

Technical specifications Standard CPUs

| CPU | CPU 312 | CPU 314 ¹⁾ | CPU 315-2 DP ¹⁾ | CPU 315-2 PN/DP ¹⁾ | CPU 317-2 DP | CPU 317-2 PN/DP ¹⁾ | CPU 319-3 PN/DP |
|---------------------------------------|----------------|-----------------------|----------------------------|-------------------------------|----------------|-------------------------------|-----------------|
| Dimensions (mm) | 40 x 125 x 130 | | 40 x 125 x 130 | 80 x 125 x 130 | 80 x 125 x 130 | | 120 x 125 x 130 |
| Order No. group: 6ES7 | 312-1AE. | 314-1AG. | 315-2AG. | 315-2EH. | 317-2AJ. | 317-2EK. | 318-3EL. |
| Memory | | | | | | | |
| RAM | 32 KB | 96 KB | 128 KB | 256 KB | 512 KB | 1 MB | 1.4 MB |
| Instructions | 10 K | 32 K | 42 K | 84 K | 170 K | 340 K | 470 K |
| Processing times | | | | | | | |
| Bit operation | 0,2 µs | 0,1 µs | 0,1 µs | | 0,05 µs | | 0.01 µs |
| Word operation | 0,4 µs | 0,2 µs | 0,2 µs | | 0,2 µs | | 0.02 µs |
| Fixed-point operation | 5 µs | 2 µs | 2 µs | | 0,2 µs | | 0.02 µs |
| Floating-point operation | 6 µs | 3 µs | 3 µs | | 1 µs | | 0.04 µs |
| Bit memories/timers/counters | | | | | | | |
| Bit memory | 128 bytes | 256 bytes | 2048 bytes | | 4096 bytes | | 8192 bytes |
| S7 timers/counters | 128/128 | 256/256 | 256/256 | | 512/512 | | 2048/2048 |
| IEC timers/counters | ■ | ■ | ■ | | ■ | | ■ |
| Address areas | | | | | | | |
| I/O (bytes) | 1024/1024 | 1024/1024 | 2048/2048 | | 8192/8192 | 8192/8192 | 8192/8192 |
| I/O process image (bytes) | 128/128 | 128/128 | 128/128 | | 256/256 | 2048/2048 | 2048/2048 |
| Digital channels (central) | 256 | 1024 | 1024 | | 1024 | 1024 | 1024 |
| Analog channels (central) | 64 | 256 | 256 | | 256 | 256 | 256 |
| DP interfaces | | | | | | | |
| DP master systems internal / CP 342-5 | -/ ■ | | ■ / ■ | | ■ / ■ | ■ / ■ | ■ / ■ |
| DP slaves | | | ■ | | ■ | ■ | ■ |
| PROFINET interface | | | | | | | |
| PROFINET CBA | | | | ■ | | ■ | ■ |
| PROFINET IO | | | | ■ | | ■ | ■ |
| TCP/IP | | | | ■ | | ■ | ■ |
| UDP | | | | ■ | | ■ | ■ |
| ISO-on-TCP (RFC 1006) | | | | n | | ■ | ■ |
| Web Server | | | | n | | ■ | ■ |

¹⁾ as SIPLUS component also for extended temperature range -25...+60°C and aggressive atmosphere/condensation (www.siemens.com/siplus)

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