6ES7151-7AA21-0AB0





*** spare part *** SIMATIC DP, IM151-7 CPU for ET200S, 128 KB work memory with integrated PROFIBUS DP interface (9-pole D-sub socket) as DP Slave, without battery SIMATIC MMC required

HW functional status 01 Firmware version V3.3 Product function • Isochronous mode No Engineering with • Programming package as of STEP 7 V5.5 + SP1 or as of V5.2 + SP1 + HSP 219 or as of STEP 7 TIA Portal V11 Supply voltage Raced value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Versi gainst destruction external protection for power supply lines (recommendation) 2 A min. Mains buffering Nains-voltage failure stored energy time 5 ms Input current Inrush current, typ. 1.8 A PL 0.09 A*s from supply voltage 11+, max. 320 mA; 410 mA with DP master module Output current Tor backplane bus (5 V DC), max. 700 mA Power loss, typ. 4.2 W Memory Work memory • Plug-in (MMC), max. 9 B Mbyte • Plug-in (MMC), max. 9 D Mbyte • Prosent Versi (MMC), Mbyte • Profestions, typ. 0.06 µs for bit operations, typ. 0.12 µs for fixed point arithmetic, typ. 0.15 µs for floating point arithmetic, typ. 0.59 µs	General information	
Product function I slochronous mode Ingineering with Programming package as of STEP 7 V5.5 + SP1 or as of V5.2 + SP1 + HSP 219 or as of STEP 7 TIA Potat V11 Supply voitage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Yes; against destruction external protection for power supply lines (recommendation) Mains buffering Mains voitage failure stored energy time S ms Input current Inrush current, typ. Prover loss for backplane bus (5 V DC), max. Power loss, typ. Power loss, typ. Work memory Plug-in (MMC) Present Posent Present	HW functional status	01
• Isochronous mode Engineering with • Programming package Profal V111 Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible ra	Firmware version	V3.3
Engineering with Programming package as of STEP 7 V5.5 + SP1 or as of V5.2 + SP1 + HSP 219 or as of STEP 7 TIA Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Yes; against destruction external protection for power supply lines (recommendation) Alians buffering Alians buffering Alians buffering Alians buffering Alians current, typ. Pt 1.8 A Pt 0.09 A*s from supply voltage 11+, max. 320 mA; 410 mA with DP master module Output current for backplane bus (5 V DC), max. Power loss. Power loss, typ. Alians with the protection of the p	Product function	
Programming package as of STEP 7 V5.5 + SP1 or as of V5.2 + SP1 + HSP 219 or as of STEP 7 TIA Portal V11 Supply voitage 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; against destruction external protection for power supply lines (recommendation) Alains buffering • Mains/voitage failure stored energy time • Mains/voitage failure stored energy time Inrus current, lyp. 1.8 A Pt 0.09 A*s from supply voitage 1L+, max. 320 mA; 410 mA with DP master module Output current for backplane bus (5 V DC), max. 700 mA Power loss Power loss, lyp. 4.2 W Memory Work memory • integrated 128 kbyte • expandable No Load memory • Plug-in (MMC), max. 8 Mbyte - Data management on MMC (after last programming), min. Backup • present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, lyp. 0.06 µs for word operations, lyp. 0.12 µs for forward operations, lyp. 0.12 µs for forward operations, lyp. 0.16 µs	Isochronous mode	No
Portal V11	Engineering with	
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; against destruction external protection for power supply lines (recommendation) 2 A min. Mains buffering • Mains/voltage failure stored energy time 5 ms Input current Inrush current, typ. 1.8 A Pt 0.09 A*s from supply voltage 1L+, max. 320 mA; 410 mA with DP master module Output current for backplane bus (5 V DC), max. 700 mA Power loss Power loss, typ. 4.2 W Memory Work memory • Integrated 128 kbyte • expandable No Load memory • Plug-in (MMC), max. 8 Mbyte • Plug-in (MMC), max. 8 Mbyte • Data management on MMC (after last programming), min. Backup • present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. 0.12 µs for word operations, typ. 0.16 µs	Programming package	
permissible range, lower limit (DC)	Supply voltage	
permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines (recommendation) Alians buffering Mains buffering Mains buffering Mains voltage failure stored energy time Inrush current, typ. Pt 0.09 A ² ·s from supply voltage 1L+, max. 320 mA; 410 mA with DP master module Output current for backplane bus (5 V DC), max. Power loss. Power loss, typ. Memory Work memory Integrated Explain (MMC), max. Plug-in (MMC), max. Plug-in (MMC), max. Data management on MMC (after last programming), min. Backup Present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bid operations, typ. 0.06 μs for word operations, typ. 0.012 μs for fixed point arithmetic, typ. 0.16 μs	Rated value (DC)	24 V
Reverse polarity protection external protection for power supply lines (recommendation) Mains buffering • Mains/voltage failure stored energy time Inrush current, typ. Inru	permissible range, lower limit (DC)	19.2 V
external protection for power supply lines (recommendation) Mains buffering • Mains/voltage failure stored energy time for backplane bus (5 V DC), max. Power loss, typ. Power loss, typ. A 2 W Memory Work memory • Plug-in (MMC), max. • Data management on MMC (after last programming), min. Backup • present Present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bid particular of the particular of the point and the programments of the point arithmetic, typ. 0.12 µs 0.06 µs for fixed point arithmetic, typ. 0.16 µs 10.00 Max. 12.00 Max. 13.00 Max. 14.00 Max. 15.00 Max. 16.00 Max. 17.00 Max. 17.00 Max. 18.00 M	permissible range, upper limit (DC)	28.8 V
Mains buffering • Mains/voltage failure stored energy time Inrush current Inrush current, typ. 1.8 A ²† 0.09 A²·s from supply voltage 1L+, max. 320 mA; 410 mA with DP master module Output current for backplane bus (5 V DC), max. Power loss Power loss, typ. 4.2 W Memory Work memory • integrated • expandable No Load memory • Plug-in (MMC) • Plug-in (MMC), max. • Data management on MMC (after last programming), min. Backup • present CPU processing times for bot operations, typ. 0.12 μs for word operations, typ. 0.12 μs for word operations, typ. 0.12 μs for fixed point arithmetic, typ. 0.16 μs	Reverse polarity protection	Yes; against destruction
Mains/voltage failure stored energy time 5 ms Input current Inrush current, typ. It 0.09 A²-s from supply voltage 1L+, max. Output current for backplane bus (5 V DC), max. 700 mA Power loss Power loss, typ. 4.2 W Memory Work memory • integrated • expandable No Load memory • Plug-in (MMC) • Plug-in (MMC), max. • Data management on MMC (after last programming), min. Backup • present CPU processing times for bit operations, typ. 0.16 μs for word operations, typ. 0.16 μs 1.8 A 1.8 A 1.8 A 1.8 A 1.8 A 1.8 A 1.9 A 1.	external protection for power supply lines (recommendation)	2 A min.
Input current Inrush current, typ.	Mains buffering	
Inrush current, typ. Inrush current, typ. In the supply voltage 1L+, max. If the supply voltage 1L+, max. In the supply voltage	 Mains/voltage failure stored energy time 	5 ms
Pt 0.09 A2·s	Input current	
from supply voltage 1L+, max. Output current for backplane bus (5 V DC), max. Power loss Power loss, typ. 4.2 W Memory Work memory integrated expandable volume in (MMC) Plug-in (MMC) Plug-in (MMC), max. Data management on MMC (after last programming), min. Backup present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. for fixed point arithmetic, typ. 0.16 µs 100 mA 100 max 100 mA 100 mA 100 max 100	Inrush current, typ.	1.8 A
Output current for backplane bus (5 V DC), max. 700 mA Power loss, typ. Power loss, typ. 4.2 W Memory Work memory • integrated 128 kbyte • expandable No Load memory • Plug-in (MMC) Yes • Plug-in (MMC), max. 8 Mbyte • Data management on MMC (after last programming), min. 10 a Backup • present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. 0.06 μs for word operations, typ. 0.12 μs for fixed point arithmetic, typ. 0.16 μs	l²t	0.09 A²·s
for backplane bus (5 V DC), max. Power loss Power loss, typ. 4.2 W Memory Work memory • integrated • expandable No Load memory • Plug-in (MMC) • Plug-in (MMC), max. • Data management on MMC (after last programming), min. Backup • present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. for word operations, typ. for fixed point arithmetic, typ. 0.16 µs	from supply voltage 1L+, max.	320 mA; 410 mA with DP master module
Power loss Power loss, typ. Memory Work memory integrated expandable Load memory Plug-in (MMC) Plug-in (MMC), max. Data management on MMC (after last programming), min. Backup present Present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. for word operations, typ. for fixed point arithmetic, typ. 4.2 W Memory Yes 8 kbyte 10 a 10 a Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) O.06 ps 10 a 10 a 11 ps 11 ps 12 ps 13 ps 14 ps 15 pr word operations, typ. 16 ps 17 ps 18 ps	Output current	
Power loss, typ. Memory Work memory integrated expandable Load memory Plug-in (MMC) Plug-in (MMC), max. Plug-in (MMC), max. Data management on MMC (after last programming), min. Backup present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. for word operations, typ. 0.16 ps	for backplane bus (5 V DC), max.	700 mA
Work memory integrated expandable No Load memory Plug-in (MMC) Plug-in (MMC), max. Data management on MMC (after last programming), min. Backup present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. for word operations, typ. for fixed point arithmetic, typ. 128 kbyte No No Yes Yes Ensured No Yes O.06 D.06 D.06 D.	Power loss	
Work memory integrated expandable No Load memory Plug-in (MMC) Plug-in (MMC), max. Data management on MMC (after last programming), min. Backup present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. for word operations, typ. for fixed point arithmetic, typ. 128 kbyte No 128 kbyte No Yes Ensured by SIMATIC Micro Memory Card (maintenance-free) 0.06 0.06 0.12 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.18 0.18	Power loss, typ.	4.2 W
 integrated expandable No Load memory Plug-in (MMC) Plug-in (MMC), max. Plug-in (MMC), max. Data management on MMC (after last programming), min. Backup present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. 0.06 μs for word operations, typ. for fixed point arithmetic, typ. 0.16 μs	Memory	
 expandable Load memory Plug-in (MMC) Plug-in (MMC), max. Data management on MMC (after last programming), min. Backup present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. for word operations, typ. 0.12 μs for fixed point arithmetic, typ. 0.16 μs 	Work memory	
Load memory Plug-in (MMC) Plug-in (MMC), max. Data management on MMC (after last programming), min. Backup present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. for word operations, typ. for fixed point arithmetic, typ. 0.16 μs	• integrated	128 kbyte
Plug-in (MMC) Plug-in (MMC), max. Plug-in (MMC), max. Data management on MMC (after last programming), min. Backup Present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. O.06 μs for word operations, typ. O.12 μs for fixed point arithmetic, typ. O.16 μs	• expandable	No
Plug-in (MMC), max. Data management on MMC (after last programming), min. Backup Present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. O.06 μs for word operations, typ. O.12 μs for fixed point arithmetic, typ. O.16 μs	Load memory	
 Data management on MMC (after last programming), min. Backup present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. for word operations, typ. 0.06 μs for fixed point arithmetic, typ. 0.16 μs 	Plug-in (MMC)	Yes
min. Backup	Plug-in (MMC), max.	8 Mbyte
Present Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free) CPU processing times for bit operations, typ. 0.06 μs for word operations, typ. 0.12 μs for fixed point arithmetic, typ. 0.16 μs		10 a
CPU processing times for bit operations, typ. 0.06 μs for word operations, typ. 0.12 μs for fixed point arithmetic, typ. 0.16 μs	Backup	
for bit operations, typ.0.06 μsfor word operations, typ.0.12 μsfor fixed point arithmetic, typ.0.16 μs	• present	Yes; Ensured by SIMATIC Micro Memory Card (maintenance-free)
for word operations, typ.0.12 μsfor fixed point arithmetic, typ.0.16 μs	CPU processing times	
for fixed point arithmetic, typ. 0.16 μs	for bit operations, typ.	0.06 µs
	for word operations, typ.	0.12 µs
for floating point arithmetic, typ. 0.59 µs	for fixed point arithmetic, typ.	0.16 µs
	for floating point arithmetic, typ.	0.59 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.	1 024; Number range: 1 to 16000
Size, max.	64 kbyte
FB	
Number, max.	1 024; Number range: 0 to 7999
• Size, max.	64 kbyte
FC	4004 N 1 24 - 200
Number, max.	1 024; Number range: 0 to 7999
• Size, max.	64 kbyte
	Sac S7 200 operation list
Number, max.Size, max.	See S7-300 operation list 64 kbyte
Number of free cycle OBs	1; OB 1
Number of time alarm OBs	1; OB 10
Number of delay alarm OBs	2; OB 20, 21
Number of cyclic interrupt OBs	4; OB 32, 33, 34, 35
Number of process alarm OBs	1; OB 40
Number of DPV1 alarm OBs	3; OB 55, 56, 57
Number of startup OBs	1; OB 100
Number of asynchronous error OBs	6; OB 80, 82, 83 (for centralized I/O only, not for distributed I/O), 85, 86, 87
Number of synchronous error OBs	2; OB 121, 122
Nesting depth	
 per priority class 	16
 additional within an error OB 	4
Counters, timers and their retentivity	
S7 counter	
Number	256
Retentivity	
— adjustable	Yes
— preset	Z 0 to Z 7
Counting range	
— lower limit	0
— upper limit	999
IEC counter	V
• present	Yes SFB
TypeNumber	Unlimited (limited only by RAM capacity)
S7 times	Offiliatilities (limited offly by twist capacity)
Number	256
Retentivity	200
— 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)
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	64 kbyte
Flag	
• Size, max.	256 byte
Retentivity available	Yes; MB 0 to MB 255
Retentivity preset	MB 0 to MB 15
Number of clock memories	8; 1 memory byte
Data blocks	
Retentivity adjustable	Yes; via non-retain property on DB

Retentivity preset	Yes
Local data	163
• per priority class, max.	32 kbyte; Max. 2048 bytes per block
Address area	32 kbyte, Max. 2046 bytes per block
I/O address area	2.040 h. to
• Inputs	2 048 byte
• Outputs	2 048 byte
of which distributed	
— Inputs	2 048 byte
— Outputs	2 048 byte
Process image	
• Inputs	2 048 byte
• Outputs	2 048 byte
Inputs, adjustable	2 048 byte
 Outputs, adjustable 	2 048 byte
Inputs, default	128 byte
Outputs, default	128 byte
Digital channels	
Inputs	16 336
— of which central	496
Outputs	16 336
— of which central	496
Analog channels	
• Inputs	1 021
of which central	124
Outputs	1 021
— of which central	124
Hardware configuration	
Number of modules per system, max.	63; Centralized
Mounting rail	
 Number of mounting rails that can be used 	1
Length of mounting rail, max.	Station width: ≤ 1 m or < 2 m
Time of day	
Clock	
Hardware clock (real-time)	Yes
retentive and synchronizable	Yes
Backup time	6 wk; At 40 °C ambient temperature, typically
 Deviation per day, max. 	10 s; Typ.: 2 s
Behavior of the clock following POWER-ON	Clock continues running after POWER OFF
Behavior of the clock following expiry of backup period	the clock continues at the time of day it had when power was switched off
Operating hours counter	
• Number	1
Number/Number range	0
Range of values	0 to 2^31 hours (when using SFC 101)
Granularity	1 h
• retentive	Yes; Must be restarted at each restart
Clock synchronization	100, must be restarted at edem restart
• supported	Yes
to MPI, master	Yes
on MPI, device	Yes
• to DP, master	Yes; With DP slave only slave clock
on DP, device in AS, master	Yes
• in AS, master	No No
• in AS, device	No
Interfaces	A MANUFACTION OF THE CONTRACT
Interfaces/bus type	1 x MPI/PROFIBUS DP
1. Interface	
Interface type	Integrated RS 485 interface
Isolated	Yes
Interface types	

• RS 485	Yes
Output current of the interface, max.	80 mA
Protocols	
• MPI	Yes
PROFIBUS DP master	No
PROFIBUS DP device	Yes; active / passive
Point-to-point connection	No
MPI	
Transmission rate, max.	12 Mbit/s
Services	
— PG/OP communication	Yes
— Routing	Yes; With master module
 Global data communication 	Yes
 S7 basic communication 	Yes
— S7 communication	Yes; Only server, configured on one side
 S7 communication, as client 	No
 — S7 communication, as server 	Yes
1st interface / PROFIBUS DP device / header	
GSD file	The latest GSD file is available on the Internet
	(http://www.siemens.com/profibus-gsd)
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; Up to max. size of the transfer memory
Services	
— PG/OP communication	Yes
— Routing	Yes; Only with active, integrated DP slave interface and inserted DP master
	module in DP master mode
Global data communication	No
— S7 basic communication	No
— S7 communication	Yes; Only server, configured on one side
 S7 communication, as client 	No
 S7 communication, as server 	Yes
Direct data exchange (slave-to-slave	Yes
communication)	Ma
— DPV1	No
Transfer memory	044 1-4-
— Inputs	244 byte
— Outputs	244 byte
2. Interface	
Interface type	External interface via master module 6ES7138-4HA00-0AB0
Isolated	Yes
Interface types	
• RS 485	Yes
Output current of the interface, max.	No
Protocols	
• MPI	No
 PROFIBUS DP master 	Yes
PROFIBUS DP device	No
PROFIBUS DP master	
 Transmission rate, max. 	12 Mbit/s
• max. number of DP devices	32; Per station
Services	
— PG/OP communication	Yes
— Routing	Yes
Global data communication	No
— S7 basic communication	Yes; I blocks only
— S7 communication	Yes; Only server, configured on one side
S7 communication, as client	No
— S7 communication, as server	Yes
— Equidistance	
	YES
Legitustance Isochronous mode	Yes No

OVAIC/EDEEZE	Voc
— 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)	Yes
communication)	
— DPV1	Yes
Address area	
— Inputs, max.	2 kbyte
— Outputs, max.	2 kbyte
User data per DP device	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
Protocols	
Open IE communication	
• TCP/IP	No
communication functions / header	
PG/OP communication	Yes
Data record routing	Yes; With DP master module
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); 64 bytes (with X_PUT or X_GET
	as server)
S7 communication	
• supported	Yes
• as server	Yes
• as client	No
 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)
 User data per job (of which consistent), max. 	See online help of STEP 7 (shared parameters of the SFBs/FBs and of the
	SFCs/FCs of S7 Communication)
Number of connections	
• overall	12
 usable for PG communication 	11
 reserved for PG communication 	1
 adjustable for PG communication, min. 	1
 adjustable for PG communication, max. 	11
 usable for OP communication 	11
 reserved for OP communication 	1
 adjustable for OP communication, min. 	1
 adjustable for OP communication, max. 	11
 usable for S7 basic communication 	10
 reserved for S7 basic communication 	0
 adjustable for S7 basic communication, min. 	0
 adjustable for S7 basic communication, max. 	10
usable for routing	4; As slave only with active interface, with IM 151-7 CPU as DP master
S7 message functions	
Number of login stations for message functions, max.	12; Depending on the configured connections for PG/OP and S7 basic communication
Process diagnostic messages	Yes; ALARM_S, ALARM_SC, ALARM_SQ, ALARM_D, ALARM_DQ
simultaneously active Alarm_S blocks, max.	300
Test commissioning functions	
Status block	Yes; Up to 2 simultaneously

Single step	Yes
Number of breakpoints	4
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 status variables, max. — of which control variables, max.	14
Forcing	14
• Forcing	Yes
• Forcing, variables	Inputs, outputs
-	10
Number of variables, max. Diagnostic buffer	10
	Yes
Present Number of entries, may	500
Number of entries, max.	No
— adjustable	
 — of which powerfail-proof Number of entries readable in RUN, max. 	100; Only the last 100 entries are retained 499
Number of entries readable in RON, max.— adjustable	Yes; From 10 to 499
•	Yes; From 10 to 499
— preset Service data	10
can be read out	Yes
can be read out Interrupts/diagnostics/status information	1 53
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	Yes
Group error SF (red) Manitoring 34 Viveltage gupply ON (group)	
Monitoring 24 V voltage supply ON (green) Potential separation	Yes
	Vac
between PROFIBUS DP and all other circuit components	Yes
	FOONDO
Isolation tested with	500 V DC
Degree and class of protection	
Degree and class of protection	ID20
IP degree of protection	IP20
IP degree of protection configuration / header	
IP degree of protection	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface)
IP degree of protection configuration / header	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM
IP degree of protection configuration / header Configuration rules	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM
IP degree of protection configuration / header Configuration rules Configuration software	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface)
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface)
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface)
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC)	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB)	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list see instruction list
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list see instruction list
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list see instruction list Yes Yes
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list see instruction list Yes Yes Yes
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes; Optional
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list yes Yes Yes Yes Yes Yes Yes Yes Yes; Optional Yes; Optional
IP degree of protection configuration / header Configuration rules Configuration software STEP 7 Lite configuration / programming / header Command set Nesting levels System functions (SFC) System function blocks (SFB) Programming language LAD FBD STL SCL CFC GRAPH	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes Yes Yes; Optional Yes; Optional Yes; Optional
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph®	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes Yes Yes; Optional Yes; Optional Yes; Optional
IP degree of protection configuration / header Configuration rules Configuration software STEP 7 Lite configuration / programming / header Command set Nesting levels System functions (SFC) System function blocks (SFB) Programming language LAD FBD STL SCL CFC GRAPH HiGraph® Know-how protection	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes; Optional Yes; Optional Yes; Optional Yes; Optional
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph® Know-how protection • User program protection/password protection	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list Yes Yes Yes Yes Yes Yes Yes; Optional Yes; Optional Yes; Optional Yes; Optional Yes; Optional
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph® Know-how protection • User program protection/password protection • Block encryption	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes; Optional Yes; Optional Yes; Optional Yes; Optional Yes; Optional
IP degree of protection configuration / header Configuration rules Configuration software • STEP 7 Lite configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD — STL — SCL — CFC — GRAPH — HiGraph® Know-how protection • User program protection/password protection • Block encryption programming / cycle time monitoring / header	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes; Optional Yes; Optional Yes; Optional Yes; Optional Yes; Optional Yes; With S7 block Privacy
IP degree of protection configuration / header Configuration rules Configuration rules Configuration software STEP 7 Lite configuration / programming / header Command set Nesting levels System functions (SFC) System function blocks (SFB) Programming language LAD FBD STL SCL CFC GRAPH HiGraph® Know-how protection User program protection/password protection Block encryption programming / cycle time monitoring / header lower limit	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list Yes Yes Yes Yes Yes Yes Yes; Optional Yes; Optional Yes; Optional Yes; Optional Yes; With S7 block Privacy
IP degree of protection configuration / header Configuration rules Configuration rules Configuration software STEP 7 Lite configuration / programming / header Command set Nesting levels System functions (SFC) System function blocks (SFB) Programming language LAD FBD STL SCL CFC GRAPH HiGraph® Know-how protection User program protection/password protection Block encryption programming / cycle time monitoring / header lower limit upper limit	max. 63 peripheral modules per station; station width < 1 m or < 2 m; max. 10 A per load group (power module); master interface module on right next to IM 151-7 CPU (X2 interface) No see instruction list 8 see instruction list Yes Yes Yes Yes Yes Yes Yes; Optional Yes; Optional Yes; Optional Yes; Optional Yes; With S7 block Privacy 1 ms 6 000 ms

Dimensions	
Width	60 mm; DP master module: 35 mm
Height	119.5 mm
Depth	75 mm
Weights	
Weight, approx.	200 g; DP master module: Approx. 100 g

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