



CERTIFICATE



This is to certify that

10 Neofft Rilski street
5300 Gabrovo
Bulgaria

has implemented and maintains a **Quality Management System**.

Scope:
Production and sales of electric hoists; cranes and crane components;
hand pallet trucks, platforms and stackers; textile machines;
machine building parts and products

Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

ISO 9001 : 2015

Certificate registration no. 509658 QM15
Valid from 2016-12-19
Valid until 2019-12-18
Date of certification 2016-12-19



DQS GmbH

Frank Graichen
Frank Graichen
Managing Director

Accredited Body: DQS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main, Germany
Administrative Office: DQS Holding GmbH, Konrad-Adenauer-Allee 6-10, 61118 Bad Vilbel, Germany



THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet and
DQS GmbH Deutsche Gesellschaft zur Zertifizierung von Managementsystemen
hereby certify that the company

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Michael Drechsel
Michael Drechsel
President of IQNet

Frank Graichen
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Managing Director of DQS GmbH



IQNet Partners**
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MANUFACTURE:

Electric wire rope hoists type MTY

Load capacity from **1000** up to **100000kg**,

Lifting height from **6,3** up to **25m**

Electric wire rope hoist type MTY represents an improved construction with high technical parameters. They are designed for lifting and transferring of goods by monorail profiles. They include a wide range of varieties according to:

Constructive solutions—stationary (fixed) or with monorail trolley;

According to the building height—for normal or low headroom;

Control system—through a relay-contactor system, radio control or frequency controllers.

Upon customer request the following solutions can be provide:

- with timer for counting the working hours;
- with supplying voltage different from **400V (380V)** and frequency **60Hz**;
- with latch key;

Safety control voltage—**24V, 42V or 48V**

Operating conditions:

- Min. operating temperature range: **-25°C (-40°C)**;
- Max. operating temperature range: **+40°C**;
- Humidity: **85% at a temperature +25 °C**;
- Indoor use at normal fire hazard;
- Altitude above sea level up to **1000m**;
- For normal environment;
- Three-phase AC power supply: **400V (380V)** and frequency: **50Hz**;
- Protection degree: electric panel-**IP54**; electric motor-**IP55**; control panel-**IP56**.

ELECTRIC WIRE ROPE HOISTS DESIGNATION



MTY X X X X-X X X

- Travel speed, m/min
- Without travel trolley
- N monorail trolley—normal headroom
- H monorail trolley—low headroom
- K with crane trolley (double-rail)
- Reeving
- Lifting speed, m/min
- Lifting height, m
- Rope pull effort, kN
- Size of the electric hoist according to drum diameter

Sample designation

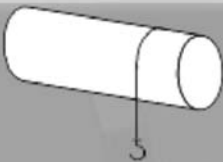
MTY516H12,5V8/2-2x1N20/6

- MTY electric wire rope hoist type
- 5 electric wire rope hoist size 5
- 16 rope pull effort 16 kN
- H12,5 lifting height 12,5 m
- V8/2 travel speed: 8 m/min—fast; 2 m/min—slow
- 2x1 reeving 2x1
- N monorail trolley for normal headroom
- 20/6 travel speed: 20 m/min—fast; 6 m/min—slow

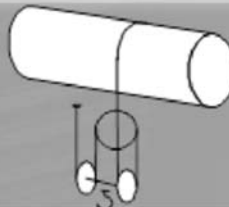


CLASSIFICATION OF THE WIRE ROPE HOIST ACORDING TO THE OPERATING DUTY

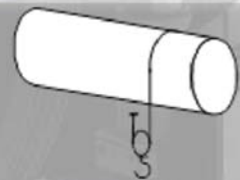
State of loading				Average operating time per 24h period, calculated in hours T_m			
1.Light-operation with loads smaller than the rated				2÷4	4÷8	8÷16	≥16
2.Average-operation with average and rated loads				1÷2	2÷4	4÷8	8÷16
3.Heavy-Frequent operation with rated and close to rated load				0,5÷1	1÷2	2÷4	4÷8
4.Very heavy-continuous operation with rated and close to the rated loads				0,25÷0.5	0,5÷1	1÷2	2÷4
Duration of switching DS, %				30	40	50	60
Switching's rate SR/h				180	240	300	360
Group according to			FEM 9.511/DIN 15020	1Am	2m	3m	4m
			ISO 4301/1	M4	M5	M6	M7
			ГОСТ 25835	2M	3M	4M	5M
Load capacity, kg according to the reeving:				Realization			
1/1	2/1	4/1	Size				
320	630	–					MTY303
400	800	–				MTY304	
500	1000	–	3		MTY305		
630	1250	–					MTY406
800	1600	–				MTY408	
1000	2000	–	4		MTY410		MTY510
1250	2500	–				MTY512	
1600	3200	–	5		MTY516		MTY616
2000	4000	–				MTY620	
2500	5000	–	6		MTY625		



REEVING 1/1



REEVING 2/1



REEVING 4/1

Average operating time in hours, T_m can be determined by the following formula:

$$T_m = \frac{2 \cdot H \cdot N \cdot T}{60 \cdot V} = \frac{2 \cdot 3 \cdot 30 \cdot 8}{60 \cdot 8} = 3h$$

H-lifting height;
N-number of cycles per hour;
T-total operating hours per day;
V-lifting speed;

ROPE DIAMETER ϕ			
Size 3	Size 4	Size 5	Size 6
$\phi 7$	$\phi 10$	$\phi 12$	$\phi 15$

SELECTION CRITERIA



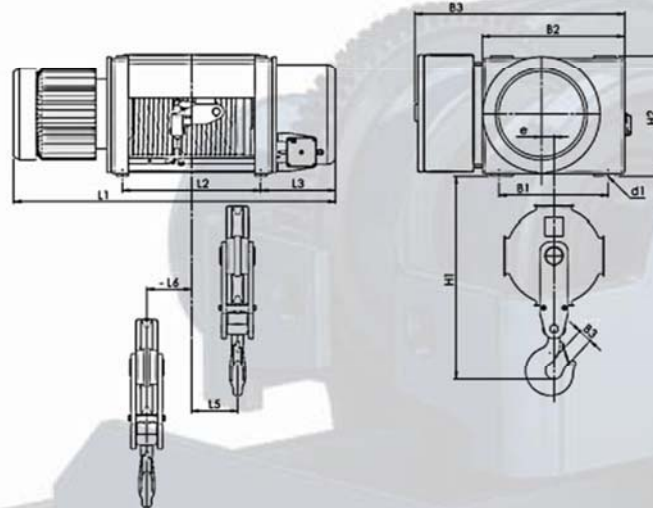
- maximal load
- lifting height
- lifting speed—with basic speed, with basic and reduced speed
- operating duty
- travel speed
- reeving

STANDARD TECHNICAL PARAMETERS

SIZE	REEVING 2/1				
	LOAD CAPACITY (kg)	REALIZATION	DIN 15020 FEM 9.511	LIFTING HEIGHT (m)	LIFTING SPEED (mm)
3	630	MTY303	4m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
	800	MTY304	3m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
	1000	MTY305	2m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
4	1250	MTY406	4m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
	1600	MTY408	3m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
	2000	MTY410	2m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
5	2000	MTY510	4m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
	2500	MTY512	3m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
	3200	MTY516	2m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
6	3200	MTY616	4m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
	4000	MTY620	3m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
	5000	MTY625	2m	6,3;9;12,5;18;25	8; 2/8; 12; 2/12
SIZE	REEVING 4/1				
	LOAD CAPACITY (kg)	REALIZATION	DIN 15020 FEM 9.511	LIFTING HEIGHT (m)	LIFTING SPEED (mm)
6	6300	MTY616	4m	6,3;9;12,5	4; 1/4; 6; 1/6
	8000	MTY620	3m	6,3;9;12,5	4; 1/4; 6; 1/6
	10000	MTY625	2m	6,3;9;12,5	4; 1/4; 6; 1/6

STATIONARY ELECTRIC WIRE ROPE HOIST TYPE MTY

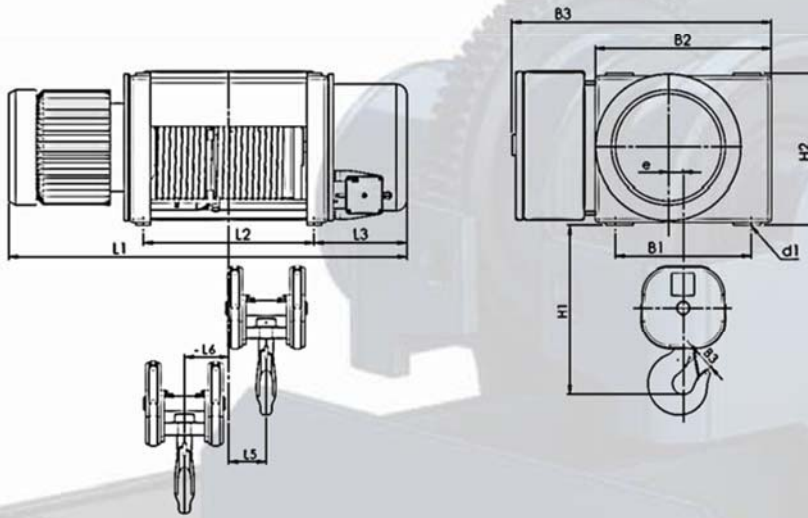
REEVING 2/1



Size	Lifting height H (m)	Load capacity (kg)	Dimensions (mm)														
			Lifting speed (m/min)				L2	L3	L5	L6	H1	H2	B1	B2	B3	e	d1
			8	12	2/8	2/12											
			L1														
3	6,3	1000	702	702	740	740	213	199	46	37	436	276	240	312	552	30	15
	9		778	778	816	816			84	37							
	12,5		878	878	916	916			134	37							
	18		1034	1034	1072	1072			212	37							
	25		1232	1232	1270	1270			311	37							
4	6,3	2000	825	825	889	889	247	239	64	35	620	370	325	430	690	41,5	17
	9		906	906	970	970			104	35							
	12,5		1011	1011	1075	1075			93	99							
	18		1295	1295	1346	1346			239	35							
	25		1504	1504	1555	1555			343	35							
5	6,3	3200	878	908	945	945	290	239	84	35	670	370	325	430	690	42	17
	9		977	1007	1044	1044			134	35							
	12,5		1105	1135	1172	1172			79	154							
	18		1427	1464	1495	1495			299	35							
	25		1684	1721	1752	1752			427	35							
6	6,3	5000	927	962	1017	1017	268	268	61,5	44,5	760	434	390	508	768	45	21
	9		1025	1060	1115	1115			110,5	44,5							
	12,5		1150	1185	1240	1240			84,5	133,5							
	18		1345	1380	1435	1435			272,5	44,5							
	25		1600	1635	1690	1690			399	44,5							

STATIONARY ELECTRIC WIRE ROPE HOIST TYPE MTY

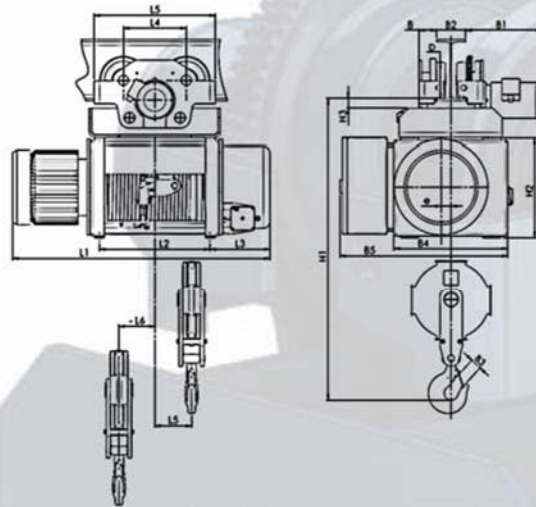
REEVING 4/1



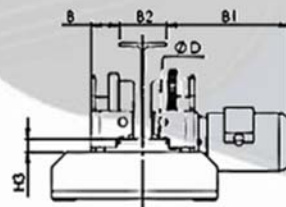
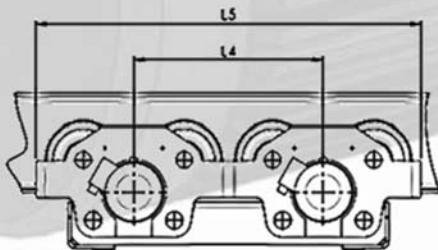
Size	Lifting height H (m)	Load capacity (kg)	Dimensions (mm)														
			Lifting speed (m/min)				L2	L3	L5	L6	H1	H2	B1	B2	B3	e	d1
			4	6	1/4	1/6											
6	6,3	1000	1150	1185	1240	1240	213	268	39	58	690	434	390	508	768	20	21
	9		1345	1380	1435	1435	690		123	20							
	12,5		1600	1635	1690	1690	943		250	+42							

Size	Lifting motors (m/min)							
	8	4	12	6	8/2	4/1	12/2	6/1
3	2p=6, P=1,5kW n=910rpm		2p=4, P=2,3kW n=1300rpm		2p=24/6, P=0,33/1,5kW n=200/930rpm		2p=24/4, P=0,33/2,2kW n=200/1400rpm	
4	2p=6, P=3,0kW n=930rpm		2p=4, P=4,5kW n=1400rpm		2p=24/6, P=0,75/3,0kW n=210/930rpm		2p=24/4, P=0,75/4,5kW n=200/1400rpm	
5	2p=6, P=4,5kW n=920rpm		2p=4, P=7,5kW n=1380rpm		2p=24/6, P=1/4,8kW n=200/940rpm		2p=24/4, P=1/7,5kW n=200/1400rpm	
6	2p=6, P=4,5kW n=920rpm		2p=4, P=12,0kW n=1430rpm		2p=24/6, P=1,7/8,0kW n=200/920rpm		2p=24/4, P=1,7/12,5kW n=200/1430rpm	

ELECTRIC WIRE ROPE HOIST WITH MONORAIL TROLLEY TYPE MTY REEVING 2/1

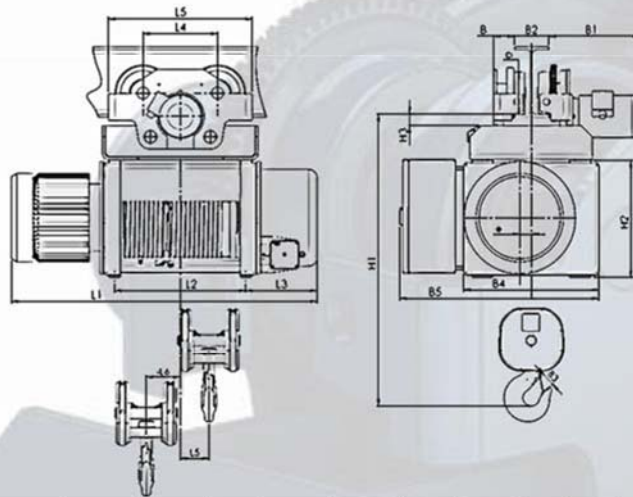


Size	Lifting height H (m)	Load capacity (kg)	Dimensions (mm)																						
			Lifting speed (m/min)				L2	L3	L4	LS*	L5	L6	H1	H2	H3*	B	B1	B2	B3	B4	B5	D	e		
			8	12	2/8	2/12																			
			L1																						
3	6,3	1000	702	702	740	740	213	199	215	410	46	37	820	276	24	72	280	90...300	34	312	552	100	30		
	9		778	778	816	816	289				84	37													
	12,5		878	878	916	916	385				134	37													
	18*		1034	1034	1072	1072	545				215	820												212	37
	25*		1232	1232	1270	1270	743				235	840												311	37
4	6,3	2000	825	825	889	889	247	239	240	450	64	35	1045	370	35	90	340	130...300	40	430	690	125			
	9		906	906	970	970	328				104	35										100			
	12,5		1011	1011	1075	1075	433				93	99													
	18		1175	1175	1239	1239	597				335	840										239	35		
	25		1384	1384	1448	1448	806				355	860										343	35		
5	6,3	3200	878	908	945	945	290	239	240	450	84	35	1100	370	37	90	340	130...300	45	430	690	125			
	9		977	1007	1044	1044	389				134	35													
	12,5		1105	1135	1172	1172	517				79	154													
	18		1307	1337	1374	1374	719				460	910										299	35		
	25		1564	1594	1631	1631	976				480	930										427	35		
6	6,3	5000	927	962	1017	1017	268	268	280	540	61,5	44,5	1310	434	45	98	356	130...300	50	508	768	768			
	9		1025	1060	1115	1115	366				110,5	44,5													
	12,5		1150	1185	1240	1240	492				84,5	133,5													
	18		1345	1380	1435	1435	690				470	920										272,5	44,5		
	25		1600	1635	1690	1690	943				490	940										399	44,5		



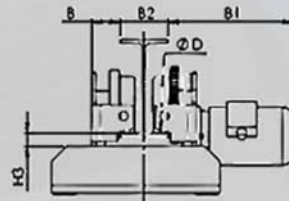
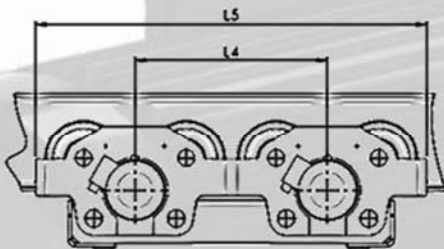
* Wire rope hoists with reeving 2/1, lifting height 18m and 25m, are done with two driving trolleys

ELECTRIC WIRE ROPE HOIST WITH MONORAIL TROLLEY TYPE MTY REEVING 4/1



Size	Lifting height H (m)	Lifting capacity (kg)	Dimensions (mm)																				
			Lifting speed (m/min)				L2	L3	L5	L6	H1	H2	H3	B	B1	B2	B3	B4	B5	D	e		
			4	6	4/1	6/1																	
6	6,3	10000	L1				268	39	58	1384	434	35	101	380	130...300	71	508	768	210	20			
	9*		1150	1185	1240	1240															492	123	20
	12,5		1345	1380	1435	1435															690	250	+42

* Wire rope hoists with reeving 4/1, lifting height 9m and 12,5 m are done with two driving trolleys



Size	Travel motors (kW)							
	Travel speed 20m/min				Travel speed 20m/min			
	2x1	4x1	2x1	4x1	2x1	4x1	2x1	4x1
3	P=0,12kW n=860rpm		2*xP=0,1 2kW n=860rpm		P=0,06/0,12kW n=450/950rpm		2*xP=0,06/0,12kW n=450/950rpm	
4	P=0,25kW n=940rpm		2*xP=0,2 5kW n=940rpm		P=0,12/0,25kW n=440/940rpm		2*xP=0,06/0,12kW n=450/950rpm	
5	P=0,25kW n=920rpm		2p=4, P=7,5kW n=1380rpm		P=0,12/0,25kW n=440/940rpm		2*xP=0,12/0,25kW n=440/940rpm	
6	P=0,37kW n=900rpm	P=0,12kW n=860rpm	2*xP=0,2 5kW n=940rpm	P=0,18/0,37kW n=440/90	P=0,18/0,37kW n=440/900rpm		2*xP=0,12/0,25kW n=440/940rpm	P=0,12kW n=860rpm

