

PROFINET Technical Specifications

Items	Specifications	Items	Specifications
Support protocol	PROFINET protocol	Physical layer	100BASE-TX
Process data	RT: Mini. 1ms IRT: Mini. 500us	Number of slaves	The protocol supports up to 65535 (determined by PLC performance)
Non-periodic data	Supports access to profile parameters and function code parameters	Configuration file	GSD file
Duplex mode	Full duplex	Control mode	AC1 (speed control) AC3 (internal position control) AC4 (PLC internal position control + speed control) AC4 + DSC (dynamic servo control)
Baud rate	100M bit/s	Media redundancy	Supported

General specifications

Items		Specifications							
SV-X5ER□□□A		010	020	040	075	100	150	200	250
Applicable motor		100W	200W	400W	750W	1KW	1.5KW	2KW	2.5KW
Rated current (mA)		1.2	2	3	4.5	6	10	12.5	15.6
Maximum output current (mA)		3.6	6	9	13.5	18	30	37.5	37.5
Input Power		Single-phase 200~240V 50/60Hz					Single-/three-phase 200~240V 50/60Hz		
External dimensions	W(mm)	35			52		80		
	H(mm)	162			162		170		
	D(mm)	152			152		184		
Ambient temperature		Operating temperature: 0 ~ 55 °C , storage temperature: -20 ~ 65 °C							
Ambient humidity		20 to 85%RH or less (no condensation) for operating and storage temperature							
Altitude		Altitude 1000m or less							
Vibration		5.8m/S (0.6G) or less 10 to 60Hz (cannot be used continuously at resonance frequency)							
Digital I/O		5 inputs, 3 outputs							

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All information in this document is subject to change without notice.
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Due to the delay in updating the paper version, please refer to the official website for the latest product information.

PROFINET is a new Ethernet communication system developed by Siemens and the PROFIBUS User Association;
Other products, product names, trademarks or registered trademarks of the products belong to the respective companies and are not our products.

X5ER PROFINET Bus Servo

Meet the market demand for PROFINET bus products





RT/IRT Matching

Much Richer and More Exquisite

SV-X5 E R 040 A - A 0 - 00

1 2 3 4 5 6 7 8

1 Product Series

2 Models	
E	Standard type
F	Full-functional type

3 Control Type	
R	PROFINET

Control Type	ER	FR
I/O	5DI/3DO	5DI/3DO
Dynamic brake	√	√
STO function	-	√

4 Drive power

010	100W
020	200W
040	400W
075	750W
100	1KW
150	1.5KW
200	2KW
250	2.5KW
300	3.0KW
500	5.0KW
600	6.0KW
750	7.5KW

5 Voltage type

A	220V
T	380V

6 Control power type

A	AC power
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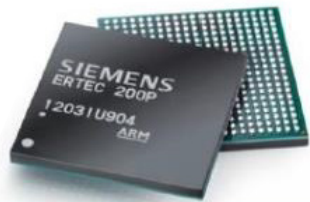
7 Version iteration

0	By default
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8 Hardware Identification

00	By default
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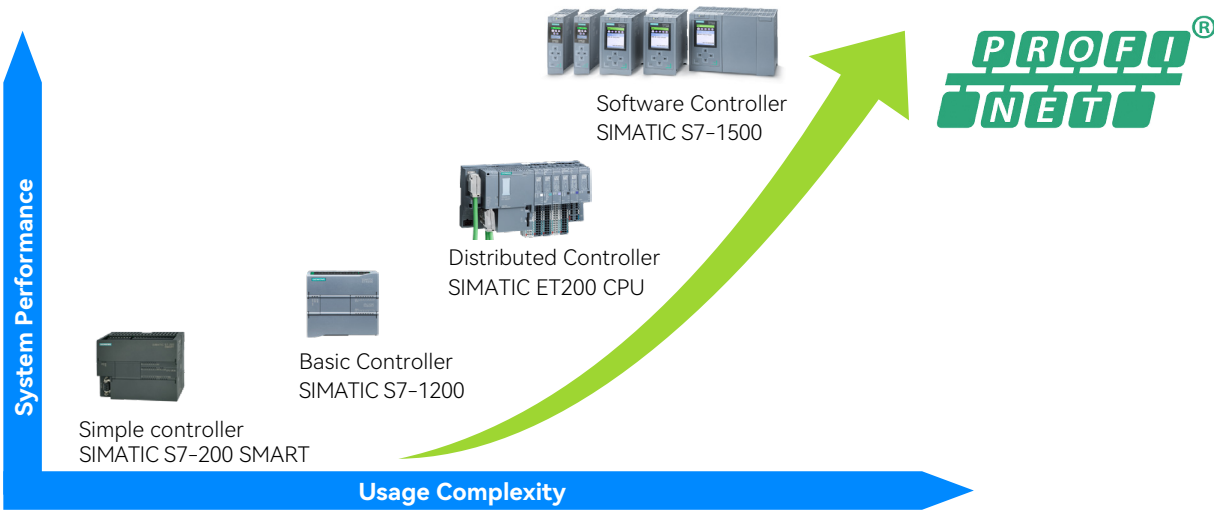
- Adopt Siemens ERTEC200P dedicated chip solution
- With a wider range of power and models to select
- With higher control accuracy, max. resolution can reach 23BIT
- Various message options can realize various control methods



Message	Standard message1	Standard message2	Standard message3	Standard message5	Standard message7	Standard message9	Siemens message102	Siemens message105	Siemens message110	Siemens message111	Siemens message750
Supported	√	-	√	√	√	√	√	√	-	√	√

Support multiple PN bus control

- Whether it is simple single-axis control or complex multi-axis synchronous motion control, the X5FR/ER series can perfectly adapt to Siemens PN bus PLCs such as S7-200 Smart, S7-1200, S7-1500 and Simotion.



Smaller synchronization period

- Smaller synchronization cycle, the minimum synchronization cycle is 500us, to achieve precise servo process control

Transmission distance	Real-time communication	Isochronous communication	Synchronization cycle
100 m	RT	IRT	500 μs

Richer and more exquisite servo motors

- 9 series of servo motors, more than 80 types of models, covering high, medium and low inertia
- Can match with X6 optical encoder motor to achieve 23-bit high-precision control and has higher positioning accuracy

