SIEMENS

Data sheet

6ES7315-6TH13-0AB0

*** SPARE PART*** SIMATIC S7-300, CPU 315T-2 DP, CENTRAL PROCESSING UNIT FOR PLC AND TECHNOLOGY 256 KBYTE WORKING MEMORY, 1. INTERFACE MPI/DP 12MBIT/S 2. INTERFACE DP(DRIVE), INTEGRATED I/O FOR TECHNOLOGY FRONT CONNECTOR (1 X 40PIN) AND MICRO MEMORY CARD MIN. 8 MB NECESSARY



General information	
Hardware product version	01
Firmware version	CPU: V2.7, integrated technology: V4.1.5
Engineering with	
Programming package	STEP 7 V5.4 + SP5 (and higher) and Optional package S7- Technology V4.2
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
external protection for power supply lines (recommendation)	2 A min.
Load voltage L+	
Rated value (DC)	24 V
 Reverse polarity protection 	Yes
Digital outputs	
Load voltage L+	
— Rated value (DC)	24 V; (2L+)

— Reverse polarity protection	No; (2L+)
Input current	
Current consumption (in no-load operation), typ.	200 mA
Inrush current, typ.	2.5 A
l²t	1 A²·s
Power loss	
Power loss, typ.	6 W
Memory	
Work memory	
• integrated	256 kbyte
• 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.	0.1 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; (DBs, FCs, FBs); the maximum number of loadable blocks can be reduced by the MMC used.
DB	
• Number, max.	1 023; Number band: 1 to 1023
● Size, max.	64 kbyte
FB	
Number, max.	1 024; Number range: 0 to 2047
• Size, max.	64 kbyte
FC	
• Number, max.	1 024; Number range: 0 to 2047
• Size, max.	64 kbyte
ОВ	
Description	see instruction list
	CAllbuta
• Size, max.	64 kbyte

 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 DPV1 alarm OBs 	3; OB 55, 56, 57
 Number of isochronous mode OBs 	1; OB 61
 Number of technology synchronous alarm OBs 	1; OB 65
 Number of startup OBs 	1; OB 100
 Number of asynchronous error OBs 	5; OB 80, 82, 85, 86, 87
 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	

Counters, timers and their retentivity	
S7 counter	
Number	256; Number range: 0 to 255
Retentivity	
— adjustable	Yes
— preset	8
Counting range	
— can be set	Yes
— lower limit	0
— upper limit	999
IEC counter	
• present	Yes
• Type	SFB
• Number	Unlimited (limited only by RAM capacity)
S7 times	
Number	256; Number range: 0 to 255
of which retentive without battery	
— adjustable	Yes; From Z 0 to Z 7
Retentivity	
— adjustable	Yes
— preset	No retentivity
Time range	
— lower limit	10 ms
— upper limit	9 990 s
IEC timer	
• present	Yes
● Type	SFB
• Number	Unlimited (limited only by RAM capacity)

retentive data area in total Flag Number, max. Retentivity available Retentivity preset Retentivity preset Number of clock memories Number of clock memories 1 023; From DB 1 to DB 1023 63; Le, max. Retentivity preset R	Data areas and their retentivity	
Number, max. Retentivity available Retentivity preset Number of clock memories Number of clock memories Number, max. Number of subprocess images. Number of subprocess images. Number of subprocess images. Number of subprocess images. Number of which central		All DBs, max. 128 KB
Retentivity available Retentivity preset Retentivity preset Number of clock memories Number inax. Number inax. Size, max. Retentivity adjustable Retentivity adjustable Retentivity preset Retentivity adjustable Retentivity preset Retentivity adjustable Retentivity preset Retentivity preset Retentivity adjustable Retentivity preset Retenti	Flag	
Retentivity preset Number of clock memories 8; 1 memory byte Data blocks Number, max. 1 023; From DB 1 to DB 1023 Size, max. 64 kbyte Retentivity adjustable Retentivity preset Yes: via non-retain property on DB Retentivity preset Local data • per priority class, max. Address area // Datdress area // Datdress area // Inputs 2 048 byte Outputs 2 048 byte // Outputs, adjustable // Outputs, adjustable // Outputs, adjustable // Outputs, default // Default addresses of the integrated channels // Digital inputs // Digital inputs // Oitputs // Outputs /	Number, max.	2 048 byte
Number of clock memories Pata blocks Number, max. Size, max. Size, max. Retentivity adjustable Retentivity preset Local data Per priority class, max. Inputs Cutputs Cutputs Cutputs Cutputs Cutputs, adjustable Cutputs, adjustable Cutputs, default Default addresses of the integrated channels Digital channels Number of subprocess images, max. Number Cutputs Cutputs, adjustable Cutputs, adjustable Cutputs, default Cutputs, default Cutputs, default Cutputs, default Cutputs, default Cutputs	Retentivity available	Yes; MB 0 to MB 2047
Data blocks	Retentivity preset	MB 0 to MB 15
Number, max. Size, max. Size, max. Retentivity adjustable Retentivity preset Yes Retentivity preset Yes Retentivity preset Yes Yes Local data Per priority class, max. 1 024 byte Address area // O address area // O address area // O utputs Outputs Outputs Outputs Outputs Outputs Process image // O nuputs, adjustable Outputs, adjustable Outputs, adjustable Outputs, adjustable Outputs, default Outputs, default Outputs, default Outputs, default Outputs Outputs // O nuputs Outputs	 Number of clock memories 	8; 1 memory byte
• Size, max. • Retentivity adjustable • Retentivity preset Pes **Local data • per priority class, max. **Address area **Inputs • Outputs • Inputs • Inputs, adjustable • Outputs, adjustable • Outputs, default • Default addresses of the integrated channels — Digital inputs — Digital outputs • Outputs • Outputs **Digital channels • Inputs — of which central • Outputs • Outputs • Inputs — of which central • Outputs • Inputs — of which central • Outputs — of which central • Outputs	Data blocks	
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Retentivity preset Local data	• Size, max.	64 kbyte
Local data • per priority class, max. 1 024 byte Address area I/O address area • Inputs • Outputs • Outputs con which distributed — Inputs — Outputs • Inputs • Inputs • Inputs • Inputs, adjustable • Outputs, adjustable • Outputs, default Default addresses of the integrated channels — Digital outputs 66 Subprocess images • Number of subprocess images, max. Digital channels • Inputs — of which central • Outputs Analog channels • Inputs — of which central • Outputs	Retentivity adjustable	Yes; via non-retain property on DB
Per priority class, max. Address area I/O add byte I/O add b	 Retentivity preset 	Yes
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I/O address area Inputs	• per priority class, max.	1 024 byte
	Address area	
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of which distributed — Inputs — Outputs 2 048 byte Process image • Inputs, adjustable • Outputs, adjustable 128 byte • Outputs, default 128 byte • Outputs, default 128 byte Outputs, default 128 byte Default addresses of the integrated channels — Digital inputs 66 — Digital outputs 66 Subprocess images • Number of subprocess images, max. Digital channels • Inputs — of which central 512 • Outputs — of which central 512 Analog channels • Inputs — of which central 512 Analog channels • Inputs — of which central 64 • Outputs — of which central 64 • Outputs — of which central 64 • Outputs — of which central	• Inputs	2 048 byte
— Inputs 2 048 byte — Outputs 2 048 byte Process image • Inputs, adjustable 2 048 byte • Outputs, adjustable 2 048 byte • Inputs, default 128 byte • Outputs, default 128 byte Default addresses of the integrated channels — Digital inputs — Digital outputs 66 Subprocess images • Number of subprocess images, max. 1 Digital channels • Inputs 16 384 — of which central 512 • Outputs 16 384 — of which central 512 Analog channels • Inputs 1 024 — of which central 64 • Outputs 1 024 — of which central 64 • Outputs 1 024	Outputs	2 048 byte
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	● Inputs, adjustable	2 048 byte
Outputs, default Default addresses of the integrated channels — Digital inputs — Digital outputs 66 — Digital outputs Subprocess images • Number of subprocess images, max. 1 Digital channels • Inputs — of which central • Outputs — of which central 512 Analog channels • Inputs — of which central 512 Analog channels • Inputs — of which central 64 • Outputs — of which central 64 • Outputs 1 024	 Outputs, adjustable 	2 048 byte
Default addresses of the integrated channels - Digital inputs 66 - Digital outputs 66 Subprocess images • Number of subprocess images, max. 1 Digital channels • Inputs - of which central • Outputs - of which central • Inputs - of which central • Inputs - of which central • Inputs - of which central • Outputs - Outputs	Inputs, default	128 byte
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— of which central 512 Analog channels 1 024 — of which central 64 ● Outputs 1 024	— of which central	512
Analog channels Inputs of which central Outputs 1 024 64 1 024	Outputs	16 384
● Inputs 1 024 — of which central 64 ● Outputs 1 024	— of which central	512
 — of which central Outputs 64 1 024 	Analog channels	
• Outputs 1 024	• Inputs	1 024
	— of which central	64
— of which central 64	Outputs	1 024
	— of which central	64

Hardware configuration	
Number of expansion units, max.	0
Number of DP masters	
• integrated	2; 1 DP and 1 DP (drive)
• via CP	2; for DP
Number of operable FMs and CPs (recommended)	
• FM	8
• CP, PtP	8
• CP, LAN	10
Rack	
● Racks, max.	1
 Modules per rack, max. 	8
Time of day	
Clock	
Hardware clock (real-time)	Yes
 retentive and synchronizable 	Yes
Backup time	6 wk; At 40 °C ambient temperature
 Deviation per day, max. 	10 s
Operating hours counter	
• Number	1
 Number/Number range 	0
 Range of values 	0 to 2^31 hours (when using SFC 101)
Granularity	1 hour
• retentive	Yes; Must be restarted at each restart
Clock synchronization	
• supported	Yes
• to MPI, master	Yes
● to MPI, slave	Yes
• to DP, master	Yes
• to DP, slave	Yes
• in AS, master	Yes
• in AS, slave	Yes
Digital inputs	
Number of digital inputs	4
 of which inputs usable for technological 	4
functions	
Input characteristic curve in accordance with IEC	Yes
61131, type 1	
Number of simultaneously controllable inputs	
horizontal installation	
— up to 40 °C, max.	4

— up to 60 °C, max.	4
vertical installation	
— up to 40 °C, max.	4
Input voltage	
Rated value (DC)	24 V
● for signal "0"	-3 to +5V
• for signal "1"	+15 to +30V
Input current	
• for signal "1", typ.	7 mA
Input delay (for rated value of input voltage)	
for counter/technological functions	
— at "0" to "1", max.	10 μs; Typical
— at "1" to "0", max.	10 μs; Typical
Cable length	1 7 31
• shielded, max.	1 000 m
Chiologa, max.	
Digital outputs	
Number of digital outputs	8
• of which high-speed outputs	8
Functions	For technology functions, e.g. high-speed cam switch signals
Short-circuit protection	Yes
Response threshold, typ.	1 A
Limitation of inductive shutdown voltage to	48 V
Controlling a digital input	No
Switching capacity of the outputs	
• on lamp load, max.	5 W
Load resistance range	
• lower limit	48 Ω
• upper limit	4 kΩ
Output voltage	
• for signal "0", max.	3 V; (2L+)
● for signal "1", min.	Rated voltage -2.5 V
Output current	
● for signal "1" rated value	0.5 A
• for signal "1" permissible range for 0 to 60 °C,	5 mA
min.	
 for signal "1" permissible range for 0 to 60 °C, max. 	0.6 A
• for signal "0" residual current, max.	0.3 mA
Parallel switching of two outputs	
• for uprating	No
 for redundant control of a load 	No
Switching frequency	

with inductive load, max. on lamp load, max. 100 Hz Total current of the outputs (per group) horizontal installation — up to 40 °C, max. — up to 60 °C, max. — up to 60 °C, max. 3 A all other mounting positions — up to 40 °C, max. 3 A Cable length • shielded, max. Analog inputs Number of analog inputs O Analog outputs Number of analog outputs 0 Encoder Connectable encoders • 2-wire sensor No Interfaces Number of RS 485 interfaces Number of RS 422 interfaces Interface type Integrated RS 485 interface Physics RS 485 Isolated Prower supply to interface (15 to 30 V DC), max. Pyes Prower Blus DP master PROFIBUS DP master PROFIBUS DP master Per PROFIBUS DP master Per PROFIBUS DP palave Point-to-point connection No		
on lamp load, max. Total current of the outputs (per group) horizontal installation — up to 40 °C, max. — up to 60 °C, max. 3 A all other mounting positions — up to 40 °C, max. 3 A Cable length • shielded, max. 1 000 m Analog inputs Number of analog inputs 0 Analog outputs Number of analog outputs 0 Encoder Connectable encoders • 2-wire sensor No Interfaces Number of RS 422 interfaces 0 Number of RS 422 interfaces 1 interface type Physics RS 485 Isolated Physics RS 485 Isolated Power supply to interface (15 to 30 V DC), max. Functionality • MPI • PROFIBUS DP master • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection	with resistive load, max.	100 Hz
Total current of the outputs (per group) horizontal installation — up to 40 °C, max.	with inductive load, max.	0.2 Hz; According to IEC 60947-5-1, DC-13
horizontal installation - up to 40 °C, max. 4 A - up to 60 °C, max. 3 A all other mounting positions - up to 40 °C, max. 3 A Cable length • shielded, max. 1 000 m Analog inputs Number of analog inputs 0 Analog outputs Number of analog outputs 0 Encoder Connectable encoders • 2-wire sensor No Interfaces Number of RS 485 interfaces 2 Number of RS 422 interfaces 0 1. Interface Interface type Integrated RS 485 interface Physics RS 485 Isolated Yes Power supply to interface (15 to 30 V DC), max. 200 mA Functionality • MPI • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection	● on lamp load, max.	100 Hz
- up to 40 °C, max. 4 A - up to 60 °C, max. 3 A all other mounting positions - up to 40 °C, max. 3 A Cable length • shielded, max. 1 000 m Analog inputs Number of analog inputs 0 Analog outputs Number of analog outputs 0 Encoder Connectable encoders • 2-wire sensor No Interfaces Number of industrial Ethernet interfaces 0 Number of RS 485 interfaces 2 Number of RS 422 interfaces 0 Interface Interface (15 to 30 V DC), max. 200 mA Functionality • MPI Yes • PROFIBUS DP master Yes • PROFIBUS DP slave • Point-to-point connection	Total current of the outputs (per group)	
— up to 60 °C, max. all other mounting positions — up to 40 °C, max. Cable length • shielded, max. 1 000 m Analog inputs Number of analog inputs 0 Analog outputs Number of analog outputs 0 Encoder Connectable encoders • 2-wire sensor No Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces Quinterfaces Interface interfaces Interface interfaces Physics Interface (15 to 30 V DC), max. Power supply to interface (15 to 30 V DC), max. Profilbus DP master • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection	horizontal installation	
all other mounting positions — up to 40 °C, max. 3 A Cable length • shielded, max. 1 000 m Analog inputs Number of analog inputs 0 Analog outputs Number of analog outputs 0 Encoder Connectable encoders • 2-wire sensor No Interfaces Number of industrial Ethernet interfaces 0 Number of RS 485 interfaces 2 Number of RS 422 interfaces 0 1. Interface Interface Uppe Integrated RS 485 interface Physics RS 485 Isolated Yes Power supply to interface (15 to 30 V DC), max. 200 mA Functionality • MPI Yes PROFIBUS DP master Yes PROFIBUS DP slave • Point-to-point connection	— up to 40 °C, max.	4 A
— up to 40 °C, max. Cable length ● shielded, max. 1 000 m Analog inputs Number of analog inputs 0 Analog outputs Number of analog outputs 0 Encoder Connectable encoders ● 2-wire sensor No Interfaces Number of industrial Ethernet interfaces 0 Number of RS 485 interfaces 2 Number of RS 422 interfaces 1. Interface Interface type Interface type Physics RS 485 Isolated Power supply to interface (15 to 30 V DC), max. Functionality ● MPI ● PROFIBUS DP master ● PROFIBUS DP slave ● Point-to-point connection No	— up to 60 °C, max.	3 A
Cable length • shielded, max. 1 000 m Analog inputs Number of analog inputs 0 Analog outputs Number of analog outputs 0 Encoder Connectable encoders • 2-wire sensor No Interfaces Number of RS 485 interfaces 0 Number of RS 422 interfaces 0 Interface Interface type Physics RS 485 Isolated Power supply to interface (15 to 30 V DC), max. Functionality • MPI • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection	all other mounting positions	
* shielded, max. Analog inputs Number of analog inputs O Analog outputs Number of analog outputs O Encoder Connectable encoders • 2-wire sensor No Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces 2 Number of RS 422 interfaces O I. Interface Interface type Interface type Physics RS 485 Isolated Yes Power supply to interface (15 to 30 V DC), max. Functionality • MPI • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection No	— up to 40 °C, max.	3 A
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Analog outputs Number of analog outputs Connectable encoders 2-wire sensor No Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 422 interfaces 1. Interface Interface type Interface type Physics RS 485 Isolated Power supply to interface (15 to 30 V DC), max. Functionality MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection O Connectable of the connection on No No No Point-to-point connection Poological Connection No	Analog inputs	
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Connectable encoders • 2-wire sensor No Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces 1 Number of RS 485 interfaces 2 Number of RS 422 interfaces 1 Interface Interface type Physics RS 485 Isolated Power supply to interface (15 to 30 V DC), max. Functionality • MPI • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection No	Francis	
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Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces 1. Interface Interface type Interface type Power supply to interface (15 to 30 V DC), max. Functionality MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection O Interface S Integrated RS 485 interface Integrated RS 485 interface Pyes Pyes Power Supply to interface (15 to 30 V DC), max. Yes Yes Profibus DP slave Point-to-point connection No		No
Number of industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 422 interfaces 1. Interface Interface type Integrated RS 485 interface Physics RS 485 Isolated Power supply to interface (15 to 30 V DC), max. Functionality MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection O Integrated RS 485 interface 2 Integrated RS 485 interface Ps 485 Isolated Yes Pes Power supply to interface (15 to 30 V DC), max. Yes No	Z-WITE SETISON	110
Number of RS 485 interfaces 1. Interface Interface type Integrated RS 485 interface Physics RS 485 Isolated Power supply to interface (15 to 30 V DC), max. Functionality MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection 2 Integrated RS 485 interface RS 485 Isolated Yes 200 mA Yes Yes PROFIBUS DP slave Point-to-point connection No		
Number of RS 422 interfaces 1. Interface Interface type Integrated RS 485 interface Physics RS 485 Isolated Yes Power supply to interface (15 to 30 V DC), max. Punctionality MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection No		0
Interface type Integrated RS 485 interface Physics RS 485 Isolated Yes Power supply to interface (15 to 30 V DC), max. 200 mA Functionality • MPI Yes • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection No		2
Interface type Physics RS 485 Isolated Power supply to interface (15 to 30 V DC), max. Power supply to interface (15 to 30 V DC), max. Functionality • MPI • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection No	Number of RS 422 interfaces	0
Physics Isolated Yes Power supply to interface (15 to 30 V DC), max. Punctionality MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection PS 485 Yes Yes No		
Isolated Yes Power supply to interface (15 to 30 V DC), max. 200 mA Functionality MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection Yes Yes No		
Power supply to interface (15 to 30 V DC), max. Functionality • MPI • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection Ves No	·	
Functionality • MPI • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection No		
 MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection Yes Point-to-point connection No		200 mA
 PROFIBUS DP master PROFIBUS DP slave Point-to-point connection Yes No 		
 PROFIBUS DP slave Point-to-point connection Yes No 	• MPI	
Point-to-point connection No		
	PROFIBUS DP slave	
MDI	·	No
	MPI	
• Number of connections 32	Number of connections	
• Transmission rate, max. 12 Mbit/s	• Transmission rate, max.	12 Mbit/s
Services	Services	
— PG/OP communication Yes	— PG/OP communication	Yes
— Routing Yes	— Routing	Yes
— Global data communication Yes	 Global data communication 	Yes
— S7 basic communication Yes	— S7 basic communication	Yes

— S7 communication	Yes
 — S7 communication, as client 	No; but via CP and loadable FB
— S7 communication, as server	Yes; Connection configured on one side only
DP master	
Transmission rate, max.	12 Mbit/s
• Number of DP slaves, max.	124
Services	
— PG/OP communication	Yes
— Routing	Yes
 Global data communication 	No
 S7 basic communication 	Yes; I blocks only
— S7 communication	Yes
 S7 communication, as client 	No; but via CP and loadable FB
 S7 communication, as server 	Yes; Connection configured on one side only
— Equidistance	Yes
— Isochronous mode	Yes; OB 61
— SYNC/FREEZE	Yes
 Activation/deactivation of DP slaves 	Yes
— DPV1	Yes
Address area	
— Inputs, max.	2 048 byte
— Outputs, max.	2 048 byte
User data per DP slave	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
DP slave	
Transmission rate, max.	12 Mbit/s
automatic baud rate search	No
 Address area, max. 	32
 User data per address area, max. 	32 byte
Services	
— PG/OP communication	Yes
— Routing	Yes; Only with active interface
 Global data communication 	No
— S7 basic communication	No
— S7 communication	Yes
— S7 communication, as client	No; but via CP and loadable FB
— S7 communication, as server	Yes; Connection configured on one side only
 — Direct data exchange (slave-to-slave communication) 	Yes
— DPV1	No

Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
0.1.1.6	
2. Interface Interface type	Integrated RS 485 interface
Physics	RS 485
Isolated	Yes
Power supply to interface (15 to 30 V DC), max.	200 mA
Functionality	200 1111
• MPI	No
PROFIBUS DP master	Yes; DP(DRIVE)-Master
PROFIBUS DP slave	No
Point-to-point connection	No
DP master	
• Transmission rate, max.	12 Mbit/s
Number of DP slaves, max.	64
Services	Ç.
— PG/OP communication	No
— Routing	No
Global data communication	No
	No
— S7 basic communication	No
— S7 communication	
— Equidistance	Yes
— Isochronous mode	Yes
— SYNC/FREEZE	No
 Activation/deactivation of DP slaves 	Yes
— DPV1	No
Address area	
— Inputs, max.	1 024 byte
— Outputs, max.	1 024 byte
User data per DP slave	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
DP slave	
• GSD file	http://www.ad.siemens.de/support in Product Support area
Transmission rate, max.	12 Mbit/s
Communication functions	
PG/OP communication	Yes
Global data communication	
• supported	Yes
Number of GD loops, max.	8

Number of GD packets, max.	8
 Number of GD packets, transmitter, max. 	8
 Number of GD packets, receiver, max. 	8
Size of GD packets, max.	22 byte
 Size of GD packet (of which consistent), max. 	22 byte
S7 basic communication	
• supported	Yes
 User data per job, max. 	76 byte
 User data per job (of which consistent), max. 	76 byte; 76 bytes (with X_SEND or X_RCV), 76 bytes (with X_PUT or X_GET as server)
S7 communication	
• supported	Yes
• as server	Yes
• as client	Yes; Via CP and loadable FB
 User data per job, max. 	See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication)
S5 compatible communication	
• supported	Yes; via CP and loadable FC
Number of connections	
• overall	16
 usable for PG communication 	15
 reserved for PG communication 	1
 adjustable for PG communication, min. 	1
 adjustable for PG communication, max. 	15
usable for OP communication	15
 reserved for OP communication 	1
 adjustable for OP communication, min. 	1
— adjustable for OP communication, max.	15
 usable for S7 basic communication 	12
 reserved for S7 basic communication 	0
 adjustable for S7 basic communication, min. 	0
 adjustable for S7 basic communication, 	12
max.	
• usable for routing	8; additional
S7 message functions	
Number of login stations for message functions, max.	16; Depending on the configured connections for PG/OP and S7 basic communication
Process diagnostic messages	Yes
simultaneously active Alarm-S blocks, max.	40
Test commissioning functions	
Status block	Yes

Single step	Yes
Number of breakpoints	2
Status/control	
Status/control variable	Yes
Variables	Inputs, outputs, memory bits, DB, times, counters
 Number of variables, max. 	30
— of which status variables, max.	30
— of which control variables, max.	14
Forcing	
• Forcing	Yes
• Forcing, variables	Inputs, outputs
 Number of variables, max. 	10
Diagnostic buffer	
• present	Yes
 Number of entries, max. 	100
— adjustable	No
Interrupts/diagnostics/status information	
Alarms	No
Diagnostic functions	No
Diagnostics indication LED	
Status indicator digital input (green)	Yes
Status indicator digital output (green)	Yes
Potential separation Potential separation digital inputs	
between the channels and backplane bus	Yes
Potential separation digital outputs	163
between the channels and backplane bus	Yes
- between the chamiles and backplane bus	100
Permissible potential difference	
between different circuits	75 V DC/60 V AC
Isolation	
Isolation tested with	500 V DC
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	60 °C
Configuration	
Configuration software	Voc. V5 2 SD1 or higher and S7 Technology action postures
• STEP 7	Yes; V5.2 SP1 or higher and S7 Technology option package
Programming	see instruction list
Command set	SEC HISH UCHOTT HSL

Nesting levels	8
System functions (SFC)	see instruction list
 System function blocks (SFB) 	see instruction list
Programming language	
— LAD	Yes
— FBD	Yes
— STL	Yes
— SCL	Yes
— CFC	Yes
— GRAPH	Yes
— HiGraph®	Yes
Know-how protection	
User program protection/password protection	Yes
Cycle time monitoring	
• lower limit	1 ms
• upper limit	6 000 ms
• adjustable	Yes
• preset	150 ms
Dimensions	
Width	160 mm
Height	125 mm
Depth	130 mm
Weights	
Weight, approx.	750 g
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