



For projecting and non projecting up-and-over doors up to 9 m² (up to 16 m² using 2 motors), and jointed doors.

24 Vdc electromechanical gear motor.

Three versions, standard and upgraded:

- **with built-in control unit, force regulator and absolute encoder** (TN2010 and TN2010L);
- **with incorporated control unit and receiver, electromechanical limit switch** (TN2030 and TN2030L);
- **without control unit** (TN2020 and TN2020L).

Reliable and precise: memorisation of the opening and closing limit switch positions; gradual starting and slowdown during closing.

Safe: obstacle detection system and monitoring of the motor absorption during movement, self-diagnosis by means of a flashing light, courtesy light.

The latest generation optical and resistive 8.2 KOhm sensitive edges can also be connected.

Functional: possibility of connecting two motors, TN2010 or TN2030 with TN2020, for doors up to 14 m²; TN2010L or TN2030L with TN2020L, for doors up to 16 m².

Code	Description	Pack/pallet
TN2010	Irreversible, 24 Vdc, with incorporated control unit, courtesy light, absolute encoder with BlueBUS technology, compatible for Opera and Solemyo systems	15
TN2010L	Irreversible, 24 Vdc, with incorporated control unit, courtesy light, absolute encoder with BlueBUS technology, compatible for Opera and Solemyo systems. Upgraded version	15
TN2030	Irreversible, 24 Vdc, with incorporated control unit and receiver, courtesy light and electromechanical limit switch	15
TN2030L	Irreversible, 24 Vdc, with incorporated control unit and receiver, courtesy light and electromechanical limit switch. Upgraded version	15
TN2020	Irreversible, 24 Vdc, with courtesy light, without incorporated control unit	15
TN2020L	Irreversible, 24 Vdc, with courtesy light, without incorporated control unit. Upgraded version	15

TN2010 and TN2010L versions with BlueBUS technology and compatible for operation with Solemyo and Opera systems.

Advanced: the absolute encoder technology guarantees precision without the need of a limit switch, reliability and the long term safeguard of the set values.

Simple: thanks to the BlueBUS technology which enables connection by means of just two wires between the control unit and photocells.

Energy saving: the system enters in stand-by when not in use.

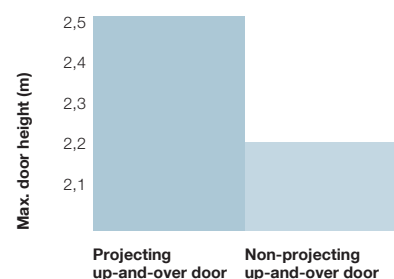
Practical: the control unit and PS324 buffer battery (optional) can be connected by means of a simple connector and can be housed directly inside the motor.

Technical specifications

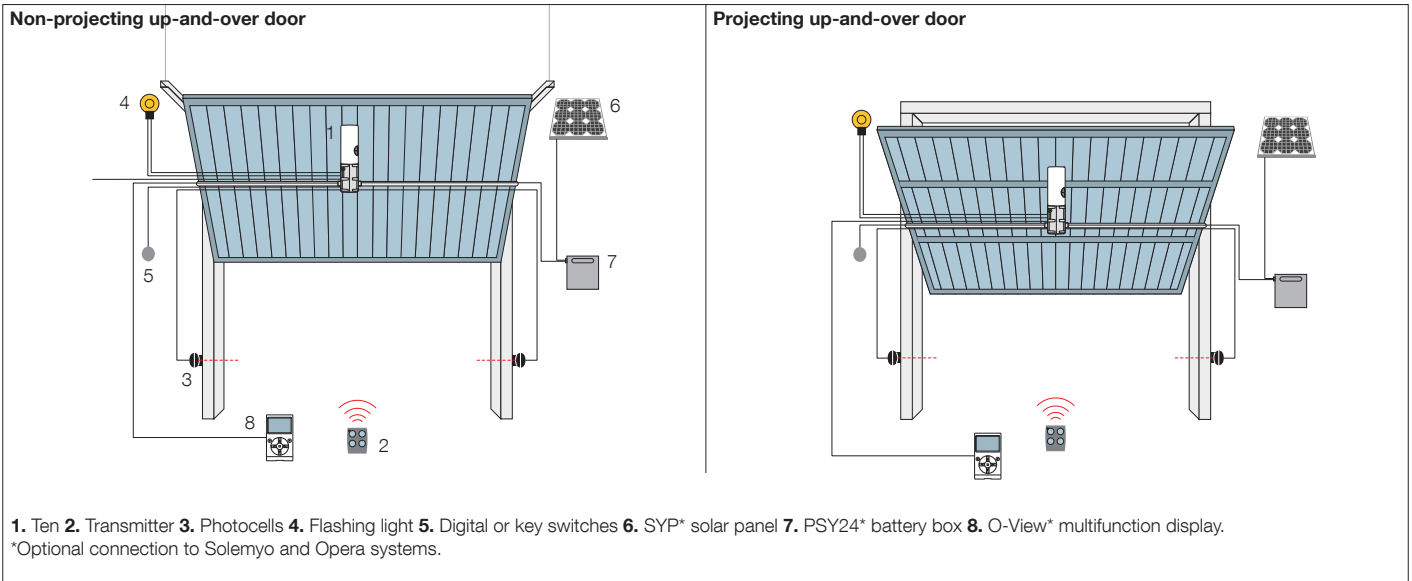
Code	TN2010	TN2010L	TN2010 + TN2020	TN2010L + TN2020L	TN2030	TN2030L	TN2030 + TN2020	TN2030L + TN2020L
Electrical data								
Power supply (Vac 50/60 Hz)	230							
Absorption (A)	1		1.4		1		1.4	
Power (W)	240		350		220		330	
Performance data								
Speed (Rpm)	1.7	1.4	1.7	1.4	1.7	1.4	1.7	1.4
Torque (Nm)	350	600	500	750	320	420	700	
Work cycle (cycles/hour)	15		25		20		10	
Dimensional and general data								
Protection level (IP)	44							
Working temp. (°C Min/Max)	-20 ÷ +50							
Dimensions (mm)	150x158x512 h							
Weight (kg)	10		17.2*		9.5		16.7*	

* 7.2 for TN2020/TN2020L

Utilisation limits



N.B. The values indicated above refer to the use of motors with standard accessories.



Accessories

TNA1 Spare control unit for TN2030, TN2030L, TNKCE and TNLKCE.	TNA2 Spare control unit for TN2010 and TN2010L.	PS324 24 V battery with integrated battery charger. Only for TN2010 and TN2010L. Pc/pack 1	TNA9 Additional connection cable and supports for wall-mounting of PS324 battery. Pc/pack 1	TMF Pair of photocells for optical type sensitive edge. Only for TN2010 and TN2010L. Pc/pack 1	OTA2 Motor support bracket (1250 mm long). Pc/pack 1
OTA3 Motor support bracket (2000 mm long). Pc/pack 1	OTA9 Motor support bracket (520 mm long). Pc/pack 1	TNA5 Pair of standard straight telescopic arms. Pc/pack 1	TNA6 Pair of standard curved telescopic arms. Pc/pack 1	TNA8 20x20 mm drive shaft (200 mm long). Pc/pack 1	TNA4 20x20 mm drive shaft (1500 mm long). Pc/pack 1
TNA38 Driving device for transmission shafts. Pc/pack 1	OTA11 Kit for unlock from the outside with a metal cord. Pc/pack 1	OTA12 Kit for external unlocking with key ratchet (cannot be used with laterally installed motors). Pc/pack 1	TS Signboard. Pc/pack 1	Solemyo system The solar power kit Solemyo to automate gates, garage doors or barrier gates, including those located far from the power mains and without the need for costly and invasive excavation work. See pages 186/187	Opera system The innovative Opera system enables the installer to manage, program and control automation systems, also remotely, simply and safely, with significant savings in time. See pages 140/141