

VEICHI

CX300/301 Soft Starter



VEICHI

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Official Website

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Stock Code: 688698

About Us

Veichi Electric (Stock Code: 688698) specializes in electrical transmission and industrial control, operating as an integrated high-tech enterprise in R&D, production, and sales of industrial automation products. With a vision to lead in smart industry and green energy solutions, the company leverages its R&D and manufacturing hubs in Suzhou, additional R&D centers in Shenzhen and Xi'an, and wholly-owned subsidiaries overseas, consistently serving customers worldwide with competitive and reliable solutions.

Under the "One Core, Two New Drivers" strategy, Veichi focuses on industrial automation, offering AC drives, servo systems, and control systems widely applied across heavy and light industries, as well as high-end equipment sectors, supporting the digital and intelligent transformation of manufacturing with its tailored solutions. Simultaneously, in two emerging fields, it provides one-stop solutions for humanoid, collaborative, and mobile robots in embodied intelligence, while in green energy, it delves into segments like photovoltaic, energy storage, and hydrogen energy, to "connect every device with green power," fostering a synergistic growth between core operations and new ventures.

Sustained R&D has yielded a portfolio of proprietary patented technologies including silicon carbide application, HF injection, motor controls and protections (auto-tuning, flying-start, high-speed flux-weakening, V/F control, vector control), high-density water-cooling layout, and IGBT drive protection. As of September 30, 2025, Veichi holds 234 patents, with 66 for invention.

Over two decades of steady growth, Veichi has earned numerous certifications and accolades from national and regulatory authorities, including "High-Tech Enterprise," "Postdoctoral Research Workstation," and provincial honors like "Engineering Technology Research Center," "Enterprise Technology Center," and "Industrial Internet Development Demonstration Enterprise (Benchmark Factory Category)."

Guided by its mission to "Drive Smart Industry, Co-create a Green Future," Veichi will continue to intensify R&D and advance into high-performance, high-reliability fields to propel global progress.

2025

- Suzhou VEICHI Phase III digital production base put into operation
- Changzhou high-end electrical equipment production base topped out
- Jiujiang smart production base groundbreaking ceremony held

2023

- Suzhou VEICHI Phase II put into operation
- VEICHI Medical Equipment subsidiary established, expanding into the healthcare sector

2024

- Strategic acquisition of Changzhou Jiteng, entering the port and marine sector
- "One Core, Two New Drivers" development strategy adopted

2022

- Xi'an R&D Center established
- VEICHI Digital Energy subsidiary founded, digitalizing the green energy
- Integrated power solutions for humanoid/collaborative/mobile robots launched, initiating deployment in the robotics sector

2021

- VEICHI-controlled subsidiary established, enhancing industrial chain integration
- Recognized as a SRDI "Little Giant" enterprise

2020

- Listed on the Science and Technology Innovation Board (STAR Market)
- Recognized as a provincial SRDI "Little Giant" enterprise

2019

- Restructured into a joint-stock company
- VEICHI overseas subsidiary established, marking the start of global expansion

2016

- Suzhou VEICHI Phase I put into operation
- First-generation motion control system successfully launched

2005

- Start of business in Shenzhen
- First generation of AC drive launched

CX300/301 SOFT STARTER

Excellence in Quality · Integrity as Foundation



The CX300/301 series AC motor soft starter is a new-generation starting device based on power electronics, microprocessor technology, and modern control theory. It effectively limits motor starting current and ensures smooth acceleration of asynchronous motors. Suitable for fans, pumps, conveyors and compressors, the CX300/301 series is an ideal replacement for conventional reduced-voltage starters such as star-delta, autotransformer and magnetic control starters.

Product Feature

Starting Modes

Ramp Current Limit, Current Limit, Jog, and Ramp + Kick start modes can be selected and configured according to load requirements, ensuring optimal motor starting performance.

Advanced Control

High-performance microprocessor with integrated software functions reduces control circuit complexity and ensures fast and stable response without complex parameter adjustment.

Comprehensive Protection

Provides protection functions such as overcurrent, phase loss, and overheating. No external motor protection is required in standalone applications.

User-Friendly Operation

Multi-line LCD (Chinese display) with simple and intuitive parameter setting for start/stop, operation, and protection.

Analog Output

4mA~20mA analog output signal.

Optimized Design

Compact modular design with top-entry and bottom-exit wiring for easy installation and system integration.

High Reliability

All components are strictly tested. The control board undergoes an 72-hour high-temperature cycling test to ensure reliability.

Communication

RS485 interface with MODBUS protocol support.

Parameter Configuration

Voltage class and current settings are parameter-configurable, with automatic adaptation to 50/60 Hz power systems.



Applications

Fans & Pumps:

Water supply, heating systems, HVAC, fire protection systems, blowers and induced draft fans.



Mining Machinery:

Flotation machines, ball mills, crushers, vibrating screens and belt conveyors.



Building Materials Machinery:

Cutting machines, stone saws and crushers.

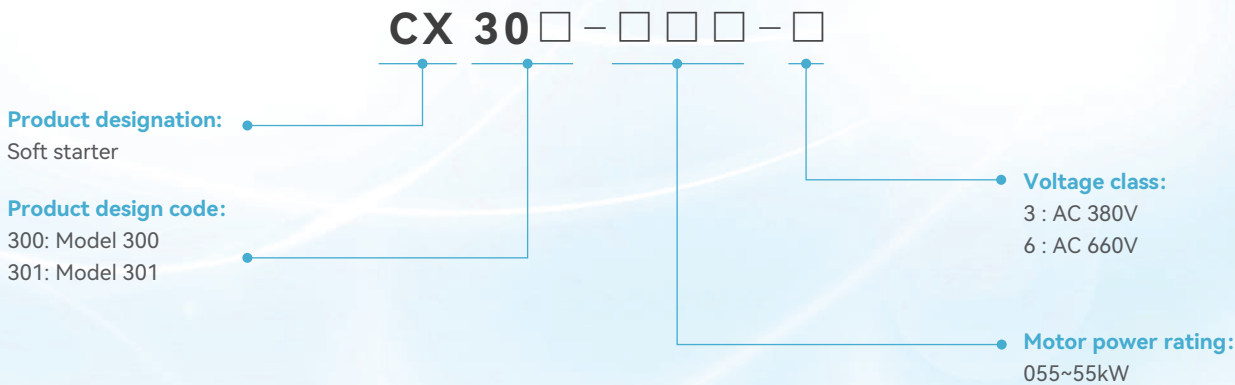


Other Industries:

Coal, chemical processing, vacuum equipment, air compressors and oil pumps.



Naming Rules



CX301 soft starters feature an integrated bypass contactor

Motor Power (kW)	Rated Current (A)	AC 380V	
		CX300	CX301
7.5	18	CX300-008-3	CX301-008-3
15	30	CX300-015-3	CX301-015-3
22	45	CX300-022-3	CX301-022-3
30	60	CX300-030-3	CX301-030-3
37	75	CX300-037-3	CX301-037-3
45	90	CX300-045-3	CX301-045-3
55	110	CX300-055-3	CX301-055-3
75	150	CX300-075-3	CX301-075-3
90	180	CX300-090-3	CX301-090-3
110	220	CX300-110-3	CX301-110-3
132	260	CX300-132-3	CX301-132-3
160	320	CX300-160-3	CX301-160-3
187	375	CX300-187-3	CX301-187-3
200	400	CX300-200-3	CX301-200-3
250	480	CX300-250-3	CX301-250-3
280	550	CX300-280-3	CX301-280-3
320	620	CX300-320-3	CX301-320-3
400	800	CX300-400-3	CX301-400-3
450	900	CX300-450-3	CX301-450-3
500	1000	CX300-500-3	CX301-500-3
560-710	1100-1400	CX300-560-3 to CX300-710-3	CX301-560-3

Wiring Diagram

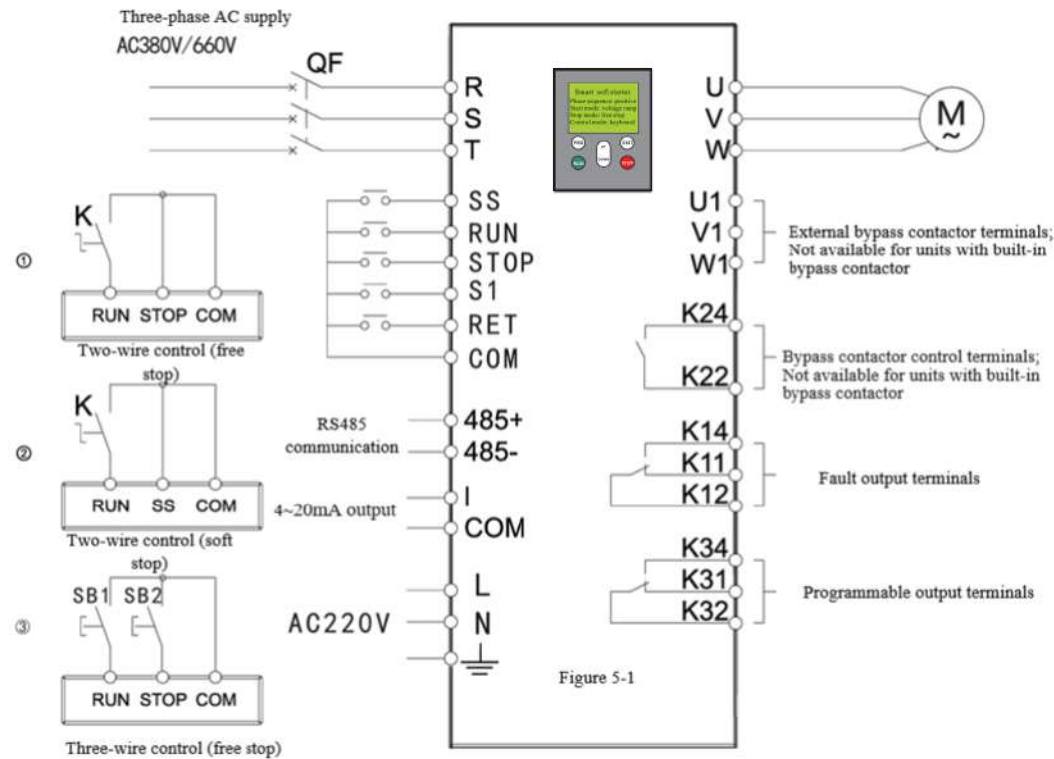


Figure 5-1

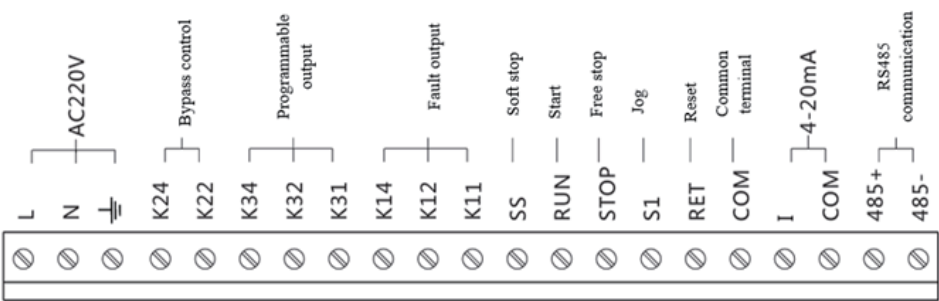


Figure 5-2

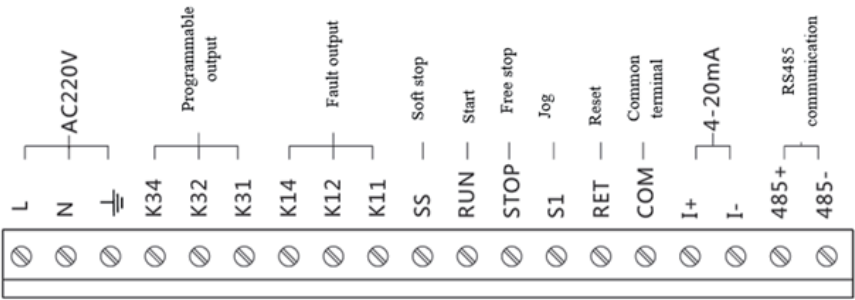


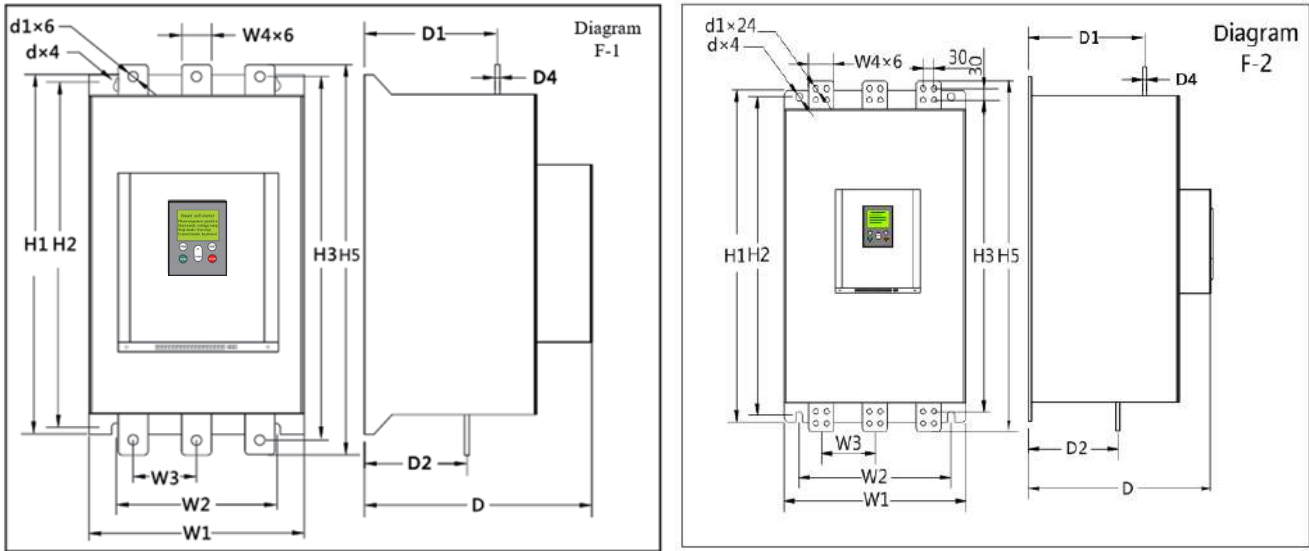
Figure 5-3

Terminal Description

Terminal		Name		Description	
MainCircuit	R, S, T	AC power supply input		Connect to the three-phase AC power supply via circuit breaker (QF)	
	U, V, W	Soft starter output terminals		Connect to three-phase asynchronous motor	
	U1, V1, W1	External bypass contactor terminals		For wiring method, refer to diagram (Note ⑤)	
Control Circuit	DI	SS	External soft stop input		Short-circuit SS-COM to activate soft stop (Note ①)
		RUN	External start input		Short-circuit RUN-COM to start (Note ①)
		STOP	External stop input		Short-circuit STOP-COM to stop (Note ①)
		S1	Jog input		Short-circuit S1-COM to enable jog operation
		RET	Reset input		Short-circuit RET-COM to reset faults
		COM	Common terminal for digital inputs		Internal power reference
	AO	I+	4mA~20mA analog output(+) Load input impedance ≤ 400Ω		I _m = I _e (I - 4) / 8 I _m : Motor output current (A) I _e : Motor rated current (A) I: (4-20 mA) output current (mA)
		COM	4mA~20mA analog output (-)		
	COM	485+	RS485+		RS485 communication (Modbus protocol)
		485-	RS485-		
	RO	K14	NO	Fault output terminal (Note ②)	On fault: K14 - K12 closed; K11-K12 open
		K11	NC		Contact rating: AC: 10A/250V
		K12	Common		DC: 10A/30V
		K24	NO	Bypass contactor control terminal (Note ②)	After start completion: K24~K22 closed; Contact rating: AC: 10A/250V or 5A/380V DC: 10A/30V (Note③)
		K22	Common		
		K34	NO	Programmable output terminal (Note ②)	Contact rating: AC: 10A/250V or 5A/380V DC: 10A/30V
		K31	NC		Selectable functions: Start/Bypass/Fault
		K32	Common		
	Control Power	L	AC 220V control power supply		Internal bypass contactor control supply (Note ④)
		N			
					

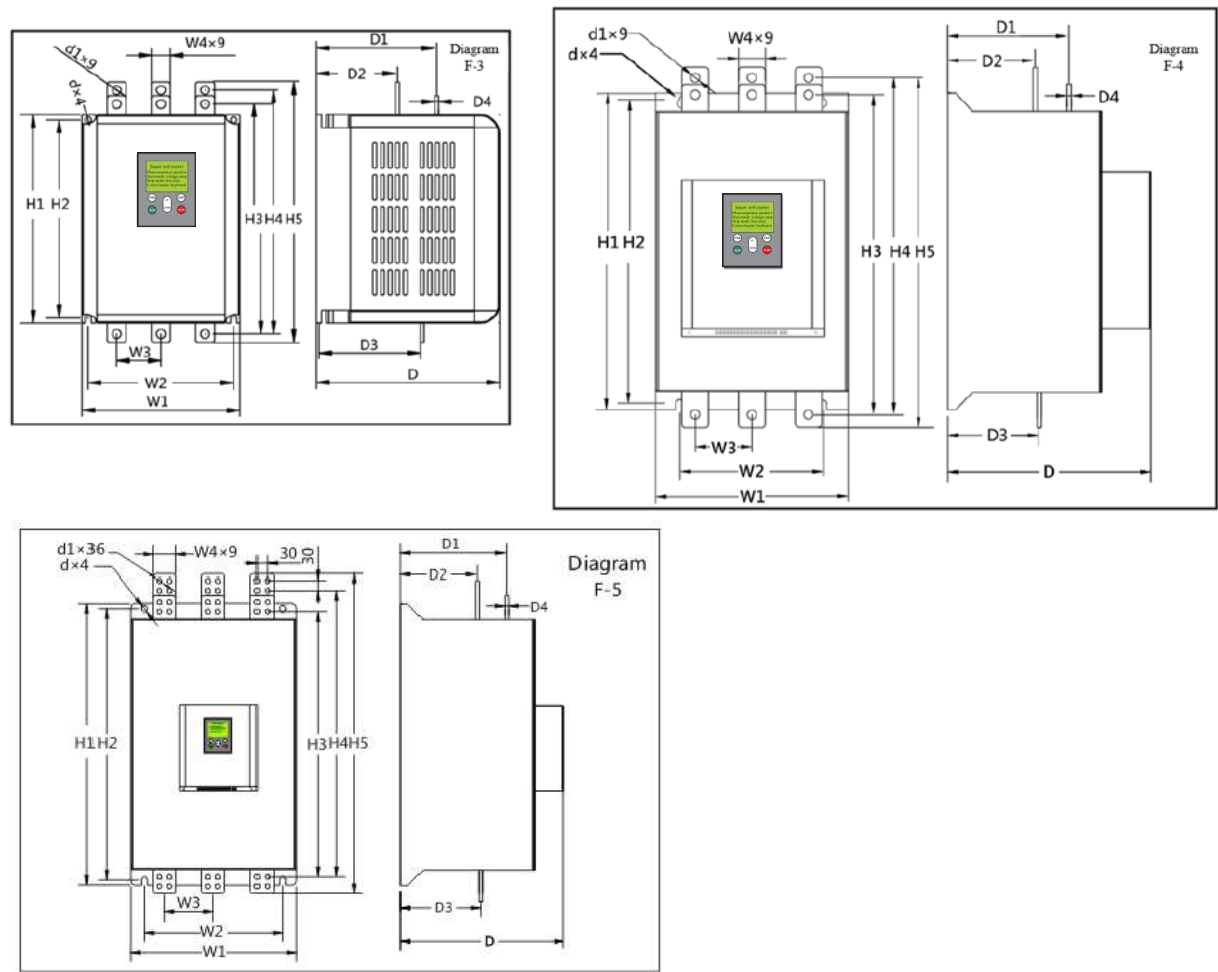
- Note ①: Two wiring methods are available for external control.
- Note ②: Fault output terminals, bypass contactor control terminals, and programmable output terminals are all potential-free contacts.
- Note ③: CX301 do not provide start completed output terminals (K22/K24).
- Note ④: CX300 do not provide AC220V control supply terminals.
- Note ⑤: CX301 do not provide dedicated bypass contactor terminals (U1/V1/W1).

Overall and Mounting Dimensions



Model	Outer Dimension (mm)			Mounting Dimension (mm)						Busbar Dimension (mm)					Weight (kg)	Method
	W1	H1	D	W2	H2	D1	D2	d	W3	W4	H3	H5	D4	d1		
CX301-015-3	188	340	215	125	320	103.5	92.5	Φ6.5	62.5	15	324	344	3	Φ8.5	7	Wall-mounted Diagram F-1
CX301-030-3										20					9	
CX301-037-3										25					10	
CX301-075-3																
CX301-090-3	236	465	216.5	182	445	122	101	Φ8	74.6	30	461	495	5	Φ10.5	21	
CX301-110-3																
CX301-187-3																
CX301-200-3																
CX301-250-3	299	544	229	245	524	140	107	Φ8	96	40	558	598	5	Φ14	32	
CX301-280-3										50					35	
CX301-320-3																
CX301-400-3	299	556	260	245	536	167.5	133.5	Φ8	96	50	579	629	8	Φ14	37	Wall-mounted Diagram F-2
CX301-450-3	435	714	299.5	360	687	85	122	Φ11	131	60	725	815	8	Φ12	68	
CX301-500-3						87	124								72	
CX301-560-3																
CX301-710-3																

Typical Wiring Diagram



Model	Outer Dimension (mm)			Mounting Dimension (mm)						Busbar Dimension (mm)							Weight (kg)	Method
	W1	H1	D	W2	H2	D1	D2	D3	d	W3	W4	H3	H4	H5	D4	d1		
CX300-015-3 CX300-030-3	180	240	196	165	224	123.5	93.5	124.5	Φ5	53	15	266	286	305	3	Φ8	5	Wall-mounted Diagram F-3
CX300-037-3 CX300-075-3											20						7	
CX300-090-3 CX300-200-3	236	363	216.5	182	343	127	72	60.5	Φ8	74.6	30	364	381	415	5	Φ10.5	16	Wall-mounted Diagram F-4
CX300-250-3 CX300-280-3	299	424	229	245	404	137	77	65.5	Φ8	96	40	438	468	508	5	Φ14	25	
CX300-320-3											50	447	477	527	5		26	
CX300-400-3 CX300-450-3											8	28						
CX300-500-3 CX300-560-3 CX300-630-3 CX300-710-3	435	613	300	360	586	194	125	80	Φ11	131	60	619	674	764	8	Φ12.5	60	Wall-mounted Diagram F-5
						196	127	82										

