

Siemens  
EcoTech



\*\*\*spare part\*\*\* SIMATIC S7-300, CPU 317TF-3 PN/DP, central processing unit for PLC, technology and safety tasks, 1.5 MB work memory, 1st interface MPI/DP 12 Mbps, 2nd interface DP (drive), 3rd interface Ethernet PROFINET with 2-port switch, integrated I/O for technology, front connector (1x 40-pole) and Micro Memory Card min. 8 MB required

General information	
Product type designation	CPU 317TF-3 PN/DP
HW functional status	01
Firmware version	CPU: V3.2; integrated technology V4.1.5
Product function	
<ul style="list-style-type: none"> <li>• Isochronous mode</li> </ul>	Yes; Via PROFIBUS DP or PROFINET interface
Engineering with	
<ul style="list-style-type: none"> <li>• Programming package</li> </ul>	STEP 7 V5.5 SP2 or higher; S7-Technology option package V4.2 SP3 or higher, Distributed Safety V5.4 SP5 or higher, S7-F Configuration Pack V5.5 SP10 or higher
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
external protection for power supply lines (recommendation)	2 A min.
Load voltage L+	
<ul style="list-style-type: none"> <li>• Rated value (DC)</li> <li>• Reverse polarity protection</li> </ul>	24 V Yes
Digital outputs	
<ul style="list-style-type: none"> <li>— Rated value (DC)</li> <li>— Reverse polarity protection</li> </ul>	24 V; 2L+ No; 2L+
Input current	
Current consumption (rated value)	1 100 mA
Current consumption (in no-load operation), typ.	270 mA
Inrush current, typ.	6.5 A
$I^2t$	1 A <sup>2</sup> s
Power loss	
Power loss, typ.	8.5 W
Storage	
Work memory	
<ul style="list-style-type: none"> <li>• integrated</li> <li>• expandable</li> </ul>	1 536 kbyte No
Load memory	
<ul style="list-style-type: none"> <li>• Plug-in (MMC)</li> <li>• Plug-in (MMC), max.</li> <li>• Data management on MMC (after last programming), min.</li> </ul>	Yes 8 Mbyte 10 a

<b>Backup</b>	
<ul style="list-style-type: none"> <li>• present</li> </ul>	Yes; Guaranteed by MMC (maintenance-free)
<ul style="list-style-type: none"> <li>• without battery</li> </ul>	Yes; Program and data
<b>CPU processing times</b>	
for bit operations, typ.	0.025 µs
for word operations, typ.	0.03 µs
for fixed point arithmetic, typ.	0.04 µs
for floating point arithmetic, typ.	0.16 µs
<b>CPU-blocks</b>	
Number of blocks (total)	2 048; (DBs, FCs, FBs); the maximum number of loadable blocks can be reduced by the MMC used.
<b>DB</b>	
<ul style="list-style-type: none"> <li>• Number, max.</li> </ul>	2 048; Number range: 1 to 16000
<ul style="list-style-type: none"> <li>• Size, max.</li> </ul>	64 kbyte
<b>FB</b>	
<ul style="list-style-type: none"> <li>• Number, max.</li> </ul>	2 048; Number range: 0 to 7999
<ul style="list-style-type: none"> <li>• Size, max.</li> </ul>	64 kbyte
<b>FC</b>	
<ul style="list-style-type: none"> <li>• Number, max.</li> </ul>	2 048; Number range: 0 to 7999
<ul style="list-style-type: none"> <li>• Size, max.</li> </ul>	64 kbyte
<b>OB</b>	
<ul style="list-style-type: none"> <li>• Number, max.</li> </ul>	see instruction list
<ul style="list-style-type: none"> <li>• Size, max.</li> </ul>	64 kbyte
<ul style="list-style-type: none"> <li>• Number of free cycle OBs</li> </ul>	1; OB 1
<ul style="list-style-type: none"> <li>• Number of time alarm OBs</li> </ul>	1; OB 10
<ul style="list-style-type: none"> <li>• Number of delay alarm OBs</li> </ul>	2; OB 20, 21
<ul style="list-style-type: none"> <li>• Number of cyclic interrupt OBs</li> </ul>	4; OB 32, 33, 34, 35
<ul style="list-style-type: none"> <li>• Number of process alarm OBs</li> </ul>	1; OB 40
<ul style="list-style-type: none"> <li>• Number of DPV1 alarm OBs</li> </ul>	3; OB 55, 56, 57
<ul style="list-style-type: none"> <li>• Number of isochronous mode OBs</li> </ul>	1; OB 61 - isochronous mode is possible either on DP or PROFINET IO (not simultaneously)
<ul style="list-style-type: none"> <li>• Number of technology synchronous alarm OBs</li> </ul>	1; OB 65
<ul style="list-style-type: none"> <li>• Number of startup OBs</li> </ul>	1; OB 100
<ul style="list-style-type: none"> <li>• Number of asynchronous error OBs</li> </ul>	6; OB 80, 82, 83, 85, 86, 87 (OB83 only for PROFINET IO)
<ul style="list-style-type: none"> <li>• Number of synchronous error OBs</li> </ul>	2; OB 121, 122
<b>Nesting depth</b>	
<ul style="list-style-type: none"> <li>• per priority class</li> </ul>	16
<ul style="list-style-type: none"> <li>• additional within an error OB</li> </ul>	4
<b>Counters, timers and their retentivity</b>	
<b>S7 counter</b>	
<ul style="list-style-type: none"> <li>• Number</li> </ul>	512
<b>Retentivity</b>	
— can be set	Yes
— preset	Z 0 to Z 7
<b>Counting range</b>	
— can be set	Yes
— lower limit	0
— upper limit	999
<b>IEC counter</b>	
<ul style="list-style-type: none"> <li>• present</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Type</li> </ul>	SFB
<ul style="list-style-type: none"> <li>• Number</li> </ul>	Unlimited (limited only by RAM capacity)
<b>S7 timer</b>	
<ul style="list-style-type: none"> <li>• Number</li> </ul>	512
<b>Retentivity</b>	
— adjustable	Yes
— preset	No retentivity
<b>Time range</b>	
— lower limit	10 ms

— upper limit	9 990 s
<b>IEC timer</b>	
• present	Yes
• Type	SFB
• Number	Unlimited (limited only by RAM capacity)
<b>Data areas and their retentivity</b>	
Retentive data area (incl. timers, counters, flags), max.	256 kbyte
<b>Flag</b>	
• Size, max.	4 096 byte
• Retentivity available	Yes; From MB 0 to MB 4 095
• Retentivity preset	MB 0 to MB 15
• Number of clock memories	8; 1 memory byte
<b>Data blocks</b>	
• Retentivity adjustable	Yes; via non-retain property on DB
• Retentivity preset	Yes
<b>Local data</b>	
• per priority class, max.	32 768 byte; Max. 2048 bytes per block
<b>Address area</b>	
<b>I/O address area</b>	
• Inputs	8 192 byte
• Outputs	8 192 byte
of which distributed	
— Inputs	8 192 byte
— Outputs	8 192 byte
<b>Process image</b>	
• Inputs	8 192 byte
• Outputs	8 192 byte
• Inputs, adjustable	8 192 byte
• Outputs, adjustable	8 192 byte
• Inputs, default	1 024 byte
• Outputs, default	1 024 byte
<b>Subprocess images</b>	
• Number of subprocess images, max.	1; With PROFINET IO, the length of the user data is limited to 1600 bytes
<b>Digital channels</b>	
• Inputs	65 536
— of which central	256
• Outputs	65 536
— of which central	256
<b>Analog channels</b>	
• Inputs	4 096
— of which central	64
• Outputs	4 096
— of which central	64
<b>Hardware configuration</b>	
Number of expansion units, max.	0
<b>Number of DP masters</b>	
• integrated	2; 1 DP and 1 DP (drive)
• via CP	2; for DP
<b>Number of operable FMs and CPs (recommended)</b>	
• FM	8
• CP, PtP	8
• CP, LAN	8
<b>Rack</b>	
• Racks, max.	1
• Modules per rack, max.	8
<b>Time of day</b>	
<b>Clock</b>	
• Hardware clock (real-time)	Yes
• retentive and synchronizable	Yes

<ul style="list-style-type: none"> <li>• Backup time</li> <li>• Deviation per day, max.</li> <li>• Behavior of the clock following POWER-ON</li> <li>• Behavior of the clock following expiry of backup period</li> </ul>	6 wk; At 40 °C ambient temperature 10 s; Typ.: 2 s Clock continues running after POWER OFF the clock continues at the time of day it had when power was switched off
<b>Operating hours counter</b>	
<ul style="list-style-type: none"> <li>• Number</li> <li>• Number/Number range</li> <li>• Range of values</li> <li>• Granularity</li> <li>• retentive</li> </ul>	4 0 to 3 0 to 2 <sup>31</sup> hours (when using SFC 101) 1 h Yes; Must be restarted at each restart
<b>Clock synchronization</b>	
<ul style="list-style-type: none"> <li>• supported</li> <li>• to MPI, master</li> <li>• on MPI, device</li> <li>• to DP, master</li> <li>• on DP, device</li> <li>• in AS, master</li> <li>• in AS, device</li> <li>• on Ethernet via NTP</li> </ul>	Yes Yes Yes Yes Yes; Only time-of-day slave Yes Yes Yes; As client
<b>Digital inputs</b>	
Number of digital inputs	4
<ul style="list-style-type: none"> <li>• of which inputs usable for technological functions</li> </ul>	4
Input characteristic curve in accordance with IEC 61131, type 1	Yes
<b>Number of simultaneously controllable inputs</b>	
<b>horizontal installation</b>	
— up to 40 °C, max.	4
— up to 60 °C, max.	4
<b>vertical installation</b>	
— up to 40 °C, max.	4
<b>Input voltage</b>	
<ul style="list-style-type: none"> <li>• Rated value (DC)</li> <li>• for signal "0"</li> <li>• for signal "1"</li> </ul>	24 V -3 to +5V +15 to +30 V
<b>Input current</b>	
<ul style="list-style-type: none"> <li>• for signal "1", typ.</li> </ul>	7 mA
<b>Input delay (for rated value of input voltage)</b>	
<b>for technological functions</b>	
— at "0" to "1", max.	10 µs; Typical
— at "1" to "0", max.	10 µs; Typical
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>• shielded, max.</li> </ul>	1 000 m
<b>Digital outputs</b>	
Number of digital outputs	8
<ul style="list-style-type: none"> <li>• of which high-speed outputs</li> </ul>	8
Functions	for technology functions, e.g. high-speed cam switch signals
Short-circuit protection	Yes
<ul style="list-style-type: none"> <li>• Response threshold, typ.</li> </ul>	1 A
Limitation of inductive shutdown voltage to	48 V
Controlling a digital input	No
<b>Switching capacity of the outputs</b>	
<ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>	5 W
<b>Load resistance range</b>	
<ul style="list-style-type: none"> <li>• lower limit</li> <li>• upper limit</li> </ul>	48 Ω 4 kΩ
<b>Output voltage</b>	
<ul style="list-style-type: none"> <li>• for signal "0", max.</li> <li>• for signal "1", min.</li> </ul>	3 V; (2L+) Rated voltage -2.5 V
<b>Output current</b>	
<ul style="list-style-type: none"> <li>• for signal "1" rated value</li> </ul>	0.5 A

<ul style="list-style-type: none"> <li>• for signal "1" permissible range for 0 to 60 °C, min.</li> </ul>	5 mA
<ul style="list-style-type: none"> <li>• for signal "1" permissible range for 0 to 60 °C, max.</li> </ul>	0.6 A
<ul style="list-style-type: none"> <li>• for signal "0" residual current, max.</li> </ul>	0.3 mA
<b>Parallel switching of two outputs</b>	
<ul style="list-style-type: none"> <li>• for uprating</li> </ul>	No
<ul style="list-style-type: none"> <li>• for redundant control of a load</li> </ul>	No
<b>Switching frequency</b>	
<ul style="list-style-type: none"> <li>• with resistive load, max.</li> </ul>	100 Hz
<ul style="list-style-type: none"> <li>• with inductive load, max.</li> </ul>	0.2 Hz; According to IEC 60947-5-1, DC-13
<ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>	100 Hz
<b>Total current of the outputs (per group)</b>	
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.	4 A
<b>Integrated high-speed cams</b>	
<ul style="list-style-type: none"> <li>• Switching accuracy (+/-)</li> </ul>	70 µs
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>• shielded, max.</li> </ul>	1 000 m
<b>Analog inputs</b>	
Number of analog inputs	0
<b>Encoder</b>	
Connectable encoders	
<ul style="list-style-type: none"> <li>• 2-wire sensor</li> </ul>	No
<b>Interfaces</b>	
Number of PROFINET interfaces	1
Number of RS 485 interfaces	2
Number of RS 422 interfaces	0
<b>1. Interface</b>	
Interface type	Integrated RS 485 interface
Isolated	Yes
<b>Interface types</b>	
<ul style="list-style-type: none"> <li>• RS 485</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Output current of the interface, max.</li> </ul>	200 mA
<b>Protocols</b>	
<ul style="list-style-type: none"> <li>• MPI</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• PROFIBUS DP master</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• PROFIBUS DP device</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Point-to-point connection</li> </ul>	No
<b>MPI</b>	
<ul style="list-style-type: none"> <li>• Transmission rate, max.</li> </ul>	12 Mbit/s
<b>Services</b>	
— PG/OP communication	Yes
— Routing	Yes
— Global data 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
<b>PROFIBUS DP master</b>	
<ul style="list-style-type: none"> <li>• Transmission rate, max.</li> </ul>	12 Mbit/s
<ul style="list-style-type: none"> <li>• max. number of DP devices</li> </ul>	124
<b>Services</b>	
— 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
— S7 communication, as server	Yes
— Equidistance	Yes
— Isochronous mode	Yes; OB 61; isochronous mode can only be used alternatively on PROFIBUS DP or PROFINET IO
— SYNC/FREEZE	Yes
— activation/deactivation of DP devices	Yes
— max. number of DP devices that can be activated/deactivated at the same time	8
— Direct data exchange (slave-to-slave communication)	Yes; as subscriber
— DPV1	Yes
<b>Address area</b>	
— Inputs, max.	8 kbyte
— Outputs, max.	8 kbyte
<b>User data per DP device</b>	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
<b>PROFIBUS DP device</b>	
• Transmission rate, max.	12 Mbit/s
• automatic baud rate search	Yes; only with passive interface
• Address area, max.	32
• User data per address area, max.	32 byte
<b>Services</b>	
— 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
— S7 communication, as server	Yes; Connection configured on one side only
— Direct data exchange (slave-to-slave communication)	Yes
— DPV1	No
<b>Transfer memory</b>	
— Inputs	244 byte
— Outputs	244 byte
<b>2. Interface</b>	
Interface type	Integrated RS 485 interface
Isolated	Yes
<b>Interface types</b>	
• RS 485	Yes
• Output current of the interface, max.	200 mA
<b>Protocols</b>	
• MPI	No
• PROFIBUS DP master	Yes; DP(DRIVE)-Master
• PROFIBUS DP device	No
• Point-to-point connection	No
<b>PROFIBUS DP master</b>	
• Transmission rate, max.	12 Mbit/s
• max. number of DP devices	64
<b>Services</b>	
— PG/OP communication	No
— Routing	No
— Global data communication	No
— S7 basic communication	No
— S7 communication	No
— Equidistance	Yes
— Isochronous mode	Yes
— SYNC/FREEZE	No

— activation/deactivation of DP devices	Yes
— DPV1	No
<b>Address area</b>	
— Inputs, max.	1 024 byte
— Outputs, max.	1 024 byte
<b>User data per DP device</b>	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
<b>PROFIBUS DP device</b>	
• GSD file	<a href="http://support.automation.siemens.com">http://support.automation.siemens.com</a> in Product Support area
• Transmission rate, max.	12 Mbit/s
<b>3. Interface</b>	
Interface type	PROFINET
Isolated	Yes
automatic detection of transmission rate	Yes; 10/100 Mbit/s
Autonegotiation	Yes
Autocrossing	Yes
Change of IP address at runtime, supported	Yes
<b>Interface types</b>	
• RJ 45 (Ethernet)	Yes
• Number of ports	2
• integrated switch	Yes
<b>Protocols</b>	
• MPI	No
• PROFINET IO Controller	Yes; Also simultaneously with IO-Device functionality
• PROFINET IO device	Yes; Also simultaneously with IO Controller functionality
• PROFIBUS DP master	No
• PROFIBUS DP device	No
• Open IE communication	Yes; Via TCP/IP, ISO on TCP, and UDP
• Web server	Yes
• Media redundancy	Yes
<b>PROFINET IO Controller</b>	
• Transmission rate, max.	100 Mbit/s
<b>Services</b>	
— PG/OP communication	Yes
— Routing	Yes
— S7 communication	Yes; with loadable FBs, max. configurable connections: 16, max. number of instances: 32
— Isochronous mode	Yes; OB 61; isochronous mode can only be used alternatively on PROFIBUS DP or PROFINET IO
— Shared device	Yes
— Prioritized startup	Yes
— Number of IO devices with prioritized startup, max.	32
— Number of connectable IO Devices, max.	128
— Of which IO devices with IRT, max.	64
— of which in line, max.	64
— Number of connectable IO Devices for RT, max.	128
— of which in line, max.	128
— Activation/deactivation of IO Devices	Yes
— Number of IO Devices that can be simultaneously activated/deactivated, max.	8
— IO Devices changing during operation (partner ports), supported	Yes
— Number of IO Devices per tool, max.	8
— Device replacement without swap medium	Yes
— Send cycles	250 µs, 500 µs, 1 ms, 2 ms, 4 ms
— Updating time	250 µs to 512 ms (depending on the operating mode, see Manual "S7-300 CPU 31xC and CPU 31x, technical Data" for more details)
<b>Address area</b>	
— Inputs, max.	8 kbyte

— Outputs, max.	8 kbyte
— User data consistency, max.	1 024 byte
<b>PROFINET IO Device</b>	
<b>Services</b>	
— PG/OP communication	Yes
— Routing	Yes
— S7 communication	Yes; with loadable FBs, max. configurable connections: 16, max. number of instances: 32
— Isochronous mode	No
— IRT	Yes
— PROFINergy	Yes; With SFB 73 / 74 prepared for loadable PROFINergy standard FB for I-Device
— Shared device	Yes
— Number of IO Controllers with shared device, max.	2
<b>Transfer memory</b>	
— Inputs, max.	1 440 byte; Per IO Controller with shared device
— Outputs, max.	1 440 byte; Per IO Controller with shared device
<b>Submodules</b>	
— Number, max.	64
— User data per submodule, max.	1 024 byte
<b>Open IE communication</b>	
• Number of connections, max.	16
• Local port numbers used at the system end	0, 20, 21, 23, 25, 80, 102, 135, 161, 443, 8080, 34962, 34963, 34964, 65532, 65533, 65534, 65535
• Keep-alive function, supported	Yes
<b>Protocols</b>	
PROFIsafe	Yes
<b>Redundancy mode</b>	
<b>Media redundancy</b>	
— Switchover time on line break, typ.	200 ms; PROFINET MRP
— Number of stations in the ring, max.	50
<b>Open IE communication</b>	
• TCP/IP	Yes; via integrated PROFINET interface and loadable FBs
— Number of connections, max.	16
— Data length for connection type 01H, max.	1 460 byte
— Data length for connection type 11H, max.	32 768 byte
— several passive connections per port, supported	Yes
• ISO-on-TCP (RFC1006)	Yes; via integrated PROFINET interface and loadable FBs
— Number of connections, max.	16
— Data length, max.	32 768 byte
• UDP	Yes; via integrated PROFINET interface and loadable FBs
— Number of connections, max.	16
— Data length, max.	1 472 byte
<b>Web server</b>	
• supported	Yes
• User-defined websites	Yes
• Number of HTTP clients	5
<b>Communication functions</b>	
PG/OP communication	Yes
Data record routing	Yes
<b>Global data communication</b>	
• 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
<b>S7 basic communication</b>	
• supported	Yes

<ul style="list-style-type: none"> <li>• User data per job, max.</li> <li>• User data per job (of which consistent), max.</li> </ul>	76 byte 76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT or X_GET as server)
<b>S7 communication</b>	
<ul style="list-style-type: none"> <li>• supported</li> <li>• as server</li> <li>• as client</li> </ul>	Yes Yes Yes; via integrated PROFINET interface and loadable FB or via CP and loadable FB
<ul style="list-style-type: none"> <li>• User data per job, max.</li> </ul>	See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication)
<b>S5 compatible communication</b>	
<ul style="list-style-type: none"> <li>• supported</li> </ul>	Yes; via CP and loadable FC
<b>Number of connections</b>	
<ul style="list-style-type: none"> <li>• overall</li> <li>• usable for PG communication <ul style="list-style-type: none"> <li>— reserved for PG communication</li> <li>— adjustable for PG communication, min.</li> <li>— adjustable for PG communication, max.</li> </ul> </li> <li>• usable for OP communication <ul style="list-style-type: none"> <li>— reserved for OP communication</li> <li>— adjustable for OP communication, min.</li> <li>— adjustable for OP communication, max.</li> </ul> </li> <li>• usable for S7 basic communication <ul style="list-style-type: none"> <li>— reserved for S7 basic communication</li> <li>— adjustable for S7 basic communication, min.</li> <li>— adjustable for S7 basic communication, max.</li> </ul> </li> <li>• usable for S7 communication <ul style="list-style-type: none"> <li>— reserved for S7 communication</li> <li>— adjustable for S7 communication, min.</li> <li>— adjustable for S7 communication, max.</li> </ul> </li> <li>• total number of instances, max.</li> <li>• usable for routing</li> </ul>	32 31 1 1 31 31 1 1 31 30 0 0 30 16 0 0 16 32 X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max. 14; X2 as PROFINET: 24 max.
<b>S7 message functions</b>	
Number of login stations for message functions, max.	32; Depending on the configured connections for PG/OP and S7 basic communication
Process diagnostic messages	Yes
simultaneously active Alarm_S blocks, max.	300
<b>Test commissioning functions</b>	
Status block	Yes; Up to 2 simultaneously
Single step	Yes
Number of breakpoints	4; without continuation
<b>Status/control</b>	
<ul style="list-style-type: none"> <li>• Status/control variable</li> <li>• Variables</li> <li>• Number of variables, max. <ul style="list-style-type: none"> <li>— of which status variables, max.</li> <li>— of which control variables, max.</li> </ul> </li> </ul>	Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14
<b>Forcing</b>	
<ul style="list-style-type: none"> <li>• Forcing</li> <li>• Forcing, variables</li> <li>• Number of variables, max.</li> </ul>	Yes Inputs, outputs 10
<b>Diagnostic buffer</b>	
<ul style="list-style-type: none"> <li>• present</li> <li>• Number of entries, max. <ul style="list-style-type: none"> <li>— can be set</li> <li>— of which powerfail-proof</li> </ul> </li> <li>• Number of entries readable in RUN, max. <ul style="list-style-type: none"> <li>— can be set</li> <li>— preset</li> </ul> </li> </ul>	Yes 500 No 100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10

<b>Service data</b>	
• Can be read out	Yes
<b>Interrupts/diagnostics/status information</b>	
Alarms	No
Diagnostics function	No
<b>Diagnostics indication LED</b>	
• Status indicator digital input (green)	Yes
• Status indicator digital output (green)	Yes
<b>Potential separation</b>	
Potential separation digital inputs	
• between the channels and backplane bus	Yes
Potential separation digital outputs	
• between the channels and backplane bus	Yes
<b>Isolation</b>	
Isolation tested with	500 V DC
<b>Ambient conditions</b>	
Ambient temperature during operation	
• min.	0 °C
• max.	60 °C
<b>Configuration</b>	
Configuration software	
• STEP 7	Yes; STEP 7 V5.5 SP2 or higher and S7-Technology Option Package V4.2 SP3, S7 F Configuration Pack V5.5 SP10, S7 Distributed Safety Option Package V5.4 SP5
<b>Programming</b>	
• Command set	see instruction list
• Nesting levels	8
• System functions (SFC)	see instruction list
• System function blocks (SFB)	see instruction list
<b>Programming language</b>	
— LAD	Yes
— FBD	Yes
— STL	Yes
— SCL	Yes
— CFC	Yes
— GRAPH	Yes
— HiGraph®	Yes
<b>Know-how protection</b>	
• User program protection/password protection	Yes
• Block encryption	Yes; With S7 block Privacy
<b>Dimensions</b>	
Width	120 mm
Height	125 mm
Depth	130 mm
<b>Weights</b>	
Weight, approx.	640 g

<b>Classifications</b>			
		<b>Version</b>	<b>Classification</b>
	eClass	14	27-24-22-07
	eClass	12	27-24-22-07
	eClass	9.1	27-24-22-07
	eClass	9	27-24-22-07
	eClass	8	27-24-22-07
	eClass	7.1	27-24-22-07
	eClass	6	27-24-22-07
	ETIM	10	EC000236
	ETIM	9	EC000236

ETIM	8	EC000236
ETIM	7	EC000236
IDEA	4	3565
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval	EMV
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Test Certificates	Maritime application
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



other	Environment
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[Confirmation](#)



[Environmental Confirmations](#)



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