



BALKANSKO ECHO

BULGARIA

**PRODUCTION OF
ELECTRIC HOISTS, ELECTRIC MOTORS,
CRANES AND CRANE COMPONENTS**



**CATALOGUE
ELECTRIC WIRE ROPE HOISTS**

T SERIES

www.balkanskoecho.com

CATALOGUE ELECTRIC WIRE ROPE HOISTS T SERIES



BALKANSKO ECHO

CERTIFICATES





BALKANSKO ECHO

THE COMPANY

Dear customers, colleagues and friends,

In front of you is the catalogue which contains valuable and useful information about the manufacturing activity and high-quality production of one of the leading companies for travel and hoist systems worldwide.

“Balkansko Echo” company is unique with its three separate factories situated on a total manufacturing area of over 20 000 m², more than 600 metal-working machines and more than 550 dedicated and highly qualified specialists, as all this makes the company independent from outer subcontractors and cooperative deliveries.

The company is designing, constructing, manufacturing, assembling and servicing the following:

- electric wire rope hoists of “T” and “MT” series with a lifting capacity of up to 50 t and a lifting height of up to 120 m, which are to be known for their exceptional reliability and durability;
- electric chain hoists, with a lifting capacity from 0,125 t to 2 t;
- single and double girder electric traveling cranes with a control from the cabin and from the ground with a lifting capacity of up to 100 t;
- bracket electric cranes with a lifting capacity from 1t to 10 t and outrigger length of 10 m;
- induction cone hoist motors, single and double- speeded, with a built-in brake and a thermo-protection from 0,12 kW to 30 kW;
- induction, mono-phase and three-phase cylindrical electric motors from 0,55 kW to 37 kW;
- geared motors for setting in motion the running gears of travel and hoist systems;
- lifting capacity limiting devices for all kinds of hoists and crane travel and hoist systems;
- complete spare parts range for all products.

All company’s products are manufactured in a general-industry, fire-safe and explosion-proof execution, and they can operate in different climate zones, including chemically aggressive environment.

The company’s system for quality management and control has been certified according to ISO 9001:2008 by TÜV Rheinland.

The company’s production has been certified according to the requirements of the countries where it is used.

By the end of 2010, “Balkansko Echo” had manufactured and sold more than 20 000 electric hoists, including 5000 explosion-proof ones, more than 600 cranes and over 50 000 general-industry and explosion-proof electric motors.

The production of “Balkansko Echo” company proves every day its high-tech qualities, security and reliability in different countries, like Russia, Kazakhstan, Belarus, Ukraine, Czech Republic, Slovakia, Turkey, Iran, etc. We are proud to announce that our goods are the only ones in the world with a 36-month warranty.

The aim of this catalogue is to provoke your interest to the goods we manufacture with great responsibility.

By this catalogue we would like to turn to you, our customers, and declare our willingness to make the most suitable product for your manufacturing, and also to assure you that you’ll make the best choice.

Please use the following telephone numbers for a twenty-four-hour contact with us: +35967302220; +359885000555; +359888223344 or you can write to us at balkanskoecho@abv.bg

ELECTRIC WIRE ROPE HOISTS

The electric wire rope hoists of “T” Series are the most famous and well-sold hoists worldwide. More than 1 800 000 pieces have already been produced, which have been marketed in more than 40 countries. Their main advantages are: high reliability, durability, simple maintenance. These advantages in combination with the broad range of lifting capacities, lift and move speeds, construction executions, and ability to be used in different conditions, make the electric hoists of this series preferred to the other executions, despite their 30-year-old history.

CATALOGUE ELECTRIC WIRE ROPE HOISTS T SERIES

Technical data:

Voltage: 380- 400V (special executions- by request)

Frequency: 50 Hz (special executions- by request)

Operational voltage: 24V, (42V)

Class of protection IP54 (EN 60529)

Operational conditions *

- climate- normal, tropical or marine

- normal or chemically aggressive environment

- temperature of the environment

1) normal: from -25°C up to +40°C

2) low: from -40°C up to +40°C

- relative air humidity- 80% at 20°C

- in closed rooms or in the open air under a shelter by a normal fire-hazard

* *special execution by a request*

STRUCTURE

The electric hoists are based on a module construction consisting of the following elements:

1. REDUCTION GEAR

The two-stepped planetary reduction gear is positioned out of the roll or the body of the hoist.

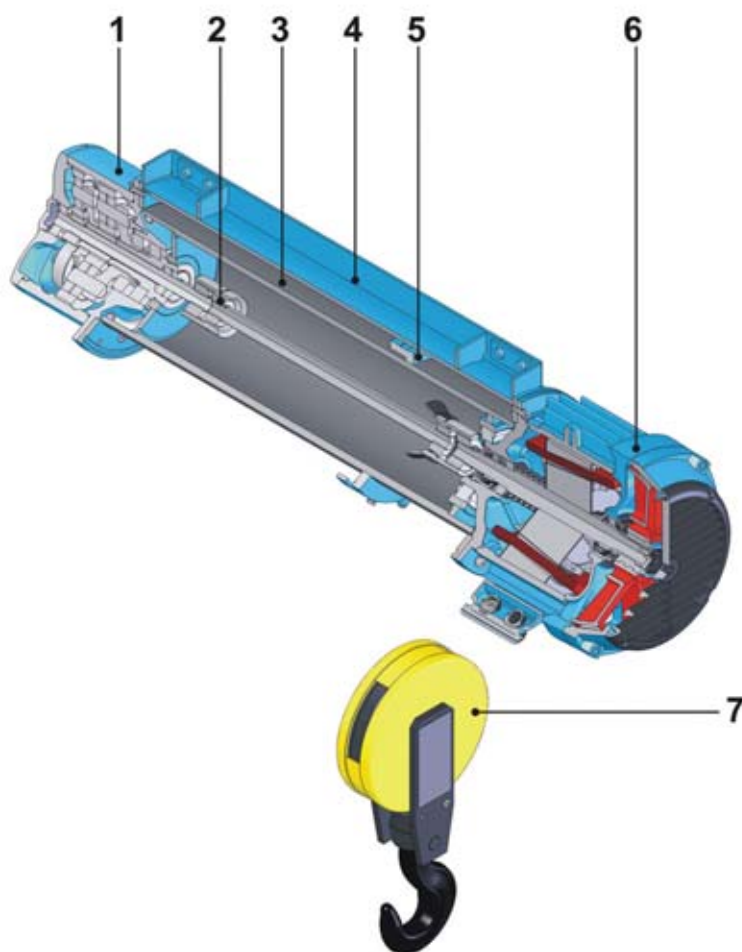
The solid construction allows a reliable torque transmission towards the roll of the machine. The use of high-quality materials during the manufacturing process of the reduction gear is a guarantee for its reliable performance. Its positioning allows an easy service during the period of use.

2. TOOTHED CLUTCH

A construction that allows safe transmission of the motor torque to the reduction gear shaft, with sufficient possibility for axial and angle compensation- all this guarantees a normal and safe performance of the machine.

3. ROLL

The roll is positioned axle-like to the reduction gear and the electric motor. It has got ball bearings at the front guards of the electric motor and the reduction gear. It has also been designed with a screw channel for positioning the rope, according to DIN 15020.





BALKANSKO ECHO

4. BODY

It is a steel-welded construction with a round form made of sheet material. The reduction gear and the electro motor are mounted on both the opposite sides of the body. When the execution is with a trolley, it is also attached to it. The fixed end of the rope is also attached to the body. Different reeving systems can be realized by means of additional supporting elements.

5. ROPE LEAD

The rope lead ensures the correct arrangement and lead of the rope in the screw channel of the roll, and also its normal going out of it. Apart this, it also functions for operating the cut-offs of the lifting mechanism, which are fixing the end up and end down position of the hook.

6. LIFTING ELECTRIC MOTOR

It's a three-phase induction motor with a cone rotor and a built-in brake. Typical for it is its simple construction giving it a great reliability and maintainability. The completely automatic brake allows safe hold of the load. It is simple in service and adjustment during the process of operation.

Class of protection IP54, IP22 (EN 60529) for the brake; class of insulation F (H- by agreement with the customer).

We can also offer double-speeded executions with a ratio of micro speed : main speed- 1:4; 1:6, as well as stepless ones by request. All electric motors are equipped with a coil overheating protection.

In the electric motor's terminal box there is a built-in stop of the end hook positions.

7. HOOK

The hook construction and the roller block of the reeving are performed according to the requirements of DIN 15400.

CONTROL BLOCK

The control block has been designed as a cabinet with electro appliances and it ensures all requirements for safety and elements protection. It is mainly based on circuit closer control of the electro motors, with an option for performing radio or frequency control. Class of protection IP54.

CONTROL DESK

Contemporary design, materials ensuring high level of safety, option for a stepless control, class of protection IP65.

SINGLE-GIRDER TROLLEY

Normal and reduced headroom execution. They are being driven by electric motors with cone rotor and an automatic cone brake, single and double-speeded (ratio 1:3, and step-less also by request), class of protection IP54, class of insulation F. These can be driven on rectilinear and curve sections, onto single girder roads with 90...300 mm in width.

DOUBLE-GIRDER CRANE TROLLEY

Executions in a variety of lifting capacity, driven by one or two gearmotor groups, equipped with electric motors with cone rotor and an automatic cone brake, single and double-speeded (ratio 1:3, and stepless also by request), class of protection IP54, class of insulation F. Great variety of wheel-gauge (1000 -2800 mm).

CATALOGUE ELECTRIC WIRE ROPE HOISTS T SERIES

STANDARD EXECUTIONS

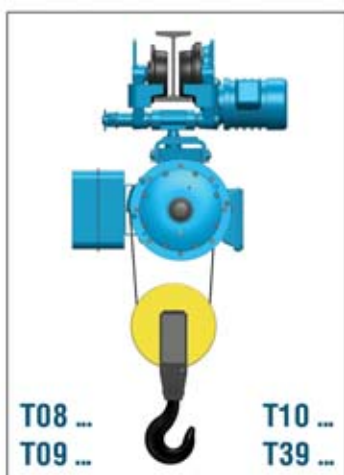
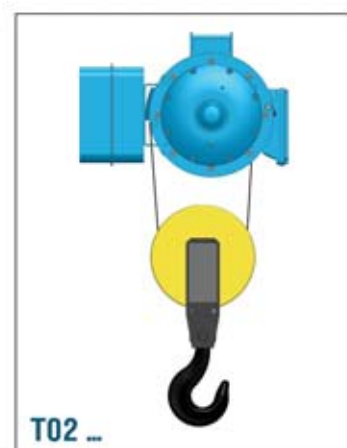
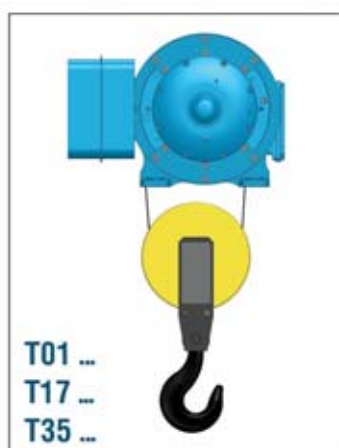
Stationary

Lifting capacity: 200 – 16 000 kg

Reevings: 1/1; 2/1; 4/1; 2/2

Lift height: 6 – 72 m

Lift speed: 4- 32 m/min (by microscope at a rate of 1:4 and 1:6)



With a single-girder trolley (reduced headroom height)

Lifting capacity: 200 – 12 500 kg

Reevings: 2/1; 4/1

special executions- 1/1; 2/2

Lift height: 6 – 36 m

special executions- up to 72 m

Lift speed: 4- 16 m/min

by microscope at a rate of 1:4 and 1:6

special executions- 32 m/min

Conveying speed:

8; 10; 12; 15; 20; 32; 12/4; 15/5; 20/6; 32/10 m/min



BALKANSKO ECHO

STANDARD EXECUTIONS

With a single-girder trolley (reduced headroom height)

Lifting capacity: 200 – 10 000 kg

Reevings: 2/1; 4/1

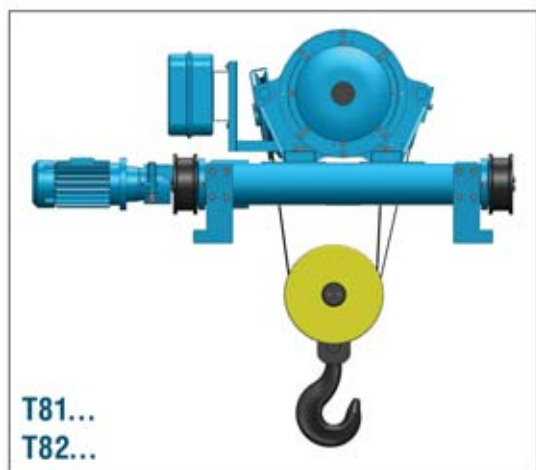
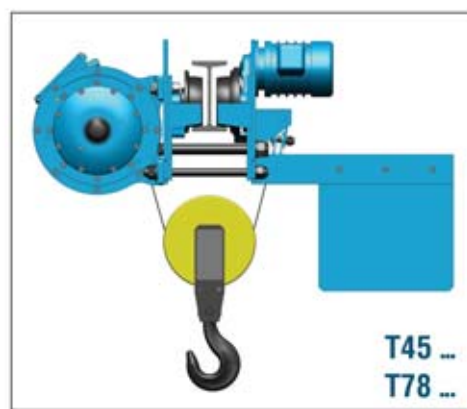
Lift height: 6 – 36 m

Lift speed: 4- 16 m/min

(by microscope at a rate of 1:4 and 1:6)

Conveying speed:

8; 10; 12; 15; 20; 32; 12/4; 15/5; 20/6; 32/10 m/min



With a double-girder trolley

Lifting capacity: 1000 – 16 000 kg

Reevings: 1/1; 2/1; 4/1; 2/2

Lift height: 6 – 36 m

Lift speed: 4- 16 m/min

(by microscope at a rate of 1:4 and 1:6)

special executions- 32 m/min

Conveying speed:

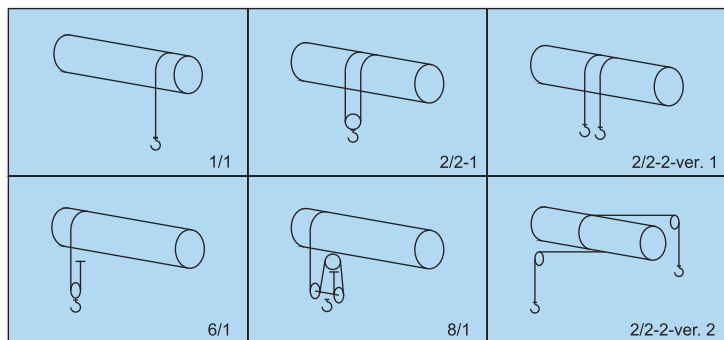
8; 10; 12; 15; 20; 32; 40 m/min

(by microscope at a rate of 1:3)

Gauge: 1 000- 2 800 mm

CATALOGUE ELECTRIC WIRE ROPE HOISTS T SERIES

REEVING SYSTEM



CRITERIA FOR THE CHOICE

In order to be able to make the right choice of a lifting device you need to know:

- 1.The maximum load that is going to be uplifted.
- 2.The maximum height of the lift.
- 3.The necessary speed of the lift.
- 4.The operational conditions.

After that you need to determine the operational rate group of the lifting device according to FEM 9.511, DIN 15020, ISO 4301 or ГOCT 25835.

With regard to this you need to define in advance:

- class of loading
- class of use



BALKANSKO ECHO

The class of loading can be determined by the loading factor K, using the formula:

$$K = \sum [(Q_i / Q_{nom})^3 \cdot t_i / \sum t_i],$$

where:

Q_i - load being lifted by the device for a definite time t_i

Q_{nom} - the nominal (maximum) capacity of the device

t_i - duration of operation with load Q_i

$\sum t_i$ - sum of time for device operation with load.

After that the average machine time T_M for a day is being defined:

$$T_M = 2.H.N.T / 60.V,$$

where:

H - average height of lift

N - number of cycles per hour (a cycle means: lift-pause-lift down-pause)

T - daily duration of operation

V - lift speed, m/min

The data received is used to define the operational rate group, and then you may continue with the choice of a lifting device.

EXAMPLE

| | | |
|-----------------------------|---|---------|
| Lifting capacity | - | 2000 kg |
| Average height of lift | H | 3 m |
| Lift speed | V | 8 m/min |
| Reeving | - | 2/1 |
| Class of loading | - | medium |
| Number of cycles per hour | N | 30 |
| Daily duration of operation | T | 8 h |

The average machine time per a day is calculated:

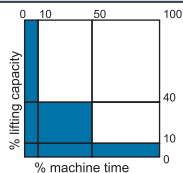
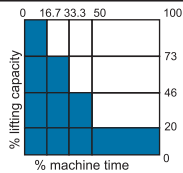
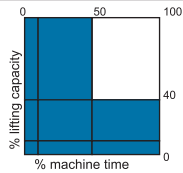
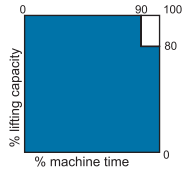
$$T_M = 2.H.N.T / 60.V = 2.2.30.8 / 60.8 = 3, h$$

Using the table for operation range, for $T_M = 3h$ and class of loading “medium”, you can define the group of operation range for the lifting device - **2m**, according to FEM 9.511.

Knowing the needed capacity of **2000 kg** and using the already defined group of operation range – **2m**, and the type of Reeving - **2/1**, we can define the lifting device as type T..4..

CATALOGUE ELECTRIC WIRE ROPE HOISTS T SERIES

CLASSIFICATION OF THE LIFTING DEVICES

| Operational rate | | | | Class of use | | | |
|---|-------------------|---|--|---|--------|--------|----------|
| Class of loading | Loading factor, K | Performance | | | | | |
| LIGHT | < 0.125 | Operation with loads less than the nominal ones |  | T _M , h 1) | | | |
| | | | | 2-4 | 4-8 | 8-16 | >16 |
| | | | | T _{Mo} , h 2) | | | |
| | | | | 6 300 | 12 500 | 25 000 | 50 000 |
| MEDIUM | 0.125 - 0.25 | Operation with medium and nominal loads |  | T _M , h | | | |
| | | | | 1-2 | 2-4 | 4-8 | 8-16 |
| | | | | T _{Mo} , h | | | |
| | | | | 3 200 | 6 300 | 12 500 | 25 000 |
| HEAVY | 0.25 - 0.5 | Operation with nominal or close to nominal loads |  | T _M , h | | | |
| | | | | 0,5-1 | 1-2 | 2-4 | 4-8 |
| | | | | T _{Mo} , h | | | |
| | | | | 1 600 | 3 200 | 6 300 | 12 500 |
| VERY HEAVY | 0.5 - 1 | Repeated operation with nominal or close to nominal loads |  | T _M , h | | | |
| | | | | 0,25-0,5 | 0,5-1 | 1-2 | 2-4 |
| | | | | T _{Mo} , h | | | |
| | | | | 800 | 1 600 | 3 200 | 6 300 |
| switching in duration, % | | | | 30 | 40 | 50 | 60 |
| switching in frequency, h ⁻¹ | | | | 180 | 240 | 300 | 360 |
| operational rate group | | | FEM 9.511 / DIN15020 | 1Am | 2m | 3m | 4m |
| | | | ISO 4301 | M4 | M5 | M6 | M7 |
| | | | ГОСТ 25835 | 2M | 3M | 4M | 5M |
| REEVINGS | | | DIMENSIONS | TYPE | | | |
| 1/1 | 2/1 | 4/1 | | | | | |
| LIFTING CAPACITY, kg | | | | | | | |
| 160 | 320 | - | 2 | - | - | - | T..2.. * |
| 200 | 400 | - | | - | - | T..2.. | - |
| 250 | 500 | - | | - | T..2.. | - | - |
| 320 | 630 | 1250 | 3 | - | - | - | T..3.. * |
| 400 | 800 | 1600 | | - | - | T..3.. | - |
| 500 | 1000 | 2000 | | - | T..3.. | - | - |
| 630 | 1250 | 2500 | 4 | - | - | - | T..4.. * |
| 800 | 1600 | 3200 | | - | - | T..4.. | - |
| 1000 | 2000 | 4000 | | - | T..4.. | - | T..5.. * |
| 1250 | 2500 | 5000 | 5 | - | - | T..5.. | - |
| 1600 | 3200 | 6300 | | - | T..5.. | - | T..6.. * |
| 2000 | 4000 | 8000 | | - | - | T..6.. | - |
| 2500 | 5000 | 10000 | 6 | - | - | T..6.. | T..7.. * |
| 3200 | 6300 | 12500 | | - | - | T..7.. | - |
| 4000 | 8000 | 16000 | | - | T..7.. | - | - |
| * special execution by customer order | | | | 1) T _M – average machine time per day 2) T _{Mo} – total time for the complete operational period | | | |



BALKANSKO ECHO

NOTATION

52 T K₂ TII 10 3 1 6 M C S

- without special requirements to the execution
S with special requirements to the execution

- without additional brake of the lifting device
C - with additional brake of the lifting device

- single-speed lift
M - double- speed lift

Conveying speed

- - without a running gear (stationary)
2 - 20 m/min, without brake
3 - 32 m/min, with brake
4 - 8 m/min, with brake
5 - 10 m/min, with brake
6 - 20 m/min, with brake
7 - 12 m/min, with brake
8 - 15 m/min, with brake
11 - 12/4 m/min, with brake
12 - 15/5 m/min, with brake
13 - 20/6 m/min, with brake
14 - 32/10 m/min, with brake

Lifting height, m

| | Reevings | | |
|----------|----------|-----|-----|
| | 1/1 | 2/1 | 4/1 |
| 1 | 12 | 6 | - |
| 2 | 18 | 9 | - |
| 3 | 24 | 12 | 6 |
| 4 | 36 | 18 | 9 |
| 5 | 48 | 24 | 12 |
| 6 | 60 | 30 | 15* |
| 7 | 72 | 36 | 18* |

dimension – **2, 3, 4, 5, 6, 7**

Construction execution

| | Reevings |
|--|----------|
| 01 - stationary, on clutches | 2/1 |
| 02 - stationary, on pins | 2/1 |
| 08 - with a loose trolley | 2/1 |
| 09 - with a hand trolley | 2/1 |
| 10 - with an electric trolley | 2/1 |
| 17 - stationary, on clutches | 1/1 |
| 35 - stationary, on clutches | 4/1 |
| 39 - with an electric trolley | 4/1 |
| 45 - with an electric trolley, reduced headroom | 2/1 |
| 78 - with an electric trolley, reduced headroom | 4/1 |
| 81 - with double-girder trolley | 2/1 |
| 82 - with double-girder trolley | 4/1 |

Climatic execution

- normal
TII climatic execution – tropical
FII climatic execution- for low temperatures
MP marine execution
C execution for operating in chemically aggressive environment

Lifting speed

- - V1
2 - V2
3 - V3

- normal execution
K crane execution

Type **T**

42 - with a load limiting device
43 - with a latch-key and a load limiting device
44 - with a thermo-protection and a load limiting device
45 - with a thermo-protection and a load limiting device and a latch-key
50 - with a load limiting device and an emergency stop
51 - with a load limiting device, an emergency stop and a latch-key
52 - with a load limiting device, an emergency stop and thermo-protection
53 - with a load limiting device, an emergency stop, thermo-protection and a latch-key

* special execution by customer order

CATALOGUE ELECTRIC WIRE ROPE HOISTS T SERIES

TECHNICAL DATA

| Lifting Capacity kg | REEVINGS 1/1 – 2/2 ¹⁾ | | | | | | |
|---|----------------------------------|------------------------|----------------------|-------------|----------------------|----------|----------|
| | Type | DIN 15020 FEM 9.511 | Lifting height, m | | Lifting speed, m/min | | |
| | | | 1/1 | 2/2 | V1 | V2 | V3 |
| 200 | T..2.. | 3m | 12;18;24;36;48;60;70 | - | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 250 | T..2.. | 2m | 12;18;24;36;48;60;70 | - | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 400 | T..3.. | 3m | 12;18;24;36;48;60;72 | 8;12;19;27 | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 500 | T..3.. | 2m | 12;18;24;36;48;60;72 | 8;12;19;27 | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 800 | T..4.. | 3m | 12;18;24;36;48;60;72 | 8;12;21;29 | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 1 000 | T..4.. | 2m | 12;18;24;36;48;60;72 | 8;12;21;29 | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 1 250 | T..5.. | 3m | 12;18;24;36;48;60;72 | 7;10;17;24 | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 1 600 | T..5.. | 2m | 12;18;24;36;48;60;72 | 7;10;17;24 | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 2 000 | T..6.. | 3m | 12;18;24;36;48;60;72 | 6;9;16;23 | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 2 500 | T..6.. | 2m | 12;18;24;36;48;60;72 | 6;9;16;23 | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 3 200 | T..7.. | 3m | 18;24;36;48;60;72 | 13;20;27;34 | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 4 000 | T..7.. | 2m | 18;24;36;48;60;72 | 13;20;27;34 | 16; 4/16 | 24; 4/24 | 32; 5/32 |
| 1) refers only to stationary hoists, without load limit | | | | | | | |

| Lifting Capacity kg | REEVINGS 2/1 | | | | | |
|------------------------|--------------|------------------------|--------------------|----------------------|----------|------------|
| | Type | DIN 15020 FEM 9.511 | Lifting height, m | Lifting speed, m/min | | |
| | | | | V1 | V2 | V3 |
| 400 | T..2.. | 3m | 6;9;12;18;24;30;35 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |
| 500 | T..2.. | 2m | 6;9;12;18;24;30;35 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |
| 800 | T..3.. | 3m | 6;9;12;18;24;30;36 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |
| 1 000 | T..3.. | 2m | 6;9;12;18;24;30;36 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |
| 1 600 | T..4.. | 3m | 6;9;12;18;24;30;36 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |
| 2 000 | T..4.. | 2m | 6;9;12;18;24;30;36 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |
| 2 500 | T..5.. | 3m | 6;9;12;18;24;30;36 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |
| 3 200 | T..5.. | 2m | 6;9;12;18;24;30;36 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |
| 4 000 | T..6.. | 3m | 6;9;12;18;24;30;36 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |
| 5 000 | T..6.. | 2m | 6;9;12;18;24;30;36 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |
| 6 300 | T..7.. | 3m | 9;12;18;24;30;36 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |
| 8 000 | T..7.. | 2m | 9;12;18;24;30;36 | 8; 2/8 | 12; 2/12 | 16; 2.5/16 |



BALKANSKO ECHO

TECHNICAL DATA

| Lifting Capacity kg | REEVINGS 4/1 | | | | | |
|------------------------|--------------|------------------------|-------------------|----------------------|--------|----|
| | Type | DIN 15020 FEM 9.511 | Lifting height, m | Lifting speed, m/min | | |
| | | | | V1 | V2 | V3 |
| 1 600 | T..3.. | 3m | 6;9;12 | 4; 1/4 | 6; 1/6 | - |
| 2 000 | T..3.. | 2m | 6;9;12 | 4; 1/4 | 6; 1/6 | - |
| 3 200 | T..4.. | 3m | 6;9;12 | 4; 1/4 | 6; 1/6 | - |
| 4 000 | T..4.. | 2m | 6;10;13 | 4; 1/4 | 6; 1/6 | - |
| 5 000 | T..5.. | 3m | 6;9;12 | 4; 1/4 | 6; 1/6 | - |
| 6 300 | T..5.. | 2m | 6;9;12 | 4; 1/4 | 6; 1/6 | - |
| 8 000 | T..6.. | 3m | 6;9;12 | 4; 1/4 | 6; 1/6 | - |
| 10 000 | T..6.. | 2m | 6;9;12 | 4; 1/4 | 6; 1/6 | - |
| 12 500 | T..7.. | 3m | 6;9;12;15;18 | 4; 1/4 | 6; 1/6 | - |
| 16 000 | T..7.. | 2m | 6;9;12;15;18 | 4; 1/4 | 6; 1/6 | - |



CATALOGUE ELECTRIC WIRE ROPE HOISTS T SERIES

ELECTRIC MOTOR PARAMETERS

PARAMETERS OF THE LIFTING ELECTRIC MOTORS WITH A BUILT-IN BRAKE (400 V, 50 HZ)

| Dimensions | Lifting capacity, kg | Group by FEM 9.511 | Single speeded lift | | | | | | Double speeded lift | | | | | |
|------------|----------------------|--------------------|---------------------|--------------------|---------------------|--------------------|---------------------|--------------------|---------------------|--------------------|---------------------|--------------------|---------------------|--------------------|
| | | | V1 | | V2 | | V3 | | V1 | | V2 | | V3 | |
| | | | P _H , kW | I _H , A | P _H , kW | I _H , A | P _H , kW | I _H , A | P _H , kW | I _H , A | P _H , kW | I _H , A | P _H , kW | I _H , A |
| T..2.. | 500 | 2m | 0.75 | 3.3 | 1.1 | 3.6 | 4.5 | 12.0 | 0.16/0.75 | 3.0/3.4 | 0.16/1.1 | 3.0/3.5 | 0.7/4.5 | 6.0/9.5 |
| T..3.. | 1000 | | 1.5 | 5.8 | 2.3 | 6.0 | 4.5 | 12.0 | 0.33/1.5 | 3.7/5.0 | 0.33/2.2 | 3.7/6.2 | 0.7/4.5 | 6.0/9.5 |
| T..4.. | 2000 | | 3.0 | 11.0 | 4.5 | 12.0 | 12.0 | 28.0 | 0.7/3.0 | 6.0/7.5 | 0.7/4.5 | 6.0/9.5 | 1.7/12.5 | 15.0/23.0 |
| T..5.. | 3200 | | 4.5 | 12.3 | 7.5 | 17.0 | 12.0 | 28.0 | 1.0/4.8 | 11.0/12.0 | 1.0/7.5 | 11.0/15.0 | 1.7/12.5 | 15.0/23.0 |
| T..6.. | 5000 | | 8.0 | 24.5 | 12.0 | 28.0 | 15.5 | 29.5 | 1.7/8.0 | 15.0/18.0 | 1.7/12.5 | 15.0/23.0 | 4.0/24.0 | 70.0/48.0 |
| T..7.. | 8000 | | 12.5 | 36.0 | 22 | 49 | 22 | 49 | 3.0/13.0 | 40.0/30.0 | 4.0/24.0 | 70.0/48.0 | 4.0/24.0 | 70.0/48.0 |

PARAMETERS OF THE ELECTRIC MOTORS WITH A BUILT-IN BRAKE FOR MONORAIL HOIST RUNNING GEARS (400 V, 50 HZ)

| Dimensions | Lifting capacity, kg | | Group by FEM 9.511 | Lifting height, m | | Speed travel, m/min | | | | | |
|------------|----------------------|------|--------------------|-------------------|-----|---------------------|--------------------|---------------------|--------------------|----------------------------|--------------------|
| | 2/1 | 4/1 | | 2/1 | 4/1 | 8,10,12, 20 | | 15, 32 | | 4/12, 5/15, 6.5/20, 10/32* | |
| | | | | | | P _H , kW | I _H , A | P _H , kW | I _H , A | P _H , kW | I _H , A |
| T.2.. | 500 | - | 2m | 6;9;12 | - | 0.12 | 0.82 | 0.18 | 0.75 | 0.06/0.18 | 1.4/1.2 |
| T.3.. | 1000 | | | 6;9;12 | - | | | | | | |
| | - | 2000 | | - | 6 | 0.25 | 1.2 | 0.37 | 1.5 | 0.11/0.37 | 1.7/1.4 |
| T.4.. | 2000 | 4000 | | 6;9;12 | 6 | | | | | | |
| T.5.. | 3200 | | | 6;9;12 | - | 0.37 | 1.8 | 0.55 | 2.1 | 0.11/0.37 | 1.7/1.4 |
| | - | 6300 | | - | 6 | | | | | | |
| T.6.. | 5000 | - | | 6;9;12 | - | | | | | | |

* excluding T..5.. (4/1) u T..6..

| Dimensions | Lifting capacity, kg | | Group by FEM 9.511 | Lifting height, m | | Speed travel, m/min | | | | | |
|------------|----------------------|-------|--------------------|-------------------|--------|---------------------|--------------------|---------------------|--------------------|----------------------------|--------------------|
| | | | | | | 8,10,12, 20 | | 15, 32 | | 4/12, 5/15, 6.5/20, 10/32* | |
| | 2/1 | 4/1 | | 2/1 | 4/1 | P _H , kW | I _H , A | P _H , kW | I _H , A | P _H , kW | I _H , A |
| T..2.. | 500 | - | 2m | 18;24;30;35 | - | 2x0.12 | 0.82 | 2x0.18 | 0.75 | 2x0.06/0.18 | 1.4/1.2 |
| T..3.. | 1000 | - | | 18;24;30;36 | - | | | | | | |
| | - | 2000 | | - | 9;12 | | | | | | |
| T..4.. | 2000 | 4000 | | 18;24;30;36 | 9;12 | 2x0.25 | 1.2 | 2x0.37 | 1.5 | 2x0.11/0.37 | 1.7/1.4 |
| T..5.. | 3200 | 6300 | | 18;24;30;36 | 9;12 | | | | | | |
| T..6.. | 5000 | - | | 18;24;30;36 | - | | | | | | |
| | - | 10000 | | - | 6;9;12 | | | | | | |
| T..7.. | 8000 | - | 9;12;18;24;30;36 | - | 2x0.37 | 1.8 | 2x0.55 | 2.1 | 2x0.11/0.37 | 1.7/1.4 | |
| | - | 12500 | 3m | - | | | | | | | 6;9;12;15;18 |

* excluding T..6..(4/1) u T..7..



BALKANSKO ECHO

WE ALSO MANUFACTURE

MT- electric wire rope hoists

The wire rope hoists series MT are the inheritors of the world's most popular series of electric wire rope hoists T. By keeping the basic technical features and thanks to the use of a new body construction, contemporary steel ropes, hooks, etc., we offer our customers a series of electric hoists with much extended opportunities like lifting capacity, lift speed and conveying speed. All this expands new opportunities for a more efficient operation of our products.

BT- electric explosion-proof wire rope hoists

Based on the basic construction decisions of electric wire rope hoists series T and keeping its technical features, series BT electric explosion-proof wire rope hoists is intended to operate in an explosion hazardous environment.

The electrical equipment included in these goods, such as: electric motors, electric appliances panel, control panel, overtravel limit switches, etc., is manufactured in the so called "explosion-proof" execution, and it is marked by: (Ex) d IIB T5 and (Ex) d IIC T5.

BMT- electric explosion-proof wire rope hoists

The electric wire rope hoists BMT series are based on the basic technical solutions being used in BT and MT series. Based on the higher technical parameters of MT series and the already proven technical decisions of BT series regarding explosion proof, we have created an electric explosion-proof wire rope hoist having much better operational features, such as lifting capacity, lift speed and conveying speed. The electrical equipment is identical to BT series, which presupposes the identical explosion-proof execution and marking: (Ex) d IIB T5 and (Ex) d IIC T5.

Induction electro-motors

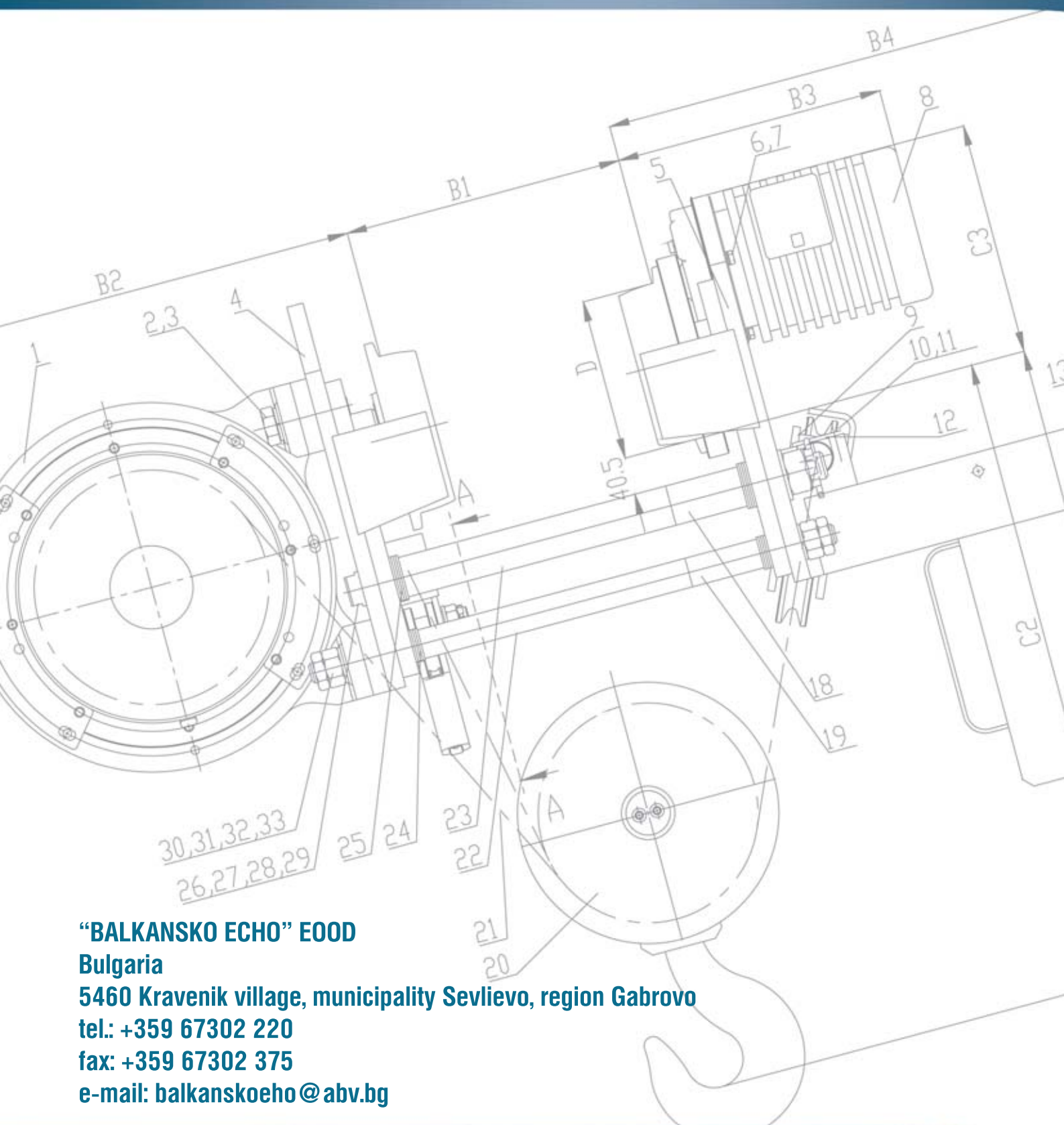
1. With built-in brakes, for the main lift of electric chain and wire rope hoists and other running gears - from 0.75 kW up to 30 kW. Explosion-proof execution as an option.
2. With built-in brakes, for running gears of electric chain and wire rope hoists and other lifting parts - from 0.12 kW up to 3 kW. Explosion-proof execution as an option.
3. General purpose electric motors, executions of IM B3, IM B5, IM b35, IM B14, etc., with or without a built-in brake from 0.55 kW up to 37 kW.

Weight-lifting cranes

1. Single-girder underslung traveling cranes - lifting capacity from 1 to 16 t and a span from 3 to 25 m.
 2. Single-girder stationary traveling cranes - lifting capacity from 1 to 16 t and a span from 4.5 to 25.5 m.
 3. Double-girder stationary traveling cranes - lifting capacity from 5 to 100 t and a span from 10.5 to 50 m.
 4. Bracket stationary and wall-mounted cranes - lifting capacity from 1 to 10 t and an outrigger spread from 3 to 10 m.
- Ground and cabin control. Explosion-proof execution as an option.

Crane components

1. Reduction gears and motor-reducer gear groups- intended for leading the motion parts of girder cranes and other weight-lifting appliances. These are available in a great variety of output revolutions and torques. They are lead by electro motors with built-in cone brakes. Explosion-proof execution as an option.
2. Front girders for stationary traveling cranes- diameters of traveling wheels from 160 to 400 mm, load of the traveling wheel from 4000 to 19 500 kg, conveying speeds from 8 to 32 m/min. Explosion-proof execution as an option.
3. Cable trolleys - intended for carrying supply and operation cables of traveling cranes. Available in executions for traveling onto profile or straight steel rope.



“BALKANSKO ECHO” EOOD

Bulgaria

5460 Kravenik village, municipality Sevlievo, region Gabrovo

tel.: +359 67302 220

fax: +359 67302 375

e-mail: balkanskoecho@abv.bg

www.balkanskoecho.com