ICS Triplex T8300C

Trusted Expander Chassis

ICS Triplex T8300C is the coated expander chassis for extending a Trusted system with additional I/O modules. T8300C is the chassis and backplane assembly; processors, I/O modules and field termination equipment must be specified separately.



Technical Specifications

Product Identity	
Manufacturer	Rockwell Automation, Inc.
Model	T8300C
Platform	Trusted TMR
Product type	Expander chassis
Coating	Conformal coating, C suffix
Dimensions	268 × 483 × 312 mm
Mounting options	Swing/fixed frame; optional T8380 rear bracket
Functional Configuration	
Expander-processor slots	2 × 30 mm
I/O-module slots	12 × 30 mm
Backplane	Inter-Module Bus (IMB)
Performance & Power	
Supply voltage	20–32 V DC
External fusing	20 A
Environment	
Operating temperature	0–60 °C

Selected original manufacturer pages follow on pages 3–5.

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Compatibility & Selection Guide

System compatibility. The chassis belongs to the Trusted expansion architecture and accommodates the appropriate expander processors and I/O modules. Copper and fibre configurations require their matching interface, processor and cable components. Confirm the installed expansion arrangement and hardware revision before selecting a spare.

Wiring & Installation Reference

Power and expansion connections

Chassis supply. 20–32 V DC · Use the two power-feed connections as specified

External protection. 20 A fuse · Provide suitable upstream protection

Expansion bus. Copper or fibre arrangement · Use the matching Trusted interface and cables

Mounting and handling

Choose mounting arrangement. Use a swing/fixed frame, or the optional T8380 rear bracket for panel mounting.

Secure the chassis. For frame mounting, use M5 × 12 pan-head Taptite screws in the specified inner fixing holes and align before fitting the facia.

Allow cooling space. Leave 90 mm between chassis and keep the airflow paths unobstructed.

Installation precautions. Confirm the power-feed polarity and external protection before energizing. SmartSlot cross-chassis connections depend on the supported chassis/cable arrangement and common reference requirements. Do not treat the empty chassis as a complete configured controller.

View terminal diagram (PDF) · PDF page 3 | View mounting diagram · PDF page 4

Manufacturer sources: PD_T8300, Issue 15 / Trusted System declaration, ICSTT-CT004L-EN-E; suffix C denotes conformal coating.

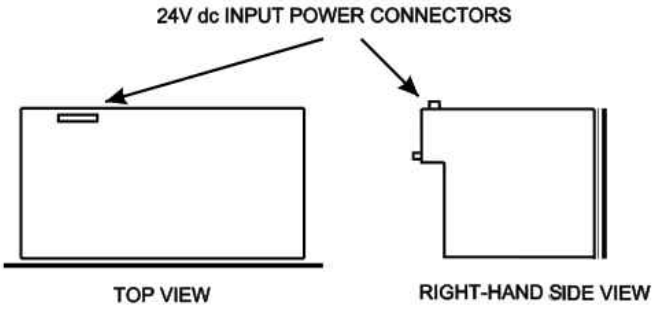


Figure 5 Chassis 24 Vdc Input Power Connectors

1.7. Smart Slot Referencing

For a Smart Slot configuration, the secondary slot is not required to be unique to each primary slot. Instead, a single secondary slot can be shared among many primary slots. This technique provides the highest density of Modules to be fitted in a given physical space. Smart Slot between Chassis can be performed if the Chassis are version 2 (or higher) as these have the connector fitted to enable connection of a TC-006 that ensures the IMB 0 V of each Chassis is at the same potential.

1.7.1. Location of Smart Slots

Design considerations should be given to the location of Smart Slots within the System. One option is to allocate a spare slot on each Chassis or per Module type. Another option is to allocate one Smart Slot per system panel; if this option is selected then the IMB 0 V of each Chassis needs connecting together using a TC-006 cable. Each Chassis (Processor and Expander) requires a TC-006 to connect to the Molex socket on the back of each Chassis. The crimps on the other end are taken to terminals that are commoned together. This ensures that each isolated IMB 0 V is at the same potential. Refer to PD-TC000 for further information on TC-006.

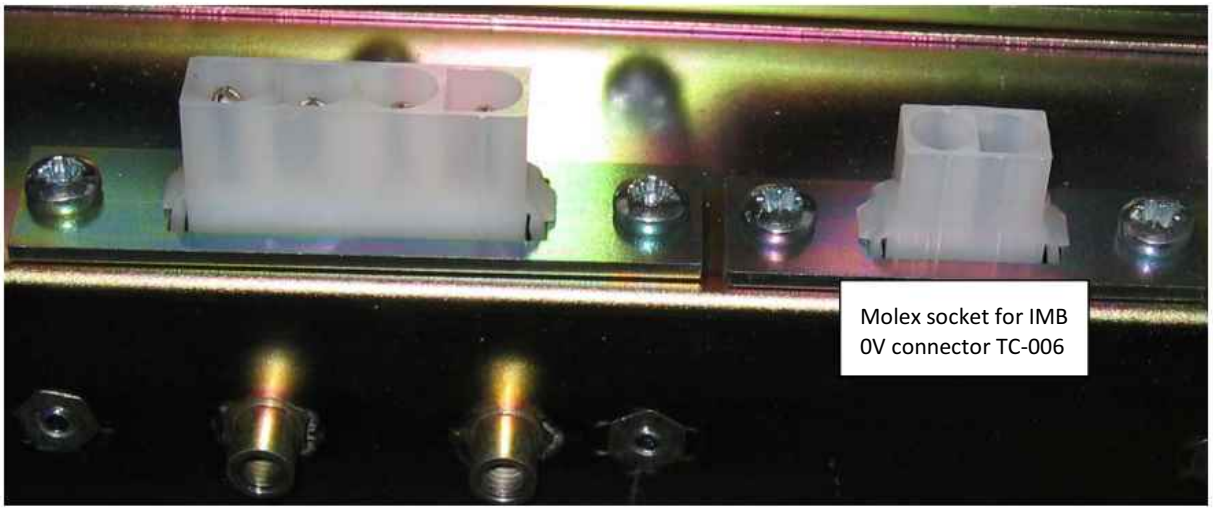


Figure 6 Molex Sockets on the Rear of each Processor and Expander Chassis

2. Installation

The Trusted Expander Chassis is installed into a swingframe-mount, or fixed frame as shown in Figure 9 using M5 x 12 Pan Head Taptite screws.



Figure 9 Installation of Chassis

Note that only the inner pair of holes in the mounting ears are used at this stage to secure the Chassis in the frame. The outer holes are used to fit the plastic facia ears once all Chassis and fan trays are fitted and alignment is correct

Alternatively, the Chassis may be mounted on a panel, or equipment sheet using Panel Mounting Kit T8380 which comprises a pair of brackets with rear facing ears.

The brackets are first located and fitted using M5 fixings in four positions per bracket. The Chassis is then fitted to the front ears of the brackets using M5 x 12 Pan Head Taptite screws.

3. Specifications

Voltage Range	20 Vdc to 32 Vdc
Fusing	External, 20 A
Connectors	14 x DIN 41642, male
Expander Comms Max Distance	
Using TC-301 copper cable	30 m
Using fibre converters	10 km
Operating Temperature	0 °C to +60 °C (+32 °F to +140 °F)
Non-operating Temperature	-25 °C to +70 °C (-13°F to +158 °F)
Relative Humidity range (operating, storage & transport)	10 % – 95 %, non-condensing
Environmental Specifications	Refer to document 552517
Dimensions	
Height	268 mm (10.5 in)
Width	483 mm (19 in)
Depth	312 mm (12.3 in)
Weight	5 kg (11 lb)