

## Technical data

	iSA
Processor	ARM11 with 500 MHz
RAM memory	256 MByte
Flash memory	256 MByte
Remanent memory	32 MByte
Ethernet	1 x 10/100 Mbits/s
Feldbus Master	EtherCAT
Feldbus Slave optional	ACC (CAN), EtherCAT, Profinet, Ethernet/IP
I/O s	4 digital I/Os
Programming	IEC 61131-3, CODESYS, optional PLCopen
Performance	50,000 instructions/ms
Visualisation	iSA-VIS for WebVisu or Qt
Protection class	IP65
Ambient temperature	0 - 50°C
Power supply	Integrated power supply unit
Input voltage in network	3 x 230...480 VAC ± 10%, 47...63 Hz
Voltage transmission DC bus	300 - 650 VDC
DC bus switch-off threshold	850 VDC
Rated current DC bus	10 A
Dimensions (LxWxH)	293 x 100 x 75.6 mm
Weight	2.2 kg

- **AMKAMAC**  
Control technology
- **AMKASMART**  
Decentralised drive technology
- **AMKASYN**  
Servo inverter
- **DYNASYN**  
Servo motors
- **SPINDASYN**  
Linear drives

The information in this brochure is intended solely as a series product description. Deviations are possible due to specific products and continuous further developments. Before using data for calculations or designs, please check in advance the latest status and request product-specific dimension and data sheets.

We reserve the right to make technical changes. 10/2021

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## AMKSMART iSA

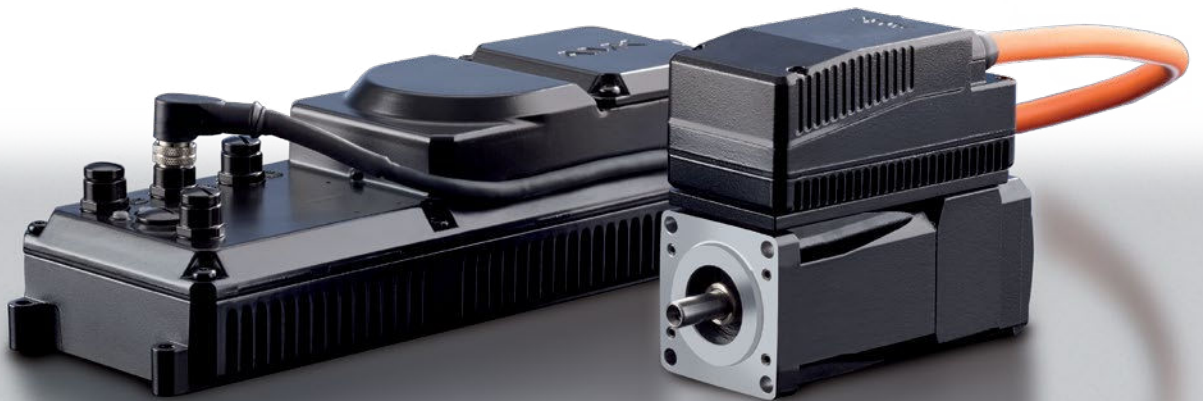
Decentralised controller with  
power supply for automation independent  
of control cabinets



# AMKASMART iSA

PLC, power supply and motion control

Everything that is needed for completely decentralised machine automation: Decentralised controller iSA, inverter-integrated servo motor ihXT. **Nothing else required.**



## ADVANTAGES

- Powerful motion controller
- DC power supply 5 kW
- 24 V / 3 A power supply
- Optional gateway functions
- PLC programmable according to IEC 61131-3

The new decentralised iSA controller from AMKmotion provides the basis for truly modularising machines, independent of control cabinets.

The AMKASMART iSA includes a three-phase connection and offers both a DC bus supply for servo drives and an integrated 24 V supply and control intelligence. The iSA is a powerful motion controller with a Linux real-time operating system that provides decentralised intelligence. EtherCAT technology is used for cross-communication in master-slave operation and for general gateway functions. There are also optional connection possibilities for CAN, Profinet and Ethernet IP.

The iSA with IP65 protection provides design flexibility and is ideal for modular machine construction, as the subsystems are connected by three-phase current and can be included in the control network via the real-time Ethernet interface.

## Product overview

### Connections and interfaces



\*optional real-time Ethernet slave

#### Motion control

Powerful motion control and technology functions for easy programming of machines and plants, e.g:

- Virtual master axis
- Electronic cam
- Print mark control
- NC motion

The internationally renowned CODESYS programming platform enables programming in accordance with IEC 61131-3.

#### 24 V power supply

The 24 V / 3 A power supply for additional modules is generated in the integrated AC/DC converter.

#### PLC properties

- High-precision synchronisation of many axes with only one controller
- High-precision synchronisation of cross-communication in real time over several levels
- EtherCAT master and slave (option)
- Data exchange with other programs via OPC server, connection to ERP system
- Real-time Linux
- Non-volatile process data memory without battery
- No UPS required

#### DC power supply

- Power supply 3 x 400 VAC
- DC link output  
Rated current 8 A
- Mains filter
- Integrated braking resistor

#### Gateway

Gateway functionality for

- Profinet
- Ethernet/IP
- CAN, EtherCAT, CAN DS402

#### I/Os

4 digital inputs and outputs