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### **T300 technology board<sup>1)</sup>**

The T300 technology board can be used to create technological functions for various applications such as:

- closed-loop tension and position control
- winders
- coilers
- synchronous and positioning control
- hoisting drives
- drive-related control functions.

1) Attention!  
Only for compact and chassis units.

# SIMOVERT MASTERDRIVES Vector Control

## Compact and Chassis Units



### Electronics options

### Compact and chassis units

#### T300 technology board - Components

The selection table specifies which supplementary technological components are needed for a specific task.  
Example: The multi-motor drive function is required. All products which are listed in the multi-motor drive column are required.

Ordering information			Components required for the standard software package				Components required for self-generated application software, using	
Product description	Comment	Order No.	Multi-motor drive	Axial winder	Angular synchronous control	Positioning control	STRUC L	STRUC G
T300 technology board with two SC58 and SC60 connecting cables, SE300 terminal block and G/E hardware instruction manual	German/English	<b>6SE7090-0XX87-4AH0</b>	•	•	•	•	•	•
T300 technology boards as spare part		<b>6SE7090-0XX84-0AH2</b>	•	•	•	•	•	•
LBA local bus adapter for MASTERDRIVES electronics box	Also used to install a communication board	<b>6SE7090-0XX84-4HA0</b>	•	•	•	•	•	•
Additional instruction manual for the T300 hardware	German/English French	<b>6SE7087-6CX84-0AH1</b> <b>6SE7087-7CX84-0AH1</b>						
Standard software package, multi-motor drive on an MS360 memory module without manual		<b>6SE7098-6XX84-0AH0</b>	•					
Manual, multi-motor drive <sup>2)</sup>	German English	<b>6SE7080-0CX84-6AH1</b> <b>6SE7087-6CX84-6AH1</b>	•					
Multi-motor drive standard softw. package on floppy disk in STRUC source code <sup>3)</sup> MD360		<b>6SW1798-6XX84-0AH0</b>						
Standard software package, axial winder on an MS320 memory module, without manual		<b>6SE7098-2XX84-0AH0</b>		•				
Manual, axial winder <sup>2)</sup>	German English	<b>6SE7080-0CX84-2AH1</b> <b>6SE7087-6CX84-2AH1</b>		•				
Axial winder standard software package on floppy disk in STRUC source code <sup>3)</sup> MD320		<b>6SW1798-2XX84-0AH0</b>						
Standard software package, angular synchronous control <sup>4)</sup> on an MS340 memory module without manual		<b>6SE7098-4XX84-0AH0</b>			•			
Manual, angular synchronous control <sup>2)</sup>	German English French	<b>6SE7080-0CX84-4AH1</b> <b>6SE7087-6CX84-4AH1</b> <b>6SE7087-7CX84-4AH1</b>			•			
Angular synchronous control standard software package on floppy disk in STRUC source code <sup>3)</sup> MD340		<b>6SW1798-4XX84-0AH0</b>						
Standard software package, positioning control on an MS380 memory module without manual		<b>6SE7098-8XX84-0AH0</b>				•		
Manual, positioning control <sup>2)</sup>	German English	<b>6SE7080-0CX84-8AH1</b> <b>6SE7087-6CX84-8AH1</b>				•		
Standard software package, positioning control on floppy disk in STRUC® source code <sup>3)</sup> MD380		<b>6SW1798-8XX84-0AH0</b>						
<b>Generation software and accessories for configuring (see Catalog ST DA)</b>								
STRUC G/L Version 4.2 on CD-ROM with the Service IBS start-up program	See the text							
	German/English	<b>6DD1801-1DA2</b>						•
Configuring PC for STRUC G PT, installed ready to run	See the text							•
Empty MS300 memory module for T300, 8 Kbytes EEPROM	MS300 or MS301	<b>6SE7098-0XX84-0AH0</b>					•	•
Empty MS301 memory module for T300, 8 Kbytes EEPROM		<b>6SE7098-0XX84-0AH1</b>					•	•
Parallel programming unit PPX1, external programming unit, for connection to a printer port with power supply unit (for PC/PG) with UP3 progr. Adapter	The same for STRUC L PT and G PT	<b>6DD1672-0AD0</b>					•	•
PG7x0 connecting cable to T300 if Service IBS start-up program is used <sup>1)</sup>	Self-assembly according to the T300 instruction manual	–					•	•
PC-AT connecting cable to T300 if Service IBS start-up program is used <sup>1)</sup>	Self-assembly according to the T300 instruction manual	–					•	•

1) Depending on whether a SIMATIC-PG or a standard PC is used for start-up only one of the two cables is required.

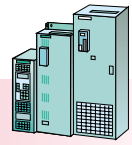
2) Order the required number of manuals in the desired language, irrespective of the number of T300 standard software packages which have been ordered.

3) Only required if the standard is to be changed; requires STRUC configuring software.

4) The standard software package is only required for the slave drive(s). Example: Two drives which operate in angular synchronism: One standard software package for angular synchronous control is required.

# SIMOVERT MASTERDRIVES Vector Control

## Engineering Information



### Technology

### Compact and chassis units Cabinet units

#### Technology applications with the T300

The T300 can be used to provide additional technological functions for compact and chassis units (e.g. for closed-loop tension and position control, coilers, winders, closed-loop synchronous and positioning controls, transverse cutters, hoisting equipment and drive-related control functions). Supplementary technological functions which are often requested are offered as standard software packages on pre-programmed memory modules.

The T300 and SIMADYN® D are fully compatible with each other. Users who wish to create special applications or who wish to market their own technological know-how can create their own technological design on the T300 by using the graphics-oriented STRUC® planning language known from the SIMADYN D system.

Fig. 6/78 shows the most important hardware functions of the T300.

The technological functions are configured with STRUC and cyclically executed by the processor. The closed-loop control sampling time is a minimum of 1 ms (see Catalog ST DA).

An overview of the hardware and software components of the T300 is provided in Fig. 6/79.

An almost delay-free parallel interface (dual-port RAM) permits data transfer between the basic unit and the T300.

The serial connections can be directly connected to terminals on the T300. All other external signals can be connected at the SE300 terminal block outside the base unit. 15 V / 100 mA for supplying pulses is available at SE300 (see Fig. 6/78).

An external 24 V DC power supply must be provided if binary inputs and outputs have to be controlled. The base unit can also provide this voltage supply as long as the total current at terminals X101.13, 23 of the base unit is < 150 mA.

The software package is parameterized – irrespective of which software package is used – with the help of the following:

- a Drive ES or DriveMonitor PC
- the PMU operator control and parameterizing unit
- the OP1 S user-friendly control unit
- an interface board (CBP, SCB1, SCB2)
- via an interface of the T300 with the service start-up program.

Altered parameters can be stored in the EEPROM (non-volatile).

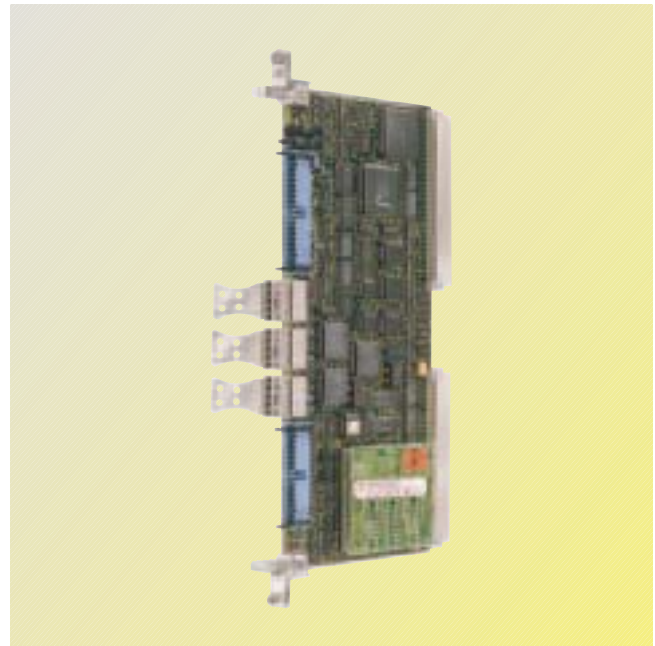


Fig. 6/77  
T300 board with memory module