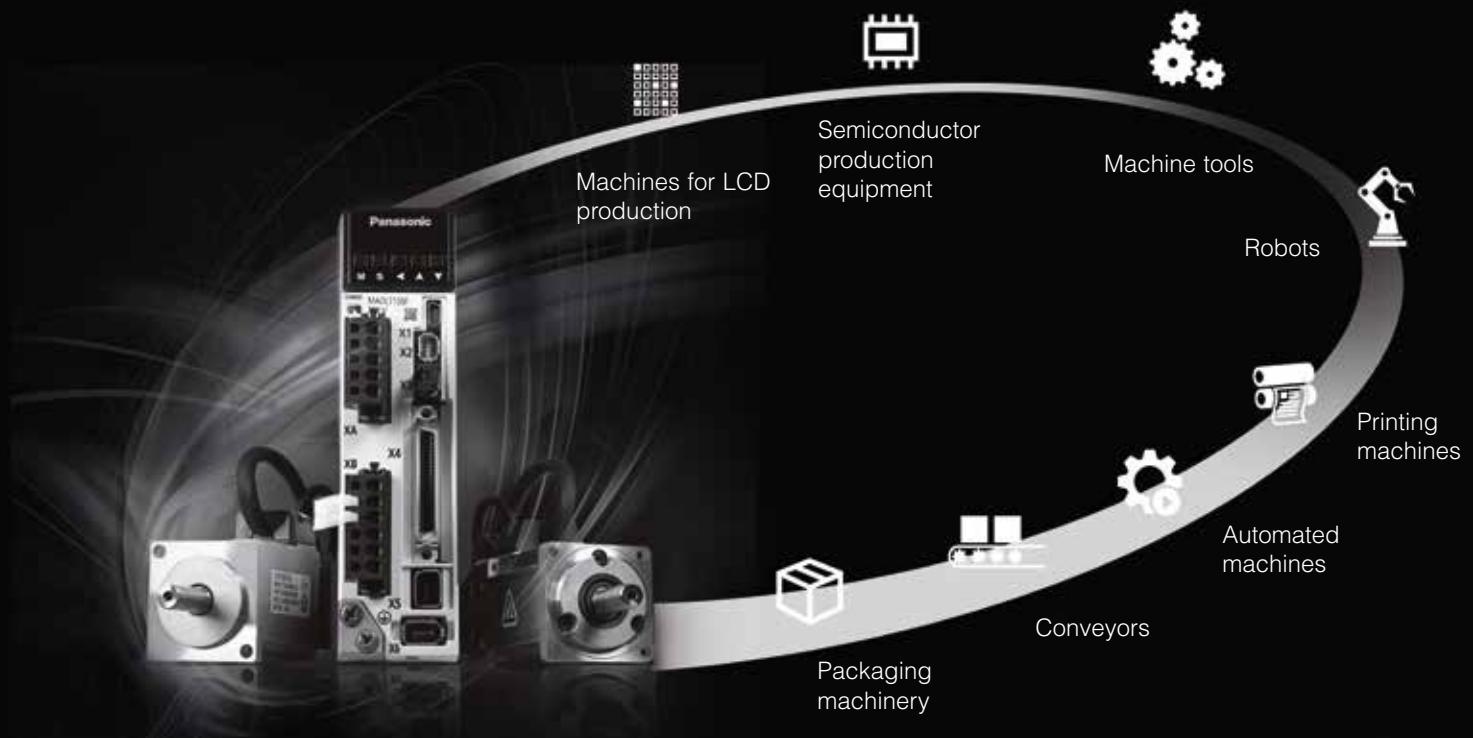


## Overview

### SERVO DRIVE SOLUTIONS FOR THE INDUSTRY



## The MINAS product family changes the world of industrial machine automation



### The right drive for each application



MINAS series					
		MINAS BL GV/KV	MINAS BL GP/KP	MINAS LIQI	MINAS A6
Network	Modbus				X
	EtherCAT				X
	RTEX				X
Advanced safety function					X
Real-time auto-gain tuning				X	X
Encoder				10000p/r	23 bit
Torque control					X
Velocity control	X				X
Position control		X		X	X
Power	50–130W/750W	50–130W/750W		50–1000W	50–22000W*
Supply voltage 400V					X*
Supply voltage 200V	X	X	X		X
48V DC					200/400W
24V DC					200W
Holding brake				X	X
PANATERM software	PANATERM BL	PANATERM BL		PANATERM 6	PANATERM 6

\* under development



**PANATERM**

PANATERM is a freeware tool for configuring all products from the MINAS series.

## Service has priority



# Servo Drive

## Excellence Center Europe

Whether it be special application requirements or general technical advice – our experienced sales and application engineers gladly provide you with information and assistance at any time.

### Our Servo Drive Excellence Center Europe stands for:

- › Competence
- › Decades of experience
- › Repair services
- › Hotline
- › Application support
- › On-site trainings
- › Continuous improvement of our services

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# MINAS BL

Brushless

## The economical solution regarding costs and space.

- Highly effective
- Powerful
- Excellent price-performance ratio

The new MINAS BL series is a further development of the tried-and-tested MINAS series. The innovative split core structure allows savings in three different areas:

- Energy
- Space
- Cost

## Specifications:

### ■ Features

- Supply voltage: 100/200V AC
- Rated power: 50–750W

### ■ Other features

- Analog control input

### ■ Control modes

- Position control (GP and KP series)
- Velocity control (GV and KV series)

### ■ Communication

- RS485 communication

Motor series	GV	GP	KV	KP
Rated power	50–130W	50–130W	50–750W	50–750W
Motor speed	30–4000rpm	30–4000rpm	100–4000rpm	100–4000rpm
Type of control	Velocity control	Position control	Velocity control	Position control

## Velocity control



Food processing



Materials handling



Textile industry

## Applications

The MINAS BL motors, which compared to AC induction motors offer far more functions, are particularly suited for materials handling as well as the textile and the food processing industry.

## Position control



Food processing



Gates and barriers



# MINAS LIQI

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## The proven and inexpensive servo drive

- Cost effective
- Reliable
- Powerful
- Simple
- Excellent price-performance ratio

The servo drives of the MINAS LIQI series are the most inexpensive servo drive solution from Panasonic – the optimal choice with an unbeatable price when reliability and performance are of great importance.

## Specifications:

### ■ Features

- Supply voltage: 200V AC
- Rated power: 50-1000W

### ■ Control mode

- Position control

### ■ Other features

- Pulse train interface: 500kpps

## Applications

Typical applications are machines and small plants that require precision, speed, and a user-friendly servo driver at a reasonable price.



Food processing



Packaging



Printing



Metal processing



Small linear robots



Extruders



Dosing machines



Machine tools



Positioners



Plastic processing



# MINAS A6

## The best servo drive solution for demanding applications

- Fast (max. 6500rpm)
- Powerful
- Compact
- Precise
- Lightweight

The MINAS A6 series is an improvement of the already highly successful predecessor, the MINAS A5 series. At the same time, compatibility with the A5 series has been maintained.

- The same interfaces, accessories, and flange as MINAS A5 in an even more compact housing
- Even smaller, high-resolution 23-bit encoder that can be used both as an absolute and as an incremental encoder
- Oil seal with triple lip (optional)

## Specifications:

### ■ Features

- Supply voltage: 200V AC (400V AC)\*  
(24/48V DC, only for low power range)
- Rated power: 50W to 5kW (22kW)\*

### ■ Control modes

- Position control
- Velocity control
- Torque control

### ■ Other features

- Analog control input
- Pulse train interface: 8Mpps
- Improved response frequency (3.2kHz bandwidth)

### ■ Networks & communication

- Real-time Ethernet
- High-speed Ethernet
- Easy communication connection

## Applications

Thanks to the adaptive load control, the servo drives of the MINAS A6 series guarantee an extremely stable manufacturing process, which is especially important for robot applications and pick-and-place machines.



Food processing



Packaging



Plastic processing



Automated machines



Robots



Chip and semi-conductor production



Metal processing



Machines for LCD production



Textile industry



Paper and printing

\* under development

# MINAS A6SX

Compact & safe



A new highlight of the tried-and-tested MINAS A6 series:  
Servo drivers with integrated safety functions according  
to EN 61800-5-2.

- Elimination of external safety switches
- No production stop for maintenance work
- No danger to staff during configuration and commissioning
- Safe reduction of speed
- Less space required thanks to a drastic reduction in safety clearances and buffer zones.

## ■ Safety functions for

- Speed monitoring:  
SS1, SLS, SSR, SSM
- Position monitoring:  
SS2, SOS, SLI, SDI, SLA, SAR, SLP, SCA
- Other control functions:  
STO, SBC, SLT, STR, SMT
- Plus 9 safe inputs/outputs

# MINAS A6V

Low voltage, high performance



Panasonic adds more MINAS A6 servo drives:  
now also for 24V or 48V DC input voltage.

Battery-driven DC drives are very common in drive technology for applications where there is no AC or three-phase current network available.

## ■ Features

- Supply voltage: 24/48V DC
- Rated power: 200/400W
- Easy communication connection  Modbus RTU
- IP65 (motor)



Food processing



Packaging



Plastic processing



Automated machines



Robots



Chip and  
semiconductor  
production



Metal  
processing



Machines for  
LCD production



Textile industry



Paper and  
printing

## Applications

Especially in the area of drive technology for vehicles and the medical field there is a need for motors with battery voltages.



Medical technology,  
laboratories



Robots



AGVs (automated guided  
vehicles in households and  
warehouses, lawnmowers, etc.)



## North America

## Europe

## Asia Pacific

## China

## Japan

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