

Schneider  Series Service Manual

TSXP575634M

1. Description

The TSXP575634M from Schneider Electric is part of the TSX Micro PLCs series and features robust internal memory options. With an internal RAM of 32 K words for data and programs, this module can be enhanced using a PCMCIA card for extra data capacity.

2. Specifications

| Specification | Value                                                                                                                                                                                                                  |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manufacturer  | Schneider Electric                                                                                                                                                                                                     |
| Product       | Line TSX Micro PLCs                                                                                                                                                                                                    |
| Part          | Number TSXP575634M                                                                                                                                                                                                     |
| EAN           | 3595862066501                                                                                                                                                                                                          |
| Weight        | 1.00 lbs (0.45 kg)                                                                                                                                                                                                     |
| Memory        | Description Internal RAM (with PCMCIA card) 32 Kwords data, Internal RAM (without PCMCIA card) 32 Kwords program and data                                                                                              |
| PCMCIA        | Card 128 Kwords additional data storage, 64 Kwords program                                                                                                                                                             |
| Execution     | Time per Instruction 0.5 µs Boolean without PCMCIA card, 0.6 µs Boolean with PCMCIA card                                                                                                                               |
| Number        | of Instructions per ms 0.85 Kinst/ms (65% Boolean + 35% fixed arithmetic with PCMCIA card), 1.05 Kinst/ms (65% Boolean + 35% fixed arithmetic without PCMCIA card)                                                     |
| Local         | Signalling 1 LED (green) for processor running (RUN), 1 LED (red) for I/O module or configuration fault (I/O), 1 LED (red) for processor or system fault (ERR), 1 LED (yellow) for activity on the terminal port (TER) |
| Current       | Consumption 440 mA, 5 V DC                                                                                                                                                                                             |
| Module        | Format Standard                                                                                                                                                                                                        |
| Internal      | RAM 32 Kwords data                                                                                                                                                                                                     |
| Inrush        | Current 38 A at 240 V / 38 A at 100 V                                                                                                                                                                                  |
| Number        | of Racks 2 (12 slots), 4 (4/6/8 slots)                                                                                                                                                                                 |
| Discrete      | I                                                                                                                                                                                                                      |

3. Product Information

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The TSXP575634M from Schneider Electric is part of the TSX Micro PLCs series and features robust internal memory options. With an internal RAM of 32 K words for data and programs, this module can be enhanced using a PCMCIA card for extra data capacity.                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Technical specifications for TSXP575634M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Manufacturer Schneider Electric                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Product Line TSX Micro PLCs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Part Number TSXP575634M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| EAN 3595862066501                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Weight 1.00 lbs (0.45 kg)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Memory Description Internal RAM (with PCMCIA card) 32 Kwords data, Internal RAM (without PCMCIA card) 32 Kwords program and data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| PCMCIA Card 128 Kwords additional data storage, 64 Kwords program                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Execution Time per Instruction 0.5 µs Boolean without PCMCIA card, 0.6 µs Boolean with PCMCIA card                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Number of Instructions per ms 0.85 Kinst/ms (65% Boolean + 35% fixed arithmetic with PCMCIA card), 1.05 Kinst/ms (65% Boolean + 35% fixed arithmetic without PCMCIA card)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Local Signalling 1 LED (green) for processor running (RUN), 1 LED (red) for I/O module or configuration fault (I/O), 1 LED (red) for processor or system fault (ERR), 1 LED (yellow) for activity on the terminal port (TER)                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Current Consumption 440 mA, 5 V DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Module Format Standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Internal RAM 32 Kwords data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Inrush Current 38 A at 240 V / 38 A at 100 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Number of Racks 2 (12 slots), 4 (4/6/8 slots)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Discrete I/O Processor Capacity 512 I/O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Analogue I/O Processor Capacity 24 I/O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Integrated Connection Type Non-isolated serial link, 2 female mini DIN, 19.2 kbit/s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Communication Module Processor Capacity 1 network module, 2 AS-Interface bus modules, 1 CANopen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| The Schneider Electric TSXP575634M is a versatile controller module designed for use in the TSX Micro PLC series. Its standard internal memory is 32 Kwords, allocated for programs and operational data. Users can augment this capability with a PCMCIA card, adding 128 Kwords for data storage and 64 Kwords for program memory.                                                                                                                                                                                                                                                                                                                                             |
| This module is efficient, with an execution time of 0.5 µs per Boolean instruction when not using a PCMCIA card. With the card in place, the execution time increases slightly to 0.6 µs. While executing instructions, the module achieves a throughput of 1.05 Kinst/ms without the PCMCIA card and a slightly lower throughput of 0.85 Kinst/ms with the additional card. Seven local signaling LEDs are included for operational feedback: a green LED indicates the processor is running, while a red LED alerts to I/O module issues or configuration faults. Another red LED signals processor or system errors and a yellow LED indicates activity on the terminal port. |
| The module's current consumption is 440 mA at a voltage of 5 V DC. Weighing 0.84 lbs. (or 0.38 kg), it supports inrush currents of 38 A for 240 V and 100 V systems. It can accommodate two racks of 12 slots or four racks with 4, 6, or 8 slots configuration options. For I/O capacity, this controller can handle 512 discrete I/O connections alongside 24 analog I/O connections.                                                                                                                                                                                                                                                                                          |
| For connections, the module features an integrated and non-isolated serial communication link with two female mini-DIN ports operating at 19.2 kbit/s, allowing seamless integration into existing systems. Furthermore, the communication module processor can support one network module, two AS-Interface bus modules, and one CANopen, enhancing its versatility in various applications.                                                                                                                                                                                                                                                                                    |
| Range of Product                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Modicon Premium Automation platform                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Product or Component Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Unity processor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Software Designation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Unity Pro                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Complementary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Concept                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Transparent Ready                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Number of racks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 16 4/6/8 slots                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 8 12 slots                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Number of slots                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 64                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 128                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 96                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Discrete I/O processor capacity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2040 I/O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Analogue I/O processor capacity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 512 I/O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Number of application specific channel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 64                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Number of process control channel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

30 up to 90 simple loops

Integrated connection type

Non isolated serial link female mini DIN RS485)19.2 kbit/s)

Ethernet TCP/IP RJ45

USB port12 Mbit/s)

Port Ethernet

10BASE-T/100BASE-TX

Communication module processor capacity

1

3

8

5

Memory description

Internal RAM (with PCMCIA card) 1024 kB data

Internal RAM (with PCMCIA card) 7168 kB program

Internal RAM (without PCMCIA card) 1024 kB program and data

PCMCIA card 16384 kB additional data storage

Maximum size of object areas

128 %MWi internal words located internal data

32768 %Mi located internal bits

64 %KWi constant words located internal data

Unlimited (DFB and EFB function blocks) unlocated internal data

Unlimited (elementary and derived data) unlocated internal data

Application structure

1 master task

128 event tasks

32 timers

1 fast task

4 auxiliary tasks

Execution time per instruction

0.0375...0.045 µs Boolean with PCMCIA card

0.0375...0.045 µs Boolean without PCMCIA card

0.045...0.06 µs word or fixed-point arithmetic with PCMCIA card

0.045...0.06 µs word or fixed-point arithmetic without PCMCIA card

0.48...0.56 µs floating points with PCMCIA card

0.48...0.56 µs floating points without PCMCIA card

Number of instructions per ms

14 Kinst/ms 65 % Boolean + 35 % fixed arithmetic with PCMCIA card

14 Kinst/ms 65 % Boolean + 35 % fixed arithmetic without PCMCIA card

20.26 Kinst/ms 100 % Boolean with PCMCIA card

20.26 Kinst/ms 100 % Boolean without PCMCIA card

System overhead

0.07 ms fast task

1 ms master task

Marking

CE

Local signalling

1 LED (green) for Ethernet TCP/IP port ready (RUN)

1 LED (green) for processor running (RUN)

1 LED (red) for collision detection (COL)

1 LED (red) for Ethernet TCP/IP port fault (ERR)

1 LED (red) for I/O module or configuration fault (I/O)

1 LED (red) for processor or system fault (ERR)

1 LED (yellow) for activity on TER or AUX terminal port (TER)

1 LED (yellow) for Ethernet link diagnostics (STS)

1 LED (yellow) for reception activity (RX)

1 LED (yellow) for transmission activity (TX)

Current consumption

1680 mA 5 V DC

Module format

Double

Net Weight

1.34 lb(US) (0.61 kg)

Environment

Standards

CSA C22.2 No 142

CSA C22.2 No 213 Class I Division 2 Group D

CSA C22.2 No 213 Class I Division 2 Group B

73/23/EEC

93/68/EEC

89/336/EEC

CSA C22.2 No 213 Class I Division 2 Group C

IEC 61131-2

UL 508

92/31/EEC

CSA C22.2 No 213 Class I Division 2 Group A

Product Certifications

BV

DNV

RMRS

GL

ABS

RINA

LR

Ambient Air Temperature for Operation

32...140 °F (0...60 °C)

Ambient Air Temperature for Storage

-13...158 °F (-25...70 °C)

Relative Humidity

10...95 % without condensation for operation

5...95 % without condensation for storage

Operating altitude

0...6561.68 ft (0...2000 m)

Protective treatment

TC

IP Degree of Protection

IP20

Pollution degree

2

Ordering and shipping details

Category

US1000I22000

Discount Schedule

000I

GTIN

3595862066501

Returnability

Yes

Country of origin

FR