



EST100B



Compact et modular , this cube allows to implement a complete chain of automatic control. The cube consists of an HMI and a Programmable Logic Controller. There are also a side for the power supply and a free side allowing to add a new module (a drive for the control of motor for example (*cf Cube-Elec 300 in our Power electronics chapter*)).

Pedagogical purposes

KTP 700

IHM



- ✓ Profinet connections
- ✓ WinCC programming

S7-1200

Automate



- ✓ TIA Portal
- ✓ PLC programming
- ✓ Profinet connections



KTP 700 HMI side

The HMI is a KTP 700

Several characteristics:

- 7" colour graphic terminal: KTP700

CSM 1277 Switch



- ✓ Ethernet 10/100 Mbit/s non manageable
- ✓ 4 x RJ45 ports
- ✓ LED for diagnostic



KTP 700

USB connector

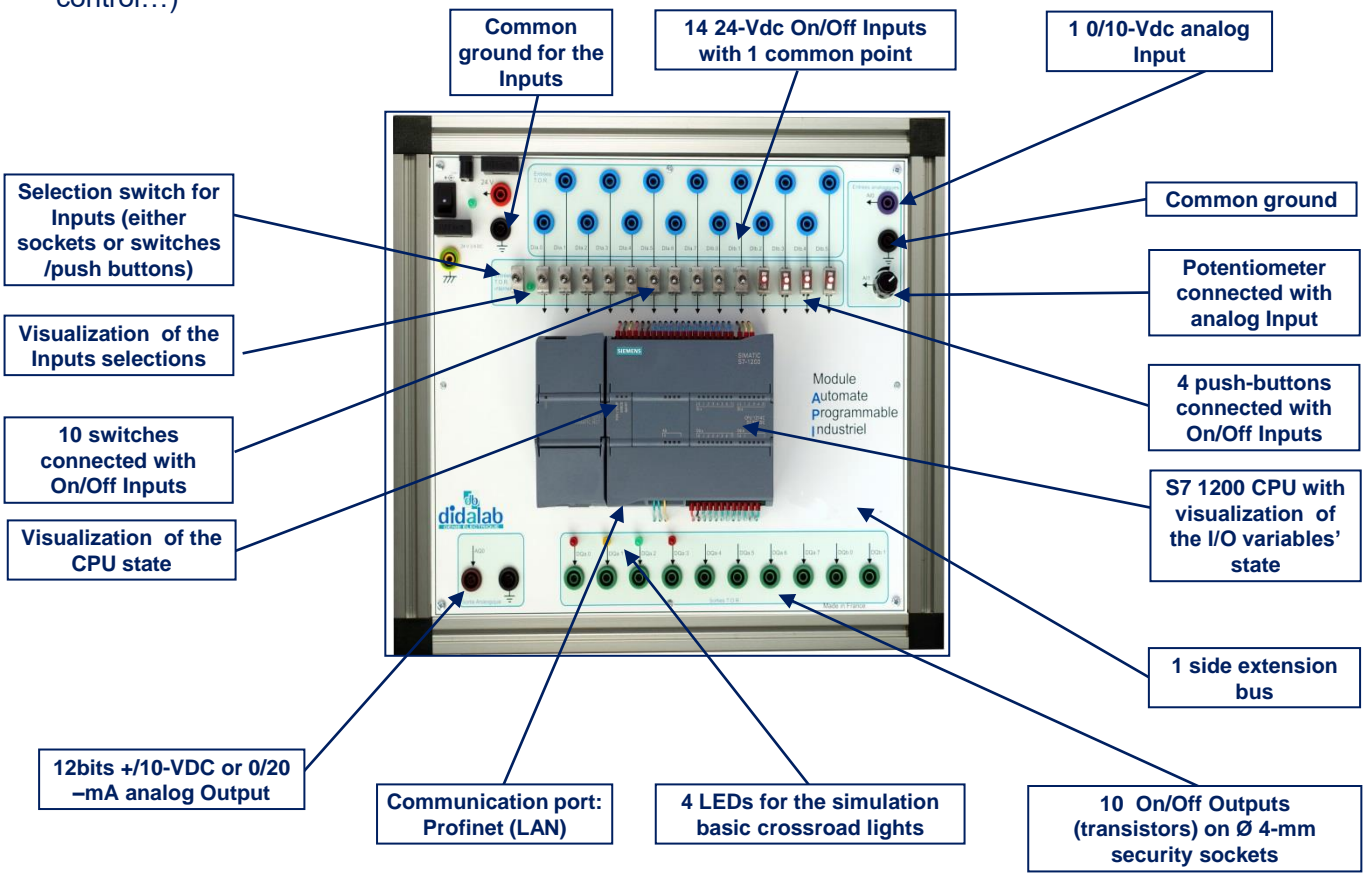
S7 1200 PLC side

The PLC is a SIMATIC S7 1200.

Some characteristics:

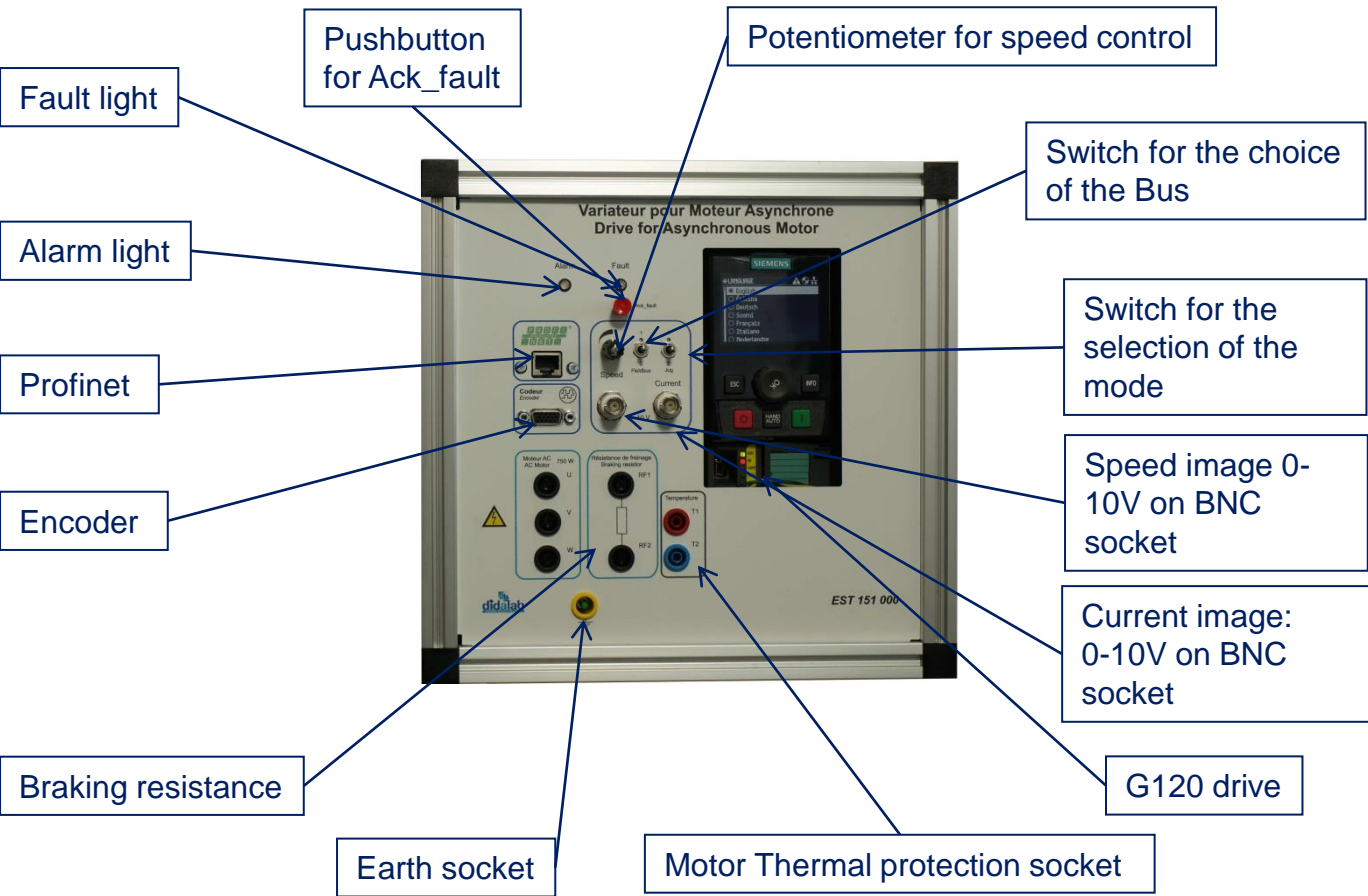
- Working memory: 50 ko, 6 fast counters and 2 pulse Outputs included,
- Time of cycle : 1ms for 1000 instructions,
- PROFINET port for programming.

A simulator for Inputs variables (10 switches and 4 push-buttons, colour LEDs on 4 Outputs) allows the use of the product with complete autonomy, simulation of basic crossroad lights, chase, access control...)



OPTIONAL EXTRA (Not supplied) Drive side

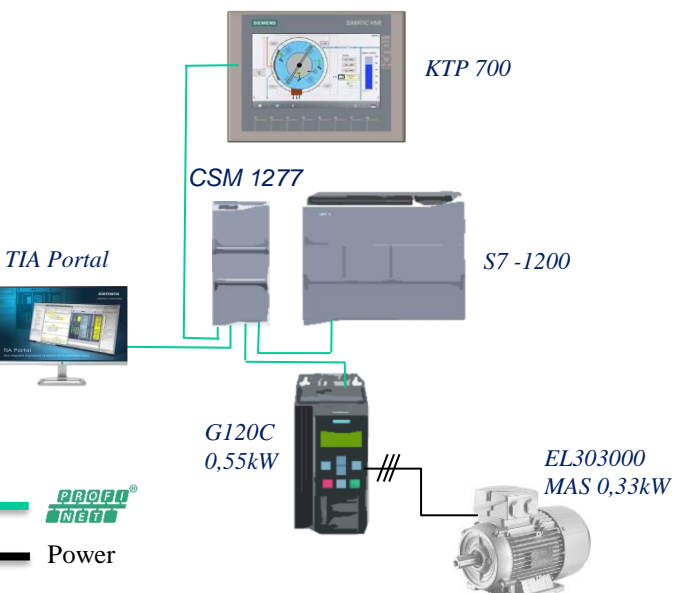
The drive (variator) is a SIMATICS G120C, 0.55 kW with graphic terminal included
Without filter



Example of configuration

Block diagram

Setting



Standard Configuration:

EST100B Cube with PLC and HMI		
References	Description	Qty
EST100000	Cube, made of aluminium frame, with 1 side for 230 VAC power supply and the switch for power ON.	1
EST101000	KTP 700 HMI side, with 4 RJ45 crosses and USB sockets	1
EST100100	S7-1200 PLC side, with TIA Portal program	1
	Dibon white side	1

Configurations with Drive optional extra:

Cube-Elec300		
EST110G Cube-Elec 300, with G120C drive for 300-W Asynchronous motor		
References	Description	Qty
EST100000	Cube, made of aluminium frame, with 1 side for 230 VAC power supply and the switch for power ON.	1
EST101000	KTP 700 HMI side, with 4 RJ45 crosses and USB sockets	1
EST100100	S7-1200 PLC side, with TIA Portal program	1
EST110000	G120C drive side, for 0,55 kW asynchronous motor (without filter)	1
EST120V Cube-Elec 300, with V90 drive for 300-W Brushless motor		
References	Description	Qty
EST100000	Cube, made of aluminium frame, with 1 side for 230 VAC power supply and the switch for power ON.	1
EST101000	KTP 700 HMI side, with 4 RJ45 crosses and USB sockets	1
EST100100	S7-1200 PLC side, with TIA Portal program	1
EST120000	V90 drive side for 0.2 kW Brushless motor	1
<i>Optional extra (not included)</i>		
EL303000	Asynchronous squirrel motor, 240/400V, operating power 370W, setting accessories	
EL306000	Brushless motor, 240 VAC, operating power 300 W, setting accessories and DB15HD cord	

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