MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7288-1SR20-0AA0

CPU SR20 COMPACT CONTROLLER

Used with the applicable SIMATIC S7-200 SMART configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Official Siemens technical documentation for 6ES7288-1SR20-0AA0

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Data sheet 6ES7288-1SR20-0AA0

SIMATIC S7-200 SMART, CPU SR20, CPU, AC/DC/relay, onboard I/O: 12 DI 24 V DC; 8 DO relay 2A; Power supply: AC 85-264 V AC at 47-63 Hz, Program/data memory 20 KB



General information	
Product type designation	CPU SR20 AC/DC/Relay
Engineering with	
• Programming package	STEP 7 Micro/WIN SMART
Installation type/mounting	
Rail mounting	Yes; Standard - DIN rail
Supply voltage	
Type of supply voltage	85V to 264VAC
Rated value (DC)	
• 24 V DC	No
Rated value (AC)	
• 120 V AC	Yes
• 230 V AC	Yes
permissible range, lower limit (AC)	85 V
permissible range, upper limit (AC)	264 V
Line frequency	
• permissible range, lower limit	47 Hz
• permissible range, upper limit	63 Hz

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Input current	
Current consumption (rated value)	170 mA; at 240 V AC
Current consumption, max.	290 mA; At 120 V DC
Inrush current, max.	9.3 A; at 264 V
Output current	
Current output, max.	300 mA; 24 V DC Sensor Power
for backplane bus (5 V DC), max.	1.4 A; max. 5 V DC for EM bus
Power loss	
Power loss, max.	14 W
Memory	
Type of memory	DDR
Flash	Yes
RAM	Yes
Memory available for user data	8 kbyte
Memory size	12 kbyte; Program memory
Micro Memory Card	Yes; microSDHC Card (optional)
CPU processing times	
for bit operations, typ.	150 ns; / instruction
for word operations, typ.	1.2 µs; / instruction
for floating point arithmetic, typ.	3.6 µs; / instruction
Address area	
I/O address area	
• Inputs	144 byte; 256 bit of digital inputs & 56 words of analog inputs
• Outputs	144 byte; 256 bit of digital outputs & 56 words of analog outputs
Time of day	
Clock	
• Type	Hardware clock, no battery backup
• Hardware clock (real-time)	Yes
• Backup time	7 d
• Deviation per day, max.	4 s; within 120s/month at 25 °C
Digital inputs	
Number of digital inputs	12
Input voltage	
• Type of input voltage	DC
• Rated value (DC)	24 V
• for signal "0"	< 5 V DC
• for signal "1"	+15 to +30V
Input current	
• for signal "1", typ.	4 mA
Cable length	

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• shielded, max.	500 m; 50m shielded for HSC inputs
• unshielded, max.	300 m
Digital outputs	
Number of digital outputs	8; Relays
Switching capacity of the outputs	
• with resistive load, max.	2 A
• on lamp load, max.	30 W; 30 W with DC, 200 W with AC
Relay outputs	
• Number of relay outputs	8
Cable length	
• shielded, max.	500 m
• unshielded, max.	150 m
Interfaces	
Number of industrial Ethernet interfaces	1
Number of RS 485 interfaces	1
1. Interface	
Interface type	Ethernet
Physics	RJ45
Isolated	Yes; Transformer isolated, 1,500V AC
automatic detection of transmission rate	Yes; 10/100 Mbit/s
Autonegotiation	Yes
Autocrossing	Yes
2. Interface	
Interface type	RS 485 (max. 187.5 Mbit/s)
Communication functions	
S7 communication	
• supported	Yes
• as server	Yes
• as client	Yes
Test commissioning functions	
Forcing	
• Forcing	Yes
Integrated Functions	
Number of counters	4; 4 HSC at 200 kHz for single phase or 2 HSC at 100 kHz for A/B phase
PID controller	Yes; PID closed-loop control function: Continuous controller outputs, binary controller outputs, automatic/manual mode, max. 8 loops
EMC	
Interference immunity against discharge of static electricity	

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