

# INOVANCE



**Dedicated  
Application  
Solution  
CS710**



**YOUR PARTNER FOR INDUSTRIAL AUTOMATION SOLUTIONS**

# About INOVANCE

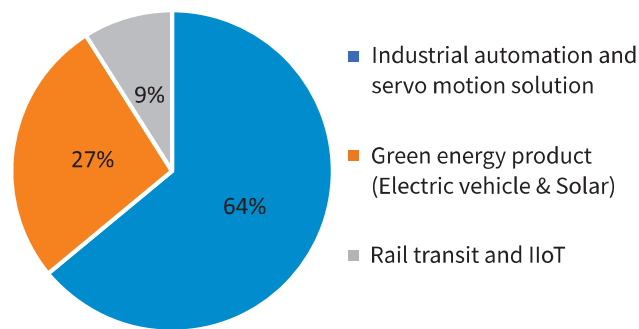
The Inovance Group was founded in 2003 in Shenzhen, a city in one of China's most successful Special Economic Zones. It made its initial public offering on the Shenzhen Stock Exchange in 2010\* and has since been tracked by Forbes as an SME with most potential. Rapid growth in sales revenues and staff numbers led to the Group's selection for the Forbes 2016 Best under a Billion list, which highlights Asia-Pacific companies with less than \$1bn in sales but consistently high top and bottom-line gains.

As a young and dynamic organization, the Group has established an effective structure on which to realize its promising future. Its aim is to become one of the leading providers of industrial automation products and solutions, something that it believes can best be achieved by helping more and more customers to succeed in their own objectives through close co-operation as partners.

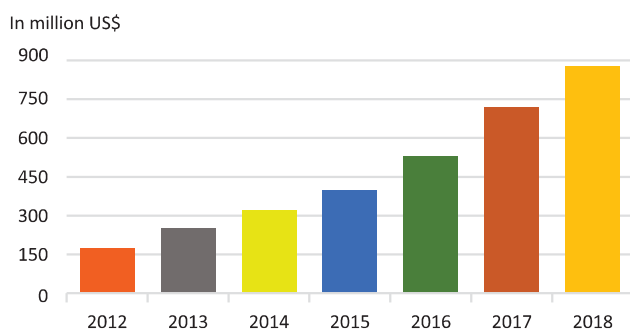
Customers find more than just products when they work with the Inovance Group. They gain access to world-class manufacturing facilities and highly skilled sector-specialists. It is this combination of flexible production techniques and in-depth understanding of the requirements of a given sector that enables business units within the Group to deliver comprehensive solutions

## Exceptional R&D Facilities

The Group's R&D teams utilize best in class design software (Pro Engineer, Mentor Flotherm, AnSoft, Windchill PLM) for new product design and development. Significant integrity testing of assemblies and beta products are carried out inhouse to validate the design targets in environmental, mechanical, thermal and motor drive performances. Inovance R&D expenditure is 12% of sales revenue for 2018



Sales from 2012 to 2018



## Forward, Always Progressing

The Inovance Group continues to move forward and in 2018 achieved sales revenues of USD 880M, a 24% growth from 2017. Through sustained innovation, the Group delivers new technology products for the industrial automation market and pursues new opportunities in the New Energy sectors of Electric Vehicle and Light Rail Transit inverters. Since its foundation in 2003, Inovance has delivered several millions of power inverters to a wide spectrum of industries and has made significant progress in delivering cost-competitive control solutions

## Certification

With markets ever more strongly regulated, certifications are vital to an international future. All of the Group's latest products are designed to comply with CE standards and UL when specified. The R&D compliance department works with internationally recognized testing bodies such as the German TÜV companies, UL listed test labs, TÜV Rheinland for Functional Safety and Liftinstituut for Elevator Safety



EN 61800-3  
OHSAS 18001:2007

ISO 9001:2008  
ISO 14001:2015



“We Pioneered in providing the Dedicated Application Solution Products for Elevators, Plastic Injection, Compressors, Textiles (Loom, Roving and TFO) HVAC, Cranes, Winders - Unwinders (Textiles/Metal/Paper/Plastic) & High Precision Servo Motion”

Integrated Elevator Drive Solutions Worldwide successful installation >1,700,000 sets

Inova Automation was founded in 2012, 100% subsidiary of INOVANCE. With an international export office established in Hong Kong, other offices followed in the important markets of India, Turkey, Iran, France, Germany and Italy through which European technology is now feeding into the Group's engineering design processes for next gen global products. (\*Stock name INOVANCE) stock code 300124



## Driven by Application Technology



MD810 - Multi-rack Drive System Solution



Servo Hydraulic Solution



CP700 - Screw Air Compressor Solution



CS710 - Industrial Crane Solution



MD330H - Winder / Unwinder Solution



Textile Solution



Electric Vehicle Solution

## CS710 - High Performance Crane Solution VFD



CE



### Field Bus- Optional

CANlink

CANopen

Modbus

PROFI  
BUS

### Features of CS710

- ▶ Intelligent Anti-Sway Technology
- ▶ Customized solution for Gantry, Tower & Grab Bucket application
- ▶ High Torque even at lower Speed
- ▶ Excellent Torque Linearity with 0.15% against output torque
- ▶ Built-In Braking unit up-to 75KW
- ▶ Conformal Coating comply with IPC-A-610F 10.8 Class-3 which protects against dust & humidity
- ▶ Enhanced Drive life span with 105deg Capacitor

### Typical Applications



JIB Crane



EOT Crane



Gantry Crane

## Name Plate Details




**Nameplate**

Drive model → MODEL: CS710-4T55GB

Rated input → INPUT: 3PH AC 380-480V 106.0A 50Hz/60Hz

Rated output → OUTPUT: 3PH AC 0-480V 112.0A 0-150Hz 55kW

Serial number → S/N: Serial number



Suzhou Inovance Technology Co., Ltd.

**CS710 4T 22 GB (-L) - INT**

Mark	Product Series
CS710	CS710 series

Mark	Input Voltage
4T	3PH 380-480Vac

Mark	Applicable Motor
0.4	0.4kW
22	22kW
...	...
400	400kW

Mark	Version
INT	International Variant

Mark	With Output Reactor
L	Built-in AC output Reactor
Null	No Built-in AC output Reactor

Mark	Braking Unit
B	Built-in Braking Unit
Null	No Built-in Braking Unit

Mark	Drive Duty Mode
G	Heavy Duty AC Drive

## Specification

Voltage class		Three Phase 380- 480Vac										
Drive model: CS7104TxxxGx-INT		0.4GB	0.75GB	1.1GB	1.5GB	2.2GB	3GB	3.7GB	5.5GB	7.5GB	11GB	15GB
Frame size		T1					T2		T3		T4	
Drive Input	Rated input voltage	Three Phase 380 to 480Vac, -15% to +10%										
	Rated input current, [A]	1.8	2.4	3.7	4.6	6.3	9.0	11.4	16.7	21.9	32.2	41.3
	Rated input frequency	50/60 Hz, ±5%										
Drive Output	Applicable motor [kW]	0.4	0.7	1.1	1.5	2.2	3	3.7	5.5	7.5	11	15
	Output current, [A]*	1.5	2.1	3.1	3.8	5.1	7.2	9.0	13.0	17.0	25.0	32.0
	Default carrier frequency, [kHz]	6	6	6	5	5	4	3	3	3	3	3
	Overload capacity	150% for 60 Sec										
	Max. output voltage	Three Phase 380Vac to 480Vac (Proportional to input voltage)										
	Max. output frequency	150 Hz										
Braking Resistor	Recommended power, [kW]	4	4.5	6	7	9	11	15	18	22	26	32
	Recommended resistance, [Ω]	32	27	10	16	13	10.5	7.7	6.4	5.3	4.4	3.6
Enclosure		IP 20										

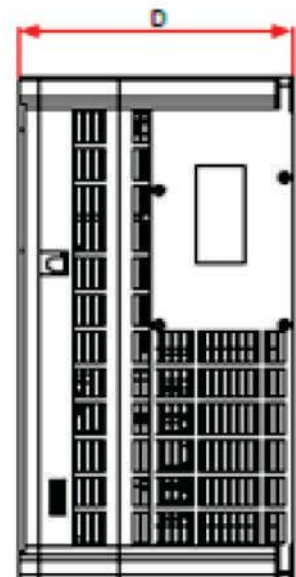
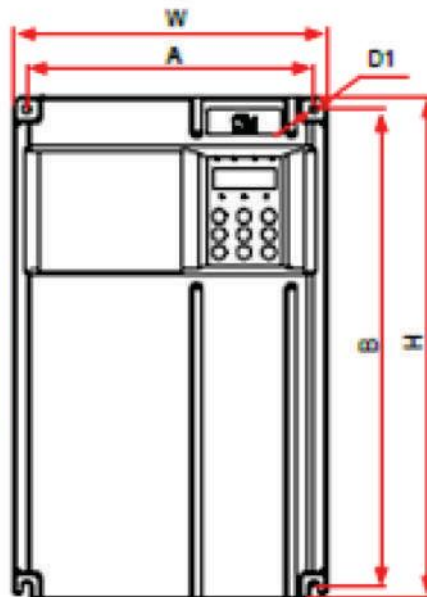
## Specification

Voltage class		Three Phase 380- 480Vac										
Drive model: CS7104TxxxGx-INT		18.5GB	22GB	30GB	37GB	45GB	55GB	75GB	90G	110G	132G	160G
Frame size		T5			T6		T7		T8		T9	
Drive Input	Rated input voltage	Three Phase 380 to 480Vac, -15% to +10%										
	Rated input current, [A]	49.5	59	57	69	89	106	139	164	196	240	287
	Rated input frequency	50/60 Hz, ±5%										
Drive Output	Applicable motor [kW]	18.5	22	30	37	45	55	75	90	110	132	160
	Output current, [A]*	37	45	60	75	91	112	150	176	210	253	304
	Default carrier frequency, [kHz]	6	6	6	5	5	4	3	3	3	3	3
	Overload capacity	150% for 60 Sec										
	Max. output voltage	Three Phase 380Vac to 480Vac (Proportional to input voltage)										
	Max. output frequency	150 Hz										
Braking Resistor	Recommended power, [kW]	4	4.5	6	7	9	11	15	18	22	26	32
	Recommended resistance, [Ω]	32	27	10	16	13	10.5	7.7	6.4	5.3	4.4	3.6
Enclosure		IP 20										

## Dimension

**T1~T6**

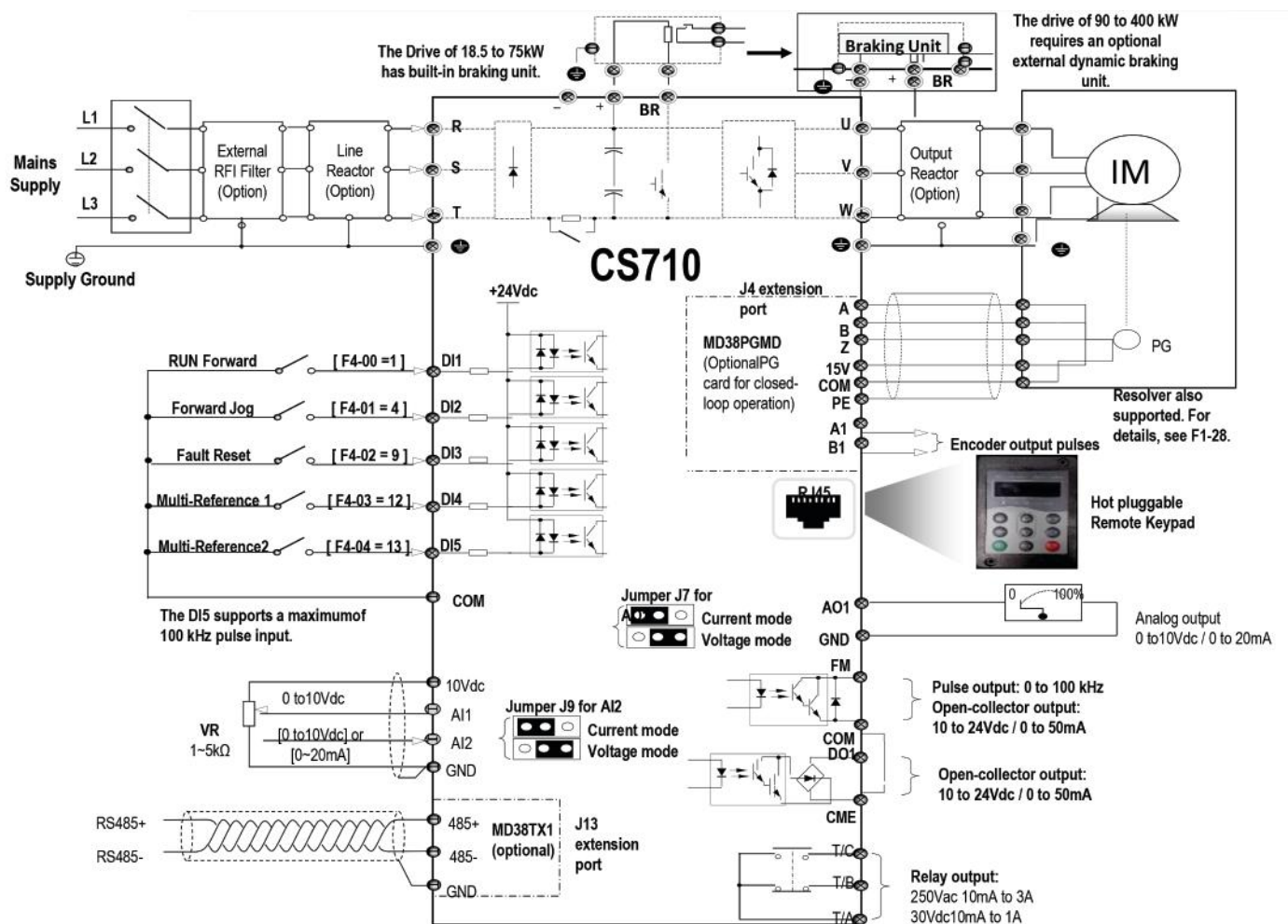
CS7104T0.4GB to  
CS7104T37GB  
(plastic)





CS710 Model	Frame size	Dimensions (mm)										Weight (kg)
		A	A1	B	B1	H	H1	W	W1	D	D1	
CS7104T18.5GB-INT, CS7104T22GB-INT	T5	195	/	335	/	350	/	210	/	192	∅6	9.1
CS7104T30GB-INT, CS7104T37GB-INT	T6	230	/	380	/	400	/	250	/	220	∅7	17.5
CS7104T45GB-INT, CS7104T55GB-INT	T7	245	/	523	/	525	542	300	/	275	∅10	35
CS7104T75GB-INT, CS7104T90G-INT, CS7104T110G-INT	T8	270	/	560	/	554	580	338	/	315	∅10	51.5
CS7104T132G-INT, CS7104T160G-INT	T9	320	/	890	/	874	915	400	/	320	∅10	85
CS7104T200G-INT, CS7104T220G-INT	T10	240	150	1035	86	1086	1134	300	360	500	∅13	110
CS7104T200G-L-INT, CS7104T220G-L-INT		240	150	1035	424	1424	1472	300	360	500	∅13	160
CS7104T250G-INT, CS7104T280G-INT	T11	225	185	1175	97	1248	1284	330	390	545	∅13	155
CS7104T250G-L-INT, CS7104T280G-L-INT		225	185	1175	435	1586	1622	330	390	545	∅13	215
CS7104T315G-INT, CS7104T355G-INT, CS7104T400G-INT, CS7104T400G-INT	T12	240	200	1280	101	1355	1405	340	400	545	∅16	185
CS7104T315G-L-INT, CS7104T355G-L-INT, CS7104T400G-L-INT		240	200	1280	432	1683	1733	340	400	545	∅16	245

## Typical System Connection Diagram





# INOVANCE



## India

Inova Automation Pvt . Ltd .  
No. 11, Bethal Nagar, Seevaram, Perungudi, Chennai – 600906 Tel : +91 (0) 44 43800201  
Sales office Ahmedabad Tel : (91) 79 4003 4272  
Delhi, Mumbai, Kolakata, Pune, Benagaluru, Coimbatore, Hyderabad  
Info.inovaindia@inova-automation.com



## South Korea

Inova Automation Korea  
Tel : (82) 10 74285732  
info@inova-automation.com



## Germany - Stuttgart

Inovance Technology Europe GmbH  
Tel : (49) 7144 899 0s  
ales@powerautomation.com



## FRANCE - Bordeaux

Inovance Technology Europe GmbH  
Tel : (33) 559 4010 50  
Pa.france@powerautomation.com



## ITALY – Milano

Inova Automation Italy Sri  
Tel : (39) 02 26822318  
info@inova-automation.it



## Hong Kong Sar (Export Office)

Inova Automation Co., Ltd .  
International Export Office  
Tel : (852) 275106080  
info@inova-automation.com



## Iran – Teheran

Inova Automation (Parsian)  
Tel : (98) 21 88600501/2  
Info.iran@inova-automation.com



## Turkey- Istanbul

Inova Automation Co., Ltd. Turkey  
Tel : (90) 216 706 1789  
Info.turkry@inova-automation.com