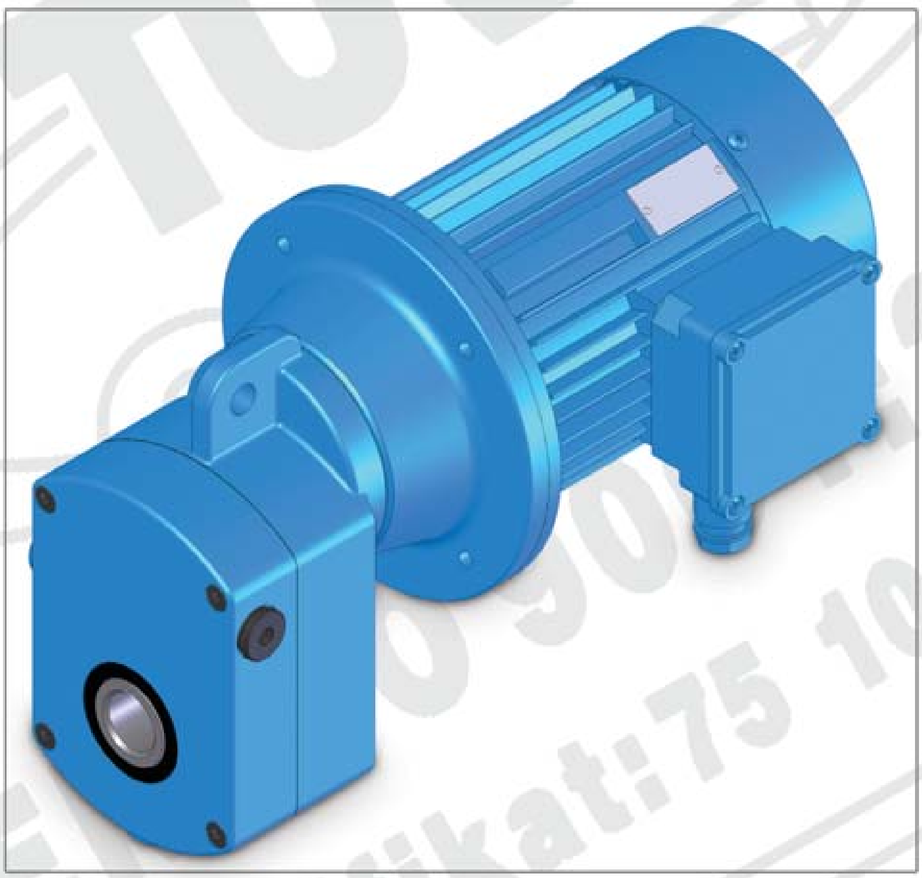
BALKANSKO ECHO

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



CATALOGUE
GEARED MOTORS

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GEARED MOTORS

BALKANSKO ECHO

CERTIFICATES

Certificate

Standard: **ISO 9001:2008**

Certificate Registr. No. 75 100 40487

TÜV Rheinland InterCert Kft. certifies:

Certificate Holder: **BALKANSKO EHO EOOD**
BG – 5460 village of Kravenik
Sevlievo municipality, Gabrovo region
Bulgaria
Including production sites according to annex

Scope: **Design, production and sales of material handling equipment – electric hoists, crane components, induction motors, bridge and cantilevers cranes and other unique material handling structures, also in explosion-proof modification.**

An audit was performed. Proof has been furnished that the requirements according to ISO 9001:2008 are fulfilled.

Validity: The certificate is valid from **2010.11.19** until **2013.11.07**
First certification: 2007

Sofia, 2010.11.19

Accredited certification body
TÜV Rheinland InterCert Kft.
H-1132 Budapest, Váci út 48/a-b

Certification branch office in Bulgaria
TÜV Rheinland Bulgaria EOOD
BG-1000 Sofia, 5A Triaditsa Str.

TGA-ZM-09-08-00

TÜVRheinland®
Precisely Right.

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 m^2, 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

GEARED MOTORS

The geared motors of TP1 Series are intended mainly to drive the running gears of hoisting machines.
In spite of the fact that they are designed to meet the specific requirements of these mechanisms, geared motors of TP1 Series can also be used as drive units in other equipment.

GEARED MOTORS

Technical data

Voltage: 380-400V (special executions - by request)
Frequency: 50 Hz (special executions - by request)
Mode of operation in accordance with БДС ЕН 60034:S3
Class of protection IP54 (EN 60529)

Operational conditions *

- climate- normal, tropical or marine
- normal or chemically aggressive environment
- temperature of the environment

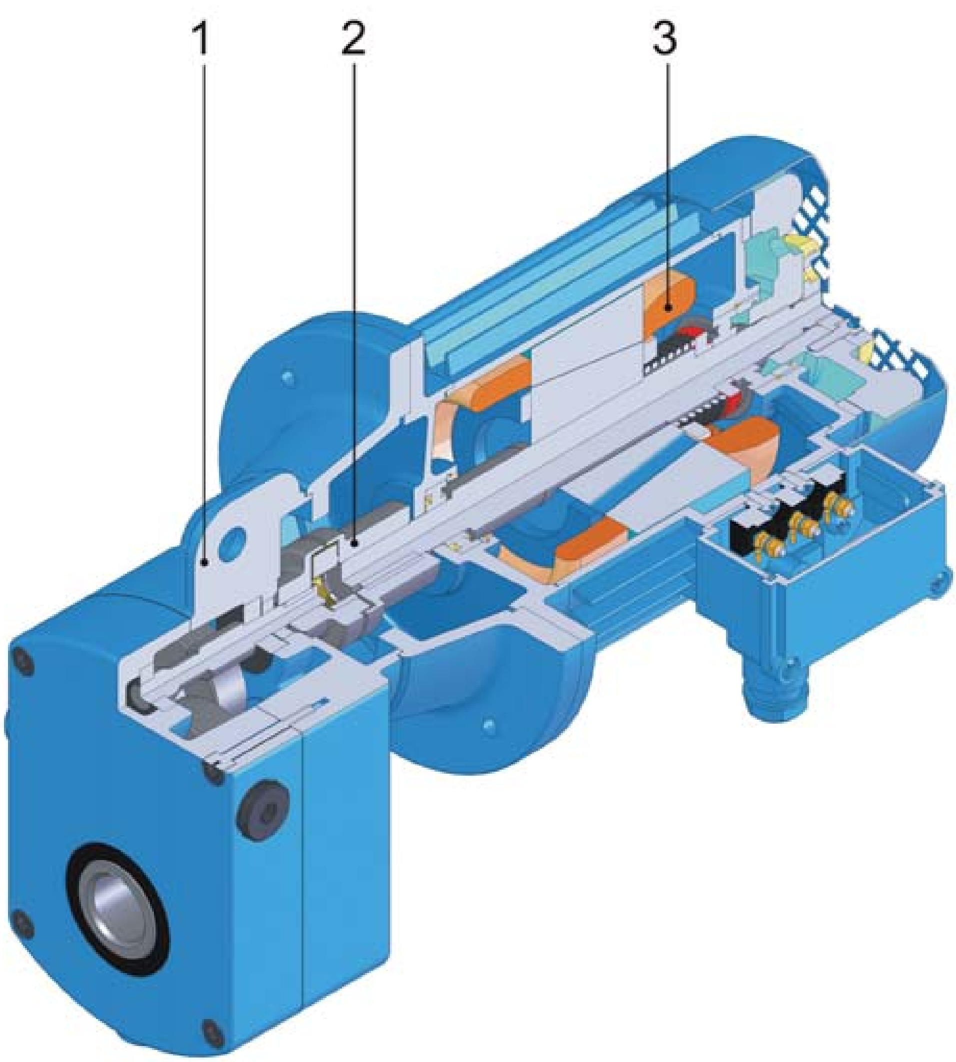
1) normal: from -25°C to +40°C
2) low: from -40°C to +40°C

- relative air humidity - 80% at 20°C

* special execution by a request

CONSTRUCTION

The geared motors are based on modular structure consisting of the following units:



1. REDUCTION GEAR

It is three-stage gear box with cylindrical involute helical gears. Using high-quality materials in producing reduction gears is a guarantee for their reliable operation.

2. ELASTIC CLUTCH

It is a pin-type clutch allowing the reliable transfer of the moment of motion from the motor shaft to the reduction gear shaft, with sufficiently good opportunity for axial and angular compensation.

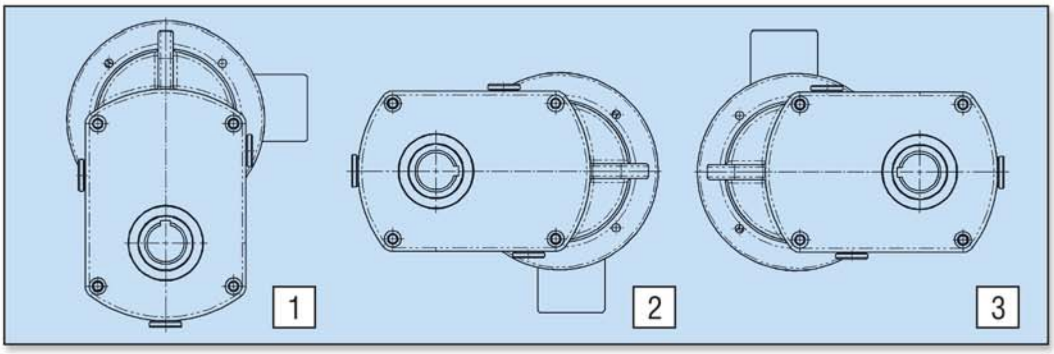
3. ELECTRIC MOTOR

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 main speed : micro speed - 3:1, as well as stepless ones by request.
All electric motors are equipped with a coil overheating protection.

METHOD OF INSTALLATION

Geared motors are produced in a way to be connected to the output shaft and can be mounted as shown.

1. Vertical
2. Horizontal (position 1)
3. Horizontal (position 2)



The selection of the geared motors from Table 2 to Table 5 is made according to the type of the load, operation duration and the number of switchings under fig. 1 and fig. 2, by being necessary to meet the condition:

Fs = K1.K2, where:

Fs – factor of operating conditions – (usability factor - Table 2 to Table 5);
K1 – factor considering the mode and duration of operation (Fig. 1);
K2 – factor considering the environment temperature (Fig. 2);

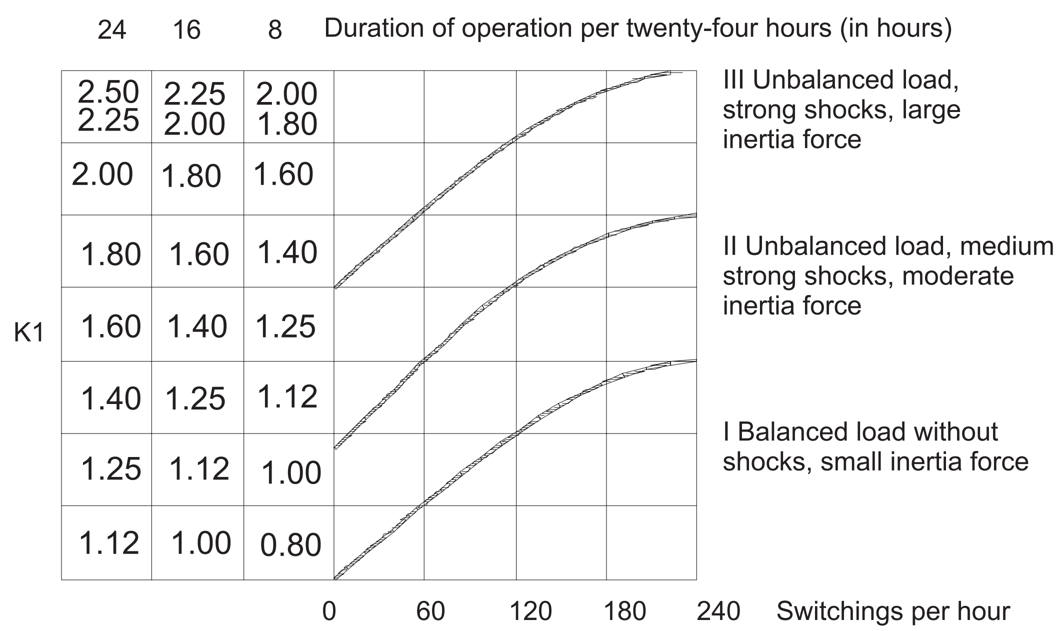


Fig. 1

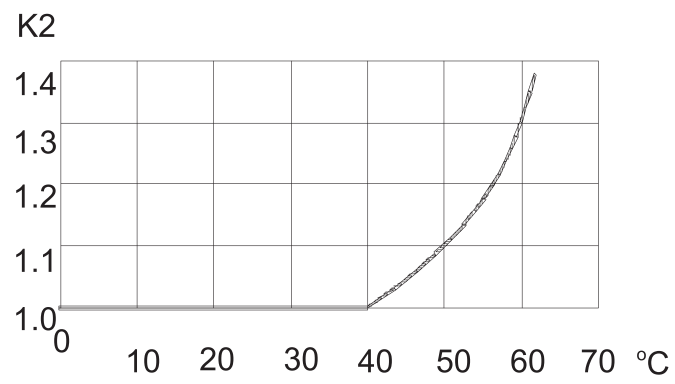


Fig. 2

NOTATION

TP1 . 250 . 88 ABE 80P12/4

- ABE 80P12/4 — Electric motor
- 88 — Transmission ratio
- 250 — Dimensions
- TP1 — Type

OVERALL AND MOUNTING DIMENSIONS

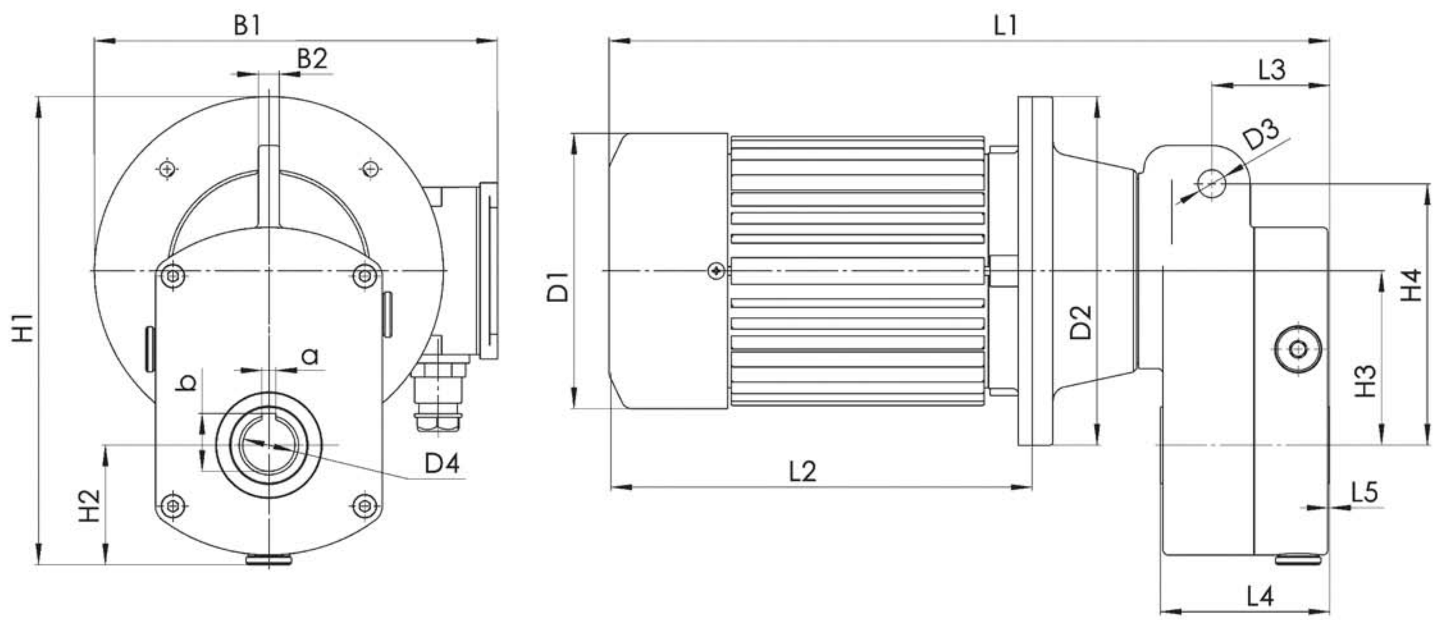


Table 1: Overall and mounting dimensions.

<table>
<tr><th>Type</th><th>L1</th><th>L2</th><th>L3</th><th>L4</th><th>L5</th><th>H1</th><th>H2</th><th>H3</th><th>H4</th><th>B1</th><th>B2</th><th>D1</th><th>D2</th><th>D3</th><th>D4</th><th>a</th><th>b</th></tr>
<tr><td>TP1.160.XX ABE71</td><td>407</td><td>255</td><td rowspan="5">67,5</td><td rowspan="5">97</td><td rowspan="5">1</td><td>248</td><td rowspan="5">68</td><td rowspan="5">100</td><td rowspan="5">150</td><td>195</td><td rowspan="5">12</td><td>150</td><td>160</td><td rowspan="5">16</td><td rowspan="5">30 H7</td><td rowspan="5">8</td><td rowspan="5">33,3</td></tr>
<tr><td>TP1.160.XX ABE80</td><td>417</td><td>262</td><td rowspan="4">268</td><td>220</td><td>160</td><td rowspan="4">200</td></tr>
<tr><td>TP1.160.XX ABE80P</td><td>427</td><td>272</td><td rowspan="3">230</td><td rowspan="3">180</td></tr>
<tr><td>TP1.160.XX ABE90</td><td>470</td><td>290</td></tr>
<tr><td>TP1.160.XX ABE90P</td><td>500</td><td>320</td></tr>
<tr><td>TP1.200.XX ABE71</td><td>437</td><td>255</td><td rowspan="7">74</td><td rowspan="7">106</td><td rowspan="7">1</td><td>282</td><td rowspan="7">77</td><td rowspan="7">125</td><td rowspan="7">178</td><td>200</td><td rowspan="7">14</td><td>150</td><td>160</td><td rowspan="7">16</td><td rowspan="7">35 H7</td><td rowspan="7">10</td><td rowspan="7">38,3</td></tr>
<tr><td>TP1.200.XX ABE80</td><td>446</td><td>262</td><td>302</td><td>220</td><td>160</td><td rowspan="2">200</td></tr>
<tr><td>TP1.200.XX ABE80P</td><td>456</td><td>272</td><td rowspan="5">327</td><td>230</td><td>180</td></tr>
<tr><td>TP1.200.XX ABE90</td><td>485</td><td>290</td><td rowspan="4">260</td><td rowspan="4">200</td><td rowspan="4">250</td></tr>
<tr><td>TP1.200.XX ABE90P</td><td>515</td><td>320</td></tr>
<tr><td>TP1.200.XX ABE100</td><td>544</td><td>356</td></tr>
<tr><td>TP1.200.XX ABE100P</td><td>574</td><td>386</td></tr>
<tr><td>TP1.250.XX ABE80P</td><td>470</td><td>272</td><td rowspan="5">78</td><td rowspan="5">118</td><td rowspan="5">2</td><td>338</td><td rowspan="5">93</td><td rowspan="5">145</td><td rowspan="5">207</td><td>220</td><td rowspan="5">14</td><td>160</td><td rowspan="2">200</td><td rowspan="5">18</td><td rowspan="5">40 H7</td><td rowspan="5">12</td><td rowspan="5">43,3</td></tr>
<tr><td>TP1.250.XX ABE90</td><td>495</td><td>290</td><td rowspan="4">363</td><td>230</td><td>180</td></tr>
<tr><td>TP1.250.XX ABE90P</td><td>525</td><td>320</td><td rowspan="3">261</td><td rowspan="3">200</td><td rowspan="3">250</td></tr>
<tr><td>TP1.250.XX ABE100</td><td>558</td><td>356</td></tr>
<tr><td>TP1.250.XX ABE100P</td><td>588</td><td>386</td></tr>
<tr><td>TP1.315.XX ABE90</td><td>525</td><td>290</td><td rowspan="4">99</td><td rowspan="4">144</td><td rowspan="4">2</td><td>386</td><td rowspan="4">106</td><td rowspan="4">174</td><td rowspan="4">244</td><td>230</td><td rowspan="4">16</td><td>180</td><td>200</td><td rowspan="4">22</td><td rowspan="4">50 H7</td><td rowspan="4">14</td><td rowspan="4">53,8</td></tr>
<tr><td>TP1.315.XX ABE90P</td><td>555</td><td>320</td><td rowspan="3">407</td><td rowspan="3">251</td><td rowspan="3">200</td><td rowspan="3">250</td></tr>
<tr><td>TP1.315.XX ABE100</td><td>591</td><td>356</td></tr>
<tr><td>TP1.315.XX ABE100P</td><td>621</td><td>386</td></tr>
</table>

NOMINAL DATA

TP1.160. Mmax - 170Nm

2p=12/4 - 455/1420min^{-1}; 2p=4 - 1420min^{-1}.

Table 2

Type	Power	Transmission ratio	Output revolutions	Output moment	Usability factor
	kW		min^{-1}	Nm	f_s
TP1.160.79 ABE71-4		79,08	17,07	186,36	0,91
TP1.160.70 ABE71-4		69,89	19,32	164,71	1,03
TP1.160.64 ABE71-4		63,72	21,19	150,17	1,13
TP1.160.58 ABE71-4		57,88	23,32	136,40	1,25
TP1.160.56 ABE71-4		56,31	23,97	132,70	1,28
TP1.160.49 ABE71-4		49,12	27,48	115,76	1,47
TP1.160.48 ABE71-4		48,69	27,73	114,75	1,48
TP1 160.47 ABE71-4		46,63	28,95	109,90	1,55
TP1.160.45 ABE71-4		44,87	30,09	105,74	1,61
TP1.160.43 ABE71-4		43,41	31,10	102,30	1,66
TP1.160.39 ABE71-4		39,23	34,41	92,45	1,84
TP1.160.36 ABE71-4	0,37	35,95	38,32	84,72	2,01
TP1.160.35 ABE71-4		35,57	37,95	83,83	2,03
TP1.160.33 ABE71-4		33,04	40,86	77,86	2,18
TP1.160.30 ABE71-4		30,25	44,63	71,29	2,38
TP1.160.29 ABE71-4		28,66	47,10	67,54	2,52
TP1.160.28 ABE71-4		27,87	48,44	65,68	2,59
TP1.160.27 ABE71-4		26,62	50,71	62,73	2,71
TP1.160.22 ABE71-4		22,09	61,11	52,06	3,27
TP1.160.21 ABE71-4		20,52	65,79	48,36	3,52
TP1.160.20 ABE71-4		20,19	66,86	47,58	3,57
TP1.160.16 ABE71-4		16,26	83,03	38,32	4,44
TP1.160.13 ABE71-4		12,54	107,66	29,55	5,75
TP1.160.79 ABE80-12/4		79,08	5,56/17,57	185,44/181	0,92
TP1.160.70 ABE80-12/4		69,89	6,29/19,88	163,9/160	1,04
TP1.160.64 ABE80-12/4		63,72	6,9/21,81	149,43/145,84	1,14
TP1.160.58 ABE80-12/4		57,88	7,6/24	135,73/132,48	1,25
TP1.160.56 ABE80-12/4		56,31	7,81/24,68	132,05/128,88	1,29
TP1.160.49 ABE80-12/4		49,12	8,95/28,29	115,19/112,43	1,48
TP1.160.48 ABE80-12/4	0,12/0,37	48,69	9,03/28,54	114,18/111,44	1,49
TP1.160.47 ABE80-12/4		46,63	9,43/29,81	109,35/106,73	1,55
TP1.160.45 ABE80-12/4		44,87	9,8/30,97	105,22/102,7	1,62
TP1.160.43 ABE80-12/4		43,41	10,13/32,12	101,8/99,36	1,67
TP1.160.39 ABE80-12/4		39,23	11,21/35,43	92/89,8	1,85
TP1.160.36 ABE80-12/4		35,95	12,24/38,66	84,31/82,28	2,02
TP1.160.35 ABE80-12/4		35,57	12,37/39,07	83,41/81,41	2,04

NOMINAL DATA

TP1.160. Mmax - 170Nm

Table 2 (continued)

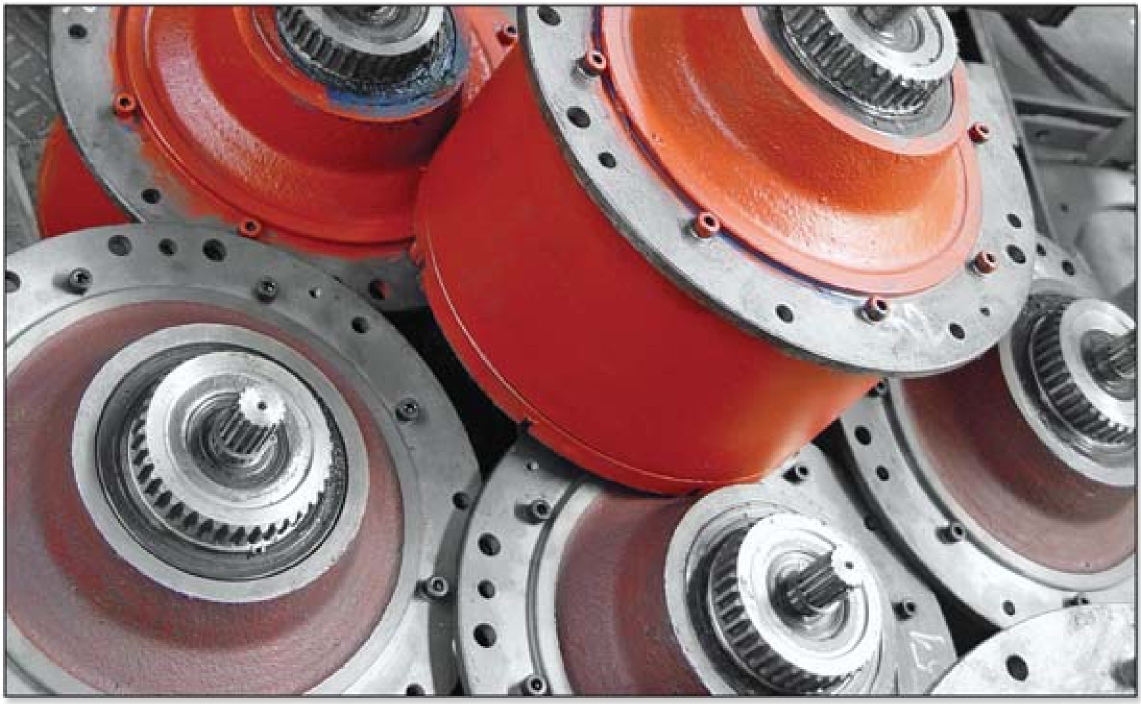
Type	Power	Transmission ratio	Output revolutions	Output moment	Usability factor
	kW		min^{-1}	Nm	f_s
TP1.160.33 ABE80-12/4	0,12/0,37	33,04	13,31/42,07	77,48/75,62	2,19
TP1.160.30 ABE80-12/4		30,25	14,54/45,95	70,94/69,24	2,40
TP1.160.29 ABE80-12/4		28,66	15,35/48,49	67,21/65,6	2,53
TP1.160.28 ABE80-12/4		27,87	15,78/49,87	65,36/63,79	2,60
TP1.160.27 ABE80-12/4		26,62	16,52/52,21	62,43/60,93	2,72
TP1.160.22 ABE80-12/4		22,09	19,91/62,92	51,80/50,56	3,28
TP1.160.21 ABE80-12/4		20,52	21,44/67,73	48,12/46,97	3,53
TP1.160.20 ABE80-12/4		20,19	21,79/68,84	47,34/46,21	3,59
TP1.160.16 ABE80-12/4		16,26	27,06/85,48	38,13/37,22	4,46
TP1.160.13 ABE80-12/4		12,54	35,08/110,84	29,4/28,7	5,78
TP1.160.43 ABE80-4	0,55	43,41	32,25	146,64	1,16
TP1.160.39 ABE80-4		39,23	35,68	132,52	1,28
TP1.160.36 ABE80-4		35,95	38,94	121,44	1,40
TP1.160.35 ABE80-4		35,57	39,36	120,16	1,41
TP1.160.33 ABE80-4		33,04	42,37	111,61	1,52
TP1.160.30 ABE80-4		30,25	46,28	102,18	1,66
TP1.160.29 ABE80-4		28,66	48,84	96,81	1,76
TP1.160.28 ABE80-4		27,87	50,23	94,14	1,81
TP1.160.27 ABE80-4		26,62	52,59	89,92	1,89
TP1.160.22 ABE80-4		22,09	63,37	74,62	2,28
TP1.160.21 ABE80-4		20,52	68,22	69,31	2,45
TP1.160.20 ABE80-4		20,19	69,34	68,20	2,49
TP1.160.16 ABE80-4		16,26	86,1	54,93	3,09
TP1.160.13 ABE80-4		12,54	111,6	42,36	4,01
TP1.160.43 ABE80P12/4	0,18/0,55	43,41	10,13/32,25	152,7/146,64	1,11
TP1.160.39 ABE80 P 12/4		39,23	11,22/35,69	138/132,52	1,23
TP1.160.36 ABE80 P 12/4		35,95	12,24/38,94	126,46/121,44	1,34
TP1.160.35 ABE80 P 12/4		35,57	12,37/39,36	125,12/120,16	1,36
TP1.160.33 ABE80 P 12/4		33,04	13,32/42,37	116,22/111,61	1,46
TP1.160.30 ABE80 P 12/4		30,25	14,55/46,28	106,41/102,18	1,60
TP1.160.29 ABE80 P 12/4		28,66	15,35/48,85	100,81/96,81	1,69
TP1.160.28 ABE80 P 12/4		27,87	15,79/50,23	98,03/94,15	1,73
TP1.160.27 ABE80 P 12/4		26,62	16,53/52,59	93,64/89,92	1,82
TP1.160.22 ABE80 P 12/4		22,09	19,92/63,38	77,70/74,62	2,19
TP1.160.21 ABE80 P 12/4		20,52	21,44/68,22	72,18/69,32	2,36
TP1.160.20 ABE80 P 12/4		20,19	21,79/69,34	71,02/68,20	2,39
TP1.160.16 ABE80 P 12/4		16,26	27,06/86,1	57,2/54,93	1,16
TP1.160.13 ABE80 P 12/4		12,54	35,09/111,64	44,11/42,36	1,28

NOMINAL DATA

TP1.160. Mmax - 170Nm

Table 2 (continued)

Type	Power	Transmission ratio	Output revolutions	Output moment	Usability factor
	kW		min^{-1}	Nm	f_s
TP1.160.27 ABE80P4	0,75	26,62	51,09	123,23	1,38
TP1.160.22 ABE80P4		22,09	61,57	104,75	1,62
TP1.160.21 ABE80P4		20,52	66,27	97,30	1,75
TP1.160.20 ABE80P4		20,19	67,36	95,74	1,78
TP1.160.16 ABE80P4		16,26	83,64	77,10	2,20
TP1.160.13 ABE80P4		12,54	108,45	59,46	2,86
TP1.160.27 ABE90-12/4	0,25/0,75	26,62	16,15/52,97	133,08/121,75	1,28
TP1.160.22 ABE90-12/4		22,09	19,46/63,83	110,43/101,03	1,54
TP1.160.21 ABE90-12/4		20,52	20,96/68,71	102,58/93,85	1,66
TP1.160.20 ABE90-12/4		20,19	21,30/69,84	100,93/92,34	1,68
TP1.160.16 ABE90-12/4		16,26	26,44/86,71	81,29/74,37	2,09
TP1.160.13 ABE90-12/4		12,54	34,29/112,44	62,69/57,35	2,71
TP1.160.20 ABE90-4	1,1	20,19	68,35	138,38	1,23
TP1.160.16 ABE90-4		16,26	84,87	111,44	1,53
TP1.160.13 ABE90-4		12,54	110,05	85,95	1,98
TP1.160.20 ABE90P12/4	0,37/1,1	20,19	20,80/69,83	152,94/135,44	1,11
TP1.160.16 ABE90P12/4		16,26	25,83/86,71	123,17/109,07	1,38
TP1.160.13 ABE90P12/4		12,54	33,49/112,44	94,99/84,12	1,79
TP1.160.13 ABE90P4	1,5	12,54	112,44	114,71	1,48



NOMINAL DATA

TP1.200. Mmax - 500Nm

2p=12/4 - 455/1420min^{-1}; 2p=4 - 1420min^{-1}.

Table 3

Type	Power	Transmission ratio	Output revolutions	Output moment	Usability factor
	kW		min^{-1}	Nm	f_s
TP1.200.84 ABE71-4	0,37	84,40	16	198,90	2,51
TP1.200.84 ABE80-4	0,55	84,40	16	295,66	1,69
TP1.200.70 ABE80-4		69,56	19,41	243,68	2,05
TP1.200.69 ABE80-4		69,51	19,42	243,50	2,05
TP1.200.57 ABE80-4		57,29	23,56	200,69	2,49
TP1.200.54 ABE80-4		53,74	25,12	188,26	2,66
TP1.200.50 ABE80-4		49,65	27,19	173,93	2,87
TP1.200.44 ABE80-4		44,29	30,48	155,15	3,22
TP1.200.43 ABE80-4		42,70	31,62	149,58	3,34
TP1.200.41 ABE80-4		40,92	32,99	143,35	3,49
TP1.200.40 ABE80-4		39,72	33,99	139,14	3,59
TP1.200.35 ABE80-4		35,19	38,36	123,28	4,06
TP1.200.33 ABE80-4		32,73	41,25	114,66	4,36
TP1.200.32 ABE80-4		32,27	41,83	113,05	4,42
TP1.200.27 ABE80-4		26,60	50,75	93,18	5,37
TP1.200.25 ABE80-4		24,82	54,39	86,95	5,75
TP1.200.22 ABE80-4		21,84	61,81	76,51	6,54
TP1.200.20 ABE80-4		20,46	65,98	71,67	6,98
TP1.200.18 ABE80-4		18	75	63,06	7,93
TP1.200.84 ABE80-12/4	0,12/0,37	84,40	5,21/16,47	197,92/193,18	2,53
TP1.200.84 ABE80P12/4	0,18/0,55	84,40	5,21/16,59	296,89/285,11	1,68
TP1.200.70 ABE80 P 12/4		69,56	6,33/20,13	244,68/234,98	2,04
TP1.200.69 ABE80 P 12/4		69,51	6,33/20,14	244,51/234,81	2,04
TP1.200.57 ABE80 P 12/4		57,29	7,68/24,44	201,52/193,53	2,48
TP1.200.54 ABE80 P 12/4		53,74	8,19/26,05	189,04/181,53	2,64
TP1.200.50 ABE80 P 12/4		49,65	8,86/28,20	174,65/167,72	2,86
TP1.200.44 ABE80 P 12/4		44,29	9,93/31,61	155,79/149,61	3,21
TP1.200.43 ABE80 P 12/4		42,70	10,30/32,79	150,20/144,24	3,33
TP1.200.41 ABE80 P 12/4		40,92	10,75/34,21	143,94/138,23	3,47
TP1.200.40 ABE80 P 12/4		39,72	11,08/35,25	139,72/134,18	3,58
TP1.200.35 ABE80 P 12/4		35,19	12,50/39,78	123,78/118,87	4,04
TP1.200.33 ABE80 P 12/4		32,73	13,44/42,77	115,13/110,56	4,34
TP1.200.32 ABE80 P 12/4		32,27	13,63/43,38	113,51/109,01	4,40
TP1.200.27 ABE80 P 12/4		26,60	16,54/52,63	93,57/89,86	5,34
TP1.200.25 ABE80 P 12/4		24,82	17,73/56,41	87,31/83,84	5,73
TP1.200.22 ABE80 P 12/4		21,84	20,15/64,10	76,82/73,78	6,51
TP1.200.20 ABE80 P 12/4		20,46	21,51/68,43	71,97/69,11	6,95
TP1.200.18 ABE80 P 12/4		18	24,44/77,78	63,32/60,80	7,90

NOMINAL DATA

TP1.200. Mmax - 500Nm

Table 3 (continued)

Type	Power	Transmission ratio	Output revolutions	Output moment	Usability factor
	kW		min^{-1}	Nm	f_s
TP1.200.57 ABE80P4	0,75	57,29	23,74	271,66	1,84
TP1.200.54 ABE80P4		53,74	25,31	254,83	1,96
TP1.200.50 ABE80P4		49,65	27,39	235,43	2,12
TP1.200.44 ABE80P4		44,29	30,71	210,02	2,38
TP1.200.43 ABE80P4		42,70	31,85	202,48	2,47
TP1.200.41 ABE80P4		40,92	33,24	194,04	2,58
TP1.200.40 ABE80P4		39,72	34,24	188,35	2,65
TP1.200.35 ABE80P4		35,19	38,65	166,87	3,00
TP1.200.33 ABE80P4		32,73	41,55	155,20	3,22
TP1.200.32 ABE80P4		32,27	42,14	153,02	3,27
TP1.200.27 ABE80P4		26,60	51,13	126,13	3,96
TP1.200.25 ABE80P4		24,82	54,79	117,69	4,25
TP1.200.22 ABE80P4		21,84	62,27	103,56	4,83
TP1.200.20 ABE80P4		20,46	66,47	97,02	5,15
TP1.200.18 ABE80P4		18	75,56	85,35	5,86
TP1.200.57 ABE90–12/4	0,25/0,75	57,29	7,51/24,61	286,40/262,03	1,75
TP1.200.54 ABE90–12/4		53,74	8,00/26,24	268,66/245,79	1,86
TP1.200.50 ABE90–12/4		49,65	8,66/28,40	248,21/227,09	2,01
TP1.200.44 ABE90–12/4		44,29	9,71/31,84	221,41/202,57	2,26
TP1.200.43 ABE90–12/4		42,70	10,07/33,02	213,47/195,30	2,34
TP1.200.41 ABE90–12/4		40,92	10,51/34,46	204,57/187,16	2,44
TP1.200.40 ABE90–12/4		39,72	10,83/35,50	198,57/181,67	2,52
TP1.200.35 ABE90–12/4		35,19	12,22/40,07	175,92/160,95	2,84
TP1.200.33 ABE90–12/4		32,73	13,14/43,08	163,62/149,70	3,06
TP1.200.32 ABE90–12/4		32,27	13,33/43,69	161,32/147,59	3,10
TP1.200.27 ABE90–12/4		26,60	16,17/53,01	132,98/121,66	3,76
TP1.200.25 ABE90–12/4		24,82	17,32/56,81	124,08/113,52	4,03
TP1.200.22 ABE90–12/4		21,84	19,69/64,56	109,18/99,89	4,58
TP1.200.20 ABE90–12/4		20,46	21,02/68,91	102,28/93,58	4,89
TP1.200.18 ABE90–12/4		18	23,89/78,33	89,99/82,33	5,56
TP1.200.35 ABE90-4	1,1	35,19	39,22	227,8	2,19
TP1.200.33 ABE90-4		32,73	42,16	211,9	2,36
TP1.200.32 ABE90-4		32,27	42,76	208,9	2,39
TP1.200.27 ABE90-4		26,60	51,88	182,32	2,74
TP1.200.25 ABE90-4		24,82	55,60	170,12	2,94
TP1.200.22 ABE90-4		21,84	63,19	149,69	3,34
TP1.200.20 ABE90-4		20,46	67,45	140,23	3,57
TP1.200.18 ABE90-4		18	76,67	123,37	4,05

NOMINAL DATA

TP1.200. Mmax - 500Nm

Table 3 (continued)

Type	Power	Transmission ratio	Output revolutions	Output moment	Usability factor
	kW		min^{-1}	Nm	f_s
TP1.200.35 ABE90P12/4	0,37/1,1	35,19	10,80/39,22	279,2/227,8	1,79
TP1.200.33 ABE90 **P** 12/4		32,73	11,61/42,16	258,8/211,9	1,93
TP1.200.32 ABE90 **P** 12/4		32,27	11,78/42,76	255,2/208,9	1,96
TP1.200.27 ABE90 **P** 12/4		26,60	15,79/53,01	201,49/178,44	2,48
TP1.200.25 ABE90 **P** 12/4		24,82	16,92/56,81	188,01/166,50	2,66
TP1.200.22 ABE90 **P** 12/4		21,84	19,23/64,56	165,44/146,51	3,02
TP1.200.20 ABE90 **P** 12/4		20,46	20,53/68,91	154,98/137,25	3,23
TP1.200.18 ABE90 **P** 12/4		18	23,33/78,33	136,35/120,75	3,67
TP1.200.27 ABE90 **P** 4	1,5	26,60	53,01	243,32	2,05
TP1.200.25 ABE90 **P** 4		24,82	56,81	227,04	2,20
TP1.200.22 ABE90 **P** 4		21,84	64,56	199,78	2,50
TP1.200.20 ABE90 **P** 4		20,46	68,91	187,16	2,67
TP1.200.18 ABE90 **P** 4		18	78,33	164,65	3,04
TP1.200.27 ABE100-12/4	0,5/1,5	26,60	15,79/53,01	272,29/243,32	1,84
TP1.200.25 ABE100-12/4		24,82	16,92/56,81	254,07/227,04	1,97
TP1.200.22 ABE100-12/4		21,84	19,23/64,56	223,56/199,78	2,24
TP1.200.20 ABE100-12/4		20,46	20,53/68,91	209,44/187,16	2,39
TP1.200.18 ABE100-12/4		18	23,33/78,33	184,26/164,65	2,71

NOMINAL DATA

TP1.250. Mmax - 800Nm

2p=12/4 - 455/1420min^{-1}; 2p=4 - 1420min^{-1}.

Table 4

Type	Power	Transmission ratio	Output revolutions	Output moment	Usability factor
	kW		min^{-1}	Nm	f_s
TP1.250.88 ABE80P4	0,75	87,52	15,539	415,01	1,93
TP1.250.72 ABE80P4		72,29	18,81	342,79	2,33
TP1.250.66 ABE80P4		65,82	20,66	312,11	2,56
TP1.250.60 ABE80P4		60,39	22,52	286,36	2,79
TP1.250.54 ABE80P4		54,36	25,02	257,77	3,10
TP1.250.51 ABE80P4		51,35	26,48	243,50	3,29
TP1.250.48 ABE80P4		47,54	28,61	225,43	3,55
TP1.250.46 ABE80P4		45,77	29,71	217,04	3,69
TP1.250.39 ABE80P4		38,67	35,17	183,37	4,36
TP1.250.36 ABE80P4		35,68	38,12	169,19	4,73
TP1.250.26 ABE80P4		26,32	51,67	124,81	6,41
TP1.250.20 ABE80P4		19,6	69,39	92,94	8,61
TP1.250.15 ABE80P4		14,86	91,52	70,46	11,35
TP1.250.88 ABE90-12/4	0,25/0,75	87,52	4,91/16,11	437,53/400,29	1,83
TP1.250.72 ABE90-12/4		72,29	5,95/19,5	361,39/330,63	2,21
TP1.250.66 ABE90-12/4		65,82	6,53/21,42	329,05/301,04	2,43
TP1.250.60 ABE90-12/4		60,39	7,12/23,35	301,90/276,21	2,65
TP1.250.54 ABE90-12/4		54,36	7,91/25,94	271,76/248,63	2,94
TP1.250.51 ABE90-12/4		51,35	8,37/27,46	256,71/234,86	3,12
TP1.250.48 ABE90-12/4		47,54	9,05/29,66	237,66/217,43	3,37
TP1.250.46 ABE90-12/4		45,77	9,39/30,81	228,81/209,34	3,50
TP1.250.39 ABE90-12/4		38,67	11,12/36,46	193,32/176,87	4,14
TP1.250.36 ABE90-12/4		35,68	12,05/39,52	178,37/163,19	4,49
TP1.250.26 ABE90-12/4		26,32	16,34/53,57	131,58/120,38	6,08
TP1.250.20 ABE90-12/4		19,6	21,94/71,94	97,98/89,64	8,16
TP1.250.15 ABE90-12/4		14,86	28,94/94,89	74,29/67,97	10,77
TP1.250.72 ABE90-4	1,1	72,29	19,09	495,47	1,61
TP1.250.66 ABE90-4		65,82	20,97	451,13	1,77
TP1.250.60 ABE90-4		60,39	22,85	413,91	1,93
TP1.250.54 ABE90-4		54,36	25,39	372,58	2,15
TP1.250.51 ABE90-4		51,35	26,87	351,95	2,27
TP1.250.48 ABE90-4		47,54	29,03	325,84	2,46
TP1.250.46 ABE90-4		45,77	30,15	313,71	2,55
TP1.250.39 ABE90-4		38,67	35,69	265,04	3,02
TP1.250.36 ABE90-4		35,68	38,68	244,55	3,27
TP1.250.26 ABE90-4		26,32	52,43	180,40	4,43
TP1.250.20 ABE90-4		19,6	70,41	134,34	5,96
TP1.250.15 ABE90-4		14,86	92,87	101,85	7,85

TP1.250. Mmax - 800Nm

Table 4 (continued)

Type	Power	Transmission ratio	Output revolutions	Output moment	Usability factor
	kW		min^{-1}	Nm	f_s
TP1.250.72 ABE90P12/4	0,37/1,1	72,29	5,81/19,50	547,59/484,93	1,46
TP1.250.66 ABE90P12/4		65,82	6,38/21,42	498,58/441,53	1,60
TP1.250.60 ABE90P12/4		60,39	6,95/23,35	457,45/405,10	1,75
TP1.250.54 ABE90P12/4		54,36	7,73/25,94	411,77/364,65	1,94
TP1.250.51 ABE90P12/4		51,35	8,18/27,46	388,97/344,46	2,06
TP1.250.48 ABE90P12/4		47,54	8,83/29,66	360,11/318,90	2,22
TP1.250.46 ABE90P12/4		45,77	9,18/30,81	346,71/307,03	2,31
TP1.250.39 ABE90P12/4		38,67	10,86/36,46	292,92/259,40	2,73
TP1.250.36 ABE90P12/4		35,68	11,77/39,52	270,27/239,35	2,96
TP1.250.26 ABE90P12/4		26,32	15,96/53,57	199,37/176,56	4,01
TP1.250.20 ABE90P12/4		19,6	21,43/71,94	148,47/131,48	5,39
TP1.250.15 ABE90P12/4		14,86	28,26/94,89	112,56/99,68	7,11
TP1.250.54 ABE90P4	1,5	54,36	25,93	497,26	1,61
TP1.250.52 ABE90P4		51,35	27,46	469,72	1,70
TP1.250.48 ABE90P4		47,54	29,66	434,87	1,84
TP1.250.46 ABE90P4		45,77	30,81	418,68	1,91
TP1.250.39 ABE90P4		38,67	36,46	353,73	2,26
TP1.250.36 ABE90P4		35,68	39,52	326,38	2,45
TP1.250.26 ABE90P4		26,32	53,57	240,76	3,32
TP1.250.20 ABE90P4		19,6	71,94	179,29	4,46
TP1.250.15 ABE90P4		14,86	94,89	135,93	5,89
TP1.250.54 ABE100-12/4	0,5/1,5	54,36	7,72/25,93	556,45/497,26	1,44
TP1.250.52 ABE100-12/4		51,35	8,18/27,46	525,64/469,72	1,52
TP1.250.48 ABE100-12/4		47,54	8,83/29,66	486,64/434,87	1,64
TP1.250.46 ABE100-12/4		45,77	9,18/30,81	468,52/418,68	1,71
TP1.250.39 ABE100-12/4		38,67	10,86/36,46	395,84/353,73	2,02
TP1.250.36 ABE100-12/4		35,68	11,77/39,52	365,24/326,38	2,19
TP1.250.26 ABE100-12/4		26,32	15,96/53,57	269,42/240,76	2,97
TP1.250.20 ABE100-12/4		19,6	21,43/71,94	200,63/179,29	3,99
TP1.250.15 ABE100-12/4		14,86	28,26/94,89	152,11/135,93	5,26
TP1.250.26 ABE100-4	2,2	26,32	52,43	360,79	2,22
TP1.250.20 ABE100-4		19,6	70,41	268,68	2,98
TP1.250.15 ABE100-4		14,86	92,87	203,70	3,93
TP1.250.26 ABE100P12/4	0,75/2,2	26,32	15,96/53,57	404,13/360,79	1,98
TP1.250.20 ABE100P12/4		19,6	21,43/71,94	300,95/268,68	2,66
TP1.250.15 ABE100P12/4		14,86	28,26/94,89	228,17/203,70	3,51
TP1.250.20 ABE100P4	3	19,6	70,41	366,38	2,18
TP1.250.15 ABE100P4		14,86	92,87	277,77	2,88

NOMINAL DATA

TP1.315. Mmax - 1200Nm

2p=12/4 - 455/1420min^{-1}; 2p=4 - 1420min^{-1}.

Table 5

Type	Power	Transmission ratio	Output revolutions	Output moment	Usability factor
	kW		min^{-1}	Nm	f_s
TP1.315.86 ABE90-4	1,1	86,03	16,04	589,65	2,04
TP1.315.78 ABE90-4		77,97	17,72	533,65	2,25
TP1.315.86 ABE90P12/4	0,37/1,1	86,03	4,88/16,39	651,67/577,10	1,84
TP1.315.78 ABE90P12/4		77,97	5,39/18,08	590,62/523,03	2,03
TP1.315.86 ABE90P4	1,5	86,03	16,39	786,95	1,52
TP1.315.78 ABE90P4		77,97	18,08	713,23	1,68
TP1.315.71 ABE90P4		70,56*	19,98	645,44	1,86
TP1.315.60 ABE90P4		59,83	23,57	547,29	2,19
TP1.315.59 ABE90P4		58,89*	23,95	538,60	2,23
TP1.315.54 ABE90P4		54,15	26,04	495,24	2,42
TP1.315.51 ABE90P4		51,10	27,59	467,43	2,57
TP1.315.46 ABE90P4		46,24	30,49	422,98	2,84
TP1.315.42 ABE90P4		41,56	33,93	380,17	3,16
TP1.315.35 ABE90P4		35,15	40,11	321,53	3,73
TP1.315.30 ABE90P4		30,19	46,70	276,16	4,35
TP1.315.27 ABE90P4		26,59	53,03	243,23	4,93
TP1.315.20 ABE90P4		19,81	71,18	181,21	6,62
TP1.315.86 ABE100-12/4	0,5/1,5	86,03	4,88/16,39	880,64/786,95	1,36
TP1.315.78 ABE100-12/4		77,97	5,39/18,08	798,13/713,23	1,50
TP1.315.71 ABE100-12/4		70,56*	5,95/19,98	722,28/645,44	1,66
TP1.315.60 ABE100-12/4		59,83	7,02/23,57	612,45/547,29	1,96
TP1.315.59 ABE100-12/4		58,89*	7,13/23,94	602,72/538,60	1,99
TP1.315.54 ABE100-12/4		54,15	7,76/26,04	554,20/495,24	2,17
TP1.315.51 ABE100-12/4		51,10	8,22/27,59	523,08/467,43	2,29
TP1.315.46 ABE100-12/4		46,24	9,08/30,49	473,33/422,98	2,54
TP1.315.42 ABE100-12/4		41,56	10,11/33,93	425,43/380,17	2,82
TP1.315.35 ABE100-12/4		35,15	11,95/40,11	359,81/321,53	3,34
TP1.315.30 ABE100-12/4		30,19	13,91/46,70	309,04/276,16	3,88
TP1.315.27 ABE100-12/4		26,59	15,80/53,03	272,19/243,23	4,41
TP1.315.20 ABE100-12/4		19,81	21,20/71,18	202,78/181,21	5,92

TP1.315. Mmax - 1200Nm

Table 5 (continued)

Type	Power	Transmission ratio	Output revolutions	Output moment	Usability factor
	kW		min^{-1}	Nm	f_s
TP1.315.78 ABE100-4	2,2	77,97	17,70	1068,81	1,12
TP1.315.71 ABE100-4		70,56	19,56	967,23	1,24
TP1.315.60 ABE100-4		59,83	23,07	820,14	1,46
TP1.315.59 ABE100-4		58,88	23,43	807,26	1,49
TP1.315.54 ABE100-4		54,14	25,48	742,28	1,62
TP1.315.51 ABE100-4		51,10	27,01	700,47	1,71
TP1.315.46 ABE100-4		46,24	29,84	633,85	1,89
TP1.315.42 ABE100-4		41,56	33,21	569,70	2,11
TP1.315.35 ABE100-4		35,15	39,26	481,83	2,49
TP1.315.30 ABE100-4		30,19	45,71	413,84	2,90
TP1.315.27 ABE100-4		26,59	51,90	364,49	3,29
TP1.315.20 ABE100-4		19,81	69,66	271,55	4,42
TP1.315.78 ABE100P12/4	0,75/2,2	77,97	5,39/18,08	1197,2/1046,07	1,00
TP1.315.71 ABE100P12/4		70,56	5,95/19,98	1083,42/946,65	1,11
TP1.315.60 ABE100P12/4		59,83	7,02/23,57	918,67/802,69	1,31
TP1.315.59 ABE100P12/4		58,88	7,13/23,95	904,23/789,95	1,33
TP1.315.54 ABE100P12/4		54,14	7,76/26,04	831,45/726,36	1,44
TP1.315.51 ABE100P12/4		51,10	8,22/27,59	784,62/685,57	1,53
TP1.315.46 ABE100P12/4		46,24	9,08/30,49	710,00/620,37	1,69
TP1.315.42 ABE100P12/4		41,56	10,11/33,93	638,14/557,58	1,88
TP1.315.35 ABE100P12/4		35,15	11,95/40,11	539,72/471,58	2,22
TP1.315.30 ABE100P12/4		30,19	13,91/46,70	463,56/405,04	2,59
TP1.315.27 ABE100P12/4		26,59	15,80/53,03	408,28/356,74	2,94
TP1.315.20 ABE100P12/4		19,81	21,20/71,18	304,18/265,78	3,95
TP1.315.46 ABE100P4	3,0	46,24	29,84	864,35	1,39
TP1.315.42 ABE100P4		41,56	33,21	776,86	1,54
TP1.315.35 ABE100P4		35,15*	39,26	657,05	1,83
TP1.315.30 ABE100P4		30,19	45,71	564,33	2,13
TP1.315.27 ABE100P4		26,59*	51,90	497,04	2,41
TP1.315.20 ABE100P4		19,81	69,66	370,30	3,24

WE ALSO MANUFACTURE

T- 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.

MT- electric wire rope hoists

The wire rope hoists of MT Series 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 electric 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.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.
2.Cable trolleys - intended for carrying supply and operation cables of traveling cranes. Available in executions for traveling onto profile or straight steel rope.

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