

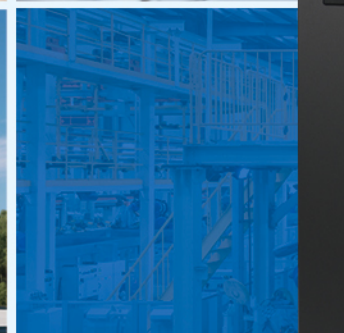
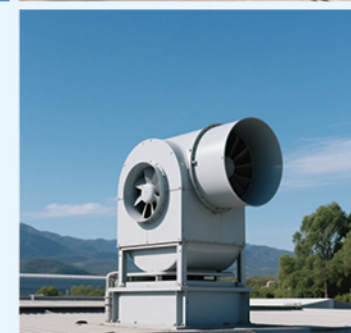
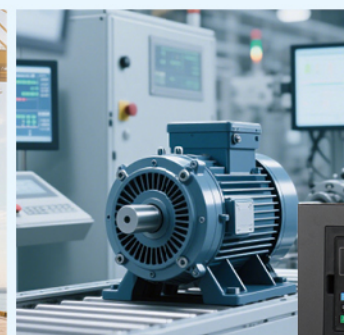
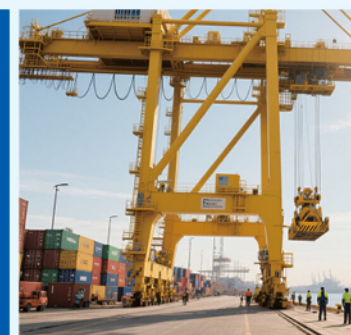


www.cnspx.com
www.spxelectric.com

FREQUENCY CONVERTER

PROFESSIONAL, INTELLIGENT

专业 / 智能化变频器



ZHEJIANG SPX ELECTRIC APPLIANCE CO.,LTD.

Tel / 电话: +86-577-62982277

Fax / 传真: +86-577-62983788

E-mail / 邮箱: sales@cnspx.com

Http: //www.cnspx.com www.spxelectric.com

ZHEJIANG SPX ELECTRIC APPLIANCE CO.,LTD.

浙江斯派克电器有限公司



Zhejiang SPX Electric Appliance Co., Ltd. is a company integrating scientific research, development production and sales. Factories located in Yueqing economic development zone, Our products are sold worldwide.

The company has standard workshops and advanced production equipment as well as a well-trained professional technical team. Our concept of self-transcendence and coexistence with the enterprise and advanced quality awareness and perfect quality assurance system are applied throughout each production process.

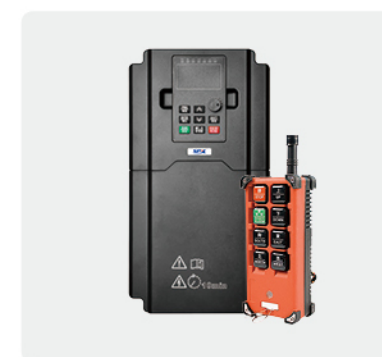
SPX company produce frequency converter, solar water pump controller, solar switch DC parts ect. The company has passed china Compulsory Certification (CCC), CE Certification and ISO9001 standard Certification.

SPX Company has a close and modern plant with more than 10,000 square meters, first-class laboratories, processing centers, testing centers and first-rate facilities, which ensure the high quality of our products. Welcome customers at home and abroad to visit our company and work together for mutual benefit and create a brilliant future.

CONTENTS 产品目录



SP9000
FREQUENCY CONVERTER SERIES
变频器系列
01-07



SP9000
SERIES FREQUENCY CONVERTER
系列起重机和卷扬机的解决方案
07



SP9000
AIR COMPRESSOR SOLUTION SERIES
空气压缩机溶液系列
08

SP9000 FREQUENCY CONVERTER SERIES

SP9000 变频器系列



■ VOLTAGE DEGREE / 产品简介

The SP9000 series frequency converter adopts the high-performance vector control technology, which realizes the high torque output at low speed, has good dynamic characteristics, super overload capacity, stable performance, powerful protection function, simple man-machine interface, simple operation, can be used for weaving, paper, wire drawing, machine tool, packaging, food, fan, water pump and a variety of automatic production equipment drive.

SP9000 系列变频器采用高性能的矢量控制技术,实现了低速下的高转矩输出,具有良好的动态特性、超强的过载能力,性能稳定,保护功能强大,人机界面简洁、操作简易。可用于编织、造纸、拉丝、机床、包装、食品、风机、水泵及各种自动化生产设备的驱动。

■ MODEL & NAMEPLATE DEFINITION / 型号命名及铭牌定义

SP9000 - 4 T 0015 G

Frequency converter series
变频器系列

Mark 标识	Voltage class 电压等级
2	220V
4	380V

Mark 标识	Input voltage 输入电压
S	Single-phase 单相
T	Three-phase 三相

Mark 标识	Model 变频器型号
G	Transverse torque 恒转矩
P	Fan water pump type 风机水泵型

Mark 标识	Adaptive motor 适配电机
0007	0.7KW
0015	1.5KW
0075	7.5KW
...	

① Model: SP9000-4T0015G
② Power: 1.5kW
③ Input: AC 3PH 380V 50/60Hz
④ Output: AC 3PH 0-380V 0-500Hz 3.8A

S/N:

Made in China

ZHEJIANG SPX ELECTRIC CO.,LTD.

①: Frequency converter model 变频器型号
②: Rated power 额定功率
③: Rated input 额定输入
④: Rated output 额定输出



Support: Modbus-RTU
Profibus-DP
Profinet
支持多种接口



Multi-stage speed
operation
多级调速运行



Intelligent setting
parameters
智能设置参数



Simple PLC
operation
PLC 操作简单



Wide voltage range
电压范围
220v to 240v
380v to 480v



Motor protection
function
电机保护功能



Auto tuning function
for PMSM
PMSM 的自动调谐功能



Automatic voltage
stabilization
自动稳压



Automatic energy
saving control
自动节能控制

- Open loop V/F & SVC control
- Closed loop FVC control
- Starting torque:
150% at 0.5 Hz for SvC
180% at 0 Hz for FVC

- Communication options:
Modbus-RTU RS485
Profibus-DP
Profinet

- Automatic torque boost
- Slip compensation
- Simplified parameter for easy startup
- Flexible programmable I/O
- User programmable function
- Variable DC-injection braking
- Comprehensive trip diagnostic
- Output frequency 500 Hz
- Built-in dynamic braking unit

- 开环 V/F 和 SVC 控制
- 闭环 FVC 控制
- 起动转矩:
SvC 在 0.5 Hz 时为 150%
FVC 在 0 Hz 时为 180%

- 通信选项:
Modbus-RTU RS485
profibus - dp
Profinet

- 自动转矩提升
- 滑移补偿
- 简化参数, 便于启动
- 灵活的可编程 I/O 连接
- 用户可编程功能
- 可变直流喷射制动
- 综合行程诊断
- 输出频率 500hz
- 内置动力制动装置



Food Processing Machine 食品加工机



Oil Production 石油生产



Pump 水泵



HVAC 暖通空调

SP9000 FREQUENCY CONVERTER SERIES

SP9000 变频器系列

■ OUTLINE AND INSTALLATION DIMENSION / 外形与安装尺寸 (MM)

Frequency converter model 变频器型号	Power capacity 电源容量 (KVA)	Input Current 输入电流 (A)	Output Current 输出电流 (A)	Adapted motor 适配电机	
				KW	HP
Single-phase power supply 单相电源： 220V(-10% to +15%, 50/60Hz)					
SP9000-2S0007G	1.5	8.2	4.0	0.75	1
SP9000-2S0015G	3.0	14	7.0	1.5	2
SP9000-2S0022G	4.0	23	9.6	2.2	3
SP9000-2S0040G	8.9	14.6	13	4.0	5
SP9000-2S0055G	17	26	25	5.5	7.5
Three-phase power supply 三相电源： 220V(-10% to +15%, 50/60Hz)					
SP9000-2T0007G	3	5	3.8	0.75	1
SP9000-2T0015G	4	5.8	5.1	1.5	2
SP9000-2T0022G	5.9	10.5	9	2.2	3
SP9000-2T0040G	8.9	14.6	13	4.0	5
SP9000-2T0055G	17	26	25	5.5	7.5
SP9000-2T0075G	21	35	32	7.5	10
SP9000-2T0110G	30	46.5	45	11	15
SP9000-2T0150G	40	62	60	15	20
SP9000-2T0185G	57	76	75	18.5	25
SP9000-2T0220G	69	92	91	22	30
SP9000-2T0300G	85	113	112	30	40
SP9000-2T0370G	114	157	150	37	50
SP9000-2T0450G	135	180	176	45	60
SP9000-2T0550G	161	215	210	55	75
SP9000-2T0750G	236	315	304	75	100
Three-phase power supply 三相电源： 380V(-10% to +15%, 50/60Hz)					
SP9000-4T0015G	3.0	5	3.8	1.5	2
SP9000-4T0022G	4.0	5.8	5.1	2.2	3
SP9000-4T0030G	5.0	8.0	7.2	3.0	4
SP9000-4T0040G	5.9	10.5	9	4.0	5
SP9000-4T0055G	8.9	14.6	13	5.5	7.5

■ OUTLINE AND INSTALLATION DIMENSION / 外形与安装尺寸 (MM)

Frequency converter model 变频器型号	Power capacity 电源容量 (KVA)	Input Current 输入电流 (A)	Output Current 输出电流 (A)	Adapted motor 适配电机	
				KW	HP
Three-phase power supply 三相电源： 380V(-10% to +15%, 50/60Hz)					
SP9000-4T0075G	11	20.5	17	7.5	10
SP9000-4T0110G	17	26	25	11	15
SP9000-4T0150G	21	35	32	15	20
SP9000-4T0185G	24	38.5	37	18.5	25
SP9000-4T0220G	30	46.5	45	22	30
SP9000-4T0300G	54	57	60	30	40
SP9000-4T0370G	63	69	75	37	50
SP9000-4T0450G	81	89	91	45	60
SP9000-4T0550G	97	106	112	55	75
SP9000-4T0750G	127	139	150	75	100
SP9000-4T0900G	150	164	176	90	120
SP9000-4T1100G	179	196	210	110	150
SP9000-4T1320G	220	240	253	132	180
SP9000-4T1600G	263	287	304	160	210
SP9000-4T1850G	305	323	340	185	240
SP9000-4T2000G	334	365	377	200	260
SP9000-4T2200G	375	410	426	220	285
SP9000-4T2500G	404	441	465	250	320
SP9000-4T2800G	453	495	520	280	370
SP9000-4T3150G	517	565	585	315	420
SP9000-4T3550G	565	617	650	355	480
SP9000-4T4000G	629	687	725	400	530
SP9000-4T4500G	716	782	820	450	600
SP9000-4T5000G	800	820	900	500	680
SP9000-4T5600G	930	950	1020	560	750
SP9000-4T6300G	1050	1050	1120	630	850
SP9000-4T7200G	1200	1200	1300	720	960
SP9000-4T8000G	1330	1380	1420	800	1060
SP9000-4T10000G	1660	1650	1720	1000	1330

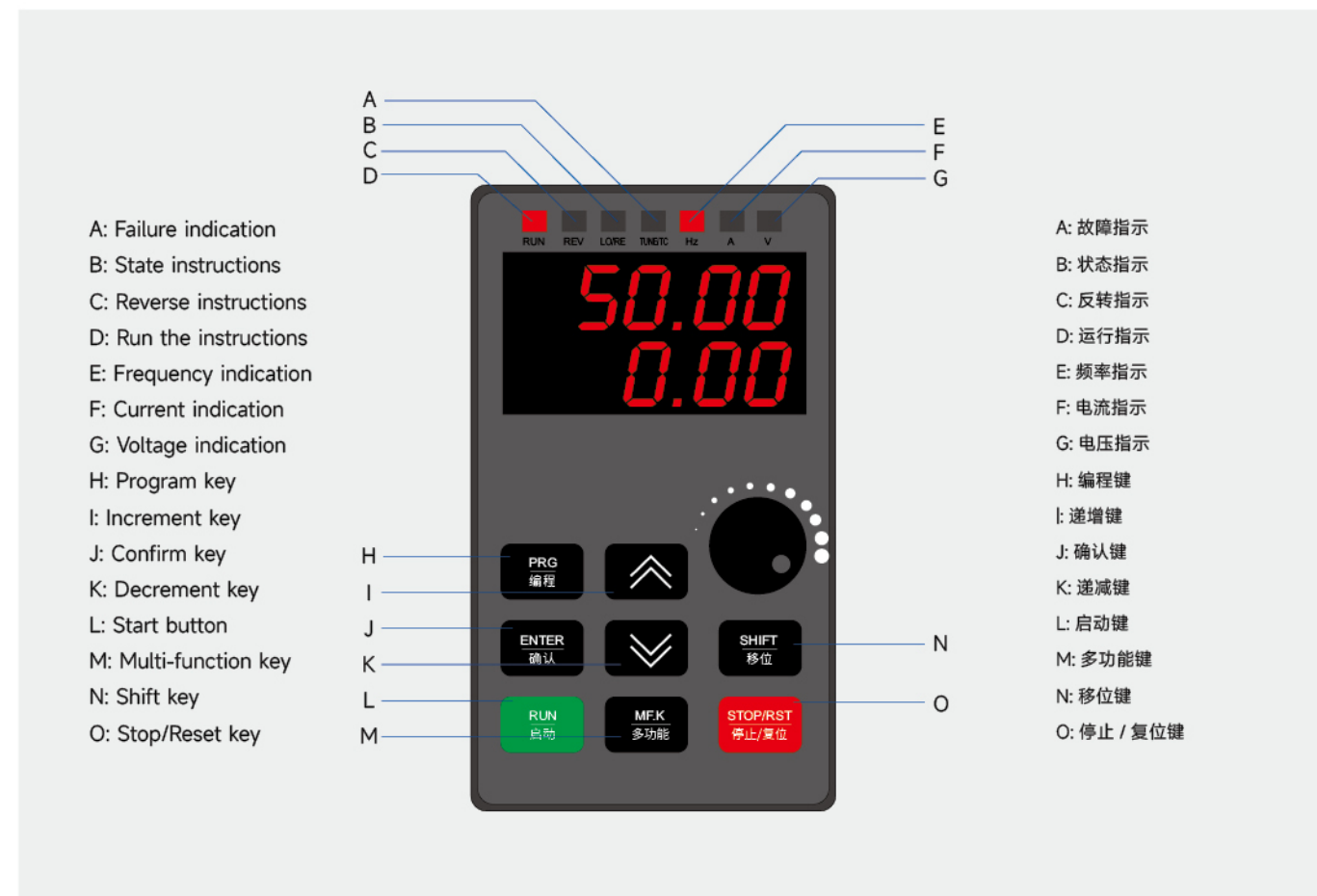
SP9000 FREQUENCY CONVERTER SERIES

SP9000 变频器系列

■ OPERATION DISPLAY INSTRUCTIONS / 操作显示说明

Upgrade the dual-display control panel to modify the functional parameters, operation shutdown control, and working state monitoring of the frequency converter. The shape and functional areas are shown in the figure below:

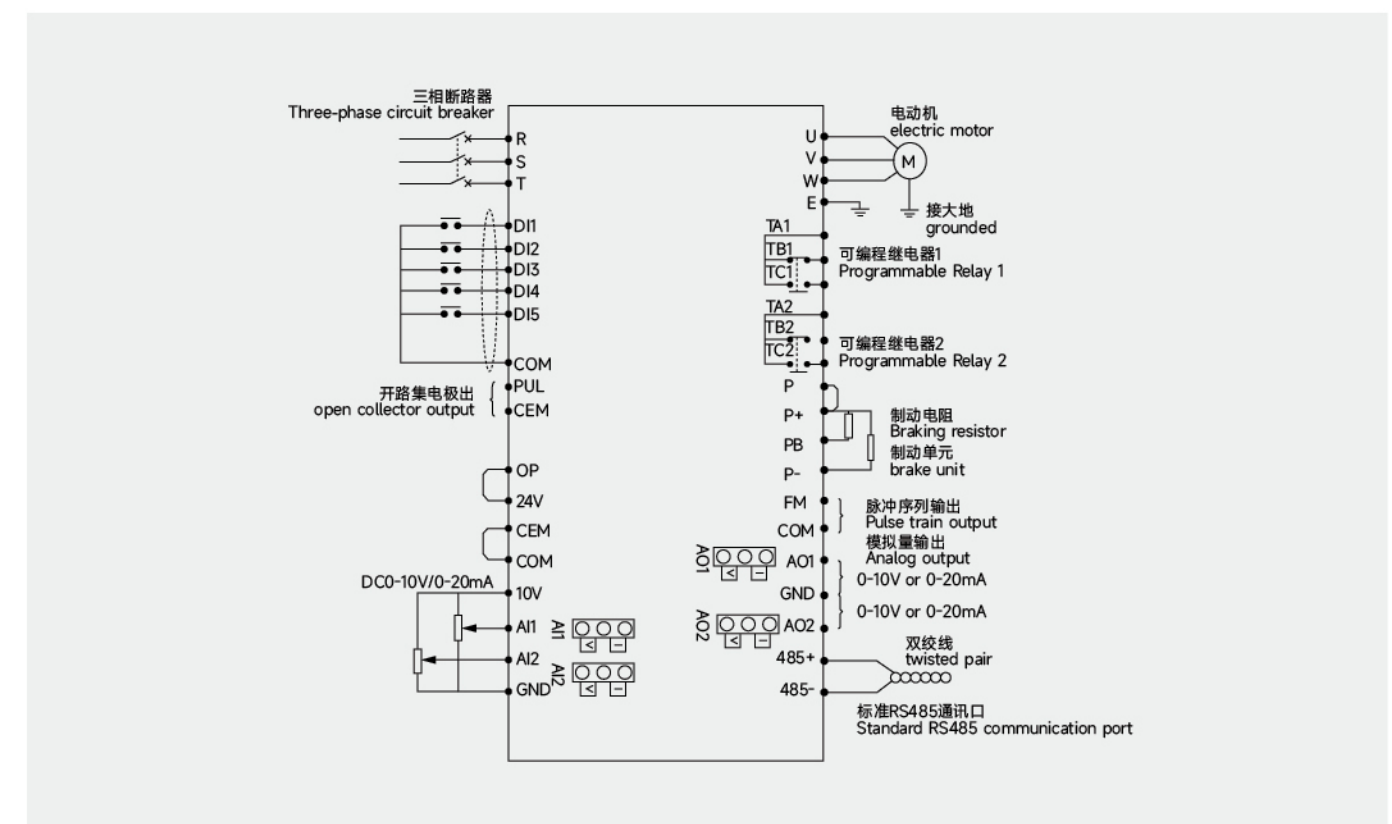
升级双显控制面板，可以对变频器进行功能参数修改、运行停机控制、工作状态监控等操作，其外形及功能区如下图所示：



■ PRODUCT CHARACTERISTIC / 产品特点

- High performance vector control (low speed and high torque output, good dynamic characteristics, strong overload capacity)
- The design uses unique tree radiator, switching power supply and other technologies to make the machine performance more superior.
- A variety of protection technologies and new components are used in the circuit and process to significantly improve the anti-interference ability of the whole machine
- Multi-speed operation via built-in PLC or control terminals
- Modulation methods : Optimized space voltage vector SVPWM modulation and FVPWM modulation
- Automatic energy-saving operation : according to the load, automatically optimize the V / F curve, to achieve energy-saving operation
- Switch input channel : positive and reverse instructions ; 8 programmable switch input, can set 52 kinds of functions respectively
- Super overload capacity : 150 % rated current running 60 s downtime
- Communication function : Supports six fieldbuses : Modbus, Profibus-DP, CANlink, CANopen, Profinet, EtherCAT
- 高性能矢量控制 (低速高转矩输出, 具有良好的动态特性、超强的过载能力)
- 设计上运用独有的树状散热器, 开关电源等多项技术, 使机器性能更加优越
- 电路及工艺上采用多种防护技术和新元器件, 显著提高整机抗干扰能力
- 通过内置 PLC 或控制端子实现多段速运行
- 调制方式: 优化空间电压矢量 SVPWM 调制和 FVPWM 调制
- 自动节能运行: 根据负载情况, 自动优化 V/F 曲线, 实现节能运行
- 开关输入通道: 正、反转指令; 8 路可编程开关量输入, 可分别设定 52 种功能
- 超强的过载能力: 150% 额定电流运行 60s 停机
- 通讯功能: 支持六种现场总线: Modbus、Profibus-DP、CANlink、CANopen、Profinet、EtherCAT

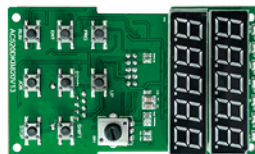
■ BASIC OPERATION WIRING DIAGRAM / 基本运行接线图



■ **SPX FUNCTION BOARD / SPX VFD 功能板**



Control motherboard 控制主板

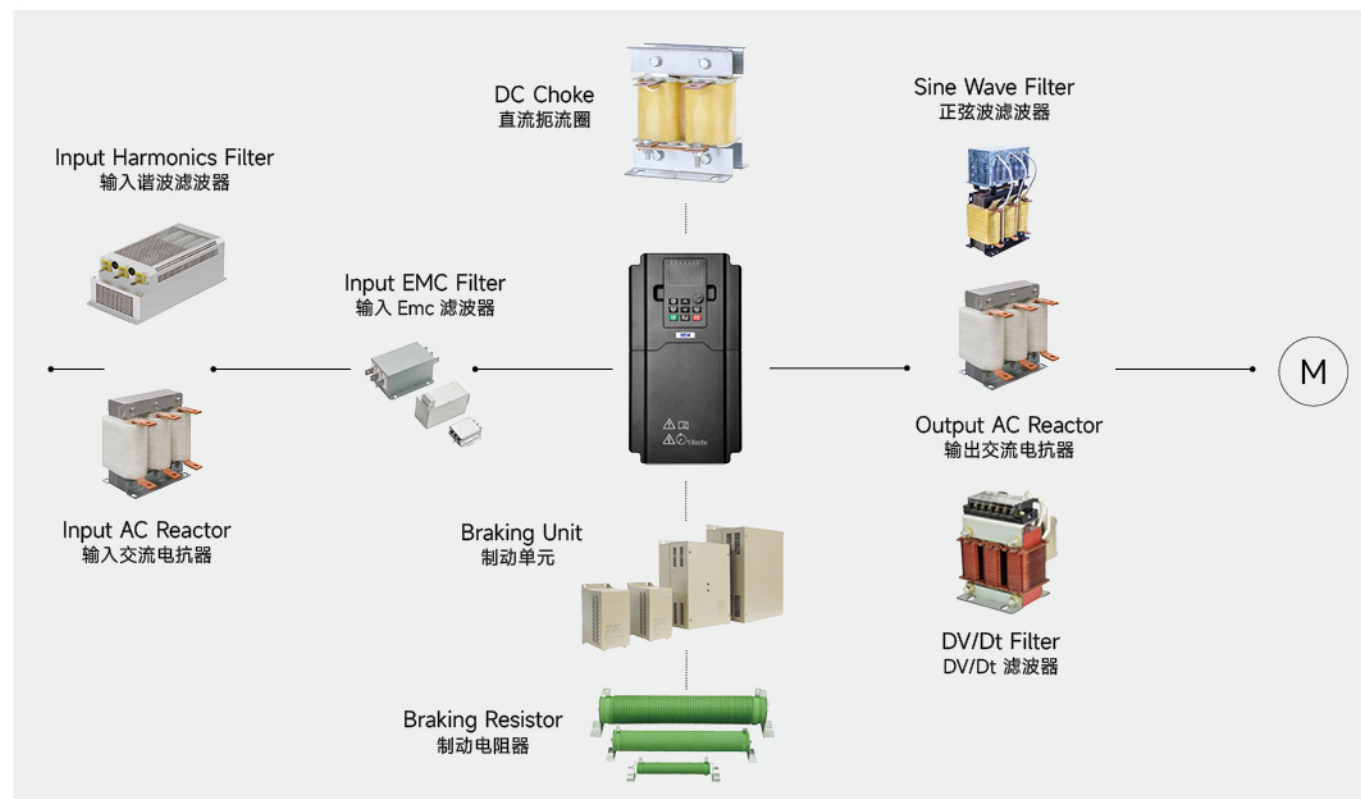


Display panel 显示板



Driver board 驱动电路

■ **SPX COMPLETE VFD CONTROL SYSTEM CUSTOMIZATION / SPX VFD 控制系统定制**



SP9000 SERIES CRANE AND HOIST SOLUTION

SP9000 系列起重机和卷扬机的解决方案

■ **FEATURES / 特点**

SPX crane VFD is a special hoist and crane frequency converter for crane loads, which is widely used in lifting applications, like electric hoists, mine hoists, winches, translation mechanisms of gantry or bridge cranes, and other occasions.

SPX 型起重机变频器是一种用于起重机负载的专用提升机和起重机变频器，广泛应用于电动葫芦、矿井提升机、绞车、门式或桥式起重机平移机构等起重应用场合。



SP9000 AIR COMPRESSOR SOLUTION SERIES

SP9000 空气压缩机溶液系列



Model: SP9000-4T0015G

IP20

Power: 1.5kW

Input: AC 3PH 380V 50/60Hz

Output: AC 3PH 0-380V 0-500Hz 3.8A

S/N:

Made in China

ZHEJIANG SPX ELECTRIC CO.,LTD.

■ **FEATURES / 特点**

SP9000 series frequency converter has tailored control logic for air compressor, directly support the input of multiple signals like emergency stop, pressure, temperature, fault, etc.

It can realize the control to electromagnetic valve, supply 24V power to external touch screen, provide MODBUS communication port, match SPX air compressor touch screen without external control or PLC.

While greatly simplifying the electrical system of air compressor, the solution achieves perfect frequency control.

SP9000 系列变频器为空压机量身定制了控制逻辑，直接支持急停、压力、温度、故障等多种信号的输入。

可以实现对电磁阀的控制，为外部触摸屏提供 24V 电源，提供 MODBUS 通讯端口，匹配 SPX 空压机触摸屏，无需外部控制或 PLC。

该方案在大大简化空压机电气系统的同时，实现了完美的频率控制。



■ **APPLICATION / 应用**



PMSM Compressor 永磁同步压缩机