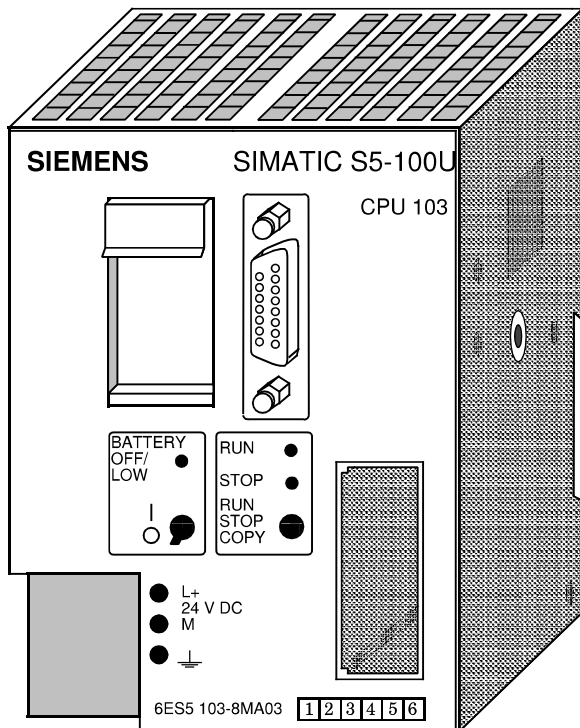


CPU 103

(6ES5 103-8MA03)



Technical specifications

Processor	Byte/bit processor
Memory configuration	
- internal memory	RAM 10240 statements
- memory submodule	EPROM/EEPROM
Real-time clock	
- Accuracy	±2s/day
- Variation due to temperature changes	
(T _A ambient temperature in °C)	-3.5x(T _A -15) ² ms/day
- e.g. tolerance at 40 °C	±2s-3.5x(40-15) ² ms/day approx. 0 to -4s/day
Execution times	
- per binary operation	approx. 0.8 μs
- per word operation	approx. 100 μs
Scan monitoring time	500 ms, selectable
Flags	2048; 512 retentive
Timers: Number/range	approx. 128; 0.01 to 9990 s
Counters: Number/range	128; 8 retentive 0 to 999 (up/down)
Digital inputs,	
Digital outputs	together max. 256
Analog inputs,	
Analog outputs	together max. 32
Organization blocks	OB1, 2, 13, 21, 22, 31, 34, and 251
Program blocks	0 to 255
Function blocks	
- programmable	0 to 255
- integrated	240 to 243, 250 and 251
Sequence blocks	0 to 255
Data blocks	2 to 255
Number of operations	approx. 180

Power supply (internal)

Input voltage	
- nominal value	24 V DC
- permiss. range	18 to 34 V
Current consumption from +24 V	1 A
Output voltage	
- V 1 (for I/Os)	+9 V
- V 2 (for programmer)	+5.2 V
Output current	
- from V 1	1 A
- from V 2	0.65 A
Short-circuit protection	electronic
Protection class	class 1
Galvanic isolation	no
Backup battery	Lithium Battery (3.4 V/ 850 mAh)
- backup time	min. 1 year (at 25 °C [77 °F]) and uninterrupted backup of CPU)
- service life	approx. 5 years (at 25 °C [77 °F])

Permissible ambient temperature	
- horizontal arrangement	0 to 55 °C (32 to 131 °F)
- vertical arrangement	0 to 40 °C (32 to 104 °F)
Connector cross-sectional area	
- stranded, with core end sleeves	2x0.5 to 1.5 mm ²
- solid	2x0.5 to 2.5 mm ²
Power losses of the module	typ. 11.6 W
Dimensions (WxHxD) in mm	91.5x135x120
in.	(3.6 x 5.3 x 4.7)
Weight	
- CPU module	approx. 0.65 kg (1.4 lbs)
- memory submodule	approx. 0.1 kg (0.2 lbs)

