PLC_1 [CPU 1212C AC/DC/Rly]

PLC_1					
General\Project information					
Name	PLC_1	**Author**	AA_LAB7	**Comment**	
Slot	1	**Rack**	0		
General\Catalog information					
Short designation	CPU 1212C AC/DC/Rly	**Description**	Work memory 75 KB; 120/240VAC power supply with DI8 x 24VDC SINK/SOURCE, DQ6 x relay and AI2 on board; 4 high-speed counters (expandable with digital signal board) and 4 pulse outputs on board; signal board expands on-board I/O; up to 3 communication modules for serial communication; up to 2 signal modules for I/O expansion; 0.04 ms/1000 instructions; PROFINET interface for programming, HMI and PLC to PLC communication	**Article number**	6ES7 212-1BE40-0XB0
Firmware version	V4.1				
General\Identification & Maintenance					
Plant designation		**Location identifier**		**Installation date**	2019-03-12 16:32:03.545
Additional information					
PROFINET interface [X1]\General					
Name	PROFINET interface_1	**Author**	AA_LAB7	**Comment**	
PROFINET interface [X1]\General\Project information					
Name	DI 8/DQ 6_1	**Comment**		**Name**	AI 2_1
Comment					
PROFINET interface [X1]\Ethernet addresses\Interface networked with					
Subnet:	PN/IE_1				
PROFINET interface [X1]\Ethernet addresses\IP protocol					
	Set IP address in the project	**IP address:**	192.168.0.1	**Subnet mask:**	255.255.255.0
Use router	False				
PROFINET interface [X1]\Ethernet addresses\PROFINET					
PROFINET device name is set directly at the device	False	**Generate PROFINET device name automatically**	True	**PROFINET device name**	plc_1
Converted name:	plcxb1d0ed	**Device number:**	0		
PROFINET interface [X1]\Time synchronization					
Enable time synchronization via NTP server	Enable time synchronization via NTP server		IP addresses	**Server 1**	0.0.0.0
Server 2	0.0.0.0	**Server 3**	0.0.0.0	**Server 4**	0.0.0.0
Update interval	10sec				
PROFINET interface [X1]\Digital inputs\Channel0					
Channel address	I0.0	**Input filters**	6.4 millisec	**Enable pulse catch**	0
PROFINET interface [X1]\Digital inputs\Channel0					
Enable rising edge detection	0	**RidPrefixRisingEdgeEvent**	49152	**Event name:**	0
Hardware interrupt:	0	**Rising edge0**	Rising edge0		
PROFINET interface [X1]\Digital inputs\Channel0					
Enable falling edge detection	0	**RidPrefixFallingEdgeEvent**	49280	**Event name:**	0
Hardware interrupt:	0	**Falling edge0**	Falling edge0		
PROFINET interface [X1]\Digital inputs\Channel1					
Channel address	I0.1	**Input filters**	6.4 millisec	**Enable pulse catch**	0
PROFINET interface [X1]\Digital inputs\Channel1					
Enable rising edge detection	0	**RidPrefixRisingEdgeEvent**	49153	**Event name:**	0
Hardware interrupt:	0	**Rising edge1**	Rising edge1		
PROFINET interface [X1]\Digital inputs\Channel1					
Enable falling edge detection	0	**RidPrefixFallingEdgeEvent**	49281	**Event name:**	0
Hardware interrupt:	0	**Falling edge1**	Falling edge1		
PROFINET interface [X1]\Digital inputs\Channel2					
Channel address	I0.2	**Input filters**	6.4 millisec	**Enable pulse catch**	0
PROFINET interface [X1]\Digital inputs\Channel2					
Enable rising edge detection	0	**RidPrefixRisingEdgeEvent**	49154	**Event name:**	0
Hardware interrupt:	0	**Rising edge2**	Rising edge2		
PROFINET interface [X1]\Digital inputs\Channel2					
Enable falling edge detection	0	**RidPrefixFallingEdgeEvent**	49282	**Event name:**	0
Hardware interrupt:	0	**Falling edge2**	Falling edge2		
PROFINET interface [X1]\Digital inputs\Channel3					
Channel address	I0.3	**Input filters**	6.4 millisec	**Enable pulse catch**	0
PROFINET interface [X1]\Digital inputs\Channel3					
Enable rising edge detection	0	**RidPrefixRisingEdgeEvent**	49155	**Event name:**	0
Hardware interrupt:	0	**Rising edge3**	Rising edge3		
PROFINET interface [X1]\Digital inputs\Channel3					
Enable falling edge detection	0	**RidPrefixFallingEdgeEvent**	49283	**Event name:**	0
Hardware interrupt:	0	**Falling edge3**	Falling edge3		
PROFINET interface [X1]\Digital inputs\Channel4					
Channel address	I0.4	**Input filters**	6.4 millisec	**Enable pulse catch**	0

PROFINET interface [X1]\Digital inputs\Channel4

Enable rising edge detection	0	RidPrefixRisingEdgeEvent	49156	Event name:	0
Hardware interrupt:	0	Rising edge4	Rising edge4		

PROFINET interface [X1]\Digital inputs\Channel4

Enable falling edge detection	0	RidPrefixFallingEdgeEvent	49284	Event name:	0
Hardware interrupt:	0	Falling edge4	Falling edge4		

PROFINET interface [X1]\Digital inputs\Channel5

Channel address	I0.5	Input filters	6.4 millisec	Enable pulse catch	0

PROFINET interface [X1]\Digital inputs\Channel5

Enable rising edge detection	0	RidPrefixRisingEdgeEvent	49157	Event name:	0
Hardware interrupt:	0	Rising edge5	Rising edge5		

PROFINET interface [X1]\Digital inputs\Channel5

Enable falling edge detection	0	RidPrefixFallingEdgeEvent	49285	Event name:	0
Hardware interrupt:	0	Falling edge5	Falling edge5		

PROFINET interface [X1]\Digital inputs\Channel6

Channel address	I0.6	Input filters	6.4 millisec	Enable pulse catch	0

PROFINET interface [X1]\Digital inputs\Channel6

Enable rising edge detection	0	RidPrefixRisingEdgeEvent	49158	Event name:	0
Hardware interrupt:	0	Rising edge6	Rising edge6		

PROFINET interface [X1]\Digital inputs\Channel6

Enable falling edge detection	0	RidPrefixFallingEdgeEvent	49286	Event name:	0
Hardware interrupt:	0	Falling edge6	Falling edge6		

PROFINET interface [X1]\Digital inputs\Channel7

Channel address	I0.7	Input filters	6.4 millisec	Enable pulse catch	0

PROFINET interface [X1]\Digital inputs\Channel7

Enable rising edge detection	0	RidPrefixRisingEdgeEvent	49159	Event name:	0
Hardware interrupt:	0	Rising edge7	Rising edge7		

PROFINET interface [X1]\Digital inputs\Channel7

Enable falling edge detection	0	RidPrefixFallingEdgeEvent	49287	Event name:	0
Hardware interrupt:	0	Falling edge7	Falling edge7		

PROFINET interface [X1]\Analog inputs\Noise reduction

Integration time	50 Hz (20 ms)

PROFINET interface [X1]\Analog inputs\Channel0

Channel address	IW64	Measurement type	Voltage	Voltage range	0..10 V
Smoothing	Weak (4 cycles)			Enable overflow diagnostics	1

PROFINET interface [X1]\Analog inputs\Channel1

Channel address	IW66	Measurement type	Voltage	Voltage range	0..10 V
Smoothing	Weak (4 cycles)			Enable overflow diagnostics	1

PROFINET interface [X1]\Digital outputs

Reaction to CPU STOP	Use substitute value	

PROFINET interface [X1]\Digital outputs\Channel0

Channel address	Q0.0	Substitute a value of 1 on a change from RUN to STOP.	0		

PROFINET interface [X1]\Digital outputs\Channel1

Channel address	Q0.1	Substitute a value of 1 on a change from RUN to STOP.	0		

PROFINET interface [X1]\Digital outputs\Channel2

Channel address	Q0.2	Substitute a value of 1 on a change from RUN to STOP.	0		

PROFINET interface [X1]\Digital outputs\Channel3

Channel address	Q0.3	Substitute a value of 1 on a change from RUN to STOP.	0		

PROFINET interface [X1]\Digital outputs\Channel4

Channel address	Q0.4	Substitute a value of 1 on a change from RUN to STOP.	0		

PROFINET interface [X1]\Digital outputs\Channel5

Channel address	Q0.5	Substitute a value of 1 on a change from RUN to STOP.	0		

PROFINET interface [X1]\Operating mode

IO controller	True	IO system		Device number	0
IO device	False				

PROFINET interface [X1]\I/O addresses\Input addresses

Start address	0	End address	0	Organization block	0
Process image	0				

PROFINET interface [X1]\I/O addresses\Output addresses

Start address	0	End address	0	Organization block	0
Process image	0				

PROFINET interface [X1]\Advanced options\Interface options

Support device replacement without exchangeable medium	True	Permit overwriting of device names of all assigned IO devices	False	Use IEC V2.2 LLDP mode	False
Send keepalives for connections	30s				

PROFINET interface [X1]\Advanced options\Real time settings\IO communication

Send clock:	1.000ms

PROFINET interface [X1]\Advanced options\Real time settings\Real time options

Calculated bandwidth for cyclic IO data:	0.000ms

PROFINET interface [X1]\Advanced options\Port [X1 P1]\General

Name	Port_1	Author	AA_LAB7	Comment	

PROFINET interface [X1]\Advanced options\Port [X1 P1]\Port interconnection\Local port:

Local port:	PLC_1\PROFINET interface_1 [X1]\Port_1 [X1 P1]	Medium:	Copper	Cable name:	---

PROFINET interface [X1]\Advanced options\Port [X1 P1]\Port interconnection\Partner port:

	Monitoring of partner port is not possible	Alternative partners	False	Partner port:	CSM 1277_1\SCALANCE interface [X1]\Port_2 [X1 P2]
Medium:	Copper	Cable length:			

PROFINET interface [X1]\Advanced options\Port [X1 P1]\Port options\Activate

Activate this port for use	True

PROFINET interface [X1]\Advanced options\Port [X1 P1]\Port options\Connection

Transmission rate / duplex:	Automatic	Monitor	False	Enable autonegotiation	True

PROFINET interface [X1]\Advanced options\Port [X1 P1]\Port options\Boundaries

End of detection of accessible devices	False	End of topology discovery	False	End of the sync domain	False

PROFINET interface [X1]\Advanced options\Port [X1 P1]\Hardware identifier\Hardware identifier

Hardware identifier	65

PROFINET interface [X1]\Web server access

Enable Web server using this interface	False	The Web server must also be activated in the properties of the PLC.			

PROFINET interface [X1]\Hardware identifier\Hardware identifier

Hardware identifier	264	Hardware identifier	64		

High speed counters (HSC)\HSC1\General\Enable

Enable this high speed counter	0

High speed counters (HSC)\HSC1\General\Project information

Name	HSC_1	Comment			

High speed counters (HSC)\HSC1\Function

Type of counting	Count	Operating phase	Single phase		
Counting direction is specified by	User program (internal direction control)	Initial counting direction	Count up		
Frequency measuring period	-/-sec				

High speed counters (HSC)\HSC1\Reset to initial values\Reset values

Initial counter value	0	Initial reference value	0		

High speed counters (HSC)\HSC1\Reset to initial values\Reset options

Use external reset input	0	Reset signal level	-/-		

High speed counters (HSC)\HSC1\Event configuration\

Generate interrupt for counter value equals reference value event.	0	RidPrefixCvEqualsPv	49152	Event name:	0
Hardware interrupt:	0	Counter value equal to reference value0	Counter value equal to reference value0	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC1\Event configuration\

Generate interrupt for external reset event.	0	RidPrefixExternalReset	49408	Event name:	0
Hardware interrupt:	0	External reset0	External reset0	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC1\Event configuration\

Generate interrupt for change of direction event.	0	RidPrefixDirectionChange	49280	Event name:	0
Hardware interrupt:	0	Change of direction0	Change of direction0	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC1\Hardware inputs\

Clock generator input	---	HSCInput0_Status	1	Direction input	---
Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC1\Hardware inputs

Direction input	---	HSCInput1_Status	1	Clock generator input	---
Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC1\Hardware inputs

Reset input	---	HSCInput2_Status	1	Clock generator input	---
Direction input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC1\I/O addresses\Input addresses

Start address	1000	End address	1003	Organization block	0
Process image	0				

High speed counters (HSC)\HSC1\Hardware identifier\Hardware identifier

Hardware identifier	257

High speed counters (HSC)\HSC2\General\Enable

Enable this high speed counter	0

High speed counters (HSC)\HSC2\General\Project information

Name	HSC_2	Comment	

High speed counters (HSC)\HSC2\Function

Type of counting	Count	Operating phase	Single phase		
Counting direction is specified by	User program (internal direction control)	Initial counting direction	Count up		
Frequency measuring period	-/-sec				

High speed counters (HSC)\HSC2\Reset to initial values\Reset values

Initial counter value	0	Initial reference value	0		

High speed counters (HSC)\HSC2\Reset to initial values\Reset options

Use external reset input	0	Reset signal level	-/-		

High speed counters (HSC)\HSC2\Event configuration

Generate interrupt for counter value equals reference value event.	0	RidPrefixCvEqualsPv	49152	Event name:	0
Hardware interrupt:	0	Counter value equal to reference value1	Counter value equal to reference value1	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC2\Event configuration

Generate interrupt for external reset event.	0	RidPrefixExternalReset	49408	Event name:	0
Hardware interrupt:	0	External reset1	External reset1	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC2\Event configuration

Generate interrupt for change of direction event.	0	RidPrefixDirectionChange	49280	Event name:	0
Hardware interrupt:	0	Change of direction1	Change of direction1	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC2\Hardware inputs

Clock generator input	---	HSCInput0_Status	1	Direction input	---
Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC2\Hardware inputs

Direction input	---	HSCInput1_Status	1	Clock generator input	---
Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC2\Hardware inputs

Reset input	---	HSCInput2_Status	1	Clock generator input	---
Direction input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay

Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC2\I/O addresses\Input addresses					
Start address	1004	End address	1007	Organization block	0
Process image	0				

High speed counters (HSC)\HSC2\Hardware identifier\Hardware identifier					
Hardware identifier	258				

High speed counters (HSC)\HSC3\General\Enable					
Enable this high speed counter	0				

High speed counters (HSC)\HSC3\General\Project information					
Name	HSC_3	Comment			

High speed counters (HSC)\HSC3\Function					
Type of counting	Count	Operating phase	Single phase		
Counting direction is specified by	User program (internal direction control)	Initial counting direction	Count up		
Frequency measuring period	-/-sec				

High speed counters (HSC)\HSC3\Reset to initial values\Reset values					
Initial counter value	0	Initial reference value	0		

High speed counters (HSC)\HSC3\Reset to initial values\Reset options					
Use external reset input	0	Reset signal level	-/-		

High speed counters (HSC)\HSC3\Event configuration					
Generate interrupt for counter value equals reference value event.	0	RidPrefixCvEqualsPv	49152	Event name:	0
Hardware interrupt:	0	Counter value equal to reference value2	Counter value equal to reference value2	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC3\Event configuration					
Generate interrupt for external reset event.	0	RidPrefixExternalReset	49408	Event name:	0
Hardware interrupt:	0	External reset2	External reset2	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC3\Event configuration					
Generate interrupt for change of direction event.	0	RidPrefixDirectionChange	49280	Event name:	0
Hardware interrupt:	0	Change of direction2	Change of direction2	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC3\Hardware inputs					
Clock generator input	---	HSCInput0_Status	1	Direction input	---
Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC3\Hardware inputs					
Direction input	---	HSCInput1_Status	1	Clock generator input	---
Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC3\Hardware inputs					
Reset input	---	HSCInput2_Status	1	Clock generator input	---
Direction input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC3\I/O addresses\Input addresses					
Start address	1008	End address	1011	Organization block	0
Process image	0				

High speed counters (HSC)\HSC3\Hardware identifier\Hardware identifier					
Hardware identifier	259				

High speed counters (HSC)\HSC4\General\Enable					
Enable this high speed counter	0				

High speed counters (HSC)\HSC4\General\Project information					
Name	HSC_4	Comment			

High speed counters (HSC)\HSC4\Function					
Type of counting	Count	Operating phase	Single phase		
Counting direction is specified by	User program (internal direction control)	Initial counting direction	Count up		

Frequency measuring period	-/-sec				

High speed counters (HSC)\HSC4\Reset to initial values\Reset values

Initial counter value	0	Initial reference value	0		

High speed counters (HSC)\HSC4\Reset to initial values\Reset options

Use external reset input	0	Reset signal level	-/-		

High speed counters (HSC)\HSC4\Event configuration

Generate interrupt for counter value equals reference value event.	0	RidPrefixCvEqualsPv	49152	Event name:	0
Hardware interrupt:	0	Counter value equal to reference value3	Counter value equal to reference value3	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC4\Event configuration

Generate interrupt for external reset event.	0	RidPrefixExternalReset	49408	Event name:	0
Hardware interrupt:	0	External reset3	External reset3	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC4\Event configuration

Generate interrupt for change of direction event.	0	RidPrefixDirectionChange	49280	Event name:	0
Hardware interrupt:	0	Change of direction3	Change of direction3	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC4\Hardware inputs

Clock generator input	---	HSCInput0_Status	1	Direction input	---
Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC4\Hardware inputs

Direction input	---	HSCInput1_Status	1	Clock generator input	---
Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC4\Hardware inputs

Reset input	---	HSCInput2_Status	1	Clock generator input	---
Direction input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC4\I/O addresses\Input addresses

Start address	1012	End address	1015	Organization block	0
Process image	0				

High speed counters (HSC)\HSC4\Hardware identifier\Hardware identifier

Hardware identifier	260				

High speed counters (HSC)\HSC5\General\Enable

Enable this high speed counter	0				

High speed counters (HSC)\HSC5\General\Project information

Name	HSC_5	Comment			

High speed counters (HSC)\HSC5\Function

Type of counting	Count	Operating phase	Single phase		
Counting direction is specified by	User program (internal direction control)	Initial counting direction	Count up		
Frequency measuring period	-/-sec				

High speed counters (HSC)\HSC5\Reset to initial values\Reset values

Initial counter value	0	Initial reference value	0		

High speed counters (HSC)\HSC5\Reset to initial values\Reset options

Use external reset input	0	Reset signal level	-/-		

High speed counters (HSC)\HSC5\Event configuration

Generate interrupt for counter value equals reference value event.	0	RidPrefixCvEqualsPv	49152	Event name:	0
Hardware interrupt:	0	Counter value equal to reference value4	Counter value equal to reference value4	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC5\Event configuration

Generate interrupt for external reset event.	0	RidPrefixExternalReset	49408	Event name:	0
Hardware interrupt:	0	External reset4	External reset4	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC5\Event configuration

Generate interrupt for change of direction event.	0	RidPrefixDirectionChange	49280	Event name:	0
Hardware interrupt:	0	Change of direction4	Change of direction4	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC5\Hardware inputs

Clock generator input	---	HSCInput0_Status	1	Direction input	---
Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC5\Hardware inputs

Direction input	---	HSCInput1_Status	1	Clock generator input	---
Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC5\Hardware inputs

Reset input	---	HSCInput2_Status	1	Clock generator input	---
Direction input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				

High speed counters (HSC)\HSC5\I/O addresses\Input addresses

Start address	1016	End address	1019	Organization block	0
Process image	0				

High speed counters (HSC)\HSC5\Hardware identifier\Hardware identifier

Hardware identifier	261

High speed counters (HSC)\HSC6\General\Enable

Enable this high speed counter	0

High speed counters (HSC)\HSC6\General\Project information

Name	HSC_6	Comment	

High speed counters (HSC)\HSC6\Function

Type of counting	Count	Operating phase	Single phase		
Counting direction is specified by	User program (internal direction control)	Initial counting direction	Count up		
Frequency measuring period	-/-sec				

High speed counters (HSC)\HSC6\Reset to initial values\Reset values

Initial counter value	0	Initial reference value	0

High speed counters (HSC)\HSC6\Reset to initial values\Reset options

Use external reset input	0	Reset signal level	-/-

High speed counters (HSC)\HSC6\Event configuration

Generate interrupt for counter value equals reference value event.	0	RidPrefixCvEqualsPv	49152	Event name:	0
Hardware interrupt:	0	Counter value equal to reference value5	Counter value equal to reference value5	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC6\Event configuration

Generate interrupt for external reset event.	0	RidPrefixExternalReset	49408	Event name:	0
Hardware interrupt:	0	External reset5	External reset5	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC6\Event configuration

Generate interrupt for change of direction event.	0	RidPrefixDirectionChange	49280	Event name:	0
Hardware interrupt:	0	Change of direction5	Change of direction5	ValueNull	0
ValueNull	0	EventPriority	6		

High speed counters (HSC)\HSC6\Hardware inputs

Clock generator input	---	HSCInput0_Status	1	Direction input	---

Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				
High speed counters (HSC)\HSC6\Hardware inputs					
Direction input	---	HSCInput1_Status	1	Clock generator input	---
Reset input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				
High speed counters (HSC)\HSC6\Hardware inputs					
Reset input	---	HSCInput2_Status	1	Clock generator input	---
Direction input	---	Adapter name the user control should use for the address string	HscChannel.AddressString	Adapter name the user control should use for the SpeedAndSourceDisplay	HscChannel.SpeedAndSourceDisplay
Adapter name the user control should use for the Output Source	HscChannel.OutputSource				
High speed counters (HSC)\HSC6\I/O addresses\Input addresses					
Start address	1020	End address	1023	Organization block	0
Process image	0				
High speed counters (HSC)\HSC6\Hardware identifier\Hardware identifier					
Hardware identifier	262				
Pulse generators (PTO/PWM)\PTO1/PWM1\General\Enable					
Enable this pulse generator	0				
Pulse generators (PTO/PWM)\PTO1/PWM1\General\Project information					
Name	Pulse_1	Comment			
Pulse generators (PTO/PWM)\PTO1/PWM1\Parameter assignment\Pulse options					
Signal type	PWM	Time base:	Milliseconds	Pulse duration format	Hundredths
Cycle time	100ms	Initial pulse duration	50Hundredths		
Pulse generators (PTO/PWM)\PTO1/PWM1\Hardware outputs					
Enable direction output	0				
Pulse generators (PTO/PWM)\PTO1/PWM1\Hardware outputs					
Pulse output		PulseOutput1_Status	1	Adapter name the user control should use for the address string	PulseChannel.AddressString
Adapter name the user control should use for the SpeedAndSourceDisplay	PulseChannel.SpeedAndSourceDisplay	Adapter name the user control should use for the Output Source	PulseChannel.OutputSource		
Pulse generators (PTO/PWM)\PTO1/PWM1\Hardware outputs					
PulseOutput2_Status	1	Pulse output		Adapter name the user control should use for the address string	PulseChannel.AddressString
Adapter name the user control should use for the SpeedAndSourceDisplay	PulseChannel.SpeedAndSourceDisplay	Adapter name the user control should use for the Output Source	PulseChannel.OutputSource		
Pulse generators (PTO/PWM)\PTO1/PWM1\I/O addresses\Output addresses					
Start address	1000	End address	1001	Organization block	0
Process image	0				
Pulse generators (PTO/PWM)\PTO1/PWM1\Hardware identifier\Hardware identifier					
Hardware identifier	265				
Pulse generators (PTO/PWM)\PTO2/PWM2\General\Enable					
Enable this pulse generator	0				
Pulse generators (PTO/PWM)\PTO2/PWM2\General\Project information					
Name	Pulse_2	Comment			
Pulse generators (PTO/PWM)\PTO2/PWM2\Parameter assignment\Pulse options					
Signal type	PWM	Time base:	Milliseconds	Pulse duration format	Hundredths
Cycle time	100ms	Initial pulse duration	50Hundredths		
Pulse generators (PTO/PWM)\PTO2/PWM2\Hardware outputs					
Enable direction output	0				
Pulse generators (PTO/PWM)\PTO2/PWM2\Hardware outputs					
Pulse output		PulseOutput1_Status	1	Adapter name the user control should use for the address string	PulseChannel.AddressString
Adapter name the user control should use for the SpeedAndSourceDisplay	PulseChannel.SpeedAndSourceDisplay	Adapter name the user control should use for the Output Source	PulseChannel.OutputSource		

Pulse generators (PTO/PWM)\PTO2/PWM2\Hardware outputs

PulseOutput2_Status	1	Pulse output		Adapter name the user control should use for the address string	PulseChannel.AddressString
Adapter name the user control should use for the SpeedAndSourceDisplay	PulseChannel.SpeedAndSourceDisplay	Adapter name the user control should use for the Output Source	PulseChannel.OutputSource		

Pulse generators (PTO/PWM)\PTO2/PWM2\I/O addresses\Output addresses

Start address	1002	End address	1003	Organization block	0
Process image	0				

Pulse generators (PTO/PWM)\PTO2/PWM2\Hardware identifier\Hardware identifier

Hardware identifier	266

Pulse generators (PTO/PWM)\PTO3/PWM3\General\Enable

Enable this pulse generator	0

Pulse generators (PTO/PWM)\PTO3/PWM3\General\Project information

Name	Pulse_3	Comment			

Pulse generators (PTO/PWM)\PTO3/PWM3\Parameter assignment\Pulse options

Signal type	PWM	Time base:	Milliseconds	Pulse duration format	Hundredths
Cycle time	100ms	Initial pulse duration	50Hundredths		

Pulse generators (PTO/PWM)\PTO3/PWM3\Hardware outputs

Enable direction output	0

Pulse generators (PTO/PWM)\PTO3/PWM3\Hardware outputs

Pulse output		PulseOutput1_Status	1	Adapter name the user control should use for the address string	PulseChannel.AddressString
Adapter name the user control should use for the SpeedAndSourceDisplay	PulseChannel.SpeedAndSourceDisplay	Adapter name the user control should use for the Output Source	PulseChannel.OutputSource		

Pulse generators (PTO/PWM)\PTO3/PWM3\Hardware outputs

PulseOutput2_Status	1	Pulse output		Adapter name the user control should use for the address string	PulseChannel.AddressString
Adapter name the user control should use for the SpeedAndSourceDisplay	PulseChannel.SpeedAndSourceDisplay	Adapter name the user control should use for the Output Source	PulseChannel.OutputSource		

Pulse generators (PTO/PWM)\PTO3/PWM3\I/O addresses\Output addresses

Start address	1004	End address	1005	Organization block	0
Process image	0				

Pulse generators (PTO/PWM)\PTO3/PWM3\Hardware identifier\Hardware identifier

Hardware identifier	267

Pulse generators (PTO/PWM)\PTO4/PWM4\General\Enable

Enable this pulse generator	0

Pulse generators (PTO/PWM)\PTO4/PWM4\General\Project information

Name	Pulse_4	Comment			

Pulse generators (PTO/PWM)\PTO4/PWM4\Parameter assignment\Pulse options

Signal type	PWM	Time base:	Milliseconds	Pulse duration format	Hundredths
Cycle time	100ms	Initial pulse duration	50Hundredths		

Pulse generators (PTO/PWM)\PTO4/PWM4\Hardware outputs

Enable direction output	0

Pulse generators (PTO/PWM)\PTO4/PWM4\Hardware outputs

Pulse output		PulseOutput1_Status	1	Adapter name the user control should use for the address string	PulseChannel.AddressString
Adapter name the user control should use for the SpeedAndSourceDisplay	PulseChannel.SpeedAndSourceDisplay	Adapter name the user control should use for the Output Source	PulseChannel.OutputSource		

Pulse generators (PTO/PWM)\PTO4/PWM4\Hardware outputs

PulseOutput2_Status	1	Pulse output		Adapter name the user control should use for the address string	PulseChannel.AddressString
Adapter name the user control should use for the SpeedAndSourceDisplay	PulseChannel.SpeedAndSourceDisplay	Adapter name the user control should use for the Output Source	PulseChannel.OutputSource		

Pulse generators (PTO/PWM)\PTO4/PWM4\I/O addresses\Output addresses

Start address	1006	End address	1007	Organization block	0
Process image	0				

Pulse generators (PTO/PWM)\PTO4/PWM4\Hardware identifier\Hardware identifier

Hardware identifier	268

Startup

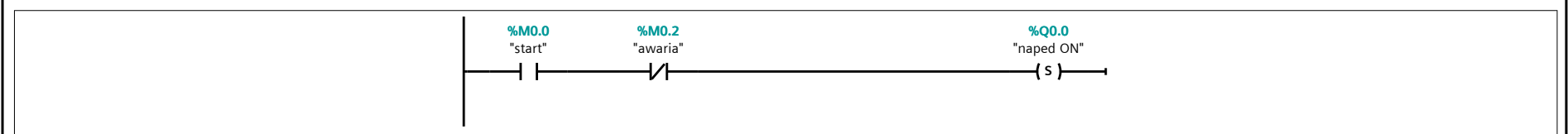| Startup after POWER ON	Warm restart - mode before POWER OFF	Comparison preset to actual configuration	Startup CPU even if mismatch	Configuration time for central and distributed I/O	60000ms
OBs should be interruptible	1				

Cycle

Cycle monitoring time	150ms			Enable minimum cycle time for cyclic OBs	0
Minimum cycle time	1ms				

Communication load

Cycle load due to communication	20%		

System and clock memory\System memory bits

Enable the use of system memory byte	0	Address of system memory byte (MBx)	1	First cycle	
Diagnostic status changed		Always 1 (high)		Always 0 (low)	

System and clock memory\Clock memory bits

Enable the use of clock memory byte	0	Address of clock memory byte (MBx)	0	10 Hz clock	
5 Hz clock		2.5 Hz clock		2 Hz clock	
1.25 Hz clock		1 Hz clock		0.625 Hz clock	
0.5 Hz clock					

Web server\General

Activate Web server on all modules of this device	False	Permit access only with HTTPS	True		

Web server\Automatic update

Enable automatic update	True	Update interval	0s		

Time of day\Local time

Time zone	(UTC +01:00) Berlin, Bern, Brussels, Rome, Stockholm, Vienna	

Time of day\Daylight saving time

Activate daylight saving time	1	Difference between standard and daylight saving time	60mins		

Time of day\Daylight saving time\Start of daylight saving time

Starting week of the month:	Last		Sunday	of	March
at	01:00 a.m.				

Time of day\Daylight saving time\Start of standard time

	Last		Sunday	of	October
at	02:00 a.m.				

Protection

Level of protection	No protection	

Protection\Connection mechanisms

Permit access with PUT/GET communication from remote partner (PLC, HMI, OPC, ...)	False	

Configuration control\Configuration control for central configuration

Allow to reconfigure the device via the user program	0	

Anchor (AddressesOverviewMenu)

Inputs	True			Outputs	True			Address gaps	False
Slot	True								

Anchor (AddressesOverviewMenu)\Overview of addresses

Type	Addr. from	Addr. to	Module	PIP	DP	PN	Rack	Slot
I	0	0	DI 8/DQ 6_1	None	-	-	0	1 1
I	64	67	AI 2_1	None	-	-	0	1 2
I	1000	1003	HSC_1	None	-	-	0	1 16
I	1004	1007	HSC_2	None	-	-	0	1 17
I	1008	1011	HSC_3	None	-	-	0	1 18
I	1012	1015	HSC_4	None	-	-	0	1 19
I	1016	1019	HSC_5	None	-	-	0	1 20
I	1020	1023	HSC_6	None	-	-	0	1 21
I	96	103	AI 4xRTD_1	None	-	-	0	2
O	0	0	DI 8/DQ 6_1	None	-	-	0	1 1
O	1000	1001	Pulse_1	None	-	-	0	1 32
O	1002	1003	Pulse_2	None	-	-	0	1 33
O	1004	1005	Pulse_3	None	-	-	0	1 34
O	1006	1007	Pulse_4	None	-	-	0	1 35
O	112	115	AQ 2x14BIT_1	None	-	-	0	3

PLC_1 [CPU 1212C AC/DC/Rly] / Program blocks

Main [OB1]

Main Properties							
General							
Name	Main	**Number**	1	**Type**	OB	**Language**	LAD
Numbering	automatic						
Information							
Title	"Main Program Sweep (Cycle)"	**Author**		**Comment**		**Family**	
Version	0.1	**User-defined ID**					

Name	Data type	Default value
▼ Input		
Initial_Call	Bool	
Remanence	Bool	
Temp		
Constant		

Network 1:

```
        %M0.0        %M0.2                              %Q0.0
        "start"      "awaria"                           "naped ON"
  ┤ ├─────┤/├──────────────────────────────────────────( S )
```

Network 2:

```
        %M0.3                                           %Q0.0
        "stop"                                          "naped ON"
  ┤ ├──┬──────────────────────────────────────────────( R )
        %M0.2 │
        "awaria"│
  ┤ ├──┘
```
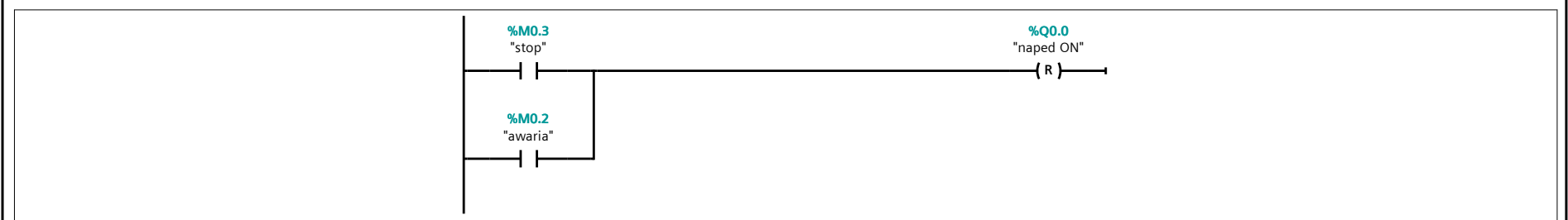
PLC_1 [CPU 1212C AC/DC/Rly]

Technology objects

This folder is empty.

PLC_1 [CPU 1212C AC/DC/Rly] / PLC tags / Default tag table [36]

PLC tags

	Name	Data type	Address	Retain
	start	Bool	%M0.0	False
	gotow	Bool	%M0.1	False
	awaria	Bool	%M0.2	False
	stop	Bool	%M0.3	False
	naped ON	Bool	%Q0.0	False
	praca	Bool	%Q0.1	False

PLC_1 [CPU 1212C AC/DC/Rly] / PLC tags / Default tag table [36]

User constants

User constants		
Name	**Data type**	**Value**

PLC_1 [CPU 1212C AC/DC/Rly]

PLC data types

This folder is empty.

PLC_1 [CPU 1212C AC/DC/Rly] / Watch and force tables

Force table

Name	Address	Display format	Force value

PLC_1 [CPU 1212C AC/DC/Rly] / Traces

Measurements

This folder is empty.

PLC_1 [CPU 1212C AC/DC/Rly]

Text lists

This folder is empty.

PLC_1 [CPU 1212C AC/DC/Rly] / Local modules

AI 4xRTD_1

AI 4xRTD_1					
General\Project information					
Name	AI 4xRTD_1	**Author**	AA_LAB7	**Comment**	
Slot	2				
General\Catalog information					
Short designation	SM 1231 AI4 x RTD	**Description**	Analog input module AI4 x RTD	**Article number**	6ES7 231-5PD32-0XB0
Firmware version	V2.0				
AI 4xRTD\Project information					
Name	AI 4xRTD_1	**Comment**			
AI 4xRTD\Module diagnostics					
Enable power supply diagnostics	1	**Additional diagnostics may be selected for each input/output.**			
AI 4xRTD\Analog inputs\Noise reduction					
Integration time	50 Hz (20 ms)				
AI 4xRTD\Analog inputs\Channel0					
Channel address	IW96	**Measurement type**	Thermal resistor (4-wire)	**Thermal resistor**	Pt 100 standard range
Temperature coefficient	Pt 0.00385055 ohms/ohms/°C (DIN EN 60751)	**Temperature scale**	Celsius	**Smoothing**	Weak (4 cycles)
		Enable broken wire diagnostics	0	**Enable overflow diagnostics**	1
Enable underflow diagnostics	1				
AI 4xRTD\Analog inputs\Channel1					
Channel address	IW98	**Measurement type**	Thermal resistor (4-wire)	**Thermal resistor**	Pt 100 standard range
Temperature coefficient	Pt 0.00385055 ohms/ohms/°C (DIN EN 60751)	**Temperature scale**	Celsius	**Smoothing**	Weak (4 cycles)
		Enable broken wire diagnostics	0	**Enable overflow diagnostics**	1
Enable underflow diagnostics	1				
AI 4xRTD\Analog inputs\Channel2					
Channel address	IW100	**Measurement type**	Thermal resistor (4-wire)	**Thermal resistor**	Pt 100 standard range
Temperature coefficient	Pt 0.00385055 ohms/ohms/°C (DIN EN 60751)	**Temperature scale**	Celsius	**Smoothing**	Weak (4 cycles)
		Enable broken wire diagnostics	0	**Enable overflow diagnostics**	1
Enable underflow diagnostics	1				
AI 4xRTD\Analog inputs\Channel3					
Channel address	IW102	**Measurement type**	Thermal resistor (4-wire)	**Thermal resistor**	Pt 100 standard range
Temperature coefficient	Pt 0.00385055 ohms/ohms/°C (DIN EN 60751)	**Temperature scale**	Celsius	**Smoothing**	Weak (4 cycles)
		Enable broken wire diagnostics	0	**Enable overflow diagnostics**	1
Enable underflow diagnostics	1				
AI 4xRTD\I/O addresses\Input addresses					
Start address	96	**End address**	103	**Organization block**	0
Process image	0				
AI 4xRTD\Hardware identifier\Hardware identifier					
Hardware identifier	269				

PLC_1 [CPU 1212C AC/DC/Rly] / Local modules

AQ 2x14BIT_1

AQ 2x14BIT_1					
General\Project information					
Name	AQ 2x14BIT_1	**Author**	AA_LAB7	**Comment**	
Slot	3				
General\Catalog information					
Short designation	SM 1232 AQ2	**Description**	Analog output module AQ2 x 14 bits; plug-in terminal blocks; output: +/-10V and 0 to 20 mA; selectable diagnostics; selectable substitute value for output	**Article number**	6ES7 232-4HB32-0XB0
Firmware version	V2.0				
AQ 2\Project information					
Name	AQ 2x14BIT_1	**Comment**			
AQ 2\Module diagnostics					
Enable power supply diagnostics	1	**Additional diagnostics may be selected for each input/ output.**			
AQ 2\Analog outputs					
Reaction to CPU STOP	Use substitute value				
AQ 2\Analog outputs\Channel0					
Channel address	QW112	**Analog output type**	Voltage	**Voltage range**	+/- 10 V
Substitute value for channel on a change from RUN to STOP	2.500V			**Enable short circuit diagnostics**	1
Enable overflow diagnostics	1	**Enable underflow diagnostics**	1		
AQ 2\Analog outputs\Channel1					
Channel address	QW114	**Analog output type**	Voltage	**Voltage range**	+/- 10 V
Substitute value for channel on a change from RUN to STOP	2.500V			**Enable short circuit diagnostics**	1
Enable overflow diagnostics	1	**Enable underflow diagnostics**	1		
AQ 2\I/O addresses\Output addresses					
Start address	112	**End address**	115	**Organization block**	0
Process image	0				
AQ 2\Hardware identifier\Hardware identifier					
Hardware identifier	270				