



BROCHURE 2019

New products solution

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FREEDOM OF CONTROL

ERGO is the new all-in-one machine control system by ESA.

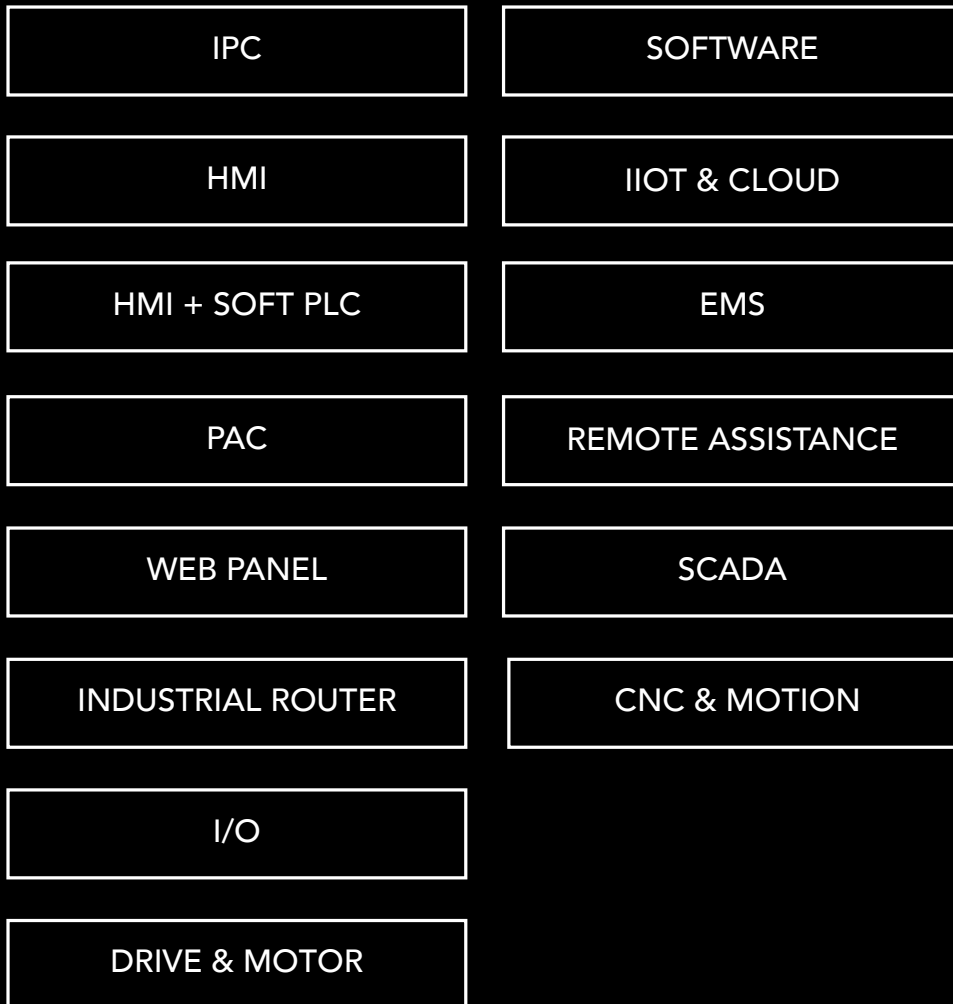
A solution designed to deliver the highest level of flexibility, ergonomics and customization.

With a true flat projected capacitive multi-touch screen and a 21.5" million colors TFT display, it offers a very wide choice of configurations and customizable options, including buttons, touch keypads and even an additional 12.1" HMI.

In order to maximize productivity, ERGO comes into two true flat versions: classical and 120° ergonomic. Finally, thanks to its rough design and easy installing system, it can be installed in any work environment (even the harshest ones), both in landscape and in portrait mode.

Overview

Smart Tech. Ease of Use.



The face of industrial automation is transforming and by making your job easier and ensuring a better future for our industry, ESA Automation remains one of the primary driving forces in this positive change.

For ESA Automation, sustainability and technology can not only coexist, but they can merge, contribute to each other and evolve into something better. We create solutions, not just products, Innovation that will optimize every process, according to our values of dynamism, flexibility and openness.

At ESA Automation, we believe in a boundaryless

organization, where technology helps you achieve any goal, with this aim in mind, we develop autonomous, open solutions that require minimum input and that reflect the pioneering principles of the Industry 4.0.

We've been working hard to simplify your job with well-designed, smart products, in line with the Industrial Internet of Things (IIoT) and the Internet of Services (IoS) principles. Products that offer state-of-the-art technology for the best value for money with professional customer care service and on time worldwide delivery.



ERGO

EW500



WEB PANEL



HMI PAC

EWDB



EWDU



EWDL + EWML

EW620



BRUSHLESS MOTORS



SOFTWARE

ERGO

- + All in one integrated platform
- + 21" main display and capacitive touch
- + Integrated softkeyboard: 12" capacitive touch for custom keyboard layout
- + Web page visualization via a full screen browser area
- + Standard 22 mm input/output mechanical buttons and lamps



ERGO	PC Control Panel Station	Embedded ARM Control Panel Station	Monitor
Mechanical versions	120°L with display keyboard and push button extensions/ flat with push button extension	120°L with display keyboard and push button extensions/ flat with push button extension	120°L with display keyboard and push button extensions/ flat with push button extension
Keyboard Extension	12.1" true flat multi-touch screen	12.1" true flat multi-touch screen	12.1" true flat multi-touch screen
Push button extension	up to 8 x 22 mm standard push-buttons, switches, emergency button, USB, etc.	up to 8 x 22 mm standard push-buttons, switches, emergency button, USB, etc.	up to 8 x 22 mm standard push-buttons, switches, emergency button, USB, etc.
Display Size	21,5"	21,5"	21,5"
Display Technology	TFT / 16,7 M colors / LED backlight	TFT / 16,7 M colors / LED backlight	TFT / 16,7 M colors / LED backlight
Display Brightness (cd/m²)	300	300	300
Contrast	500:1	500:1	500:1
Viewing Angle H-V	89/89/89/89	89/89/89/89	89/89/89/89
Display Resolution (pixel)	1920x1080	1920x1080	1920x1080
Backlight life (hours)	50K	50K	50K
Touch Technology	Capacitive	Capacitive	Capacitive
Bezel /Chassis	Aluminum /Sheet Steel	Aluminum /Sheet Steel	Aluminum /Sheet Steel
Mounting	VESA 100	VESA 100	VESA 100
Video input			DVI + VGA
CPU Fanless Celeron 4G	Celeron quad core J1900 2,0 GHz (2,42GHz) – 10W	Quad Core i.MX6 1.2 GHz Cortex A9	
CPU Fanless Intel® Core™ 4G	Intel Core i3-4010U 1,7GHz / i7-4650U 1,7GHz (3,3GHz) – 15W		
RAM		2 GB	
FLASH		8 GB	
LAN		LAN 1xGb RJ45 - 1x10/100Gb RJ45	
RAM (Celeron quad core)	on board 4GB DDR3L 1066/1333MHz - dual channel -		
RAM (Fanless Intel® Core™)	up to 8GB DDR3L SODIMM 1333/1600MHz 204 pin -single channel-		
RS232 / RS485	1x RS232 + 1x RS485	1x RS232/RS485	
USB Ports 2.0/3.0 rear	1x 2.0 + 1x 3.0 cpu J1900 / 4x 3.0 cpu Intel®Core™	2x 2.0	1x USB 2.0 type A – rear 1x USB type B
Ethernet Celeron J1900	2x 1Gb RJ45 Intel I210		
Ethernet i-Core™ i3/i7	2x 1Gb RJ45 Intel I210/I218		
VGA/DP (Celeron J1900)	1x / 1x (DP passive cable required)		
DP (i-Core™ i3/i7)	2x (DP active cable required)		
RAID 0/1	2x SSD on cpu i-core		
Drives (internal)	HDD min. 500GB / SSD min. 128GB / mSATA min.32GB (options)		
Power Supply (Vdc)	15...36 VDC	12...32 VDC	18...30 VDC
Consumption (W)	45 - 50 W for PC base + 24W for display keyboard (if any)	24W for ARM base+ 24W for display keyboard (if any)	40W for monitor + 24W for display keyboard (if any)
Operating Temperature (°C)	-10 ... + 50 (non condensing)	-10 ... + 50 (non condensing)	-10 ... + 50 (non condensing)
Storage Temperature (°C)	-20 ... + 65	-20 ... + 65	-20 ... + 65
Humidity	90% (non condensing)	90% (non condensing)	90% (non condensing)
Operating systems	Windows7 - Windows10 - WES7	Linux	
Protection degree (all)	IP65	IP65	IP65
Certifications	CE	CE	CE

HMI PAC Solution

- + All in one hardware
- + HMI, Softplc (IEC11131), Integrated softmotion library
- + Ethercat real time fieldbus
- + Canopen real time fieldbus
- + Single programming software suite



EW1xx7xx ESA Motion Library

	EW107AB(AC)	EW112AB(AC)	EW115AB(AC)
Display Size	7"	12,1"	15,6"
Display Technology	TFT	TFT	TFT
Display Colors	16 M	16 M	16 M
Display Resolution (pixel)	800x480	1280x800	1366x768
Processor	ARM Cortex A8	ARM Cortex A8	ARM Cortex A8
RAM	256 MB DDR3	512 MB DDR3	512 MB DDR3
Flash	3 GB	3 GB	3 GB
NVRAM	32 Kb (SoftPLC)	32 Kb (SoftPLC)	32 Kb (SoftPLC)
CODESYS Soft PLC	On board	On board	On board
ESA Motion Library	On board	On board	On board
Fieldbus	EtherCAT / CANopen	EtherCAT / CANopen	EtherCAT / CANopen
Ethernet (Ethercat Master)	2 x 10/100Mb	2 x 10/100Mb	2 x 10/100Mb
Power Supply (Vdc)	18 – 32	18 – 32	18 – 32
Consumption (W)	7	15	19

EW1xx9xx TASK Motion C

	EW112ABA9CN	EW115AB9CN
Display Size	12,1"	15,6"
Display Technology	TFT	TFT
Display Colors	16 M	16 M
Display Resolution (pixel)	1280x800	1366x768
Processor	ARM Cortex A8	ARM Cortex A8
RAM	512 MB DDR3	512 MB DDR3
Flash	3 GB	3 GB
NVRAM	32 Kb	32 Kb
TASK MOTION C	On board	On board
Fieldbus	CANopen	CANopen
Ethernet (Ethercat Master)	2 x 10/100Mb	2 x 10/100Mb
Power Supply (Vdc)	18 – 32	18 – 32
Consumption (W)	15	19

Environment data

Operating Temperature (°C)	-10 ... +50 (non condensing)
Humidity	<90% (non condensing)
External dimensions(W/H/D) (mm)	202 x 142 x 45,9
Cut-out dimensions (W/H) (mm)	195 x 135
Weight (kg)	0,8
Protection degree (front)	IP 66
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 cULus (Certificate no. E189179) / EAC
	ATEX 2014/34/UE directive Group II Category 3 G D Zone 2/22

WEB PANEL

- + Industrial grade hardware based on powerful Cortex A9 quad core processor
- + IP66 front, true flat capacitive touch screen, two separated ethernet ports
- + Android 7 or Linux Yocto based
- + Full screen browser with automatic start up
- + HTML5 fully compatibility
- + Java fully compatibility



	EW107BD2SP	EW107BD3SP	EW107BD5SP	EW115BD2SP	EW115BD5SP
Display Size	7"			15,6"	
Display Technology				TFT	
Display Colors				16 M	
Display Backlight				LED	
Display Brightness (cd/m ²)	500			300	
Display Resolution (pixel)	1024 x 600			1366 x 768	
Backlight Life (hours)				50 K	
Touch Technology				Capacitive	
Processor				ARM Cortex A9 Quad-Core	
RAM				2 GB DDR3L	
Flash				8GB	
Browser	Chrome/ WebView (fullscreen)	Chrome/ Microbrowser	Automation Browser	Chrome / WebView (fullscreen)	Automation Browser
Ethernet Port				1 x 1 GB + 1 x 10 / 100 Mb	
USB Port				2 x vers. 2.0	
Serial Port				1 X RS232/485	
Expansion Slot				1 x MINI PCI express	
Cardbus slot				1 x SDHC	
Power Supply (Vdc)				12 - 32	
Consumption (W)	7			24	
Operating Temperature (°C)				-10 ... + 50 (non condensing)	
Storage Temperature (°C)				-20 ... + 65	
Humidity				<90% (non condensing)	
External dimensions(W/H/D) (mm)	192 x 132 x 32			416,5 x 226,5 x 45	
Cut-out dimensions (W/H) (mm)	185,0 x 125,0			402,5 x 251,5	
Weight (kg)	0.5			3,7	
Protection degree (front)				IP 66	
Certifications				CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30	

EW500 Industrial extender

- + Industrial grade IP54 hardware platform
- + Powerful ARM Cortex A8 or QCA 9531 32 bits platform
- + WAN port
- + 3 LAN ports for local connections
- + Wifi client – hotspot capability
- + 4G SIM slot
- + 4 meters cable antenna
- + Everyware runtime included



Power Supply	7,5 - 32 Vdc 1,5 A
Wireless Module	
Standard Frequency	4G FDD-LTE (Band 1/3/5/7/8/20), LTE-TDD(38/40/41), 3G WCDMA(B1/B5/B8), GSM(B3/B8) FDD
Theoretical Bandwidth	LTE:50/150Mbps HSUPA:5.76/7.2Mbps HSPA+:5.76/21Mbps
WIFI Module	
Standard and Frequency	IEEE802.11b/g/n
Security encryption	WEP, WPA, WPA2, Optional WPS function
Transmit	
Firewall	Onboard
Environment	
Storage Temperature	-40°C .. +85°C
Working temperature	-30°C .. +75°C
Environment humidity	<95%
Mechanical	
Dimensions	95.5 x 70.5 x 25 mm
Weight	450 g

EWDL + EWML Servo Package

- + Servopackage 230Vac made by 3 sizes 100W, 400W, 750W
- + EtherCAT Fieldbus Servodrive
- + Safety Torque Off on board
- + High Performances servomotors with incremental encoder
- + Easy commissioning for fast machine start up



Servo Drive EWDL

	EWDL2S20x250000	EWDL2S40x250000	EWDL2S70x250000
Size	200W	400W	750W
Power Supply	Single / Three-phase, 200~240VAC ±10%, 50/60Hz		
Control Supply	Single, 200~240VAC ±10%, 50/60Hz		
Nominal Current (A)	1,75	3	4,5
Peak Current (A)	5,25	9	13,5
Analog Output	2		
Digital Input	8		
Digital Output	4		
Communication	RS-232 (for configuration) - EtherCAT		
Control Mode	CSP, CSV, PP, PV, TQ, HM		
Front Panel	4 keys (MODE, UP, DOWN, SET) , 5-digit LED Display		
Regeneration resistor	Built-in regenerative resistor (external resistor is also enabled.)		
Function Inside	Soft PLC based on SCL command		
Dimensions (mm)	W.41 x D.145 x H.150	W.55 x D.145 x H.150	W.65 x D.176 x H.150
Drive Mass	0.89kg	1.21kg	1.63kg
Operating Temperature	0°C to 50°C		
Storage Temperature	-20°C to 65°C		
Humidity	Both operating and storage: 10 to 85%RH or less		
Altitude	Lower than 1000m		
Vibration	9.8m/s ² or less		
Product Enclosed Rating	IP20		

Servo Motor EWML

	EWML2040EDx00	EWML2060EDx00	EWML2080EDx00
Rated Output Power	100W	400W	750W
Rated Speed	3000 rpm		
Max Mech. Speed	6000 rpm		
Rated Torque	0,32 Nm	1,27 Nm	2.4 Nm
Peak Torque	0,93 Nm	3,8 Nm	6.9 Nm
Inertia	0.0428 kgcm ²	0.272 kgcm ²	0.89 kgcm ²
Flange	40 mm	60 mm	80 mm
Length	109 mm	125 mm	131 mm
Dimensions	W.41 x D.145 x H.150	W.55 x D.145 x H.150	W.65 x D.176 x H.150
[Flange / Interaxis / Centering] (mm)	F.40 x I.46 x C.30	F.60 x I.70 x C.50	F.80 x I.90 x C.70
Dimensions Shaft [DxL] (mm)	8 x 25	14 x 30	19 x 40
Motor Mass	0.55 kg	1.4 kg	2.6 kg
Operating Temperature	0°C to 40°C		
Storage Temperature	-20°C to 80°C		
Humidity	Both operating and storage: 10 to 85%RH or less		
Altitude	Lower than 1000m		
Vibration	49 m/s ²		
Rotor Poles	8		
Insulation Class	B (130°C)		
Product Enclosed Rating	IP65		

EWDU

- + 24V ... 60 V servodrive solution for Brushless Motors and DC Servo Motors
- + One size 10A – 350W for wide range of application
- + CANopen or EtherCAT Fieldbus on board
- + Motion functions control with standard profiles
- + Motor database on board for easy set-up



Technical Characteristics

General Specifications

Power Supply	24 .. 60 Vdc
Control Supply	24 Vdc
Nominal Current	10 A
Peak Current	20 A
Analogue Input	1 +/- 10V differential
Digital Input	4 PNP
Digital Output	2 Insulated – 0,5A
Communication	RS422 – CANopen – EtherCAT
Control Type	Speed – Torque – Position Mode
Brake Resistor	Not available
Power Loss	@ stand by = 5 W @ I nom = 20 W

Mechanical

Dimensions: L x W x D	28.5 x 82 x 135 mm
Weight	0.4 kg

Environmental Conditions

Working Temperature	0 °C ... + 40 °C, max 55 °C
Stocking Temperature	-25 °C ... +85°C
Altitude	Up to 1000 m above sea level without de-rating.
Humidity	Operating: 5% ... 85% non-condensing Storage: 5% ... 95% non-condensing.
Vibration	Conformal to IEC60068-2-6
Protection Degree	IP20

EWDB

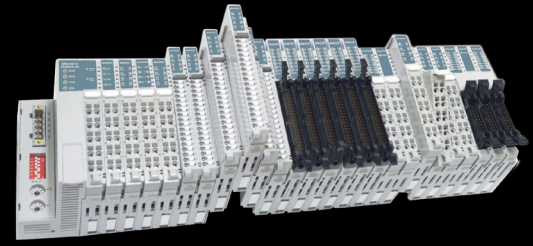
- + ESA Drive on board solution up to 1.3Nm
- + Voltage supply from 24 Vdc up to 60 Vdc with designed control board
- + High accuracy provide by integrated SinCos absolute encoder
- + One flange size, 2 different lengths, 4 metal IP67 connectors
- + Easy commissioning thanks Drivewatcher suite



	EWDB121xxA00A00	EWDB122xxA00A00
Servo Drive Features		
Voltage Supply Power Stage	24 ... 60 Vdc	24 ... 60 Vdc
Voltage Supply Control Stage	24 Vdc	24 Vdc
Output Power	800 W	800 W
Continuous Output Current	10 A	10 A
Peak Output Current (for 2 s)	20 A	20 A
Analog Output	no	no
Digital Input	4	4
Digital Output	no	no
FieldBUS	CANopen, Profinet I/O	CANopen, Profinet I/O
Communication	RS485 for configuration	RS485 for configuration
Switching Frequency PWM (kHz)	8	8
Output Frequency (Hz)	Up to 500	Up to 500
Analogue Input	no	no
Status Led	For status and alarms warning	For status and alarms warning
Power Loss (W)	7,2 @ stand-by – 24,3 @ I nominal	7,2 @ stand-by – 24,3 @ I nominal
Connection Type	Connectors M17 for power and M12 for signal / fieldbus	Connectors M17 for power and M12 for signal / fieldbus
Control Type	Speed – Torque – Position Model	Speed – Torque – Position Model
Brake management	Integrated	Integrated
Servo Motor Features		
Motor types	Brushless sinusoidal 8 poles	Brushless sinusoidal 8 poles
Motor Stall Torque	0,7 Nm	1,3 Nm
Motor Nominal Torque	0,6 Nm	1,2 Nm
Motor Nominal Speed	2500 rpm	3000 rpm
Motor Inertia	0.13 kgcm ²	0.23 kgcm ²
General Features		
Configuration drive	With Drive Watcher Software	With Drive Watcher Software
Operating Temperature	0°C to 40°C	0°C to 40°C
Storage Temperature	-20°C to 85°C	-20°C to 85°C
Humidity	5% .. 85% (not condensing)	5% .. 85% (not condensing)
Altitude	Up to 1000 m	Up to 1000 m
Dimensions: L x W x D	217 x 60 x 95 mm	245 x 60 x 95 mm
Weight	1.5 kg	1.7 kg
Protection degree	IP 65	IP 65

EW620

- + Up to 10 different fieldbus couplers
- + Compact and flexible architecture for extremely customized configuration
- + Designed for user's convenience with special RTB (Remove Terminal Block)
- + Space saving
- + Excellent visibility due to integrated I/O leds
- + Simple cabling debug



Coupler Module

Order Code	EW62N9261	EW62N9386	EW62N9273
System Data			
Adapter Type	Slave Node CANopen	Slave Node EtherCAT	Slave node (MODBUS Serial RTU/ASCII Server)
Max. Network Node	99 Nodes	65535	99 nodes

Digital Input Module

Order Code	EW62T1238	EW62T12DF	EW62T12FA	EW62T123F	EW62T1904
Inputs per Module	8 Points Universal type	16 Points Universal type	32 Points Universal type	16 Points Universal type	4 Points Sink type

Digital Output module

Order Code	EW62T226F	EW62T22CA	EW62T2328	EW62T2628
Outputs per module	16 Points Source type	32 Points Source type	8 Points Source type	8 Points Source type

Order Code	EW62T2734	EW62T2744	EW62T2764
Outputs per module	4 Points, Bi-directional	4 Points, Bi-directional	4 Points, Bi-directional

Input Analogue Module

Order Code	EW62T3114 EW62T3154	EW62T3118 EW62T3158	EW62T3424 EW62T3464	EW62T3428 EW62T3468
Inputs per module	4 Channels single ended	8 Channels single ended	4 Channels single ended	8 Channels single ended
Resolution in Ranges	12 bits for T3114 16 bits for T3154	12 bits for T3118 16 bits for T3158	12 bits for T3424 16 bits for T3464	12 bits for T3428 16 bits for T3468

Order Code	EW62T3704	EW62T3804	EW62T3808
Inputs per module	4 Channels	4 Channels	8 Channels
Sensor Types	RTD Input Range Resistance Input Range	Thermal Couple Input Range	Thermal Couple Input Range

Order Code	EW62T3914 EW62T3934	EW62T3924 EW62T3944
Inputs per module	4 Channels Differential, Non-isolated Between Channels	4 Channels Differential, Non-isolated Between Channels
Resolution in Ranges	For EW62T3914 12 bits For EW62T3934 16 bits	For EW62T3924 12 bits For EW62T3944 16 bits
Input Range	0~20mA, 4~20mA, -20~20mA	0~10Vdc, 0~5Vdc, -10~10Vdc, -5~5Vdc

Output Analogue Module

Order Code	EW62T4114 EW62T4154	EW62T4118 EW62T4158	EW62T4424 EW62T4464	EW62T4428 EW62T4468
Outputs per module	4 Channels single ended	8 Channels single ended	4 Channels single ended	8 Channels single ended
Resolution in Ranges	12 bits for T4114 16 bits for T4154	12 bits for T4118 16 bits for T4158	12 bits for T4424 16 bits for T4464	12 bits for T4428 16 bits for T4468
Input Range	0~20mA	0~20mA	0-10Vdc	0-10Vdc

Special Module

Order Code	EW62T5102	EW62T5212	EW62T5232	EW62T5352
Number and type of Channel	2 Channels Encoder, High speed Counter, Frequency measurement Pulse width & Period measurement	2 Channels RS232 serial interface	2 Channels RS485 serial interface	2 Channels Synchronous serial interface

BRUSHLESS SERVOMOTORS

- + Wide range of standard brushless motor from 0,19Nm up to 260Nm
- + Compact solution made by length 0 Motors
- + Low cogging design, smooth operation
- + Different feedback solution
- + Connection made by standard M15 – M23 or M40 receptable



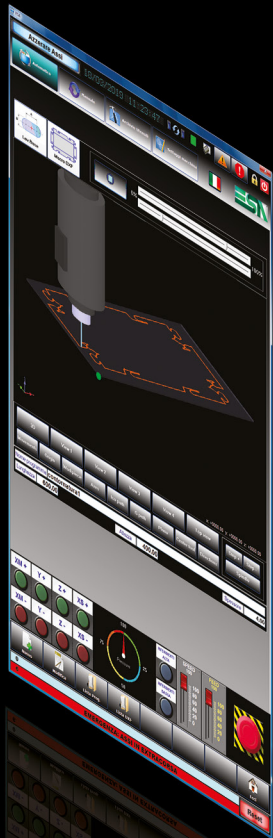
Standard Brushless Motors

Code	Flange (mm)	Torque (Nm)	Current (A)	Voltage (Vac)	Speed (rpm)
9MDSM504.. 9MDSM505..	40	0,19 0,38	8,2 - 0,78	24 / 48 / 230	2500-6000
9MDSM521.. 9MDSM522..	60	0,7 1,4	7 - 8 - 1,7	24 / 48 / 230	3000-5000
9MDSM531.. 9MDSM532.. 9MDSM533.. 9MDSM534..	85	1,5 2,9 4,2 5,3	1,65 3,2 4,6 5,8	230/400	3000-4500
9MDSM541.. 9MDSM542.. 9MDSM543..	115	4 7,6 11,3	2,5 4,7 7	230/400	3000-4500
9MDSM551.. 9MDSM552.. 9MDSM553.. 9MDSM554..	142	10 19 27 35	6,5 12,3 15,4 20	400	3000-4000
9MDSM561.. 9MDSM562.. 9MDSM563.. 9MDSM564..	190	15 28 50 70	9 24 28 39	400	3000
9MDSM571.. 9MDSM572.. 9MDSM573..	260	76 45 230	37 41 65	400	1500

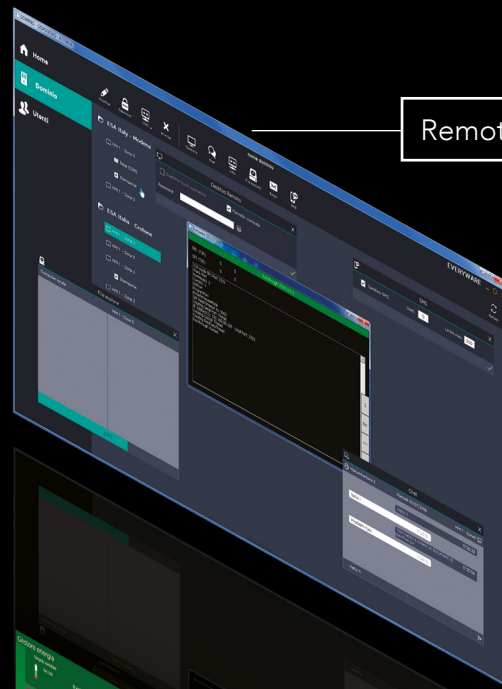
Compact Brushless Motors

Code	Flange (mm)	Torque (Nm)	Current (A)	Voltage Volt (Vac)	Speed (rpm)
9MDSM530..	85	1	1,1 - 1,7	230/400	3000-6500
9MDSM540..	115	2,1	2,1 – 3,3	230/400	3000-6000
9MDSM550..	142	5	1,1 – 1,7	230/400	3000-6500
9MDSM560..	190	8	3,3	230/400	4500-4600

Motion Control



Remote Assistance



Scada



Energy Management



SOFTWARE (ENERGY, MOTION, REMOTE)

- + Integrated platform for a complete automation solution
- + HMI editor
- + IEC 11131 softplc
- + Integrated softmotion library
- + Remote maintenance platform
- + Cloud platform solution for data collection



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