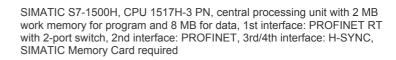
6ES7517-3HP00-0AB0

Data sheet





Product type designation HW functional status FS06 Firmware version V3.0 Product function • I&M data • Isochronous mode Finemare version V18 (FW V3.0) / V15.1 (FW V2.6) or higher version V18 (FW V3.0) / V15.1 (FW V3.0) / V15.1 (FW V3.6) or higher version V18 (FW V3.0) / V15.1 (FW	General information	
HW functional status		CPU 1517H-3 PN
Product function	••	FS06
Product function	Firmware version	V3.0
● Isochronous mode Engineering with ● STEP 7 TIA Portal configurable/integrated from version V18 (FW V3.0) / V15.1 (FW V2.6) or higher version Display Screen diagonal [cm] 6.1 cm Control elements Number of keys 6 Mode selector switch 1 Supply voltage Rated value (DC) permissible range, lower limit (DC) 24 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Mains buffering ● Mains/voltage failure stored energy time 6 Repeat rate, min. 1/s Input current Current consumption (rated value) 1.5 A Current consumption, max. 1.9 A Inrush current, max. 1.9 A; Rated value Power loss Power loss Power loss, typ. 24 W Memory ● Integrated (for program) 2 Mbyte ● Integrated (for program) 2 Mbyte ● Plug-in (SIMATIC Memory Card), max. 32 Gbyte Backup ● Plug-in (SIMATIC Memory Card), max. 32 Gbyte	Product function	
Engineering with STEP 7 TIA Portal configurable/integrated from version Display Screen diagonal [cm] Control elements Number of keys Mode selector switch Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible rang	I&M data	Yes; I&M0 to I&M3
• STEP 7 TIA Portal configurable/integrated from version Display Screen diagonal [cm] 6.1 cm Control elements Number of keys 6 Mode selector switch 1 Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Mains buffering • Mains/voltage failure stored energy time 5 ms eRepeat rate, min. 1/s Input current Current consumption (rated value) 1.5 A Current consumption (rated value) 1.9 A Inrush current, max. 1.9 A; Rated value Power loss. Power loss, typ. Memory Number of slots for SIMATIC memory card SIMATIC memory card required Yes Work memory • Integrated (for program) 2 Mbyte • Integrated (for data) Backup Polypin (SIMATIC Memory Card), max. 32 Gbyte Backup	 Isochronous mode 	No
Display Screen diagonal [cm] 6.1 cm Control elements Number of keys 6 Mode selector switch 1 Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Mains buffering • Mains/voltage failure stored energy time • Repeat rate, min. 1/s Input current Current consumption (rated value) 1.5 A Current consumption, max. 1.9 A Inrush current, max. 1.9 A Inrush current, max. 1.9 A; Rated value Power loss Power loss, typ. 24 W Memory Number of slots for SIMATIC memory card 1 SIMATIC memory card required Yes Work memory • integrated (for program) 2 Mbyte • integrated (for data) 8 Mbyte Load memory • Plug-in (SIMATIC Memory Card), max. 32 Gbyte Backup	Engineering with	
Display Screen diagonal [cm] 6.1 cm	STEP 7 TIA Portal configurable/integrated from	V18 (FW V3.0) / V15.1 (FW V2.6) or higher
Screen diagonal [cm] 6.1 cm	version	
Number of keys Mode selector switch Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Mains buffering Mains/voltage failure stored energy time Repeat rate, min. Input current Current consumption (rated value) Current consumption, max. Inrush current, max. In 9 A; Rated value It 0.4 A²-s Power loss Power loss, typ. Memory Number of slots for SIMATIC memory card SIMATIC memory card required Ves Work memory integrated (for program) integrated (for data) Supply voltage Sal V Reverse polarity protection Page 192 V Power loss Power loss (For SIMATIC memory card SIMATIC memory Integrated (for data) Supply voltage Sal V Reverse polarity protection Page 192 V Sal V Reverse polarity protection Page 192 V Sal V Sa	Display	
Number of keys Mode selector switch Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection • Mains/voltage failure stored energy time • Mains/voltage failure stored energy time • Repeat rate, min. Input current Current consumption (rated value) Current consumption (rated value) Inrush current, max. Parent onsumption, max. In J. 9 A; Rated value Prever loss Power loss Power loss, typ. Memory Number of slots for SIMATIC memory card SIMATIC memory card required • Integrated (for program) • integrated (for data) Load memory • Plug-in (SIMATIC Memory Card), max. Backup 8 dy V Parent San V 24 V Power loss Power loss Power loss, typ. 4 W Memory • integrated (for data) 8 Mbyte Load memory • Plug-in (SIMATIC Memory Card), max. 8 32 Gbyte	Screen diagonal [cm]	6.1 cm
Mode selector switch 1 Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Mains buffering • Mains/voltage failure stored energy time 5 ms • Repeat rate, min. 1/s Input current Current consumption (rated value) 1.5 A Current consumption, max. 1.9 A Inrush current, max. 1.9 A; Rated value I** I** I** I** I** I** I** I** I** I*	Control elements	
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible r	Number of keys	6
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Reverse polarity protection Mains buffering • Mains/voltage failure stored energy time • Repeat rate, min. Input current Current consumption (rated value) Current consumption, max. 1.9 A Inrush current, max. 1.9 A; Rated value 1.4 A²-s Power loss Power loss, typ. Aumber of slots for SIMATIC memory card SIMATIC memory card required Vas Work memory • integrated (for program) • integrated (for program) • Plug-in (SIMATIC Memory Card), max. Backup	Mode selector switch	1
permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Mains buffering • Mains/voltage failure stored energy time • Repeat rate, min. Input current Current consumption (rated value) Current consumption, max. Inrush current, max. Inush current, max. In y A; Rated value It 0.4 A2s Power loss Power loss, typ. Aumber of slots for SIMATIC memory card SIMATIC memory card required Work memory • integrated (for program) • integrated (for program) • Plug-in (SIMATIC Memory Card), max. Backup	Supply voltage	
permissible range, upper limit (DC) Reverse polarity protection Mains buffering Mains/voltage failure stored energy time Repeat rate, min. Input current Current consumption (rated value) Current consumption, max. Inrush current, max. Inush current Inush curren	Rated value (DC)	24 V
Reverse polarity protection Mains buffering Mains/voltage failure stored energy time Repeat rate, min. 1/s Input current Current consumption (rated value) Current consumption, max. 1.9 A Inrush current, max. 1.9 A; Rated value I*t 0.4 A**s Power loss Power loss Power loss, typ. 24 W Memory Number of slots for SIMATIC memory card SIMATIC memory card required Work memory integrated (for program) integrated (for data) Load memory Plug-in (SIMATIC Memory Card), max. Backup	permissible range, lower limit (DC)	19.2 V
Mains buffering	permissible range, upper limit (DC)	28.8 V
Mains/voltage failure stored energy time Repeat rate, min. Input current Current consumption (rated value) Current consumption, max. Inrush current, max. Inrush current, max. Investor consumption, max. Investor current, max. I	Reverse polarity protection	Yes
• Repeat rate, min. Input current Current consumption (rated value) Current consumption, max. Inrush current, max. Inrush current, max. Inverse loss Power loss Power loss, typ. Alignment loss Power loss of slots for SIMATIC memory card slots for SIMATIC memory card required Work memory • integrated (for program) • integrated (for data) Load memory • Plug-in (SIMATIC Memory Card), max. Backup	Mains buffering	
Current consumption (rated value) Current consumption, max. Inrush current, max. I²t O.4 A²-s Power loss Power loss, typ. 24 W Memory Number of slots for SIMATIC memory card SIMATIC memory card Yes Work memory • integrated (for program) • integrated (for data) Load memory • Plug-in (SIMATIC Memory Card), max. Backup	 Mains/voltage failure stored energy time 	5 ms
Current consumption (rated value) Current consumption, max. Inrush current, max. Inrush curr	 Repeat rate, min. 	1/s
Current consumption, max. Inrush current, m	Input current	
Current consumption, max. Inrush current, m	Current consumption (rated value)	1.5 A
Power loss Power loss, typ. 24 W Memory Number of slots for SIMATIC memory card 1 SIMATIC memory card required Yes Work memory • integrated (for program) 2 Mbyte • integrated (for data) 8 Mbyte Load memory • Plug-in (SIMATIC Memory Card), max. 32 Gbyte Backup		1.9 A
Power loss, typ. 24 W Memory Number of slots for SIMATIC memory card 1 SIMATIC memory card required Yes Work memory • integrated (for program) 2 Mbyte • integrated (for data) 8 Mbyte Load memory • Plug-in (SIMATIC Memory Card), max. 32 Gbyte Backup	Inrush current, max.	1.9 A; Rated value
Power loss, typ. Memory Number of slots for SIMATIC memory card SIMATIC memory card required Yes Work memory integrated (for program) integrated (for data) Load memory Plug-in (SIMATIC Memory Card), max. 32 Gbyte Backup	l²t	0.4 A ² ·s
Number of slots for SIMATIC memory card SIMATIC memory card required Yes Work memory integrated (for program) integrated (for data) Load memory Plug-in (SIMATIC Memory Card), max. Backup	Power loss	
Number of slots for SIMATIC memory card SIMATIC memory card required Yes Work memory • integrated (for program) • integrated (for data) Load memory • Plug-in (SIMATIC Memory Card), max. Backup	Power loss, typ.	24 W
SIMATIC memory card required Work memory integrated (for program) integrated (for data) Load memory Plug-in (SIMATIC Memory Card), max. Backup	Memory	
SIMATIC memory card required Work memory integrated (for program) integrated (for data) Load memory Plug-in (SIMATIC Memory Card), max. Backup	Number of slots for SIMATIC memory card	1
 integrated (for program) integrated (for data) 8 Mbyte Load memory Plug-in (SIMATIC Memory Card), max. Backup 		Yes
 integrated (for data) Load memory Plug-in (SIMATIC Memory Card), max. Backup 	Work memory	
Load memory ● Plug-in (SIMATIC Memory Card), max. Backup 32 Gbyte	• integrated (for program)	2 Mbyte
 Plug-in (SIMATIC Memory Card), max. Backup 	• integrated (for data)	8 Mbyte
Backup	Load memory	
·	 Plug-in (SIMATIC Memory Card), max. 	32 Gbyte
• maintenance-free Yes	Backup	
	 maintenance-free 	Yes

CPU processing times	
for bit operations, typ.	4 ns
for word operations, typ.	6 ns
for fixed point arithmetic, typ.	6 ns
for floating point arithmetic, typ.	24 ns
CPU-blocks	
Number of elements (total)	12 000; Blocks (OB, FB, FC, DB) and UDTs
DB	12 000, blocks (Ob, 1 b, 1 O, bb) and Ob 13
Number range	Number range: 1 to 59 999
• Size, max.	8 Mbyte; For non-optimized block accesses, the max. size of the DB is
	64 KB
FB	
Number range	0 65 535
• Size, max.	1 Mbyte
FC	
Number range	0 65 535
• Size, max.	1 Mbyte
OB Sizo may	1 Mbyte
Size, max.Number of free cycle OBs	1 Mbyte 100
Number of line cycle OBs Number of time alarm OBs	20
Number of time alarm Obs Number of delay alarm Obs	20
Number of delay alarm OBs Number of cyclic interrupt OBs	20; with minimum OB 3x cycle of 1 ms
Number of cyclic interrupt OBs Number of process alarm OBs	50
Number of DPV1 alarm OBs	3
Number of startup OBs	100
Number of asynchronous error OBs	4
Number of synchronous error OBs	2
 Number of diagnostic alarm OBs 	1
Nesting depth	
per priority class	24
Counters, timers and their retentivity	
S7 counter	
Number	2 048
Retentivity	
— adjustable	Yes
IEC counter	
Number	Any (only limited by the main memory)
Number Retentivity	
NumberRetentivity— adjustable	Any (only limited by the main memory) Yes
Number Retentivity — adjustable S7 times	Yes
 Number Retentivity — adjustable S7 times Number 	
 Number Retentivity — adjustable S7 times Number Retentivity 	Yes 2 048
 Number Retentivity — adjustable S7 times Number Retentivity — adjustable 	Yes
 Number Retentivity — adjustable S7 times Number Retentivity 	Yes 2 048 Yes
 Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer 	Yes 2 048
 Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity 	Yes 2 048 Yes
 Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity adjustable 	Yes 2 048 Yes Any (only limited by the main memory)
 Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity 	Yes 2 048 Yes Any (only limited by the main memory) Yes
 Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity adjustable 	Yes 2 048 Yes Any (only limited by the main memory)
 Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity 	Yes 2 048 Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers,
Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max.	Yes 2 048 Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers,
Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable IEC timer Retentivity — adjustable Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Flag Size, max. Number of clock memories	Yes 2 048 Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 700 KB
Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Flag Size, max. Number of clock memories Data blocks	Yes 2 048 Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 700 KB 16 kbyte
Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Flag Size, max. Number of clock memories Data blocks Retentivity adjustable	Yes 2 048 Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 700 KB 16 kbyte 8; 8 clock memory bit, grouped into one clock memory byte Yes
Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Flag Size, max. Number of clock memories Data blocks Retentivity adjustable Retentivity preset	Yes 2 048 Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 700 KB 16 kbyte 8; 8 clock memory bit, grouped into one clock memory byte
 Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Flag Size, max. Number of clock memories Data blocks Retentivity adjustable Retentivity preset Local data 	Yes 2 048 Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 700 KB 16 kbyte 8; 8 clock memory bit, grouped into one clock memory byte Yes No
 Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Flag Size, max. Number of clock memories Data blocks Retentivity adjustable Retentivity preset Local data per priority class, max. 	Yes 2 048 Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 700 KB 16 kbyte 8; 8 clock memory bit, grouped into one clock memory byte Yes
 Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Flag Size, max. Number of clock memories Data blocks Retentivity adjustable Retentivity preset Local data 	Yes 2 048 Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 700 KB 16 kbyte 8; 8 clock memory bit, grouped into one clock memory byte Yes No
Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Flag Size, max. Number of clock memories Data blocks Retentivity adjustable Retentivity preset Local data per priority class, max. Address area Number of IO modules	Yes 2 048 Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 700 KB 16 kbyte 8; 8 clock memory bit, grouped into one clock memory byte Yes No
Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Flag Size, max. Number of clock memories Data blocks Retentivity adjustable Retentivity preset Local data per priority class, max. Address area Number of IO modules I/O address area	Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 700 KB 16 kbyte 8; 8 clock memory bit, grouped into one clock memory byte Yes No 64 kbyte; max. 16 KB per block 8 192; max. number of modules / submodules
Number Retentivity — adjustable S7 times Number Retentivity — adjustable IEC timer Number Retentivity — adjustable Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Flag Size, max. Number of clock memories Data blocks Retentivity adjustable Retentivity preset Local data per priority class, max. Address area Number of IO modules	Yes 2 048 Yes Any (only limited by the main memory) Yes 768 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 700 KB 16 kbyte 8; 8 clock memory bit, grouped into one clock memory byte Yes No 64 kbyte; max. 16 KB per block

Outputs	32 kbyte; All outputs are in the process image
per integrated IO subsystem	32 kbyte, All outputs are in the process image
— Inputs (volume)	16 kbyte
— Outputs (volume)	16 kbyte
Subprocess images	
Number of subprocess images, max.	32
Hardware configuration	
Number of distributed IO systems	1
Number of IO Controllers	
integrated	1
Rack	
 Modules per rack, max. 	1; CPU
Time of day	
Clock	
• Type	Hardware clock
Backup time	6 wk; At 40 °C ambient temperature, typically
Deviation per day, max.	10 s; Typ.: 2 s
Operating hours counter	
• Number	16
Clock synchronization	V
supported p	Yes
on Ethernet via NTP	Yes
Interfaces	0
Number of PROFINET interfaces	2
1. Interface	
Interface types	Voc. V1
RJ 45 (Ethernet)Number of ports	Yes; X1 2
• integrated switch	Yes
Protocols	
IP protocol	Yes; IPv4
PROFINET IO Controller	Yes
 PROFINET IO Device 	No
 SIMATIC communication 	Yes; Only Server
 Open IE communication 	Yes
Web server	No
Media redundancy	Yes
PROFINET IO Controller Services	
— PG/OP communication	Yes
— Isochronous mode	No
— IRT	No
— PROFlenergy	Yes
Number of connectable IO Devices, max.	256
— Updating times	The minimum value of the update time also depends on communication
	share set for PROFINET IO, on the number of IO devices, and on the
Update time for RT	quantity of configured user data
— for send cycle of 1 ms	1 ms to 512 ms
2. Interface	
Interface types	
• RJ 45 (Ethernet)	Yes; X2
Number of ports	1
integrated switch	No
Protocols	
IP protocol	Yes; IPv4
 PROFINET IO Controller 	No
PROFINET IO Device	No
SIMATIC communication	Yes; Only Server
Open IE communication	Yes
Web server Madia radyndanay	No No
Media redundancy	No
3. Interface	

Interface type	Pluggable synchronization submodule (FO)
Plug-in interface modules	Synchronization module 6ES7960-1CB00-0AA5, 6ES7960-1FB00-0AA5 or 6ES7 960-1FE00-0AA5
4. Interface	
Interface type	Pluggable synchronization submodule (FO)
Plug-in interface modules	Synchronization module 6ES7960-1CB00-0AA5, 6ES7960-1FB00-0AA5 or 6ES7960-1FE00-0AA5
Interface types	
RJ 45 (Ethernet)	
• 100 Mbps	Yes
Autonegotiation	Yes
Autocrossing	Yes
Industrial Ethernet status LED	Yes
Protocols	
PROFIsafe	No
Number of connections	
Number of connections, max.	288
 Number of connections reserved for ES/HMI/web 	10
 Number of S7 routing paths 	64
Redundancy mode	
 PROFINET system redundancy (S2) 	Yes
 PROFINET system redundancy (R1) 	Yes
Media redundancy	
— MRP	Yes; MRP Automanager according to IEC 62439-2 Edition 2.0
 MRP interconnection, supported 	Yes; as MRP ring node according to IEC 62439-2 Edition 3.0
— MRPD	No
 Switchover time on line break, typ. 	200 ms; PROFINET MRP
 Number of stations in the ring, max. 	50
SIMATIC communication	
PG/OP communication	Yes; encryption with TLS V1.3 pre-selected
• S7 routing	Yes
 S7 communication, as server 	Yes
S7 communication, as client	No
Open IE communication	V
• TCP/IP	Yes
— Data length, max.	64 kbyte
— several passive connections per port, supported	Yes
• ISO-on-TCP (RFC1006)	Yes
— Data length, max.	64 kbyte
• UDP	Yes
— Data length, max.	2 kbyte; 1 472 bytes for UDP broadcast
— UDP multicast	Yes; 128 multicast circuits (of which max. 5 via X1)
• DHCP	No Yes
• DNS	Yes
• SNMP • DCP	Yes
• LLDP	Yes
Web server	100
• HTTP	No
• HTTPS	No
OPC UA	
OPC UA Client	No
OPC UA Server	No
Further protocols	
MODBUS	Yes; MODBUS TCP
S7 message functions	
Number of login stations for message functions, max.	64
Program alarms	Yes
Number of configurable program messages, max.	10 000; Program messages are generated by the "Program_Alarm"
Number of loadable program messages in RUN, max.	block, ProDiag or GRAPH 5 000
Number of ioadable program messages in RON, max. Number of simultaneously active program alarms	0.000
Number of program alarms	2 000
- Hambor of program dialino	

Number of alarms for system diagnostics	1 000
Test commissioning functions	
Joint commission (Team Engineering)	No
Status block	Yes; Up to 16 simultaneously
Single step	No
Number of breakpoints	20; Breakpoints are only supported in RUN-Solo status
Status/control	
 Status/control variable 	Yes
 Variables 	Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters
 Number of variables, max. 	
— of which status variables, max.	200; per job
— of which control variables, max.	200; per job
Forcing	Vee
• Forcing	Yes Peripheral inpute/outpute
Forcing, variablesNumber of variables, max.	Peripheral inputs/outputs 200
Diagnostic buffer	200
• present	Yes
Number of entries, max.	3 200
— of which powerfail-proof	1 000
Traces	
Number of configurable Traces	8
 Memory size per trace, max. 	512 kbyte
Interrupts/diagnostics/status information	
Diagnostics indication LED	
RUN/STOP LED	Yes
• ERROR LED	Yes
MAINT LED	Yes
 Connection display LINK TX/RX 	Yes
Supported technology objects	
Motion Control	No
Controller	
PID_Compact	Yes; Universal PID controller with integrated optimization
PID_3Step	Yes; PID controller with integrated optimization for valves
PID-Temp	Yes; PID controller with integrated optimization for temperature
Counting and measuring	Yes
High-speed counter	No
Ambient conditions	
Ambient temperature during operation	
horizontal installation, min.	0 °C
 horizontal installation, max. 	60 °C; Display: 50 °C, at an operating temperature of typically 50 °C, the display is switched off
 vertical installation, min. 	0 °C
vertical installation, max.	40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the
	display is switched off
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Altitude during operation relating to sea level	5000 D 1111
Installation altitude above sea level, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
configuration / header	
configuration / programming / header	
Programming language	V
— LAD	Yes
— FBD — STL	Yes
— STL — SCL	Yes Yes
— SCL — GRAPH	Yes
— GRAPH Know-how protection	163
User program protection/password protection	Yes
Copy protection	No
Block protection	Yes
Access protection	
·	

 protection of confidential configuration data 	Yes
Password for display	Yes
 Protection level: Write protection 	Yes
 Protection level: Read/write protection 	Yes
 Protection level: Complete protection 	Yes
programming / cycle time monitoring / header	
 lower limit 	adjustable minimum cycle time
• upper limit	adjustable maximum cycle time
Dimensions	
Width	210 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	2 094 g; Interface modules: 2x 18 g