



TSXP57302M

Modicon Premium Control Unit

Product scope

- Provides the processor and control role for an installed Modicon Premium PLC station.
- Uses the PL7-era Premium hardware and application environment with rack-based I/O expansion.
- Has an official Schneider replacement reference of BMEP583020 after discontinuation.

Manufacturer source

Schneider Electric Modicon Premium Automation Platform Catalogue

Schneider Electric TSXP57302M product page and Modicon Premium Automation Platform Catalogue.

Request a fast quote	Product reference	
Email: info@apterpower.com Phone: +86 18106909650 apter.com/inquiry.php	TSXP57302M	

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TSXP57302M product reference

Modicon Premium Control Unit

Verified configuration

Schneider Electric TSXP57302M is a discontinued Modicon Premium control unit for PL7-based rack automation, with BMEP583020 listed as the migration replacement.

Manufacturer	Schneider Electric
Model	TSXP57302M
Product family	Modicon Premium
Product type	PLC Processor Module
Commercial reference	TSXP57302M
Product description	Control unit for Premium
Automation platform	Modicon Premium
Hardware role	PLC processor / control unit
Engineering environment	PL7
Rack integration	Premium rack and Bus X architecture
Memory expansion	PCMCIA-based, installed configuration dependent
Lifecycle status	Discontinued on 1 November 2020

Manufacturer source

Schneider Electric Modicon Premium Automation Platform Catalogue

The following pages retain the manufacturer technical content for configuration and engineering review.

TSX 57 2● processors			TSX 57 3● processors			TSX 57 4● processors			TSX 57 5● processors		TSX 57 6● processors		
													
★★			★★★			★★★★			★★★★				
8 with 4, 6, 8 or 12 slots			16 with 4, 6 or 8 slots or 8 with 12 slots			8 with 4, 6, 8 or 12 slots			16 with 4, 6 or 8 slots or 8 with 12 slots				
1024 channels (8-, 16-, 32- or 64-channel module)						2048 channels (8-, 16-, 32- or 64-channel module)							
80 channels (4-, 8- or 16- channel module)			128 channels (4-, 8- or 16-channel module)			256 channels (4-, 8- or 16- channel module)			512 channels (4-, 8- or 16- channel module)				
18			24			18			64				
Modules with 2/4 counter channels, single-channel electronic cam module			Modules with 1/2 axes for stepper motors, 2/3/4 axes for analog control servo motors, 8/16 axes with SERCOS digital link			Modules with 2/4 counter channels, single-channel electronic cam module			Modules with 1/2 axes for stepper motors, 2/3/4 axes for analog control servo motors, 8/16 axes with SERCOS digital link				
–			–			–			–				
Modules for 8 load cells (1 application-specific channel)			Modules for 8 load cells (1 application-specific channel)			Modules for 8 load cells (1 application-specific channel)			Modules for 8 load cells (1 application-specific channel)				
TSX SCY in-rack communication modules (1 application-specific channel)													
RS 232, RS 485 or current loop (3/4) master/slave PCMCIA modules and RS 485 in-rack master/slave communication modules													
1 integrated RS 485 master/slave channel (5), RS 232, RS 485 or current loop (3/4) master/slave PCMCIA modules and RS 485 in-rack master/slave communication modules													
1 integrated RS 485 channel (5), RS 232, RS 485 or current loop (3/4) PCMCIA modules and RS 485 in-rack communication modules													
–			4 in rack modules			8 in rack modules			8 in rack modules				
–			1 PCMCIA module (3)			–			1 PCMCIA module (3)				
–			1 in-rack module			3 in rack modules			4 in rack modules		5 in rack modules		
2			2			3			4				
In-rack modules: Ethernet Modbus/TCP (Web server, FactoryCast server or FactoryCast HMI server) and EtherNet/IP													
–			Modbus Plus (3), Fipway (3/4) modules, Ethway in-rack modules			–			Modbus Plus (3), Fipway (3/4/7) modules, Ethway in-rack modules				
10 channels with 3 loops max.			15 channels with 3 loops max.			20 channels with 3 loops max.			30 channels with 3 loops max.				
Process control EFB library													
Yes			–			Yes			–				
160/192 Kb program and data (8)			192/208 Kb program and data (8)			440 Kb program and data			1 Mb program and data		2 Mb program and data		
768 Kb program 160/192 Kb data (8)			1.75 Mb program 192/208 Kb data (8)			2 Mb program 440 Kb data			7 Mb program 1 Mb data		7 Mb program 2 Mb data		
8 Mb (PCMCIA extension in upper or lower slot (0 or 1) on processor													
–						1							
100...240 V ~, 24 V --- non-isolated and 24...48 V --- isolated power supply. A power supply is required for each rack.													
See page 9/6													
See pages 9/8 and 9/18													
			TSX P57 204M			TSX P57 304M							
TSX H57 24M (10)			TSX P57 2634M			TSX P57 3634M ★★★			TSX H57 44M (10)			TSX P57 4634M	
			TSX P57 254M ★★			TSX P57 354M						TSX P57 454M ★★★★	
												TSX P57 554M ★★★★	
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- (7) TSX P57 4634M/5634M/6634M processors with integrated Ethernet port do not support the PCMCIA Fipway card.
 (8) The second value corresponds to TSX P57 254M/354M processors with integrated Fipio link and to the TSX H57 24M Hot Standby processor.
 (9) The integrated Ethernet port requires 1 of the available network connections.
 (10) The integrated Ethernet port is dedicated to Hot Standby communication (CPU Sync link between the "Primary" and "Standby" CPUs).
 (11) The TSX P57 154M processor does not support the CANopen bus PCMCIA module.
 (12) All processors in the Premium Unity range are equipped with 32-bit architecture microprocessors.



More technical information on www.schneider-electric.com

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References

Modicon Premium automation platform

Unity processors

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TSX P57 154M



TSX P57 254M/354M



TSX P57 1634M/2634M/3634M



TSX P57 4634M/5634M/6634M
TSX H57 24M/44M

TSX 57 processors						
I/O capacity (1)	Capacity Memory	Control channels	Maximum number of bus/network modules	Integrated port	Reference	Weight kg
TSX 57 1● 4 racks (2)						
512 discrete I/O 24 analog I/O 8 application-specific channels	96 Kb integrated 224 Kb max. on PCMCIA card	0	1 network 2 AS-Interface buses 1 CANopen bus	—	TSX P57 104M	0.570
			2 AS-Interface buses 1 CANopen bus	Ethernet Modbus/TCP	TSX P57 1634M	0.740
			1 Ethernet network 2 AS-Interface buses	Fipio	TSX P57 154M	0.592
TSX 57 2● 16 racks (2)						
1024 discrete I/O 80 analog I/O 24 application-specific channels	160 Kb integrated 768 Kb max. on PCMCIA card	10	1 network 4 AS-Interface buses 1 CANopen bus (3) 1 fieldbus (3)	Ethernet Modbus/TCP	TSX P57 2634M	0.734
	192 Kb integrated 768 Kb max. on PCMCIA card	10	2 Ethernet networks	Ethernet dedicated to Hot Standby	TSX H57 24M	1.021
			2 Ethernet networks 4 AS-Interface buses 1 CANopen bus (3) 1 fieldbus (3)	Fipio	TSX P57 254M	0.628
TSX 57 3● 16 racks (2)						
1024 discrete I/O 128 analog I/O 32 application-specific channels	192 Kb integrated 1792 Kb max. on PCMCIA card	15	3 networks 8 AS-Interface buses 1 CANopen bus (3) 3 fieldbuses (3)	—	TSX P57 304M	0.618
			2 networks 8 AS-Interface buses 1 CANopen bus (3) 3 fieldbuses (3)	Ethernet Modbus/TCP	TSX P57 3634M	0.744
	208 Kb integrated 1792 Kb max. on PCMCIA card	15	3 networks 8 AS-Interface buses 1 CANopen bus (3) 3 terrain fieldbuses (3)	Fipio	TSX P57 354M	0.634
TSX 57 4● 16 racks (2)						
2040 discrete I/O 256 analog I/O 64 application-specific channels	440 Kb integrated 2048 Kb max. on PCMCIA card	20	3 networks 8 AS-Interface buses 1 CANopen bus (3) 4 fieldbuses (3)	Ethernet Modbus/TCP	TSX P57 4634M	1.033
			4 Ethernet networks	Ethernet dedicated to Hot Standby	TSX H57 44M	1.021
			4 networks 8 AS-Interface buses 1 CANopen bus 4 fieldbuses (3)	Fipio	TSX P57 454M	1.008
TSX 57 5● 16 racks (2)						
2040 discrete I/O 512 analog I/O 64 application-specific channels	1 Kb integrated 7168 Kb max. on PCMCIA card	30	3 networks 8 AS-Interface buses 1 CANopen bus 5 fieldbuses (3)	Ethernet Modbus/TCP	TSX P57 5634M	1.033
			4 networks 8 AS-Interface buses 1 CANopen bus 5 fieldbuses (3)	Fipio	TSX P57 554M	1.012
TSX 57 6● 16 racks (2)						
2040 discrete I/O 512 analog I/O 64 application-specific channels	2 Kb integrated 7168 Kb max. on PCMCIA card	30	3 networks 8 AS-Interface buses 1 CANopen bus 5 fieldbuses (3)	Ethernet Modbus/TCP	TSX P57 6634M	1.019

(1) Cumulative maximum values. The number of remote I/O on the various buses is not taken into account.

(2) Maximum number of TSX RKY 4EX/6EX/8EX (racks (4, 6 or 8 slots). Using the TSX RKY 12 EX rack (12 slots) is the same as using 2 racks with 4, 6 or 8 slots.

(3) Fieldbus: INTERBUS or Profibus DP.

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TSX 57 3● processors

TSX 57 4● processors



★ ★

★ ★ ★

1

16 with 4, 6, 8 slots or 8 with 12 slots

1024 channels (8-, 16-, 32- or 64-channel module)

128 channels (4-, 8- or 16-channel module)

Configurable loops (15 channels with 3 loops max.)

32

64

Modules with 2/4 counter channels 1 MHz max., single-channel electronic cam module

Modules with 1/2 axes for stepper motors, 2/3/4 axes for analog control servo motors, 8/16 axes with SERCOS digital link

Module for 8 load cells (2 application-specific channels)

In-rack communication modules (1 application-specific channel)

RS 232, RS 485 or current loop (3) (4) master/slave PCMCIA modules and RS 485 master/ slave in-rack communication modules

1 integrated RS 485 master/slave channel (5), RS 232, RS 485 or current loop (3) (4) master/slave PCMCIA modules and RS 485 master/slave in-rack communication modules

1 integrated RS 485 channel (5), RS 232, RS 485 or current loop (3)(4) PCMCIA modules and RS 485 in-rack communication modules

8 in rack modules

1 PCMCIA module (3)

2 in rack modules

3

4

Multiprotocol in-rack modules (Modbus, Uni-TE, Global Data, I/O Scanning, TCP Open), Web server, FactoryCast service and Factory Cast HMI services

Fipway (3) (4) and Modbus Plus (3) PCMCIA modules, in-rack Ethway modules

64/80 Kwords program and data (8)

80/96 Kwords data (8)

384 Kwords program

640 K words + 2048 K words

128 Kwords

96 Kwords program and data

176 Kwords data

512 Kwords program (992 Kwords with PL7 V4.4 or higher)

2048 K words (640 K words + 2048 K words with PL7 V4.4 or higher)

256 Kwords (384 Kwords with PL7 V4.4 or higher)

100...240 V ~, 24 V - non-isolated and 24...48 V - isolated power supply modules. A power supply is required for each rack.

See page 9/6

See pages 9/8 and 9/18

	TSX P57 303AM ↗		
	TSX P57 3623AM ↗ (10) ★ ★		
TSX P57 353LAM (11)	TSX P57 353AM ↗ ★ ★ ★	TSX P57 453AM	
			TSX P57 4823AM (10)

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(8) Premium PL7 range processors are equipped with 32-bit architecture microprocessors, except for **TSX P57 1●3** processors which have 16-bit architecture processors.

(9) The **TSX P57 153M** processor does not support the CANopen bus PCMCIA module.

(10) The integrated Ethernet port requires 1 of the available network connections.

(11) Processor reserved for updating configurations with **TSX P57 352M** PL7 (old version) processors.

↗ Processor can be migrated from PL7 to Unity Pro by means of a simple update of the processor's operating system (included on the Unity Pro software CD-ROM).



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Presentation

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Modicon Premium automation platform PL7 processors

Presentation

Premium **TSX P57 ●●3M/3AM** and **TSX P57 ●●23M/23AM** automation platform processors manage the entire PLC station comprising discrete I/O modules, Preventa safety modules, analog I/O modules, and application-specific modules, which can be distributed over one or more racks connected via Bus X or a fieldbus

TSX P57 processors

The types of processor available are divided into different capacities according to memory, in-rack I/O, communication, and processing speed. Depending on the model:

- 4 to 16 racks
- 512 to 2040 discrete I/O
- 24 to 256 analog I/O
- 8 to 64 application-specific channels. Each application-specific module (counter, motion control, serial link or weighing) accounts for 1 or more application-specific channels.
- 1 to 4 networks (Ethernet Modbus/TCP, Fipway, Ethway, Modbus Plus), 2 to 8 AS-Interface sensor/actuator buses, 1 to 2 fieldbuses (CANopen, INTERBUS, Profibus DP), 0 or 1 Fipio fieldbus, serial links (Modbus, Uni-Telway)
- 10 to 20 process control channels

Integrated communication

Depending on the model, Premium processors include:

- A 10 or 100 Mbit/s Ethernet Modbus/TCP port (RJ45 connection)
- A 1 Mbit/s Fipio bus link (bus manager)
- Communication via 2 terminal ports (TER and AUX) using Uni-Telway or character mode protocol (typically a 19 or 115 Kbit/s programming terminal and an operator dialogue terminal)

Each processor has a slot for a type III PCMCIA card, which can accommodate a network card (Fipway, Modbus Plus), bus (CANopen (1), Fipio Agent) or serial links (Modbus, Uni-Telway, character mode).

Application design and installation

Different software licences are available for PL7 Junior/Pro version V4.5 depending on requirements:

- Single-station
- Multistation in the form of independent local stations (Junior/Pro), remote stations connected to a server via a network (Pro OpenTeam for 3 to 10 stations or Pro OpenSite for more than 10 stations).

These licences are compatible with PC terminals running Windows 2000 Professional or Windows XP operating systems.

Configurations with old generation processors

The **TSX P57 353LAM** processor can be used as a replacement for old version **TSX P57 ●●0M/●●1M/●●2M** single-format processors and for **T PCX 57 203M/353M** Atrium slot PLCs. Replacement of these processors or slot-PLCs requires reconfiguration of the PLC with the **TSX P57 353LAM**, but no modification of the application program is required. It may be necessary to update the PL7 Pro software (TLX RCD PL7P P45M).

Migration of Premium processors

Some Premium **TSX P57 ●●3M/3AM** processors that are compatible with PL7 software can be migrated for compatibility with Unity Pro software without any need for hardware modifications. This migration from PL7 to Unity Pro is achieved by means of the following software updates:

- Processor operating system
- Integrated Ethernet TCP/IP port operating system

This update is carried out using the OS-Loader tool, included in the Unity Pro software (see page 6/13). Once migrated, PL7 processors are equivalent to corresponding Unity processors.

The following PL7 processors can be migrated to Unity Pro (software migration):

- **TSX 57 2●: TSX P57 203M/253M/2623M** become **TSX P57 204M/254M/2634M** respectively.
- **TSX 57 3●: TSX P57 303M/353M/3623AM** become **TSX P7 304M/354M/3634M** respectively (migration supported by Unity Pro version ≥ 3.0).

Note: Processor migration requires use of the new PCMCIA memory references **TSX MRP P/C** and **TSX MFP P/C**. See the equivalence table on page 1/20.

(1) Except with processor **TSX P57 153M**.

Presentation (continued), description

Modicon Premium automation platform PL7 processors

1

Presentation (continued)

Migration of Premium processors (continued)

Migration offers involving the replacement of the processor are available for other product references. Please contact your Customer Care Centre for more information about these offers, which are only available for a limited period of time. They concern the following PL7 processors:

- **TSX P57 2823M** for migration to **TSX P57 254M** with **TSX ETY 4103** (1).
- **TSX P57 453AM** for migration to **TSX P57 454M**
- **TSX P57 453AM** for migration to **TSX P57 554M**
- **TSX P57 4823AM** for migration to **TSX P57 4634M**
- **TSX P57 4823AM** for migration to **TSX P57 5634M**
- **TSX P57 4823AM** for migration to **TSX P57 454M** with **TSX ETY 4103** (1).
- **TSX P57 4823AM** for migration to **TSX P57 554M** with **TSX ETY 4103** (1).

Description

Processors without integrated Ethernet port

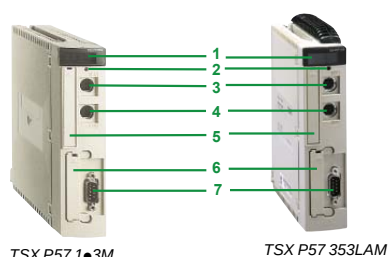
Single-format **TSX P57 1•3M/353LAM** processors and double-format **TSX P57 2•3M/3•3AM/453AM** processors feature the following on the front panel:

- 1 A display block with 5 LEDs:
 - RUN LED (green): processor in operation (program running)
 - ERR LED (red): Fault on the processor or its on-board devices (PCMCIA memory card and PCMCIA communication card)
 - I/O LED (red): Faults occurring on another station module or configuration fault
 - TER LED (yellow): Activity on the terminal port
 - FIP LED (red): Activity on the integrated Fipio bus
- 2 A RESET button causing a cold start of the PLC when pressed.
- 3 An 8-way female mini-DIN connector marked TER for connecting a programming or adjustment terminal.
- 4 An 8-way female mini-DIN connector marked AUX for connecting a peripheral device
- 5 A PCMCIA slot (no. 0) for a memory extension card
- 6 A PCMCIA slot (no. 1) for a communication card or 4 Mb SRAM memory extension card for storing additional data
- 7 A 9-way SUB-D connector (on **TSX P57 153M/253M**, **TSX P57 353 LAM** and **TSX P57 353M/453AM** models) for Fipio bus manager communication

Processors with integrated Ethernet port

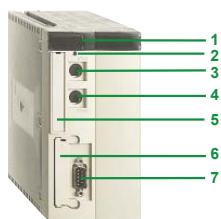
Double-format **TSX P57 2623M/2823M** and **TSX P57 3623AM/4823AM** processors with integrated Ethernet port feature the following on the front panel:

- 1 A display block with 5 LEDs:
 - RUN LED (green): processor in operation (program running)
 - ERR LED (red): Fault on the processor or its on-board devices (PCMCIA memory card and PCMCIA communication card)
 - I/O LED (red): Faults occurring on another station module or configuration fault
 - TER LED (yellow): Activity on the terminal port
 - FIP LED (red): Activity on the integrated Fipio bus
- 2 A display block relating to the integrated Ethernet port featuring 5 LEDs:
 - RUN LED (green): Ethernet port ready
 - ERR LED (red): Ethernet port fault
 - COL LED (red): Collision detection
 - STS LED (yellow): Ethernet link diagnostics
 - Two TX and RX LEDs (yellow): Transmission/reception activity
- 3 A RESET button causing a cold start of the PLC when pressed.
- 4 An 8-way female mini-DIN connector marked TER for connecting a programming or adjustment terminal.
- 5 An 8-way female mini-DIN connector marked AUX for connecting a peripheral device
- 6 An RJ45 connector for connection to the Ethernet network
- 7 A PCMCIA slot (no. 0) for a memory extension card
- 8 A PCMCIA slot (no. 1) for a communication card or 4 Mb SRAM memory extension card for storing additional data
- 9 A 9-way SUB-D connector (on **TSX P57 2823M/4823AM** models) for Fipio bus manager communication

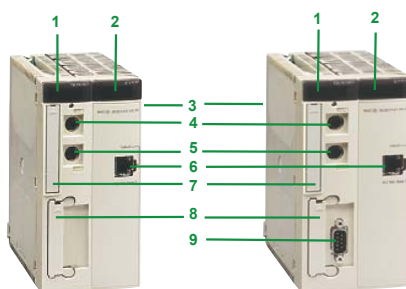


TSX P57 1•3M

TSX P57 353LAM



TSX P57 2•3M/3•3AM/453AM



TSX P57 2623M
TSX P57 3623AM

TSX P57 2823M
TSX P57 4823AM

(1) The **TSX ETY 4103** Ethernet Modbus/TCP module offered features the same functions as the integrated Ethernet port on **TSX P57 2823M/ 4823AM** processors. However, the combined processor and Ethernet module use one slot more than the PL7 processor to be migrated. Therefore, this type of migration requires a free slot in the Premium rack and modification of the converted Unity Pro application.



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