Clever, user friendly labelling
- High-performance bus
- Easy installation and servicing
- Space saving staircase-shaped wiring with cage clamps
- Easy exchange of modules due to unique wiring concept
- High modularity due to 2, 4, 8 and 16 channel modules
- 16 channel modules with push-in technology

Product overview

GA700

AC drives for industrial applications

Standard AC drive

The GA700 precisely controls induction, permanent magnet, and synchronous reluctance motors providing versatility to run a variety of applications with just one drive. The times of complex motor set-up are over. With the new EZ vector mode, the GA700 can run all of these motor types without the need for comprehensive tuning.

Easy programming

DriveWorksEZ® is our intuitive graphical programming environment. Create customized functions for your application in a very short time by dragging and dropping function blocks. The online diagnosis tool supports testing.

Features

- Easy set-up due to the integrated start-up wizard
- Integrated features (STO with SIL 3, Braking transistor [up to 75 kW], EMC filter, DC reactor [22 kW and above] ...)
- Data logging with real time stamp up to 32 GB on MicroSD card
- Mobile device connectivity: Cloud connected DriveWizard Mobile App for drive management on smartphones and tablets
- Safe programming when switched off
- Network up to five GA700 drives with a single communication card



Technical data	GA700
Motor power range [kW]	0.55 – 630
Induction motor (IM)	√
Permanent magnet motor (PM)	√
Synchronous reluctance motor	√

GA500

Compact AC drives for industrial applications

Standard AC drive

Compact in size and flexible in terms of motor type and connectivity, the GA500 is designed to easily master nearly any application.

Easy programming

DriveWorksEZ® is our intuitive graphical programming environment. Create customized functions for your application in a very short time by dragging and dropping function blocks. The online diagnosis tool supports testing.

Features

- Easy network integration
- Robust design. Operation up to 4000 m altitude and 60 °C environment
- Coated PCBs
- Embedded braking chopper
- Integrated programming environment
- 24 VDC power input for controller
- USB port
- 10 years maintenance-free design
- Screwless control terminals
- Easily accessible mains terminals
- 24 VDC power for sensors
- Built-in EMC filter
- One drive for various applications (induction, permanent magnet and synchronous reluctance motors)



Technical data	GA500
Motor power range [kW]	0.1 – 30
Induction motor (IM)	√
Permanent magnet motor (PM)	√
Synchronous reluctance motor	√

DriveWizard®

Software user interface for AC drives

Easy configuration of Yaskawa AC drives. Its comprehensive monitoring functions and integrated oscilloscope allow easy process optimization and fast troubleshooting.

- Connect to the GA500 via USB – even without mains power!
- Configure the GA500 online or offline.
- Log your process with up to six channels of recorded data.
- Create reports to export and send via email.
- Simplify operation and save valuable time during setup, maintenance, or troubleshooting.
- Import and export data with DriveWizard Mobile.
- Connect to multiple drives though ProfiNet, EtherNet/IP or Modbus TCP.



DriveWorksEZ®

Software for creating individual functions for AC drives

User-friendly, icon-based, drag-and-drop graphical environment for adding programmable functions. This allows the drive to be tailored for a variety of machine and application requirements without the cost of external controllers, such as PLCs or additional controller hardware options.

- Select from 400+ function blocks
- Logic/math functions
- Timers/counters
- Up to 100 connections
- Offline simulation mode for testing without the risk of application malfunctions
- Protection of intellectual property with project lock
- Online monitor for visual debugging
- Fast cycle time of 2 ms, independent of program size



DriveWorks application library

Provides pre-configured application modules that can be used instantly or can be modified and expanded to fit the need of your application or machine.

For example:

- Brake sequence
- Flexible timer
- Torque limits
- Master-Slave via serial communication without PLC
- Dual PI controller
- Unbalance detection

DriveWizard Mobile

App-based user interface for AC drives

The ultimate setup tool for Yaskawa AC drives. From simple parameter editing through Setup Wizard with an 8 channel fully featured oscilloscope, it provides all tools needed for setup, monitoring and process optimization.

- Intuitive parameter editing with help and search function
- Create favorite parameter lists
- 8-channel oscilloscope with comprehensive trigger functions and data analysis
- Parameter backup/verify
- Setup Wizard for quick setup without knowledge about menus and parameters
- Troubleshooting support with fault analysis and countermeasures
- Export to DriveWizard PC tool
- Worry-free data recovery: Parameter back-up/retrieval anytime via Yaskawa cloud service for registered drives
- Usable offline in areas without mobile reception

Mobile device connectivity is achieved through using the built-in USB port (USB on-the-go) or wireless communication with the Bluetooth® LCD keypad option.

Bluetooth® and the Bluetooth logo are registered trademarks of Bluetooth SIG, Inc. USA. Android™ is a trademark of Google Inc. iOS® is a registered trademark of Cisco and is used under license by Apple, Inc.



CR700

AC drives for crane applications

Crane AC drive

Continuous improvements of the key functions for crane applications has won the trust of our customers for over 30 years. The CR700 balances the hoist application in perfection. Made possible by innovative design advantages the CR700 crane drive helps you to lower initial investment for factory construction, supports you by increasing your productivity, lowers the efforts for daily maintenance and helps to reduce energy consumption.



Technical data	CR700
Motor power range [kW]	0.55 – 315
Induction motor (IM)	√

Features

- Synchronous position control and tandem application
- Anti-sway function
- Light-load function
- Load balance without encoder
- Wire length monitor
- Maintenance monitor
- Travel limit
- Brake command monitor

LA700, LA500

The lift industry standard

Technical data	LA700	LA500
Motor power range [kW]	1.5 – 110	4.0 – 22
Induction motor (IM)	√	√
Permanent magnet motor (PM)	√	-

Lift AC drive

The LA700 lift drive is the perfect solution for technical requirements of today's lifts. LA700 controls induction and permanent magnet motors and is the first choice for new installations, machine room less lifts and lift modernization.

The compact LA500 is the economic solution for modernization and new installation of lifts with gear box motors without speed feedback. By sticking to the basics, this AC drive combines usability and outstanding ride performance with a robust and durable design.

LA700 Features

- Open- and closed-loop-control for IM and PM motors
- Large power range
- Programming in lift terminology and in 13 languages
- Displays parameter in lift-specific terms and units (m/s, m/s² ...)
- Automatic evacuation with UPS system/battery
- Flexible controller interface
- Best ride comfort
- Operation without motor contactors (SIL3 STO)
- DCP3/DCP4/CANLift

LA500 Features

- Open- and closed-loop-control for induction motors
- Programming in lift terminology and in 8 languages
- State-of-the-art motor control algorithms for a smooth ride and a precise stop
- Designed for long performance and low life-cycle cost
- Preventive maintenance indicator for IGBT, capacitors and cooling fans



HV600

AC drives for HVAC applications

Heating, ventilation, air conditioning

Designed specifically for building automation applications, the HV600 helps minimize energy costs and maximize user comfort.

The HV600 family of AC drives exceeds industry requirements and sets new standards for industry expectations. The HV600 meets all important requirements, such as more flexibility and control, less downtime and more.



Technical data	HV600
Motor power range [kW]	1.5 – 160
Permanent magnet motor (PM)	√
Synchronous reluctance motor	√

Features

- DriveWizard® and DriveWizard Mobile app supported
- Safe programming without main power supply
- IP20/UL type 1, IP55/UL type 12, IP20/protected housing
- Hand-off auto keypad with LCD display and tactile buttons
- Compliance with global certifications and standards
- Built-in power impedance to reduce harmonics
- Built-in EMC/RFI filter
- Conformal coating for circuit board protection
- Various application presets

FP605

AC drives for industrial fan and pump applications

Fan and pump applications

The FP605 saves time and resources in installation and programming. It's maximized efficiency ensures energy savings and quick return on your investment.

The drive offers advanced pump functions and is programmed using pump terminology for a user friendly experience.

Pump protection features ensure maximum drive and pump life.

Features

- IP20/UL type 1, IP55/UL type 12, and IP20/protected enclosure
- Easy sleep / wakeup PID setup
- Submersible motor thrust bearing control
- Automatic system restart
- Sleep boost
- Low and high pressure feedback detection
- Protection against loss of prime (LOP) / dry running of the pump
- Pre-charge control (controlled pipe filling)
- Optional dual transducer feedback for redundancy
- Impeller de-scaling / de-ragging control

Technical data	FP605
Motor power range [kW]	1.5 – 355
Permanent magnet motor (PM)	√
Synchronous reluctance motor	√



Green Performance Solutions

Model	R1000	D1000	U1000
Energy saving by braking power regeneration	•	•	•
Motor drive	–	–	•
Improve power factor	–	•	•
Suppress input current harmonics	–	•	•
DC voltage boost	–	•	–
Feed-in of multiple drives	○	•	–
Simple wiring	○	○	•
Downsize panel	○	○	•
Integrated Bypass function at 50 Hz	–	–	•

R1000

Energy saving regenerative unit

Technical data	R1000
Regeneration capacity [kW]	3.5 – 300
Apply to multiple drives	√

Intelligent braking resistor

The R1000 regenerative unit replaces conventional braking resistors in machines and systems and makes braking energy available to other consumers in the same system. This saves energy and reduces costs.

Features

- Allows 4-quadrant-operation without braking resistors
- No wasted heat due to braking resistors, thus less need for cooling/ventilation, reduced fire hazard and operating costs
- Provides regenerative energy for other consumers in the plant, reducing total power consumption
- Quick amortisation of investments



D1000

Regenerative converter unit with low harmonics

Low harmonic energy recovery unit

D1000 is a regenerative unit for DC power supply of single drives or systems consisting of AC drives, servos or robots. In addition to the use of braking energy, the D1000 enables particularly efficient and network-friendly system operation.

Features

- 4-quadrant-operation without braking resistors
- Sinusoidal input current (total harmonic distortion < 5 %) and cosphi =1 minimize losses in cables, transformers and generators and allow an optimal utilization of the system
- Controlled, customizable DC voltage guarantees the same level of DC voltage independent of the power supply voltage (Boost function)
- D1000 reduces the cost for energy and maintenance, which allows for a short payback period
- No wasted heat due to braking resistors, thus less need for cooling/ventilation, reduced fire hazard and operating costs

Technical data	D1000
Power range [kW]	5.0 – 630
Supress power supply harmonics	√
Apply to multiple drives	√



U1000

The AC-to-AC drive for maximum efficiency

Matrix converter

The U1000 is a highly efficient AC drive based on latest Matrix converter technology. With full power regeneration capability it offers great energy saving potential while sinusoidal input currents and a power factor close to one reduce stress on grid components, cables and wires. With an ultra-compact shape, it is the first choice for innovative, energy-efficient drive solutions with or without power regeneration.



Features

- Innovative matrix drive technology without DC bus capacitors up to 500 kW
- Built-in power regeneration
- Extremely compact compared to conventional solutions for feedback or low harmonics
- Completely integrated solution minimizes installation and wiring effort
- Built-in bypass operation at 50 Hz for IM motor
- Maximum flexibility through integrated PLC functionality
- Low-loss and smooth system operation thanks to sinusoidal input current and cosphi of almost 1
- Built-in SIL3 STO function for machine safety
- Induction motor and permanent magnet motor control
- Approved for global marine installation

Technical data	U1000
Power range [kW]	4.0 – 500
Supress power supply harmonics	√
Apply multiple drives	√
Induction and PM motor control	√
Approved for marine installation	BV, ABS, ClassNK, LR, DNV GL, KR



Servo drives

Quality. Precision. Dynamics.

Rotary servomotors - 200 V models

SGMXJ



- Medium inertia, high speed
- 50 W - 750 W
- 7000 rpm

SGMXG



- Medium inertia, high torque
- 300 W - 15 kW
- 4000 rpm

SGMXA



- Low inertia, high speed
- 50 W - 7 kW
- 7000 rpm

Servopacks - 200 V models

SGDXS



- Single axis
- 50 W - 15 kW

SGDXW



- Dual axis
- 50 W - 1 kW (per axis)

SGDXT



- Triple axis
- 50 W - 400 W (per axis)

Direct drive servomotors - 200 V models

SGM7F



- With iron core, inner rotor
- Rated: 2 Nm - 200 Nm
Peak: 6 Nm - 600 Nm

SGM7E



- Coreless, inner rotor
- Rated: 2 Nm - 35 Nm
Peak: 6 Nm - 105 Nm

SGM7D



- With iron core, outer rotor
- Rated: 1,3 Nm - 240 Nm
Peak: 4 Nm - 400 Nm

Every single servo drive is the result of more than 30 years of experience in motion control. With our impressive product range, we offer the right solution for every application.

Rotary servomotors - 400 V models

SGM7J



- Medium inertia, high speed
- 200 W - 1.5 kW
- 6000 rpm

SGM7G



- Medium inertia, high torque
- 450 W - 15 kW
- 3000 rpm

SGM7A



- Low inertia, high speed
- 200 W - 7 kW
- 6000 rpm

Servopacks - 400 V models

SGD7S



- Single axis
- 500 W - 15 kW

SGD7W



- Dual axis
- 750 W - 1.5 kW (per axis)

Linear servomotors - 200 V and 400 V models

SGLG



- Coreless model
- Rated: 12.5 N - 750 N
Peak: 40 N - 3000 N

SGLFW2



- Model with F-Type Iron core
- Rated: 25 N - 2520 N
Peak: 86 N - 7560 N

SGLT



- Model with T-Type iron core
- Rated: 130 N - 2000 N
Peak: 380 N - 7500 N

Advanced safety modules

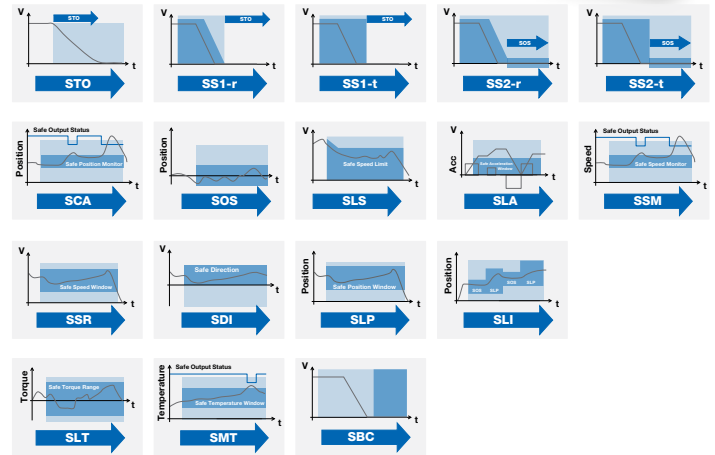
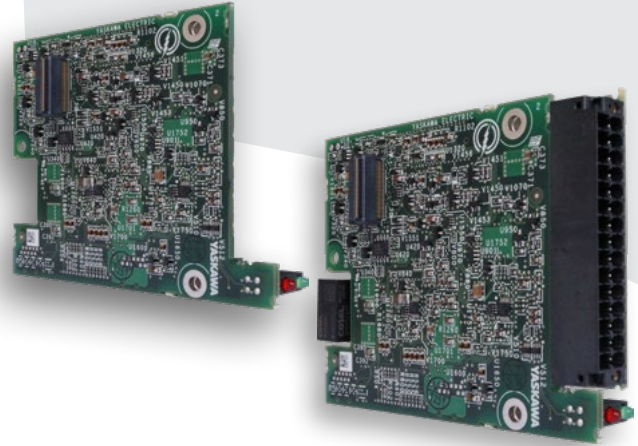
In order to find a suitable and economical solution for your application we offer a scalable concept. While Safe Torque Off is integrated in every Servopack, different option modules can be selected for further requirements:

Advanced safety modules for Sigma-7

Option module	Safety functions	I/Os	FSoE
SGDV-OSA01A	STO/SS1/SS2/SOS/SLS	<ul style="list-style-type: none"> 2 safe inputs 	-
SGD7S-OSB01A	STO, SS1-r, SS1-t, SS2-r, SS2-t, SOS, SLS, SSM, SDI, SLP, SSR, SLI, SCA, SLA	-	✓
SGD7S-OSB02A	STO, SS1-r, SS1-t, SS2-r, SS2-t, SOS, SLS, SSM, SDI, SLP, SSR, SLI, SCA, SLA, SLT, SMT	<ul style="list-style-type: none"> 6 E/A dual channel SIL3/PLe Cat3 2 E/A single channel SIL2/PLd Cat3 	✓

Features

- STO (Safe Torque Off) integrated
- 3 different option modules provide a scalable approach for your requirements
- Extensive safety functions allow a suitable solution for many applications
- All safety functions fulfil SIL3/PL-e (Cat. 3)
- 6 configurable Safe I/O Channels
- 1 Safe Analog Input Channel
- Via FSoE (FailSafe over EtherCAT) the safety functions can be controlled and monitored via fieldbus



Advanced safety modules for Sigma-X

Option module	Description	Safety functions	I/Os	FSoE
SGDXS-OSA01A	Advanced safety module I/O only	STO, SS1-r, SS1-t, SS2-r, SS2-t, SOS, SLS, SSM, SDI, SLP, SSR, SLI, SCA, SLA, SBC	<ul style="list-style-type: none"> 6 I/O dual channel SIL3/PLe Cat3 2 I/O single channel SIL2/PLd Cat3 	-
SGDXS-OSAA0A	Advanced safety module FSoE only	STO, SS1-r, SS1-t, SS2-r, SS2-t, SOS, SLS, SSM, SDI, SLP, SSR, SLI, SCA, SLA	-	✓
SGDXS-OSAA1A	Advanced safety module FSoE and I/O	STO, SS1-r, SS1-t, SS2-r, SS2-t, SOS, SLS, SSM, SDI, SLP, SSR, SLI, SCA, SLA, SBC	<ul style="list-style-type: none"> 5 E/A dual channel SIL3/PLe Cat3 	✓

iCube Control

As individual as your needs

The open automation platform gives machine builders and application developers full control over their system.

Features

- Open programming
- Scalable and modular design
- Integrated safety
- Real-time open source Linux operating system
- Yaskawa Triton processor



Technical data	iC9226M-EC	iC9226M-FSoE
Fieldbus master	EtherCAT (CoE, FoE, EoE)	EtherCAT (CoE, EoE, FoE) EtherCAT Safety (FSoE)
Processor	Triton ARM Cortex-A17 1.26 GHz, 3 Kern Prozessor	
Synchronized axes	Up to 64 real and 64 virtual axes	



MP3300iec & MP3200iec

High performance automation controllers

Machine controller

Our MP controller series facilitates a new realm of possibilities in the world of machine control. The controllers provide highest precision even in high speed applications.

Also available as the Singular Control version, MP3300iec RBT.

Features

- IEC61131-3 standard for efficient software programming and -handling
- Control modes: positioning, electronic shaft, speed and CAM
- Acceleration: linear, exponential, with moving average
- Connectors: MECHATROLINK-III, Ethernet (100Mbit/s)
- PLCopen function blocks
- Reusable code libraries enable the import of previously developed logic
- Also available as Singular Control version for easy control of all motion and robotics applications

ONE
SOFTWARE
ONE
CONTROLLER

MP2600iec

IEC on the drive

Option card

The MP2600iec is a small size and powerful controller option for Sigma-7 Servopacks operating a single axis.



Features

- IEC61131-3 programming standard for efficient software handling
- 1.5 axes control
- Open standards Ethernet/IP and Modbus/TCP
- PLCopen function blocks
- Reusable code libraries enable the import of previously developed logic

System MICRO

Compact and fast

PLC

The very compact and extremely fast micro-controller system MICRO offers completely new ways of operation and status display. The size of the module allows it to be used in almost any automation environment. Via the integrated backplane bus, the Compact CPU with integrated digital and analog I/Os can be expanded by up to 8 modules. A PROFINET controller with I-Device function is also integrated.

System 300S+

High-speed control system

PLC

The 300S+ system family significantly enhances the 300S product family. The 300S+ CPUs have gained in memory size and additional benefits, without increasing in price. The features known from the 300S family have also been transferred to the 300S+ family. In case of service, the 300S CPUs are exchangeable one to one by the respective successor products.

System SLIO

Highly modular and compact

PLC and decentralized I/O system

The SLIO control system combines excellent functionality with a clever mechanical concept in an ultra-compact design. The SLIO CPUs are available in a compact version and modular versions with integrated PROFINET controller with I-Device, EtherCAT master and Modbus TCP master, as well as an optional PROFIBUS master function. The CPUs can be expanded with up to 64 SLIO module units via the integrated backplane bus.



smartPanels

The smartPanels are ideal for entry to mid-level applications and stand for high user-friendliness and connectivity. Equipped with a 1GHz ARM Cortex-A8 processor and HMI Designer or Movicon 11 standard, there are no limits for the user in terms of tags, screens, recipes, alarms, etc.

The smartPanels are supplied with a Linux system environment prepared for HMI Designer or with Windows Embedded Compact 7 with Movicon 11.

Panel PCs

With the Panel PC series, you are ideally equipped for all control and monitoring tasks. The combination of an industrial PC with state-of-the-art performance features and a touch panel with optimum display options combines high performance in the smallest of spaces.

An Intel Celeron processor, large integrated RAM and display resolutions up to Full HD on the 21.5" panel PC leave nothing to be desired. The Windows system environment familiar to most users makes it easy to get started without having to learn anything new. As you have come to expect from us, the Panel PCs also have numerous useful interfaces. The visual appeal of your control cabinet is greatly enhanced by the high-quality materials used for the Panel PCs.

The Panel PCs are supplied with Windows 10 IoT Enterprise and your choice of Movicon or HMI Designer.



visualization with

HMI Designer

Movicon

TRITON

All-in-one chip

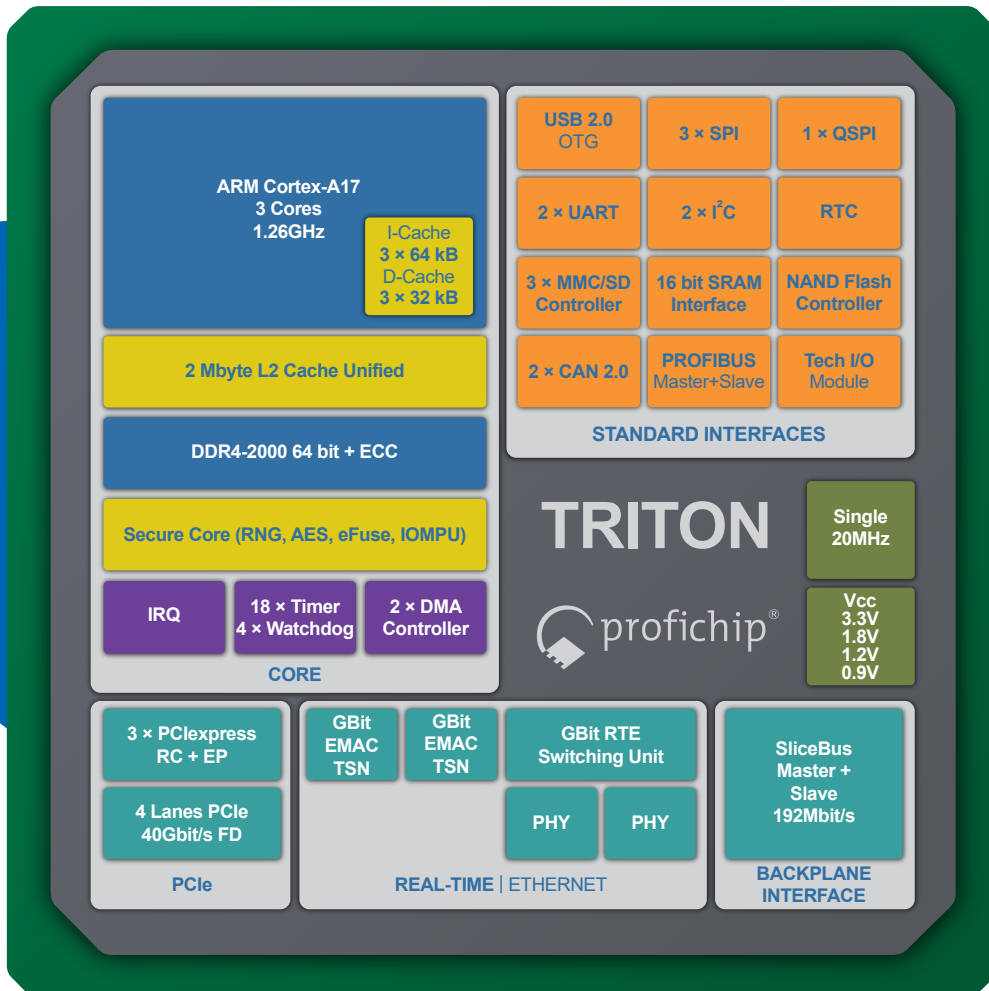
Gigabit Ethernet communication controller, PLC, backplane master, and motion controller in one chip

Triton combines industrial gigabit Ethernet communication with a fast and reliable backplane system as well as a powerful motion/automation multicore processor in one product with low power dissipation.



Features

- Future ready with TSN support, DDR4, PCIeexpress, and security core
- No heatsink needed thanks to low power consumption
- Low total cost of ownership due to integrated functionalities (Backplane master, PHYs, etc.)
- 3 cores with high single thread performance best suited for motion and PLC tasks



NOTOS

No more bottlenecks

Fast backplane bus controller

The NOTOS chipset allows you to use our latest backplane technology. The SliceBus 2.0 technology is designed to provide many additional features in a compact low-cost chip.



Features

- Integrated technology functions such as PWM, Counter, SSI
- Time synchronization in the nanosecond range
- Up to 32 I/O per module in shift register mode
- Pin compatible with SNAP+
- Single master system
- Up to 64 slave stations (nodes)
- Asynchronous, serial data transmission with 192 Mbit/s via point-to-point LVDS Physics
- Additional alarm line for initialization and asynchronous event communication from node to master
- Complete system recognition from SliceBus master without external module configuration information
- Full duplex transmission

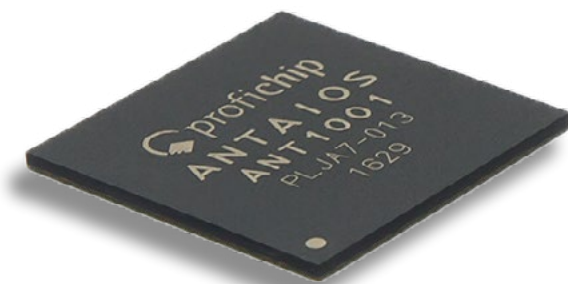
ANTAIOS

Unlimited networking

Real-time Ethernet communication control

ANTAIOS combines a powerful ARM Cortex-A5 processor for advanced user applications with effective and highly flexible communication technology for industrial applications that require sophisticated real-time capabilities.

It is designed for remote EAs, gateways, sensors, actuators and communication master modules.



Features

- Multiple fieldbus support
- ARM Cortex-A5 processor with 288 MHz
- Ethernet interface with real-time switch
- Gigabit Ethernet MAC
- SliceBus master



MPP 3 & MPK series

Pick & place robots

Handling, picking, packing

The 4-axes high-speed robot MOTOMAN MPP3 with parallel kinematic system combines the speed of the delta design with a high payload capacity and a large working range.

The MOTOMAN MPK is a high-speed, 5-axes picking robot that provides superior performance and reliability for food handling, picking, packing and other high-speed material handling applications.

Features

- Minimal footprint
- Fast acceleration and high speed increase productivity
- Optional vision and conveyor tracking for maximum flexibility

Technical data	MPP3- & MPK series
Reach	860 – 1,893 mm
Payload	3 – 50 kg
Controlled axes	4 – 5

PL series

Palletizing & depalletizing robots

Palletizing, depalletizing

The MOTOMAN PL series covers a range of powerful palletizing robots in a payload range from 80 to 800 kg, providing high performance in box, case and bag palletizing for various tasks in EOL-packaging and distribution center automation. They offer excellent speed and payload combinations, stacking heights and simple installation.



Technical data	PL series
Reach	2,061 – 3,159 mm
Payload	80 – 800 kg
Controlled axes	4 – 5

Features

- Compact design
- High acceleration
- Increased durability of hose package by internal cable wiring



SG series Scara robots

Picking, packing & handling

The robust SG series is particularly suitable for applications that require high speed and accuracy. Small interference contours allow the robots working together in confined spaces. Internal cabling enables a reliable workflow and saves extensive maintenance. The SG400 is driven by the compact and lightweight YRC1000micro controller.

Features

- Fast, powerful and reliable
- Wide motion range
- Compact and robust design
- Internal cabling
- High repeatability and accuracy
- Ideal for applications in confined spaces
- Easy integration and high dynamics
- Easy maintenance

Technical data	SG series
Reach	400 – 650 mm
Payload	3 – 6 kg
Controlled axes	4

MotoMINI series

Small. Lightweight. Fast.

Handling & general applications

The MotoMINI 6-axes robot was especially designed for handling and assembly of small work pieces. It reduces the size of your production line and helps to increase productivity.



Technical data	MotoMINI series
Reach	350 mm
Payload	0.5 kg
Controlled axes	6

Features

- Small and fast
- Lightweight and portable
- Superior performance in small part handling & assembly
- Minimum footprint
- Flexible positioning



reddot award 2019
winner



MPX series

6-axes painting robots

Painting & coating

The MOTOMAN MPX series with hollow wrist is strong enough to accommodate large rotary atomizers. Its process arm and high load capacity allow efficient painting of multiple colors. Due to its extremely compact design, the painting cell is kept small to save space.

Features

- High painting quality
- Optimized working range
- Flexible installation
- Space-saving

Technical data	MPX series
Reach	727 – 2,700 mm
Payload	5 – 15 kg
Controlled axes	6

GP series

High-speed, 6-axes robots

Handling & general applications

The 6-axes MOTOMAN GP series are versatile, powerful robots offering superior performance for a variety of applications. It provides a high payload of up to 600 kg and a wide motion range of up to 2,942 mm, which especially enables the handling of large and heavy work pieces.



Technical data	GP series
Reach	532 – 2,942 mm
Payload	7 – 600 kg
Controlled axes	6

Features

- High speed
- Extremely broad range of products
- Compact and powerful



SDA series

15-axes dual-arm robots

Flexible applications

The SDA is a slim and agile 15-axes dual-arm robot providing “human-like” flexibility of movement and fast acceleration. Its powerful actuator based design with high wrist performance and fully integrated supply cables, makes it ideal for a wide variety of operations such as assembly, part transfer, machine tending, packaging and other handling tasks that formerly could only be done by people. Both robot arms can synchronously work together or simultaneously perform tasks independently. Due to its small footprint it can operate in confined spaces, saving valuable floor space.

Features

- High flexibility
- High speed
- Compact design allows maximum performance

Technical data	SDA series
Reach	854 – 1,313 mm
Payload	5 – 20 kg
Controlled axes	15

HD series

Industrial robots with Hygienic Design

Hygienic and cleanroom applications

The new 6-axes high-performance robots in the MOTOMAN HD series were designed in collaboration with the Fraunhofer Institute for Manufacturing Engineering and Automation IPA specifically for use in hygienic and cleanroom environments. With its modern design, the HD series meets the strict standards for applications in the food, life sciences, laboratory automation, medical and pharmaceutical sectors.



Technical data	HD series
Reach	727 – 927 mm
Payload	7 – 8 kg
Controlled axes	6

Features

- Hygienic Design: closed housing, no protruding screws
- Robot connections on the underside
- Internal media routing incl. Ethernet connectors
- Hygienic flange with O-ring groove and axes
- Very low particle emission
- Food-grade grease
- Protection class IP69K



Features

- Safety by design
- Easy teaching
- No safety fence needed
- Fully industrial robot controller YRC1000 and YRC1000micro

HC series

Human-collaborative robots

6 integrated sensors

The MOTOMAN HC robots are 6-axes human-collaborative robots with a payload of up to 20 kg. Operator's safety is assured by a power and force limit technology that stops the robot in case of contact with an operator.

The HC robots can operate without additional protective measures like a safety fence, depending on the risk assessment. This saves space and costs.

Its installation area is very flexible and therefore it is able to operate at different workplaces.

Technical data	HC series
Reach	1.200 – 1.700 mm
Payload	10 – 30 kg
Controlled axes	6

AR series

Welding robots

Arc welding

The MOTOMAN AR series are compact high-speed 6-axes robots which provide accurate performance to achieve optimal results in extremely difficult conditions and especially for the high demands of arc welding applications.

With a payload of up to 20kg and a working range of 3,124 mm, the MOTOMAN AR series robots enable high quality welding of a broad variety of workpieces - from small items to bulky workpieces. The applicable inertia and axis speeds have been significantly raised, which leads to a "best in class" performance, speed and acceleration.

The robot is controlled by the YRC1000 controller which facilitates both programming and use with a wide range of functions specially designed for arc welding applications.



Features

- High precision
- High speed
- Easy maintenance

Technical data	AR series
Reach	700 – 3,124 mm
Payload	7 – 20 kg
Controlled axes	6

Drives Motion Controls

YASKAWA Europe GmbH
Philipp-Reis-Str. 6
65795 Hattersheim am Main
Germany
+49 6196 569-500
support@yaskawa.eu
www.yaskawa.eu

YASKAWA Europe GmbH
Hugo-Junkers-Str. 13
90411 Nuremberg
Germany
+49 9132 744-0
support@yaskawa.eu
www.yaskawa.eu

Robotics

YASKAWA Europe GmbH
Yaskawastr. 1
85391 Allershausen
Germany
+49 8166 90-0
robotics@yaskawa.eu
www.yaskawa.eu