



Smart solutions.
Strong relationships.

Small Size **Big** Returns

Emotron AC drives



emotron

DEDICATED DRIVE



A CG Product

About CG

CG Power and Industrial Solutions Limited (CG) is a pioneer in modern technology in electrical field which offers complete solutions for generation, transmission and distribution of energy by supplying globally recognized high-tech products delivering elevated efficiency and robustness. Since its inception, CG has been synonymous with electricity. In 1875, a Crompton 'dynamo' powered the world's very first electricity-lit house in Colchester, U.K. CG India operations were established in 1937, and since then the company has retained its leadership position in the management and application of electrical energy.

About CG Drives & Automation Division

CG acquired Emotron, a Sweden based technological company in 2011 and established CG Drives & Automation (D&A) as an entity. Emotron is not only a technology leader in Europe but also a pioneer in AC Drive technology worldwide with an existence of more than 40 years. With this acquisition, CG D&A offers low voltage AC Drives, Soft Starters, Shaft Power Monitor, Solar Drives, PLC and HMI with "EMOTRON" as a brand name well accepted in India and world wide. CG D&A has its state-of-the-art Engineering centres in Germany and Netherlands and two manufacturing facilities with in-house capabilities in India and Sweden. CG Emotron is an ISO 9001 : 2015, ISO 14001 : 2015 & BS OHSAS 18001 : 2007 Company.



Optimized operation and full control

Product Gallery



FDU / VFX



Flowdrive



TSA Softstarter



MSF Softstarter



VSR



Shaft Power Monitor



VSX



VSM



VSE



VSS



HMI & PLC



Drive Panel



Smart drive solutions

based on strong relationships

CG Drives & Automation offers complete drive solutions that ensure the safe and cost-efficient operation of demanding industrial applications. We provide smart solutions to users, operators, system integrators and OEMs around the world, wherever there are demanding applications, like for cranes, water handling systems and material handling systems.

We put all our energy into saving yours

At CG Drives & Automation, we use our know-how to create technical solutions that fit your requirements and our personal commitment to make them work in practice on your site, with your personnel.

Simplicity and reliability are the keywords applying to our products and solutions, as well as the service and support that our committed professionals provide. This saves you energy sense of the word!

New Arrivals

CG Drives & Automation, based on its 40 years of experience has now offered more valuable products to its portfolio. The new range of Emotron VSX / VSM Drives are compact, easy to install and provide a user-friendly setup which allows your system to be operational in less time. And with Programmable Logic Control (PLC) and Human Machine Interface (HMI), CG D&A has now become the complete Automation solution provider.

The new products range include:

- **VSX - High Performance Dynamic AC drives**
- **VSM - Compact Machinery AC Drives**
- **EmoLog - Programmable Logic Control**
- **EmoSmart - Human Machine Interface**

Emotron VSX



Emotron VSX Series Drives offer customised solutions for your required application in an incredibly compact design with technologically advanced package capable of driving Induction and Permanent magnet motor. The LCD graphical display offers user-friendly interface and set up will have your system up and running in time.



Range : 0.75 kW to 22 kW

Current : 2.5 Amp to 45 Amp

Voltage : 3 Phase 380 to 480 VAC/50Hz



Unique Features

- LCD graphical display with Oscilloscope feature as standard
- Optimized and compact structural design, leading technology platform
- Strong overload capability with 200% of rated load for 1 sec
- High-speed pulse input and output up to 100 KHz
- Compatible for Induction Motor and Permanent Magnet Motor
- V/F fully separated and semi-separated operation
- Built-in PLC Logic Functions, Virtual Digital I/Os with multi Logic functions, timer and comparators
- Built-in C3 Class EMC Filter
- EmoWizard tool for convenient debugging

Benefits

- Excellent performance with high start torque characteristic
- Robust Drive with conformal coated boards enables application in hot and humid climate
- Efficient cooling, improved reliability with independent air duct design

Applications

Fan, Pump, Blower, Crusher, Crane Hoist, Feeders Extruder and many more.

Emotron VSX, 3-phase Supply $U_n = 415 V \pm 20\%$, IP20

Model	Normal Duty (120%, 1min every 10min)			Heavy Duty (150%, 1min every 10min)			High Overload ability		Weight kg	Dimensions [W*H*D] mm,
	P nom [kW]	I nom [A]	I max * [A]	P nom [kW]	I nom [A]	I max * [A]	I max (180%, 10s)	I max (200%, 1s)		
VSX48-003-20CEB	1.5	4.2	5.0	0.75	2.5	3.8	4.5	5	1.25	80X200X150
VSX48-004-20CEB	2.2	5.5	6.6	1.5	4.2	6.3	7.6	8.4		
VSX48-006-20CEB	3.7	9.5	11.4	2.2	5.5	8.3	9.9	11		
VSX48-009-20CEB	5.5	13	15.6	3.7	9.5	14.3	17.1	19	2.5	116.6X186.6X175
VSX48-013-20CEB	7.5	17	20.4	5.5	13	19.5	23.4	26		
VSX48-017-20CEB	11	25	30	7.5	17	25.5	30.6	34	3.9	146X249X177
VSX48-024-20CEB	15	32	38.4	11	25	37.5	45	50		
VSX48-032-20CEB	18.5	37	44.4	15	32	48.0	57.6	64	6.2	198X300X185
VSX48-038-20CEB	22	45	54	18.5	37	55.5	66.6	74		
VSX48-045-20CEB	30	57	68.4	22	45	67.5	81	90		

Emotron VSM



Emotron VSM series drive offers more compact design with several advanced features. The compact design offers easy, flexible and user friendly installation which allows your system to be operational in no time. Emotron VSM offers reliable and cost efficient solutions for various variable and constant torque applications.

Range : 0.75 kW to 4 kW

Current : 2.5 Amp to 9.5 Amp

Voltage : 3 Phase 380 to 480 VAC/50Hz

Unique Features

- Optimized and compact structural design, leading technology platform
- Standard LED display
- Supports both Induction Motor and Permanent Magnet Motor
- Heavy duty Drive for various applications
- Built-in brake chopper
- High-speed pulse input
- Strong overload capability with 200% of rated load for 1 sec
- Built-in PLC Logic Functions, Virtual Digital I/Os with multi Logic functions, Timer and comparators
- Built-in C3 Class EMC Filter
- EmoWizard tool for convenient debugging

Benefits

- Excellent performance with high start torque characteristic
- Efficient cooling, improved reliability with independent air duct design

Applications

Pump, Fan, Blower, Conveyors, Crane and Damper Control

Emotron VSM, 3-phase Supply $U_n = 415\text{ V} \pm 20\%$, IP20

Model	Normal Duty (120%, 1min every 10min)			Heavy Duty (150%, 1min every 10min)			High Overload ability		Weight kg	Dimensions [W*H*D] mm,
	P _{nom} [kW]	I _{nom} [A]	I _{max} * [A]	P _{nom} [kW]	I _{nom} [A]	I _{max} * [A]	I _{max} (180%,10s)	I _{max} (200%,1s)		
VSM48-003-20CEB	1.5	4.2	5.0	0.75	2.5	3.8	4.5	5	0.85	75X150X117
VSM48-004-20CEB	2.2	5.5	6.6	1.5	4.2	6.3	7.6	8.4		
VSM48-006-20CEB	3.7	9.5	11.0	2.2	5.5	8.3	10	11	1.35	93X171X130
VSM48-009-20CEB	5.5	11	13.0	3.7	9.5	14.3	17	19		

Human Machine Interface



Emotron EmoSmart series HMI is based on a modern, powerful & user friendly design having high quality display resolution, large memory and a powerful configuration that can easily achieve the human-machine interaction in various fields and industrial automation.

Unique Features

- Higher computing performance with high speed processor
- High resolution and high contrast with reliable touch panel
- The built-in stereo amplifying speaker provides efficient alarm notification

Benefits

- Mechanism design breakthrough. The front panel has acquired the IP65 waterproof certificate & back panel is IP20.
- ABS Black/Gray enclosure for greater vibration resistance and higher tolerance for ambient environment compared with other enclosures.
- This system allows users to assign authority levels & register passwords to set permissions for different user groups for security control.

Peripheral Interfaces

- Supports SD Card
- Supports USB Host 2.0 Ports & USB Client 2.0 Ports
- Built-in communication ports: RS232/422/485
- Built-In ethernet ports in 7 inch

Selection Guide & Specifications

Model	Display Size	Resolution	Processor	Programming Port	Communication Ports	Power Supply	Dimension
HMI004	4.3 Inch	480*272	32-bit 300MHz RISC	Micro USB	COM1:RS422 / 485 COM2:RS232	DC 24V	142 X 86 X 30.3 (WXHxD)
HMI007	7.0 Inch	800*480	Cortex A8 600Mhz	USB Client	COM1: RS232/422/485 COM2: RS232/485 Ethernet	DC 24V	201 X 146.6 X 36.5 (WXHxD)

Programmable Logic Controller



Emotron EmoLog series is a high performance compact type Programmable Logic Controller (PLC) for your automation process. It can be widely applied in manufacturing industries including SPM, textile, chemical fiber, machine tool, cables, food and beverages, packaging, plastic steel, construction machinery, air conditioner, elevator printing and many more.

Unique Features

- STM32 high-performance MCU platform
- Available 14 & 24 I/Os CPUs with Transistor & relay configuration
 - Built in 2 high speed digital inputs Max. 200kHz frequency
 - Built in pulse output type PWM/PTO
- Built-in RS422/RS485 communication port
- Program memory up to 128Kb
- Supports 64k-step ladder
- Built - in real time clock
- Operating temperature 55°C

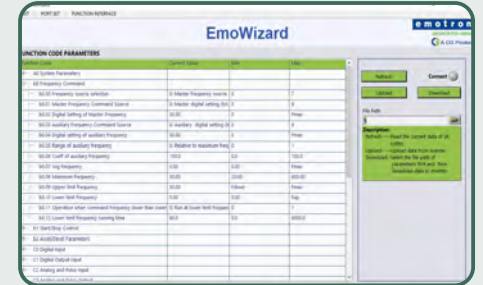
Benefits

- Configure up to 256 I/O points
- Support ladder and instruction list programming
- Support optional board up to 2 no's (For AI/AO, Ethernet Port)
- Compatible for N: N protocol and RS485 communication port, you can create a network of up to 8 CPU
- Reliable and stable high speed micro USB port for programming download/monitor
- User friendly programming software

Selection Guide & Specifications

Model	Type	Total I/Os	DI	DO	Com	High Speed Input (200kHz)	High Speed Input (100kHz)	Ex Board (optional)	Expand able	System Storage	Programing Port	Power Supply	Dimension
PLC0806R	Relay	14	8	6	Com1-RS422 Com2-RS485	2	0	1	NO	16K	micro USB	24VDC	75x107x87
PLC0806T	Transistor	14	8	6	Com1-RS422 Com2-RS485	2	2	1	NO	16K	micro USB	24VDC	75x107x87
PLC1212R	Relay	24	12	12	Com1- RS422/RS485 Com2-RS485	2	0	1	Yes - Upto 16	64K	micro USB	24VDC	137x107x87
PLC1212T	Transistor	24	12	12	Com1- RS422/RS485 Com2-RS485	2	2	1	Yes - Upto 16	64K	micro USB	24VDC	137x107x87

EmoWizard software helps in easy commissioning and troubleshooting of VSX and VSM series Drives with user-friendly tools for viewing, manipulating, and exchanging data with the drive. Statistics data can be plot with help of oscilloscope, drive control with control panel.



EmoSmart

- Programming software for EmoSmart series HMI
- User-friendly Programming Tool
- Varies level of user management

EmoStudio

- Programming software for EmoStudio series HMI
- Built-in video input display, moving picture
- Wide ranges of animations, charts, recipes, alarms available

EmoLog supports development of applications in Ladder & Instruction List.

- Programming software for micro series PLC
- Highly advanced programming interface
- Simplified network configuration



Applications

CG Drives & Automation offers complete drive solutions that ensure the safe and cost-efficient operation of demanding industrial applications. We provide smart solutions to users, operators, system integrators and OEMs around the world, wherever there are demanding applications, like for cranes, water handling systems and material handling systems.

Application	VFX	FDU	VSM	VSX	VSS	VSR	VSE	M20	TSA/MSF
Pump		✓	✓	✓	✓			✓	✓
Solar Pump						✓			
Fan		✓	✓	✓	✓				✓
Blower		✓	✓	✓	✓				✓
Conveyors	✓		✓	✓	✓				
Compressor	✓	✓							
Wire Drawing Machine	✓								
Grinding Machine	✓			✓					
Winders	✓								
Crane Hoisting	✓			✓					
Crane Traverse	✓		✓	✓					
Agitators	✓			✓					
Extruders	✓			✓					
Washing Machine	✓		✓	✓					
Rubber Mill	✓			✓					
Sugar Mill	✓			✓					
HVAC		✓							
Damper Control		✓	✓	✓					
Lifts Door Control			✓	✓	✓				
Lifts & Escalators							✓		
AHU		✓							
Ball Mill	✓								
Textile Machinery	✓								
Centrifuge	✓								
Spinning Machine	✓								
Rotary Klins	✓								
Printing					✓				
Crushers	✓								✓
Press				✓					
Plastic Machinery	✓								
Packaging	✓								
Mixers	✓								
Pulper	✓								
Rubber Machinery	✓								
Machine Tools	✓			✓					
Material Handling	✓		✓	✓	✓				
Cheese Winder					✓				
Incense Sticks					✓				
Auto Trolley Printing				✓					

Registered Office

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