

POWERFUL



COMPLETE
RANGE



ABSOLUTE
ENCODER

Automation
up to **140 Nm**
for counterweighted
sectional doors

Ditec **NRG**

Ditec NRG

Ditec NRG is a range of three phase non-reversible automation systems for large industrial and commercial sectional doors weighing up to 650 Kg. The automation system may be installed with drive transmitted directly onto the shaft of the door or via a transmission chain.

Digital limit absolute encoder

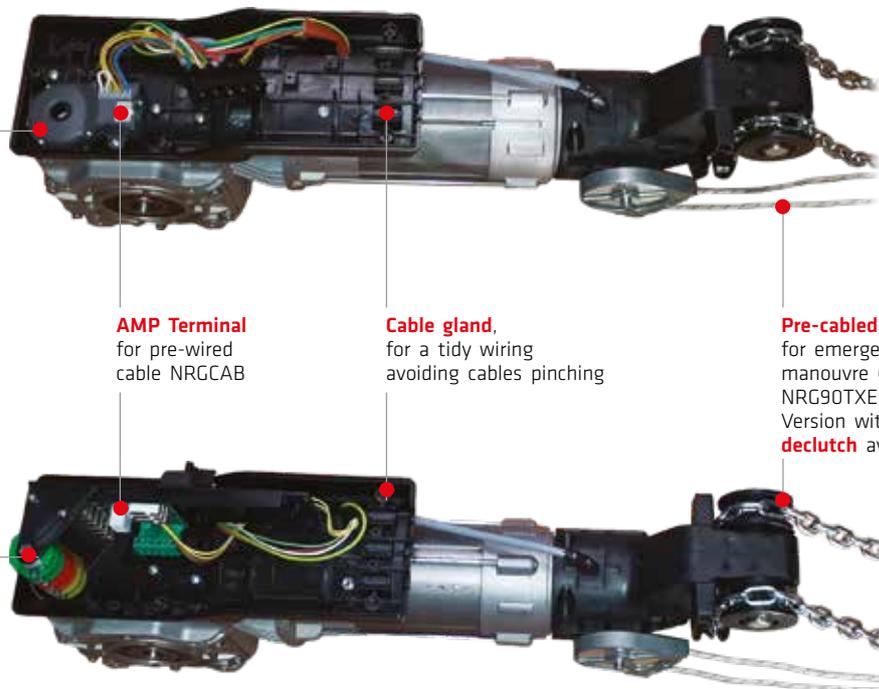
Mechanical limits

- 2 green cams for operating limits (limits in opening and closing)
- 2 red cams for safety limits
- 2 yellow cams for auxiliaries controls

AMP Terminal for pre-wired cable NRGCAB

Cable gland, for a tidy wiring avoiding cables pinching

Pre-cabled hand chain override for emergency manual manoeuvre (NRG90TXF, NRG90TXE, NRG140TXE). Version with quick de clutch available (NRG90TRE)



PLUG & play

- pre-assembled chain for emergency manual operation
- pre-cabled wirings between motor and electronic panel for connecting limit switches and power supply (NRGCAB5)
- slotted bracket for a perfect installation



READY TO USE control panel

- cable pre-fitted with 3P+N+PE industrial plug and push buttons
- control panels ready for connection to the latest generation of optical and 8.2 kΩ resistive safety edges



MANUAL operation

- motors with chain: during the manual operation, the irreversible self-braking gear remains always inter-connected to the door. If a spring breaks, there will be no danger for a fall down
- motor with quick declutch: the emergency manoeuvre is quicker. The door and the selfbraking gear are disconnected. The gear no longer sustains the door and it is required a spring safety brake

FULL COMPLIANCE WITH EUROPEAN DIRECTIVES AND STANDARDS

- 2014/30/EU - EMCD - Electromagnetic Compatibility Directive
- 2006/42/CE - Machinery Directive - (Annex II-B; Annex II-A; Annex I-Chapter 1)
- 2014/35/EU - LVD - Low Voltage Directive
- Harmonised EU Standards: EN 60335-1; EN61000-6-1; EN61000-6-2; EN61000-6-3 + A1; EN61000-6-4; EN61000 4-3 + A1 + A2
- TÜV certificate conformity for EL500E control unit according to EN 12453 and EN ISO 13849-1





POWERFUL

400 Vac three-phase versions ensure increased gear motor starting torque. Motor for counterweighted sectional doors up to 650 kg.



COMPLETE RANGE

Three 90 Nm and one 140 Nm motors; versions with 6-cam mechanical limit switches or absolute encoder. Emergency manual operation with hand chain or quick release mechanism.

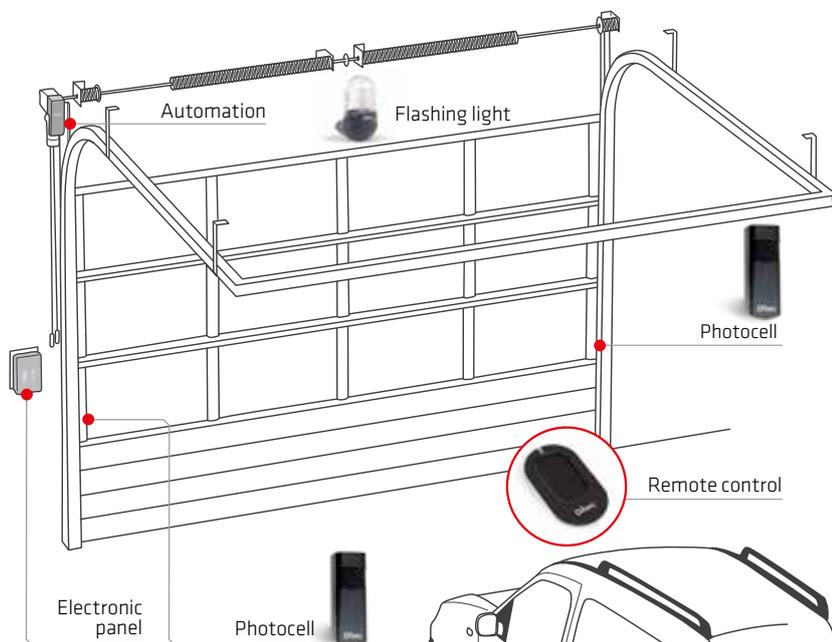


ABSOLUTE ENCODER

Precisely adjustment of top and bottom limit positions from electronic panel, without having to access the motor.

Discover the entire range of Ditec brand products and specific accessories at www.ditecautomations.com

Example of installation



90 Nm

NRG90TXF

Emergency manual release system with chain
Mechanical limit switches

90 Nm

NRG90TXE

Emergency manual release system with chain
Absolute encoder

90 Nm

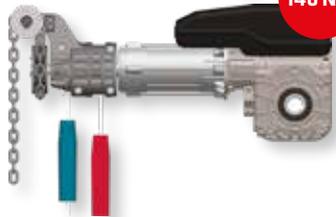
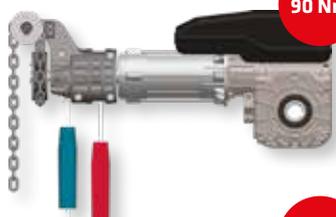
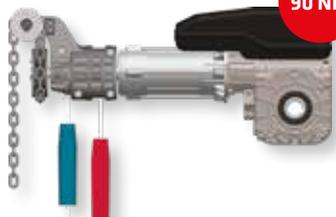
NRG90TRE

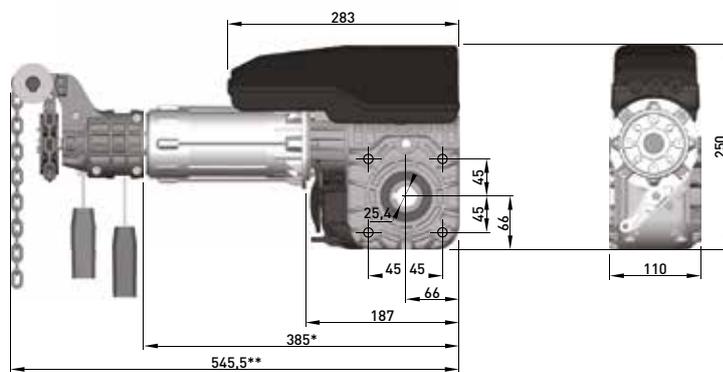
Quick declutch
Absolute encoder

140 Nm

NRG140TXE

Emergency manual release system with chain
Absolute encoder





* Ditec NRG90TRE
** Ditec NRG90TXE, NRG90TXF and NRG140TXE

TECHNICAL SPECIFICATIONS

DESCRIPTION	NRG90TXF	NRG90TXE	NRG90TRE	NRG140TXE
Electromechanical actuator	for sectional doors	for sectional doors	for sectional doors	for sectional doors
Stroke control	mechanical cam limit switch	absolute encoder	absolute encoder	absolute encoder
Torque / Thrust	90 Nm	90 Nm	90 Nm	140 Nm
Maximum door weight	400 Kg	400 Kg	400 Kg	650 Kg
Drive shaft rpm	21 RPM	21 RPM	21 RPM	18 RPM
Hollow shaft (Ø)	25.4 mm	25.4 mm	25.4 mm	25.4 mm
Holding torque	450 Nm	450 Nm	450 Nm	500 Nm
Power supply	400 Vac / 50 Hz	400 Vac / 50 Hz	400 Vac / 50 Hz	400 Vac / 50 Hz
Power input	2.2 A	2.2 A	2.2 A	2.3 A
Maximum power	800 W	800 W	800 W	870 W
Max. cycles/hour	20	20	20	20
Max rotations controlled by limit switches	18	18	18	18
Release system for manual opening	manual emergency operation with chain	manual emergency operation with chain	quick release	manual emergency operation with chain
Operating temperature	-20 °C ÷ +60 °C	-20 °C ÷ +60 °C	-20 °C ÷ +60 °C	-20 °C ÷ +60 °C
Protection level	IP 54	IP 54	IP 54	IP 54
Control panel	EL400 EL500E (after rewiring)	EL500E EL400 (after rewiring)	EL500E EL400 (after rewiring)	EL500E EL400 (after rewiring)

MAIN FUNCTIONS OF THE SYSTEM

DESCRIPTION	EL400	EL500E
Radio frequency	433.92 MHz with NRGZENX1	433.92 MHz with NRGZENX1
Mains power supply	3 x 400 Vac - 50/60 Hz / 3 x 230 Vac - 50/60 Hz	3 x 400 Vac - 50/60 Hz / 3 x 230 Vac 50/60 Hz
Motor power supply	3 x 400 Vac - P max 2.2 kW	3 x 400 Vac - P max 4 kW / 3 x 230 Vac - P max 2.3 kW
Accessories power supply	24 Vdc / 0.100 A	24 Vdc / 0.250 A
Limit switch provision	Prewired for mechanical limit switches Compatible with encoder	Prewired for encoder Compatible with mechanical limit switches
Opening control	■	■
Partial opening control	■	configurable
Close control	■	■
Stop control	■	■
Step-by-step control	configurable	configurable
Hold-to-run control	configurable	configurable
Automatic closing contact management	configurable	configurable
8.2 KΩ-resistance safety edge	■ shared with optical safety edge	■
Optical safety edge	■ shared with 8.2kΩ resistance	■
Flashing light	230 Vac	230 Vac shared with courtesy light or dedicated with NRGFTL
Courtesy light	■ with NRGFTL	■ shared with flashing light or dedicated with NRGFTL
Gate-open warning light (ON/OFF)	■ with NRGFTL	configurable
Configuration of programmable functions	Navigation buttons	Display and navigation buttons
Operation time	■	■
Travel limit position configuration from electrical panel	■	■
Emergency stop	■	■
Safe closing (inversion)	■	■
Safety Test Facility (for automatic safety devices)	■	■
ODS - Obstacle Detection System	■	■
Magnetic loop detector	■ with LAB9 and CONT1	■ with LAB9 and CONT1
Operating temperature	-10° C ÷ +50° C	-10° C ÷ +50° C
Control panel protection level	IP 54	IP 54
Control panel dimension	210 x 305 x 120	210 x 305 x 120



Cert. n. 0957/6

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