

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

S7-300

6ES7313-6CE01-0AB0

CPU 313C-2 DP CONTROLLER

Used with the applicable SIMATIC S7-300 compact CPUs configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens official product documentation

SIMATIC S7-300, CPU 313C-2DP COMPACT CPU WITH MPI, 16 DI/16 DO, 3 FAST COUNTERS (30 KHZ), INTEGRATED DP INTERFACE, INTEGRATED 24V DC POWER SUPPLY, 32 KBYTE WORKING MEMORY, FRONT CONNECTOR (1 X 40PIN) AND MICRO MEMORY CARD REQUIRED

General information	
Hardware product version	01
Firmware version	V2.0.0
Engineering with	
Programming package	STEP 7 V5.2 SP1 or higher (with STEP 7 V5.1 SP3 or higher, please use predecessor CPU)
Supply voltage	
Rated value (DC)	
24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Load voltage L+	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	900 mA
Current consumption (in no-load operation), typ.	100 mA
Inrush current, typ.	11 A
Power loss	
Power loss, typ.	10 W
Memory	
Work memory	
integrated	32 kbyte; For program and data
expandable	No
Load memory	
Plug-in (MMC)	Yes
Plug-in (MMC), max.	8 Mbyte
Data management on MMC (after last programming), min.	10 y
Backup	
present	Yes; Guaranteed by MMC (maintenance-free)

• without battery	Yes; Program and data
CPU processing times	
for bit operations, typ.	0.1 µs
for bit operations, max.	0.2 µs
for word operations, typ.	0.2 µs
for fixed point arithmetic, typ.	2 µs
for floating point arithmetic, typ.	3 µs
CPU-blocks	
Number of blocks (total)	1 024
DB	
• Number, max.	511; Number range: 1 to 511
• Size, max.	16 kbyte
FB	
• Number, max.	512; Number range: 0 to 2047
• Size, max.	16 kbyte
FC	
• Number, max.	512; Number range: 0 to 2047
• Size, max.	16 kbyte
OB	
• Number, max.	see instruction list
• Size, max.	16 kbyte
• Number of free cycle OBs	1; OB 1
• Number of time alarm OBs	1; OB 10
• Number of delay alarm OBs	1; OB 20
• Number of cyclic interrupt OBs	1; OB 35
• Number of process alarm OBs	1; OB 40
• Number of startup OBs	1; OB 100
• Number of asynchronous error OBs	1; OB 80
• Number of synchronous error OBs	2; OB 121, 122
Nesting depth	
• per priority class	8
• additional within an error OB	4
Counters, timers and their retentivity	
S7 counter	
• Number	256
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	256
Counting range	
— lower limit	0