









YOUR PARTNER FOR INDUSTRIAL AUTOMATION SOLUTIONS

# **About INOVANCE**

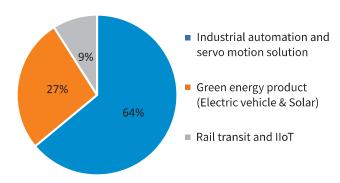
The Inovance Group was founded in 2003 in Shenzhen, a city in one of China's most successful Special Economic Zones. It made its initial public offering on the Shenzhen Stock Exchange in 2010\* and has since been tracked by Forbes as an SME with most potential. Rapid growth in sales revenues and staff 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.

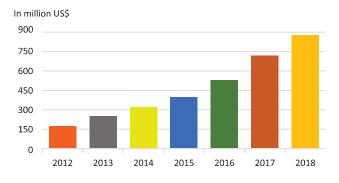
Customers find more than just products when they work with the Inovance Group. They gain access to world-class manufacturing facilities and highly skilled sector-specialists. It is this combination of flexible production techniques and indepth understanding of the requirements of a given sector that 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 ofindustries 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 ISO 9001:2008 OHSAS 18001:2007 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





CP700 - Screw Air **Compressor Solution** 



CS710 - Industrial **Crane Solution** 



MD330H-Winder/ **Unwinder Solution** 













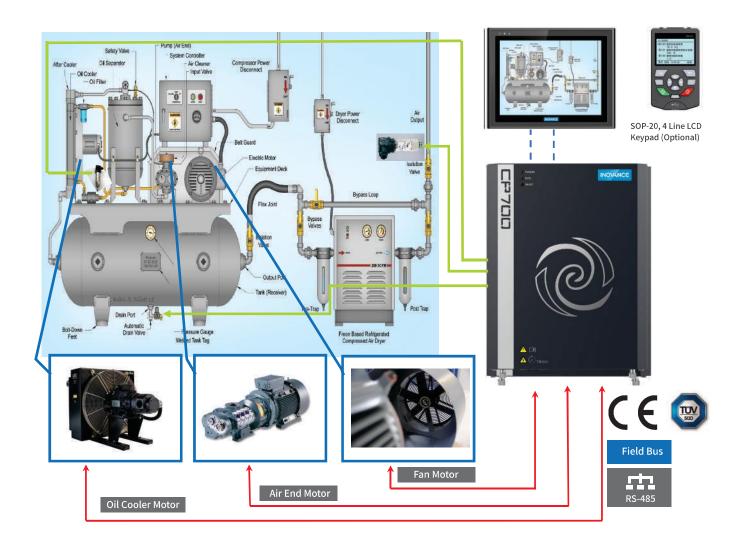




**Electric Vehicle** Solution

**Textile Solution** 

### CP700 - Integrated drive solution for Screw Air Compressor



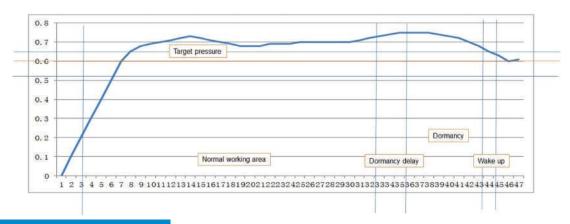
We Pioneered in delivering Integrated Drive Solution for PM Motor Screw Air Compressor

### **Key Features**

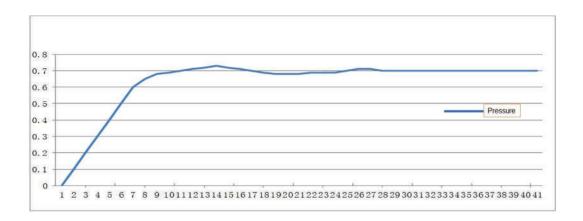
- ▶ Built-In compressor solution PLC
- > PID control for Pressure as well as for Temperature
- ▶ Compatible for PM & Induction Motor Compressors
- Variable frequency control for Air end motor and Fan motor thus saves power
- ▶ Wide operation voltage 380-440V (-15%~+10%)
- ▶ 50-degree Ambient operation (without De-rating)
- > Special air duct design: Easy to maintain and clean, suitable for different environment
- ▶ Customizable Built-in Compressor solution HMI
- ▶ Easy commissioning & auto tuning through HMI

### Intelligent control

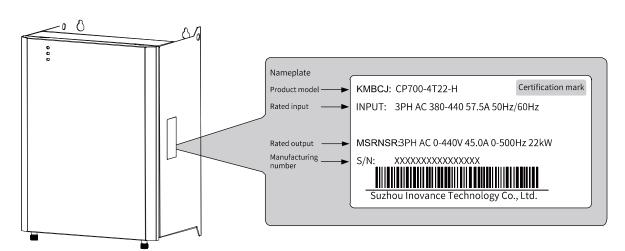
# INOVANCE



## Special advance PID algorithm



### Model Identification

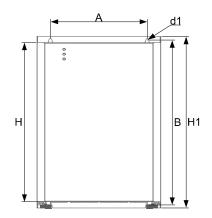


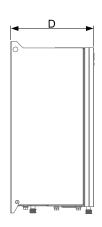
		<u>CP700</u> - <u>4</u>	T 2	2-H		
ID	Product Series				ID	Mounting Mode
CP700	AC drive for air compressors				Н	Backplate mounting
ID	Voltage Class				ID	Motor (kW)
2T	Three phase 200ũ240 V				5.5	5.5
4T	Three phase 380ũ440 V					
					75	75

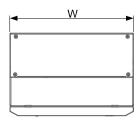
## **Model Identification**

Model	Main Cooling Blower			Variable Frequency Cooling Blower		Mains Frequency Cooling Blower		
Model	Power (kW)	Input Current (A)	Msrnsr Current (A)	Power (kW)	Rated Current (A)	Power (kW)	Rated Current (A)	
	Three phase 200 VAC to 240 VAC, 50/60 Hz							
CP700-2T7.5-H	7.5	35.0	32.0	/	/	0.25	1.5	
CP700-2T11-H	11	49.5	45.0	0.45	2.1	0.45	2.1	
CP700-2T15-H	15	60.0	55.0	0.45	2.1	0.45	2.1	
CP700-2T18.5-H	18.5	65.0	60.0	0.75	3.8	0.45	2.1	
CP700-2T22-H	22	80	75	0.75	3.8	0.45	2.1	
CP700-2T30-H	30	120.9	112	2.2	9.0	0.45	2.1	
CP700-2T37-H	37	134.0	125.0	2.2	9.0	0.45	2.1	
CP700-2T45-H	45	159.2	150.0	2.2	9.0	0.45	2.1	
	Three phase 380 VAC to 440 VAC, 50/60 Hz							
CP700-4T5.5-H	5.5	15.9	13	/	/	0.4	1.5	
CP700-4T7.5-H	7.5	20.5	17	/	/	0.4	1.5	
CP700-4T11-H	11	26	25	/	/	0.4	1.5	
CP700-4T15-H	15	35	32	/	/	0.4	1.5	
CP700-4T18.5-H	18.5	47.2	37.0	0.75	2.1	0.75	2.1	
CP700-4T22-H	22	57.5	45.0	0.75	2.1	0.75	2.1	
CP700-4T30-H	30	65.0	60.0	1.5	3.8	0.75	2.1	
CP700-4T37-H	37	80.0	75.0	1.5	3.8	0.75	2.1	
CP700-4T45-H	45	101.4	91.0	3.7	9.0	0.75	2.1	
CP700-4T55-H	55	122.3	112.0	3.7	9.0	0.75	2.1	
CP700-4T75-H	75	164.6	150.0	3.7	9.0	0.75	2.1	

## Dimensions

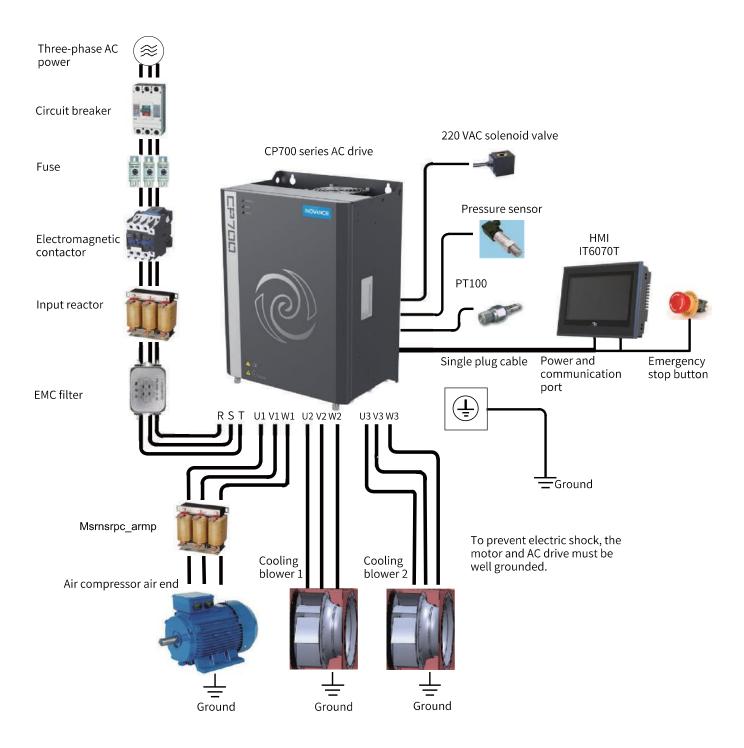


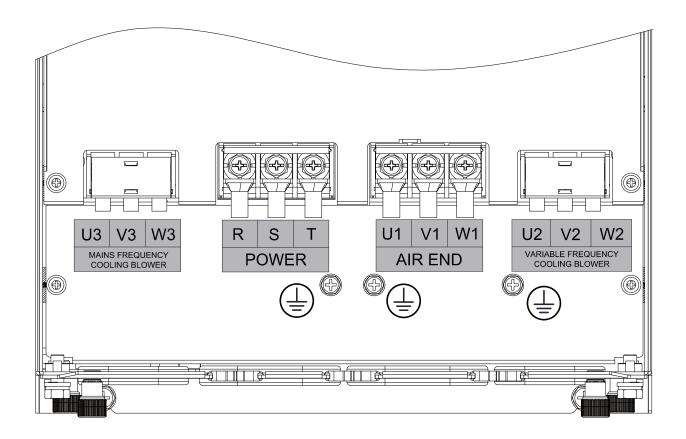




AC Drive Model	Physical Dimensions (mm)			Mounting Dimensions (mm)		Weight		
, to brive modet	H1	Н	W	D	А	В	d1	(kg)
Three phase 200 VAC to 240 VAC, 50/60 Hz								
CP700-2T7.5-H	384	357	208	176	180	371	Ź4	9.5
CP700-2T11-H	393	365	284	190	222	378	Ź5	14.5
CP700-2T15-H	393	365	284	190	222	378	Ź5	14.5
CP700-2T18.5-H	423	395	315	215	253	408	Ź5	24.3
CP700-2T22-H	423	395	315	215	253	408	Ź5	24.3
СР700-2Т30-Н	501	485	366	258	294	478	Ź/.	33.8
СР700-2Т37-Н	501	485	366	258	294	478	Ź/.	33.8
CP700-2T45-H	525	509	400	260	328	502	Ź/.	42.0
		Three phase	380 VAC to	440 VAC, 50,	/60 Hz			
CP700-4T5.5-H	344	317	168	176	140	331	Ź4	7.0
CP700-4T7.5-H	344	317	168	176	140	331	Ź4	7.0
CP700-4T11-H	384	357	208	176	180	371	Ź4	9.5
CP700-4T15-H	384	357	208	176	180	371	Ź4	9.5
CP700-4T18.5-H	393	365	284	190	222	378	Ź5	14.5
CP700-4T22-H	393	365	284	190	222	378	Ź5	14.5
СР700-4Т30-Н	423	395	315	215	253	408	Ź5	24.3
CP700-4T37-H	423	395	315	215	253	408	Ź5	24.3
CP700-4T45-H	501	485	366	258	294	478	Ź/.	33.8
CP700-4T55-H	501	485	366	258	294	478	Ź/.	33.8
CP700-4T75-H	525	509	400	260	328	502	Ź/.	42.0

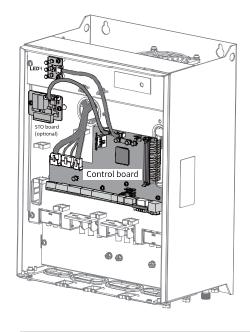
### **Electrical Connection Details**

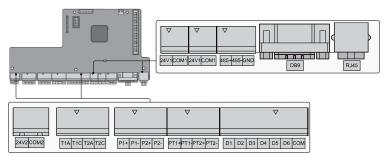




Terminal Symbol	Terminal Name	Function Description		
R, S, and T Input terminal		Three-phase AC input		
U1, V1, and W1	Output terminal	Air end three-phase AC output		
	Mains frequency	Three phase 220 V: 7.5 kW three-phase AC output		
112 1/2 - 411/2	cooling blower terminal	Three phase 380 V: 5.5–15 kW three-phase AC output		
U2, V2, and W2	Variable frequency cooling blower terminal	Three phase 380 V: 18.5–75 kW three-phase AC output		
	Mains frequency	Three phase 220 V: 11–45 kW three-phase AC output		
U3, V3, and W3	cooling blower terminal	Three phase 380 V: 18.5–75 kW three-phase AC output		
	Grounding terminal	PE grounding		

## **Control Terminals**





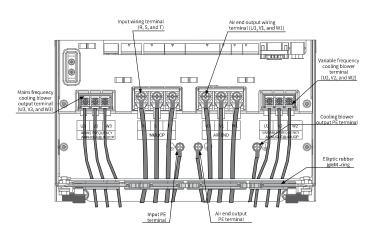
Category	Terminal Symbol	Function Description	Rcaflga_jQncaga_rgmlq	
Relay output	T1A, T1C, T2A, and T2C	Relay output T1A and T1C for the solenoid valves by default	Built-in 220 VAC power supply; power capacity 50 VA; T1A-T1C supported; T2A-T2C two-way current output; total output less than0.2 A T1A-T1C: NO T2A-T2C: NO	
Pressure sensor	P1+ and P2+	Pressure sensor power input	24 VDC, 4–20 mA input, active	
input	P1- and P2-	Pressure sensor signal input		
Temperature sensor input	PT1+ and PT2+	Temperature sensor PT100	$-25^{\circ}\text{C}$ to +220°C temperature detection with deviation of $\pm3^{\circ}\text{C}$ , passive	
	PT1- and PT2-	input		
	DI1-DI4	Common multi-function input terminals	Isolated drain input at a frequency lower than 100 Hz	
Digital input	DI5-DI6	Common multi-function input terminals (PTC protection supported)	Isolated drain input at a frequency lower than 100 Hz; operation triggered when the PTC resistance is $2.3~{\rm k}\Omega$	
	СОМ	Common terminal of multi- function input terminals	Internally connected to GND	
24V1 external	24V1	24 V power supplied in the board	24 V±10%; maximum output	
power supply port	COM1	24 V power ground in the board	current 500 mA; touch screen power supply	

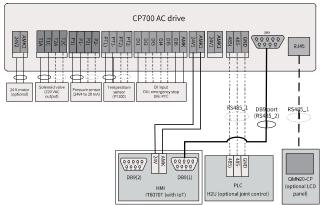




Category	Terminal Symbol	Function Description	Technical Specifications		
24V2 external	24V2	Independent 24 V power supply	24 V power output (optional);		
power supply port	COM2	Independent 24 V power supply ground	output current 4 A		
	485+	RS485 communication+	Half duplex RS485 communication; baud rate < 230 kbps; the 485 signal terminal consistent with DB9's		
485 communication	485-	RS485 communication-			
	GND	RS485 reference ground	second 485 terminal		
DB9 port	DB9	Two-channel 485 communication	Standard DB9 female socket with built-in two-channel 485 communication resources Pin definition is as follows: Definition for the first 485 channel:  pin1 pin2 pin5 485+ 485- GND  Definition for the second 485 channel:  pin5 pin6 pin9 GND 485- 485+		
RJ45	485+ and 485-	RS485 communication+ RS485 communication- Connected with the LCD panel	Half duplex RS485 communication; baud rate < 230 kbps		

## **Wiring Recommendation**









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