Notations and conventions

This document uses the following conventions to distinguish different types of information:

Numbers			
	Decimal separator	Point	In general, the decimal point is used. Example: 1 234.56
Warning			
	UL warning	UL	Are used in English and French.
	UR warning	UR	
Text			
	Programs	» «	Software Example: »Engineer«, »EASY Starter«
Icons			
	Page reference	📖	Reference to another page with additional information Example: 📖 16 = see page 16
	Documentation reference	🌐	Reference to another documentation with additional information Example: 🌐 EDKxxx = see documentation EDKxxx

Layout of the safety instructions

⚠DANGER!

Indicates an extremely hazardous situation. Failure to comply with this instruction will result in severe irreparable injury and even death.

⚠WARNING!

Indicates an extremely hazardous situation. Failure to comply with this instruction may result in severe irreparable injury and even death.

⚠CAUTION!

Indicates a hazardous situation. Failure to comply with this instruction may result in slight to medium injury.

NOTICE

Indicates a material hazard. Failure to comply with this instruction may result in material damage.
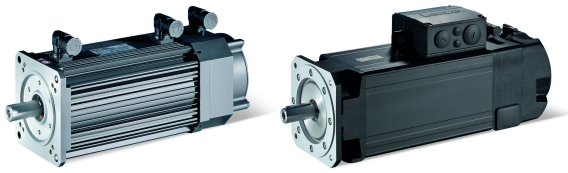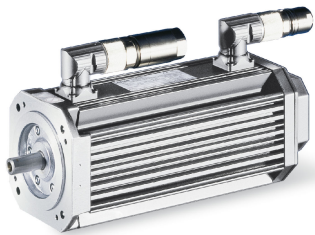
Product information

Product description

The MCA asynchronous servo motor for precisely controlled motion.
This asynchronous servo motor is suitable for applications that require a high dynamic performance, high construction-related operational reliability and compact dimensions.

In connection with the i700 and i950 servo inverters, Servo Drives 9400, and Inverter Drives 8400 TopLine, high-performance drive solutions in the torque range from 2 to 1100 Nm can be obtained.

Customer benefit
- Compact design
- Optimum controllability and high dynamic performance thanks to low moments of inertia
- Optimal smooth running characteristics for exact work results
- Wide speed setting range
- Field weakening operation usable
- Robust resolvers are included as a standard, and incremental encoders or absolute value encoders ensure a high precision
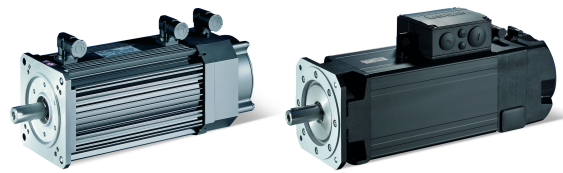- Easy assembly and easy servicing by connectors with bayonet lock and swivel connector boxes

Asynchronous servo motor MCA10I40-   Asynchronous servo motor MCA22P08-

Identification of the products

Product name: MCA asynchronous servo motor

Meaning	Variant					
Product family		MCA				
Size			10			
			13			
			14			
			17			
			19			
			20			
			21			
			22			
			26			
Overall length				I		
				...		
				X		
Rated speed	rpm x 100				05	
					...	
					42	
Inverter mains connection	3 x 400 V Degree of protection: IP54 / IP65					-
	3 x 400 V Degree of protection: IP23s					H

Features

The following figure provides an overview of the elements and connections on the product.
Their position, size and appearance may vary.

Motor connection
Power
Brake

Motor connection
Feedback
Temperature monitoring

Cooling

Feedback

Output flange

Output shaft

Temperature monitoring

Brake
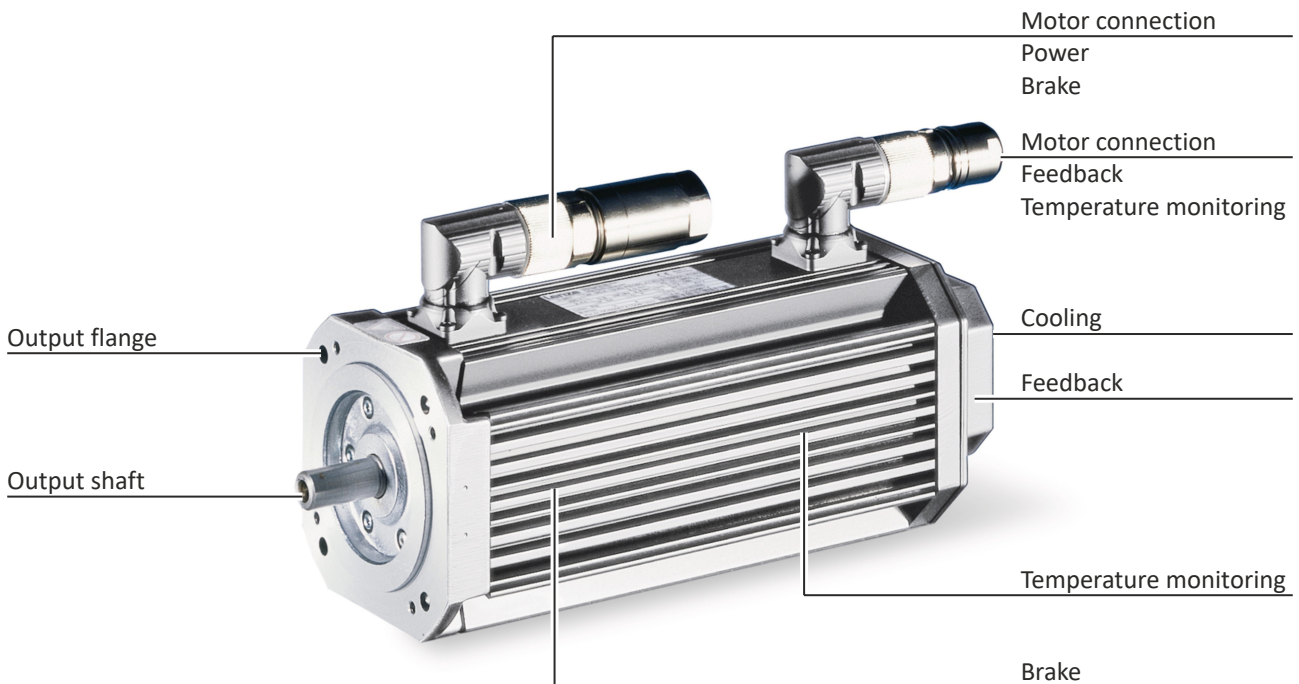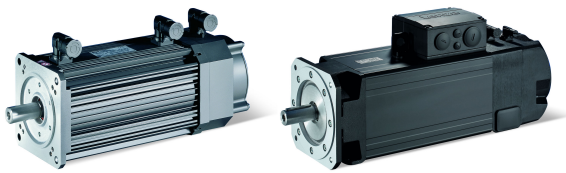
The modular system

Values printed in bold are standard designs. Values that are not printed in bold are potential extensions, some of them including a surcharge.

| Motor		MCA10	MCA13	MCA14	MCA17	MCA19	MCA21
Technical data							
Rated power	kW	0.8	1.7 ... 2.2	1.4 ... 3.9	2.6 ... 6.9	4.0 ... 13.2	6.4 ... 20.3
Rated torque	Nm	2.0	4.0 ... 6.3	5.4 ... 12.0	9.5 ... 21.5	12.0 ... 36.3	17.0 ... 61.4
Max. torque	Nm	10	32	60	100	180	300
Rated speed	rpm	3950	3410 ... 4050	1635 ... 4100	1680 ... 4110	1700 ... 4150	1710 ... 4160
Color		**Primed RAL9005 matt jet black** RAL color					
Surface and corrosion protection		**OKS-G** Different types of OKS					
Output shaft							
Solid shaft with featherkey	mm	14 x 30	19 x 40	24 x 50	24 x 50	28 x 60	38 x 80
Solid shaft without keyway	mm	14 x 30	19 x 40	24 x 50	24 x 50	28 x 60	38 x 80
Shaft material		Steel					
Shaft sealing ring material		FKM					
Shaft seal		**Standard** Oil-proof					
Design		With flange (B5/B14)					
Output flange	mm	FF100 FT85	FF130 FT130	FF165 FT130	FF165 FT130	FF215 FT130	FF215 FF265 FT130
Cooling		**Self-ventilated IP54** Self-ventilated IP65 -		Forced ventilated IP54			
Motor connection		**ICN connector** Terminal box					
Permanent magnet holding brake		**Without** With					
Standard braking torque	Nm	2.5	11	12	22	40	80
DC brake voltage	V	24 205 (not for cURus)					
Feedback							
Without functional safety		**Resolver** Absolute value encoder Incremental encoder					
With functional safety		Resolver Incremental encoder					
Temperature monitoring		PT1000 temperature sensor					

Product information
The modular system
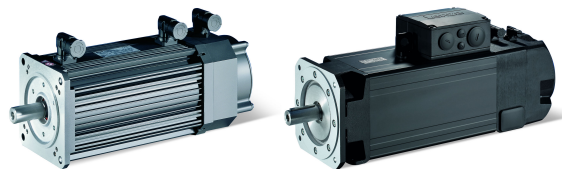
Motor		MCA20	MCA22	MCA26
Technical data				
Rated power	kW	9.1 ... 16.4	8.8 ... 33.8	12.4 ... 53.8
Rated torque	Nm	53.5 ... 61.0	100 ... 120	195 ... 280
Max. torque	Nm	250	500	1100
Rated speed	rpm	1420 ... 2930	760 ... 2935	550 ... 2235
Color		**Primed RAL9005 matt jet black** RAL color		
Surface and corrosion protection		**OKS-G** Different types of OKS		
Output shaft				
Solid shaft with featherkey	mm	38 x 80	38 x 80	55 x 110
Solid shaft without keyway	mm	38 x 80	38 x 80	55 x 110
Shaft material		Steel		
Shaft sealing ring material		FKM		
Output shaft bearing		**Normal** Reinforced		
Shaft seal		**Standard** Oil-proof Dust-proof		
Design		**With foot (B3)** With foot and flange (B35)		
Output flange	mm	FF215 FF265	FF265	FF265 FF350
Cooling		**Forced ventilated IP23s**		
		-	Forced ventilated IP54	
Dust filter		**Without** With		
Motor connection				
Power + brake + Blower		**ICN connector** Terminal box	**Terminal box**	
Encoder + temperature monitoring		**ICN connector**		
Spring-applied holding brake		**Without** With		
Standard braking torque	Nm	80	130	260
Increased braking torque		130	260	-
DC brake voltage	V	24		
AC brake voltage	V	230 (not for cURus)		
Feedback				
Without functional safety		**Resolver** Absolute value encoder Incremental encoder		
With functional safety		Resolver Incremental encoder		
Temperature monitoring		PT1000 temperature sensor		