



ELECTROHYDRAULIC RELEASE

Cantoni Group is a leading manufacturer and supplier of electric motors, brakes and tools with almost 150 years of tradition. The Group offers a full range of induction electric motors (**from 0,04 kW up to 7000 kW**) in standard and special executions. The offer includes motors according to IEC and NEMA standards. Our low, medium and high voltage motors can operate in various applications in almost all industrial segments and can be customized according to specific requirements. Among many of our products, customers can find also **electrohydraulic releases**.

Electrohydraulic release (slack release) is a device in which electrical energy is hydraulically converted into mechanical energy of rectilinear motion. The operation of an electrohydraulic release consists in extension of the piston rod with appropriate force for a specified stroke.

APPLICATION

Electrohydraulic releases are used mainly in brakes. Their task is to disengage (open) expansion and disc brakes. Thanks to built-in springs they induce the braking moment. This indispensable device affects the operation of the entire braking system and, consequently, also the safety of both the operator and a machine.

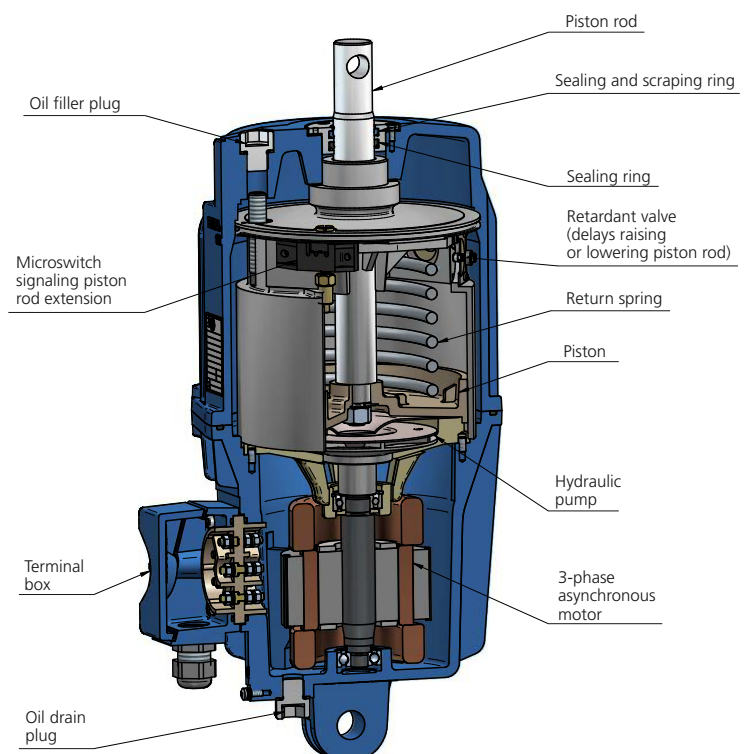
Cantoni Group guarantees the safety, quality and smooth operation of the release. Releases may be used wherever reciprocating work is needed, e.g. to engage/disengage dampers and valves, to open and close flaps, doors, to raise and lower barriers, to move levers and links. They are used in lifts, lifting equipment, crane systems, etc.

TECHNICAL CHARACTERISTIC

Release is driven by 3-phase induction squirrel cage motor, installed inside the release housing, which can be rated up to 690 VAC (for ZE type) and up to 1000 VAC (for ExZE type) and 50 Hz.

Releases can be used both for continuous operation S1 as well as for periodically interrupted operation S3 with relative loading time up to 100% and number of actuations up to 2000 c/h.

Construction of electrohydraulic release (type ZE)



CANTONI GROUP OFFERS TWO TYPES OF ELECTROHYDRAULIC RELEASES:

ELECTROHYDRAULIC RELEASE TYPE ZE

Electrohydraulic releases type ZE are intended for operation in temperate climatic conditions on land, in open air N/1 according to PN-68/H-04650 in ambient temperature range from -25°C to +40°C.

We offer several sizes of releases depending on the rated capacity (from 120-3200N) and stroke (from 50-160mm).

They are powered by three-phase current with a voltage of up to 500 V.

Upon special request, it is possible to have a release with integrated solenoid with a voltage of 38 V DC or other.

Electrohydraulic release is designed for both vertical (ZE) and horizontal (ZE-Lv) operation. The release has an oil-tight housing with an IP65 terminal box.

TYPE ZE



EXPLOSION-PROOF ELECTROHYDRAULIC RELEASE TYPE ExZE

ExZE (ExZEM, ExZE-X) releases are manufactured as explosion-proof equipment, in flameproof enclosure, with signaling circuits in intrinsically-safe execution.

These "high" protection level releases are intended for installation in coal mines (EPL Mb, group I, cat. M2 device), explosive gas atmospheres (EPL Mb, group I, cat. M2 device) and explosive dust atmospheres (EPL Db, group II, cat. 2D device) according to the 2014/34/EU Directive ATEX.

Ex I M2 Ex db[ia Ma] I Mb
Ex IIG Ex db[ia Ga] IIB T4 Gb
Ex II 2D Ex tb[ia Da] IIIC T125°C Db

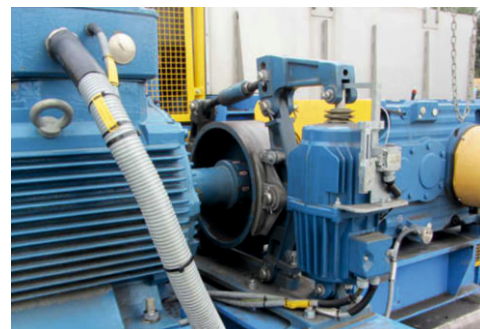


The release has thermal protection in the form of bimetal switch or posistor sensor installed inside and protecting the release in emergency cases against excessive heating of oil. Actuation temperature of the sensor is $110 \pm 5^\circ\text{C}$. The release has an oil-tight housing with IP 65 terminal box.

TYPE ExZE



Electrohydraulic releases produced by Cantoni Group are designed, built and tested in accordance with international requirements (ISO 9001, ISO 14001), are compatible with safety-related European Union directives (bear CE mark). Furthermore, ExZE (ExwZE) release unit series meet the requirements for the equipment and protective systems intended for use in areas with gas and dusts explosion hazard (the ATEX 2014/34/EU Directive).



TECHNICAL DETAILS

ELECTROHYDRAULIC RELEASE TYPE ZE

Standard execution:

Rated force of piston rod extension: 120÷3200 N

Piston rod stroke: 50÷160 mm

Voltage: 230, 400, 500 VAC

Frequency: 50Hz

Rated motor output: 180÷550 W

Duty: S1, S3 up to 100% up to 2000 c/h

Degree of protection: IP 65

Options available:

Voltage: any voltage up to 690 VAC

Frequency: 60Hz

Degree of protection: IP 56, IP 66

Releases for horizontal operation

Releases with piston rod position signal:

- with internal magneto-inductive sensor Ckl

- with external mechanical switch Cm

- with external sensor Ci

Other options available upon request

ELECTROHYDRAULIC RELEASE TYPE ExZE

Standard execution:

Rated force of piston rod extension: 800÷3200 N

Piston rod stroke: 60÷160 mm

Voltage: 127 ÷ 1000 VAC

Frequency: 50Hz

Rated motor output: 450÷550 W

Duty: S1, S3 do 100% do 2000 c/h

Degree of protection: IP 65

Options available:

Other options preceded by safety analysis (ATEX Directive) are available upon request

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