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TMW Series

Torque Motors



ENGINEERING YOUR SUCCESS.

ARA[®]
PNEUMATIK

ul. Wyścigowa 38, 53-012 Wrocław
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WARNING – USER RESPONSIBILITY

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- This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.
- The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.
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Parker Hannifin

The global leader in motion and control technologies

A world class player on a local stage

Global Product Design

Parker Hannifin has more than 40 years experience in the design and manufacturing of drives, controls, motors and mechanical products. With dedicated global product development teams, Parker draws on industry-leading technological leadership and experience from engineering teams in Europe, North America and Asia.

Local Application Expertise

Parker has local engineering resources committed to adapting and applying our current products and technologies to best fit our customers' needs.

Manufacturing to Meet Our Customers' Needs

Parker is committed to meeting the increasing service demands that our customers require to succeed in the global industrial market. Parker's manufacturing teams seek continuous improvement through the implementation of lean manufacturing methods throughout the process. We measure ourselves on meeting our customers' expectations of quality and delivery, not just our own. In order to meet these expectations, Parker operates and continues to invest in our manufacturing facilities in Europe, North America and Asia.

Electromechanical Worldwide Manufacturing Locations

Europe

Littlehampton, United Kingdom
 Dijon, France
 Offenburg, Germany
 Filderstadt, Germany
 Milan, Italy

Asia

Wuxi, China
 Chennai, India

North America

Rohnert Park, California
 Irwin, Pennsylvania
 Charlotte, North Carolina
 New Ulm, Minnesota



Offenburg, Germany

Local Manufacturing and Support in Europe

Parker provides sales assistance and local technical support through a network of dedicated sales teams and authorized technical distributors throughout Europe.

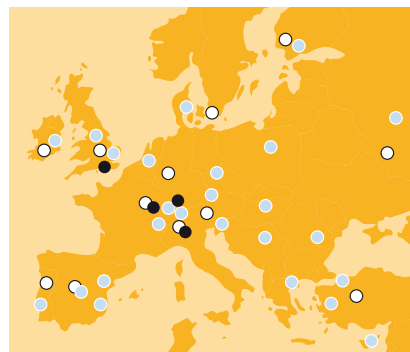
For contact information, please refer to the Sales Offices on the back cover of this document or visit www.parker.com



Milan, Italy



Littlehampton, UK



- Electromechanical Manufacturing
- Parker Sales Offices
- Distributors



Dijon, France

Torque Motors - TMW Series

Overview

Description

Parker Torque motor is an innovative direct drive solution designed for industrial applications requiring high torque at low speed without any additional mechanical transmission system. Their usage results in more compact, more efficient, quieter and virtually maintenance free drive systems.

Parker torque motors are permanent magnet brushless servo motors, with a high number of poles, able to deliver torques up to 22.000 Nm at speeds up to 500 min⁻¹.

Especially designed to replace direct current or induction motors and gearboxes, they offer specific features such as built-in thrust bearing or patent pending screw extraction mechanisms, making them particularly suitable for applications in segments such as plastics and rubber extrusion, injection molding, etc. Basic versions of TM Torque Motors can also be used in many other similar applications such as winders, crushers, mixers, and more generally in all application segments requiring framed torque motors operated in speed control.

Example of energy savings

Removal of the gearbox has an immediate impact on the overall installation's efficiency, resulting in energy savings.

Example

- 100 kW extruder
- 7200 h annual operating
- Energy cost: 0.10 €/kWh

Overall efficiency improvement due to the installation of a torque motor: 5 %

Annual savings 3600 €

Features

- High power compact design
- Water or natural cooling
- Overtemperature protection built in
- Wide range of feedback devices
- Integrated thrust bearing
- Customizable shaft ends
- IP54 protection
- IM B3 or IM B34 mounting



Technical Characteristics - Overview

Torque range	1200...22 100 Nm (water-cooling)
Shaft heights	200, 315, 400 mm
Rated Voltage	400 VAC and 480 VAC
Speed	<ul style="list-style-type: none"> • 50...500 min⁻¹ (size dependent) • Field weakening operation up to 1.2 x n_{rated} • Other speeds available on request
Cooling	<ul style="list-style-type: none"> • Water Jacket as standard • Natural ventilation with derating (consult us)
Mounting	IM B3 or IM B34
Protection degree	IP54
Thermal protection	<ul style="list-style-type: none"> • 1x KTY sensor and 2x PTC probes • Temperature alarm and default
Shaft end	<ul style="list-style-type: none"> • Solid or hollow shaft with key, keyway, spline profile • Customized interfaces available on request
Bearing	<ul style="list-style-type: none"> • Roller bearing • Ball bearing • Thrust bearing (SKF 294__E)
Feedback sensor	<ul style="list-style-type: none"> • EnDat Encoder (standard) • Direct EnDat Encoder with hollow shaft (option) • Resolver (option)

Technical Characteristics

Technical Data

400 VAC Power Supply¹⁾

Model	Pn [kW]	Nn [min ⁻¹]	Mn [Nm]	In [Arms]	Nmax [min ⁻¹]	Mmax [Nm]	Inertia [kgm ²]	Water flow rate [l/min]	Drive reference ²⁾
Motor Speed 50...75 min⁻¹									
TMW305LU	29	70	3940	68	80	5880	4.40	17	890SD-432730E
TMW306LV	38	75	4830	86	85	7200	4.55	20	890SD-432870E
TMW406LV	81	75	10300	169	90	15300	16.20	28	890SD-433180F
TMW408LW	90	60	14200	197	75	21000	19.40	37	890SD-433216G
TMW40ALW	95	50	18200	219	60	26800	25.10	47	890SD-433250G
TMW40CLW	116	50	22100	271	60	32500	25.90	56	890SD-433316G
TMW40CLS	161	70	22000	348	85	32500	25.90	56	890SD-433420H
Motor Speed 75...100 min⁻¹									
TMW304LR	32	100	3040	70	115	4550	3.45	14	890SD-432730E
TMW305LT	39	95	3930	84	115	5880	4.40	17	890SD-432870E
TMW308LU	59	85	6620	133	105	9870	6.50	27	890SD-433145F
TMW30ALU	71	80	8430	163	95	12500	6.80	34	890SD-433180F
TMW30ALS	88	100	8410	191	125	12500	6.80	34	890SD-433216G
TMW406LS	108	100	10300	216	125	15300	16.20	28	890SD-433250G
TMW408LS	126	85	14200	261	105	21000	19.40	38	890SD-433316G
TMW408LP	148	100	14100	306	120	21000	19.40	38	890SD-433361G
TMW40ALQ	151	80	18100	313	100	26800	25.10	47	890SD-433361G
TMW40CLK	207	90	21900	428	110	32500	25.90	57	890SD-433520H
Motor Speed 100...125 min⁻¹									
TMW204LU	15	120	1220	35	140	1810	0.75	9	890SD-532450D
TMW205LT	21	125	1570	47	155	2320	0.78	11	890SD-532590D
TMW208LU	30	110	2640	71	125	3910	1.03	18	890SD-432730E
TMW304LQ	40	125	3030	81	150	4550	3.45	14	890SD-432870E
TMW306LS	53	105	4810	115	130	7200	4.55	21	890SD-433105F
TMW306LR	63	125	4800	129	155	7200	4.55	21	890SD-433145F
TMW308LQ	79	115	6590	167	140	9870	6.50	28	890SD-433180F
TMW30ALQ	105	120	8380	216	150	12500	6.80	34	890SD-433250G
TMW406LP	134	125	10200	266	155	15300	16.20	29	890SD-433316G
TMW40ALM	198	105	18000	398	130	26800	25.10	47	890SD-433480H
TMW40ALK	225	120	17900	446	150	26800	25.10	48	890SD-433590J
TMW40CLI	274	120	21800	536	150	32500	25.90	57	AC890SD/4/0685K ³⁾

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory

400 VAC Power Supply¹⁾

Model	Pn [kW]	Nn [min ⁻¹]	Mn [Nm]	In [Arms]	Nmax [min ⁻¹]	Mmax [Nm]	Inertia [kgm ²]	Water flow rate [l/min]	Drive reference ²⁾
Motor Speed 125...150 min⁻¹									
TMW207LS	31	130	2280	70	160	3380	1.00	15	890SD-432730E
TMW208LT	39	140	2630	86	175	3910	1.03	18	890SD-432870E
TMW305LP	59	145	3900	118	180	5880	4.40	17	890SD-433105F
TMW308LN	100	145	6560	198	180	9870	6.50	28	890SD-433216G
TMW406LJ	160	150	10200	306	180	15300	16.20	29	890SD-433361G
TMW408LL	198	135	14000	388	165	21000	19.40	38	890SD-433480H
TMW40ALH	270	145	17800	526	180	26800	25.10	48	AC890SD/4/0685K ³⁾
TMW40CLG	318	140	21700	626	175	32500	25.90	57	AC890SD/4/0798K ³⁾
Motor Speed 150...175 min⁻¹									
TMW204LR	22	175	1210	47	215	1810	0.75	9	890SD-532590D
TMW206LR	33	165	1920	71	205	2850	0.81	13	890SD-432730E
TMW207LR	39	165	2270	85	205	3380	1.00	16	890SD-432870E
TMW305LN	67	165	3880	133	205	5880	4.40	17	890SD-433145F
TMW306LN	82	165	4760	161	205	7200	4.55	21	890SD-433180F
TMW308LM	116	170	6530	225	210	9870	6.50	28	890SD-433250G
TMW30ALN	135	155	8330	268	190	12500	6.80	35	890SD-433316G
TMW406LI	185	175	10100	353	215	15300	16.20	29	890SD-433420H
TMW408LJ	226	155	13900	434	190	21000	19.40	38	890SD-433520H
TMW40ALE	324	175	17700	626	205	26800	25.10	48	AC890SD/4/0798K ³⁾
Motor Speed 175...200 min⁻¹									
TMW206LQ	40	200	1910	83	250	2850	0.81	13	890SD-432870E
TMW208LQ	55	200	2620	114	250	3910	1.03	18	890SD-433105F
TMW304LM	58	185	3000	114	230	4550	3.45	14	890SD-433105F
TMW306LL	99	200	4730	191	240	7200	4.55	21	890SD-433216G
TMW308LK	136	200	6490	261	250	9870	6.50	28	890SD-433316G
TMW30ALL	156	180	8290	305	225	12500	6.80	35	890SD-433361G
TMW406LH	209	200	10000	391	250	15300	16.20	29	890SD-433480H ³⁾
TMW408LF	289	200	13800	538	250	21000	19.40	39	AC890SD/4/0590J ³⁾
Motor Speed 200...250 min⁻¹									
TMW205LQ	34	205	1560	70	255	2320	0.78	11	890SD-432730E
TMW207LN	59	250	2260	119	310	3380	1.00	16	890SD-433105F
TMW208LP	63	230	2620	128	280	3910	1.03	18	890SD-433145F
TMW304LL	67	215	2980	128	265	4550	3.45	14	890SD-433145F
TMW305LK	87	215	3840	165	265	5880	4.40	18	890SD-433180F
TMW306LI	118	240	4690	224	300	7200	4.55	21	890SD-433250G
TMW308LH	165	245	6420	311	305	9870	6.50	29	890SD-433361G
TMW30ALJ	185	215	8230	354	265	12500	6.80	35	890SD-433420H
TMW30ALH	210	245	8170	396	305	12500	6.80	36	890SD-433480H ³⁾
TMW406LG	239	230	9930	440	285	15300	16.20	30	890SD-433520H ³⁾

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory

400 VAC Power Supply¹⁾

Model	Pn [kW]	Nn [min ⁻¹]	Mn [Nm]	In [Arms]	Nmax [min ⁻¹]	Mmax [Nm]	Inertia [kgm ²]	Water flow rate [l/min]	Drive reference ²⁾
Motor Speed 250...300 min⁻¹									
TMW204LP	35	280	1200	70	350	1810	0.75	9	890SD-432730E
TMW205LP	42	260	1550	85	325	2320	0.78	11	890SD-432870E
TMW206LM	60	300	1900	116	375	2850	0.81	14	890SD-433105F
TMW207LM	68	290	2250	134	360	3380	1.00	16	890SD-433145F
TMW304LH	90	295	2920	167	350	4550	3.45	15	890SD-433180F
TMW305LH	105	265	3800	196	325	5880	4.40	18	890SD-433216G
TMW305LF	116	295	3770	217	365	5880	4.40	18	890SD-433250G
TMW308LG	183	275	6370	343	340	9870	6.50	29	890SD-433420H ³⁾
Motor Speed 300...350 min⁻¹									
TMW204LM	45	355	1200	85	440	1810	0.75	9	890SD-432870E
TMW206LL	69	350	1890	131	435	2850	0.81	14	890SD-433145F
TMW208LL	84	310	2600	163	385	3910	1.03	18	890SD-433180F
TMW306LG	147	305	4610	271	370	7200	4.55	22	890SD-433316G
TMW306LF	154	320	4590	283	385	7200	4.55	22	890SD-433420H ³⁾
Motor Speed 350...400 min⁻¹									
TMW205LL	60	370	1540	113	460	2320	0.78	11	890SD-433105F
TMW205LK	64	400	1530	128	500	2320	0.78	11	890SD-433145F
TMW206LJ	79	400	1880	151	500	2850	0.81	14	890SD-433180F
TMW207LJ	88	375	2240	167	465	3380	1.00	16	890SD-433180F
TMW207LI	93	400	2230	181	500	3380	1.00	16	890SD-433216G
TMW208LJ	102	375	2580	193	465	3910	1.03	18	890SD-433216G
TMW208LH	108	400	2580	213	500	3910	1.03	18	890SD-433250G
TMW304LE	109	365	2860	199	425	4550	3.45	15	890SD-433216G
TMW304LC	119	400	2830	220	475	4550	3.45	15	890SD-433250G ³⁾
TMW305LC	149	390	3660	271	450	5880	4.40	19	890SD-433316G ³⁾

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory

480 VAC Power Supply¹⁾

Model	Pn [kW]	Nn [min ⁻¹]	Mn [Nm]	In [Arms]	Nmax [min ⁻¹]	Mmax [Nm]	Inertia [kgm ²]	Water flow rate [l/min]	Drive reference ²⁾
Motor Speed 50...75 min⁻¹									
TMW408LW	112	75	14200	196	90	21 000	19.40	37	890SD-433216G
TMW40ALW	114	60	18100	219	70	26 800	25.10	47	890SD-433250G
TMW40CLW	150	65	22 000	271	75	32 500	25.90	56	890SD-433316G
Motor Speed 75...100 min⁻¹									
TMW305LU	35	85	3930	67	95	5880	4.40	17	890SD-432730E
TMW306LV	45	90	4820	86	100	7200	4.55	20	890SD-432870E
TMW30ALU	88	100	8410	162	120	12 500	6.80	34	890SD-433216G
TMW406LV	97	90	10300	169	105	15 300	16.20	28	890SD-433216G
TMW40ALQ	179	95	18000	312	115	26 800	25.10	47	890SD-433361G
TMW40CLS	195	85	22 000	347	100	32 500	25.90	56	890SD-433420H
Motor Speed 100...125 min⁻¹									
TMW304LR	40	125	3030	70	140	4550	3.45	14	890SD-432730E
TMW305LT	47	115	3920	84	135	5880	4.40	17	890SD-432870E
TMW308LU	76	110	6600	133	135	9870	6.50	27	890SD-433156F
TMW30ALS	110	125	8370	190	155	12 500	6.80	34	890SD-433216G
TMW406LS	129	120	10200	215	145	15 300	16.20	28	890SD-433250G
TMW408LS	155	105	14 100	260	125	21 000	19.40	38	890SD-433316G
TMW408LP	184	125	14 100	304	145	21 000	19.40	38	890SD-433361G
TMW40CLK	252	110	21 800	426	130	32 500	25.90	57	890SD-433520H
Motor Speed 125...150 min⁻¹									
TMW204LU	19	150	1210	35	170	1810	0.75	9	890SD-532450D
TMW208LU	37	135	2630	71	150	3910	1.03	18	890SD-432730E
TMW304LQ	47	150	3020	81	180	4550	3.45	14	890SD-432870E
TMW306LS	68	135	4790	114	165	7200	4.55	21	890SD-433145F
TMW308LQ	100	145	6560	167	175	9870	6.50	28	890SD-433216G
TMW30ALQ	127	145	8350	215	180	12 500	6.80	34	890SD-433250G
TMW40ALM	243	130	17 900	396	160	26 800	25.10	47	890SD-433480H
TMW40ALK	271	145	17 800	444	180	26 800	25.10	48	890SD-433590J
TMW40CLI	329	145	21 700	533	180	32 500	25.90	57	AC890SD/4/0685K ³⁾

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory

480 VAC Power Supply¹⁾

Model	Pn [kW]	Nn [min ⁻¹]	Mn [Nm]	In [Arms]	Nmax [min ⁻¹]	Mmax [Nm]	Inertia [kgm ²]	Water flow rate [l/min]	Drive reference ²⁾
Motor Speed 150...175 min⁻¹									
TMW205LT	25	155	1560	47	190	2320	0.78	11	890SD-532590D
TMW207LS	38	160	2270	70	195	3380	1.00	15	890SD-432730E
TMW208LT	48	175	2630	86	215	3910	1.03	18	890SD-432870E
TMW305LP	71	175	3880	117	215	5880	4.40	17	890SD-433145F
TMW306LR	77	155	4770	128	190	7200	4.55	21	890SD-433145F
TMW308LN	120	175	6520	197	215	9870	6.50	28	890SD-433216G
TMW406LP	165	155	10100	264	190	15300	16.20	29	890SD-433316G
TMW408LL	240	165	13900	385	200	21000	19.40	38	890SD-433480H
TMW40ALH	324	175	17700	522	215	26800	25.10	48	AC890SD/4/0685K ³⁾
TMW40CLG	394	175	21500	621	215	32500	25.90	57	AC890SD/4/0798K ³⁾
Motor Speed 175...200 min⁻¹									
TMW306LN	99	200	4730	160	245	7200	4.55	21	890SD-433216G
TMW30ALN	165	190	8270	267	230	12500	6.80	35	890SD-433316G
TMW406LJ	190	180	10100	304	215	15300	16.20	29	890SD-433361G
TMW408LJ	268	185	13800	431	225	21000	19.40	38	890SD-433520H
Motor Speed 200...225 min⁻¹									
TMW204LR	27	215	1210	47	260	1810	0.75	9	890SD-532590D
TMW206LR	41	205	1910	71	250	2850	0.81	13	890SD-432730E
TMW207LR	49	205	2270	84	250	3380	1.00	16	890SD-432870E
TMW304LM	70	225	2970	113	275	4550	3.45	14	890SD-433145F
TMW305LN	83	205	3850	132	250	5880	4.40	17	890SD-433156F
TMW308LM	139	205	6480	224	250	9870	6.50	28	890SD-433250G
TMW30ALL	189	220	8220	303	275	12500	6.80	35	890SD-433361G
TMW406LI	225	215	9970	349	260	15300	16.20	29	890SD-433420H
TMW40ALE	393	215	17500	619	250	26800	25.10	48	AC890SD/4/0798K ³⁾
Motor Speed 225...250 min⁻¹									
TMW206LQ	50	250	1900	83	310	2850	0.81	13	890SD-432870E
TMW208LQ	68	250	2610	114	310	3910	1.03	18	890SD-433145F
TMW306LL	120	245	4680	189	290	7200	4.55	21	890SD-433216G
TMW308LK	162	240	6430	259	300	9870	6.50	28	890SD-433316G
TMW406LH	249	240	9890	387	300	15300	16.20	29	890SD-433480H ³⁾
TMW408LF	342	240	13600	532	295	21000	19.40	39	AC890SD/4/0685K ³⁾

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory

480 VAC Power Supply¹⁾

Model	Pn [kW]	Nn [min ⁻¹]	Mn [Nm]	In [Arms]	Nmax [min ⁻¹]	Mmax [Nm]	Inertia [kgm ²]	Water flow rate [l/min]	Drive reference ²⁾
Motor Speed 250...300 min⁻¹									
TMW205LQ	42	255	1550	69	315	2320	0.78	11	890SD-432730E
TMW208LP	78	285	2600	127	345	3910	1.03	18	890SD-433145F
TMW304LL	80	260	2950	127	320	4550	3.45	14	890SD-433145F
TMW305LK	104	260	3800	164	320	5880	4.40	18	890SD-433216G
TMW306LI	143	295	4620	221	365	7200	4.55	21	890SD-433250G
TMW308LH	199	300	6330	307	370	9870	6.50	29	890SD-433361G
TMW30ALJ	222	260	8140	351	320	12500	6.80	35	890SD-433420H
TMW30ALH	253	300	8060	391	370	12500	6.80	36	890SD-433480H ³⁾
TMW406LG	281	275	9770	433	340	15300	16.20	30	890SD-433520H ³⁾
Motor Speed 300...350 min⁻¹									
TMW204LP	43	345	1200	69	430	1810	0.75	9	890SD-432730E
TMW205LP	52	320	1550	84	400	2320	0.78	11	890SD-432870E
TMW207LN	73	310	2250	118	380	3380	1.00	16	890SD-433145F
TMW305LH	125	320	3740	194	390	5880	4.40	18	890SD-433216G
TMW308LG	220	335	6270	338	410	9870	6.50	29	890SD-433420H ³⁾
Motor Speed 350...400 min⁻¹									
TMW206LM	72	365	1890	116	455	2850	0.81	14	890SD-433145F
TMW207LM	83	355	2240	134	440	3380	1.00	16	890SD-433156F
TMW208LL	102	375	2590	162	465	3910	1.03	18	890SD-433216G
TMW304LH	107	355	2870	164	420	4550	3.45	15	890SD-433216G
TMW305LF	139	360	3700	213	445	5880	4.40	18	890SD-433250G
TMW306LG	175	370	4520	266	445	7200	4.55	22	890SD-433316G
TMW306LF	181	385	4500	278	460	7200	4.55	22	890SD-433361G ³⁾
Motor Speed 400...450 min⁻¹									
TMW204LM	54	435	1190	85	535	1810	0.75	9	890SD-432870E
TMW205LL	72	450	1530	113	555	2320	0.78	11	890SD-433145F
TMW206LL	83	420	1880	131	520	2850	0.81	14	890SD-433156F
TMW207LJ	106	455	2220	166	560	3380	1.00	16	890SD-433216G
TMW208LJ	122	455	2570	192	560	3910	1.03	18	890SD-433216G
TMW304LE	129	440	2790	194	510	4550	3.45	15	890SD-433216G
Motor Speed 450...500 min⁻¹									
TMW205LK	81	511	1520	127	630	2320	0.78	11	890SD-433145F
TMW206LJ	97	495	1860	150	615	2850	0.81	14	890SD-433216G
TMW207LI	116	500	2210	180	625	3380	1.00	16	890SD-433216G
TMW208LH	136	510	2550	211	635	3910	1.03	18	890SD-433250G
TMW304LC	143	500	2720	213	590	4550	3.45	15	890SD-433250G ³⁾
TMW305LC	175	470	3550	264	540	5880	4.40	19	890SD-433316G ³⁾

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory

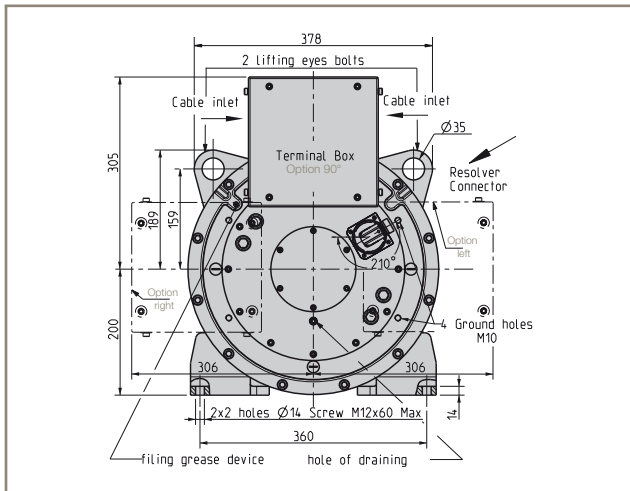
Dimensions

TMW20x-01

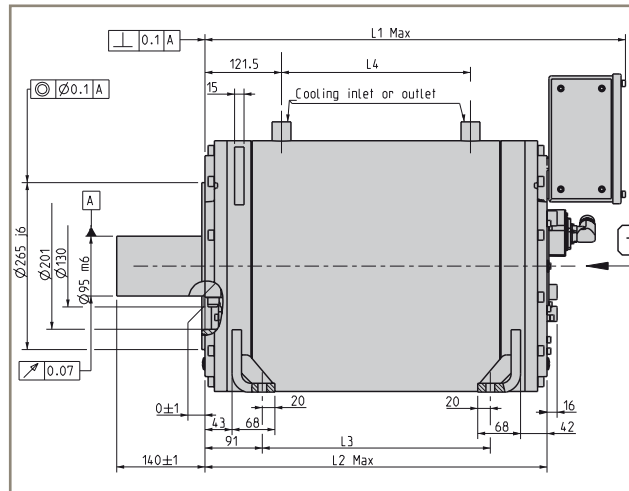
Dimensions [mm]

Shaft Height 200 mm / Roller Bearing

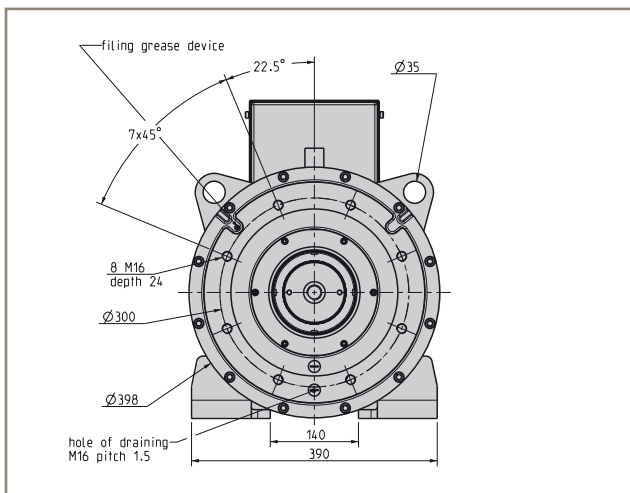
Rear view



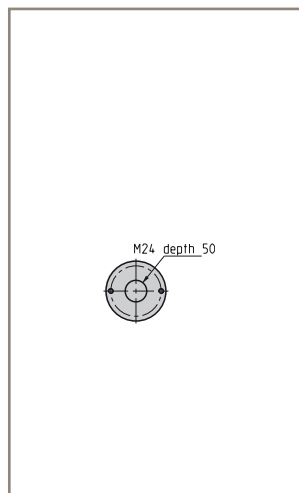
Side view



Front view



Shaft End



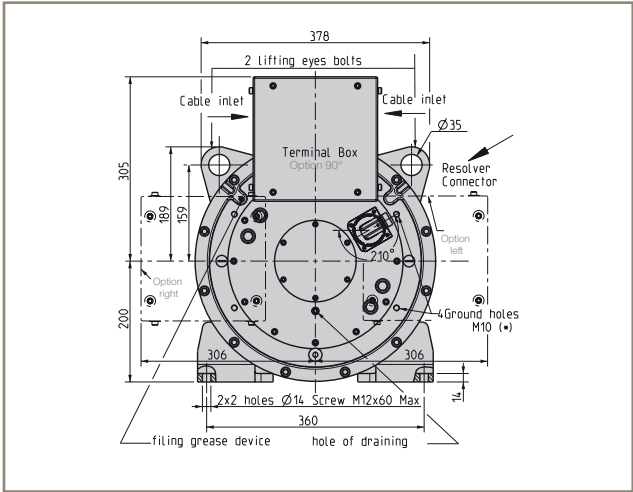
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW204	675	545	362	300	335
TMW205	675	545	362	300	350
TMW206	675	545	362	300	365
TMW207	775	645	462	400	405
TMW208	775	645	462	400	420

Dimensions [mm]

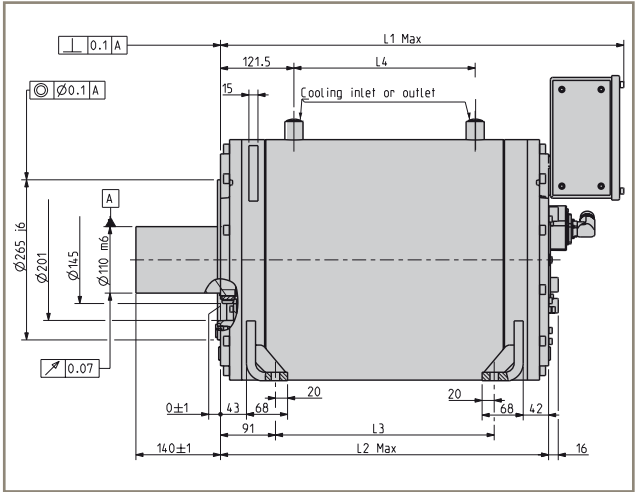
TMW20x-00

Shaft Height 200 mm / Ball Bearing

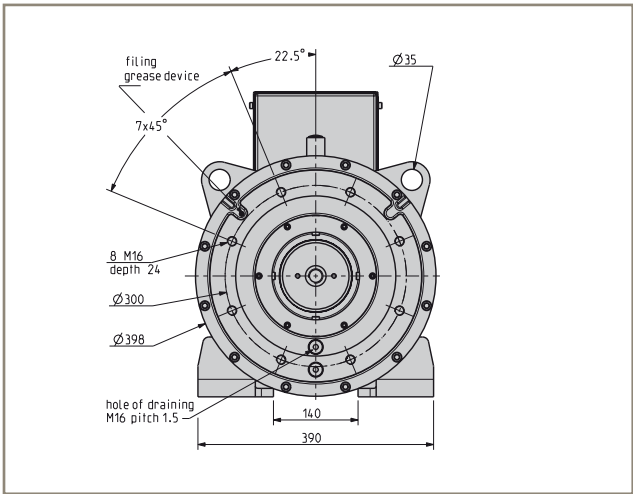
Rear view



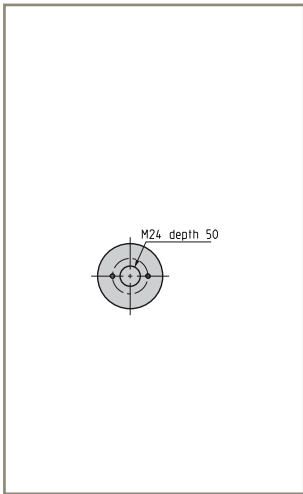
Side view



Front view



Shaft End



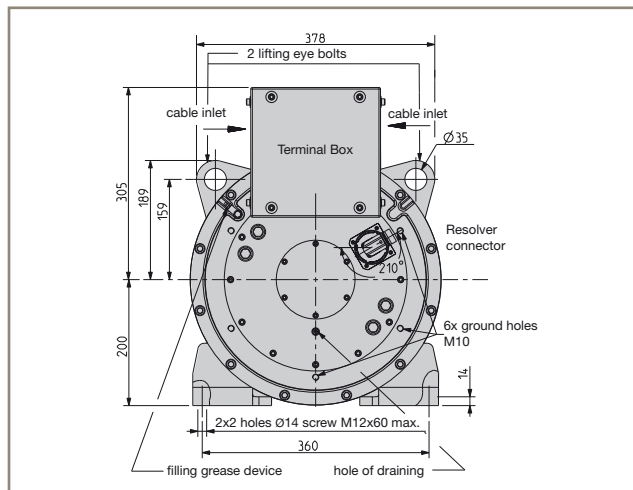
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW204	675	545	362	300	335
TMW205	675	545	362	300	350
TMW206	675	545	362	300	365
TMW207	775	645	462	400	405
TMW208	775	645	462	400	420

TMW20x-20

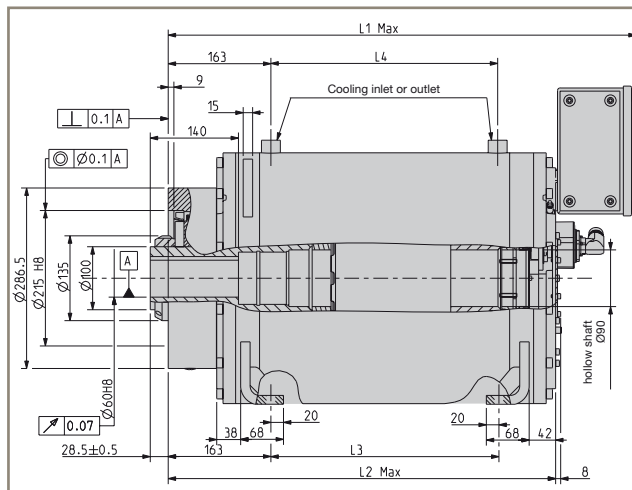
Dimensions [mm]

Shaft Height 200 mm / Thrust Bearing 29420

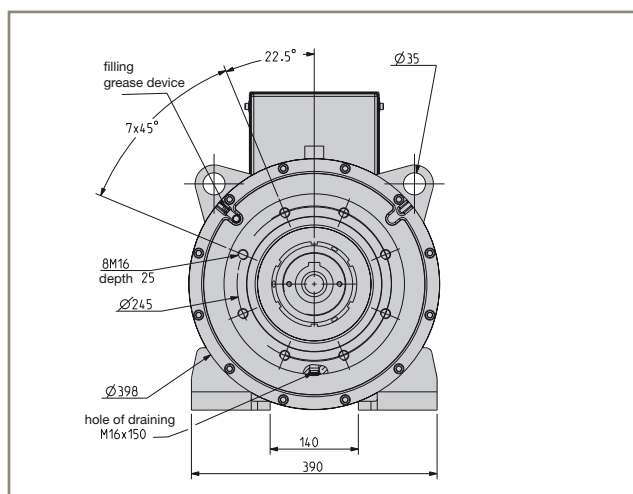
Rear view



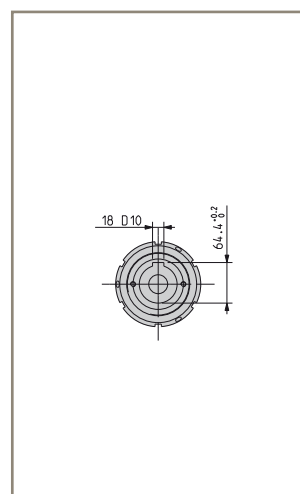
Side view



Front view



Shaft End

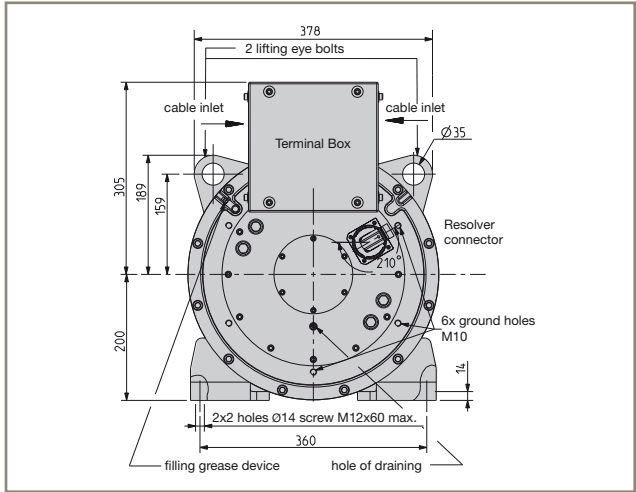


Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW204	750	620	362	360	335
TMW205	750	620	362	360	350
TMW206	750	620	362	360	365
TMW207	850	720	462	460	405
TMW208	850	720	462	460	420

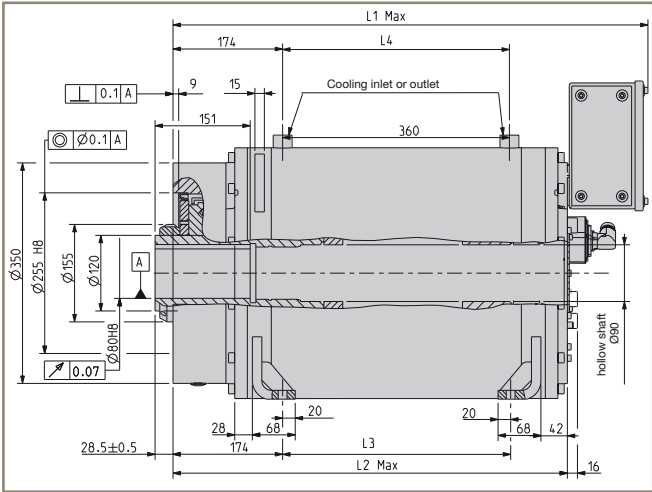
TMW20x-24

Shaft Height 200 mm / Thrust Bearing 29424

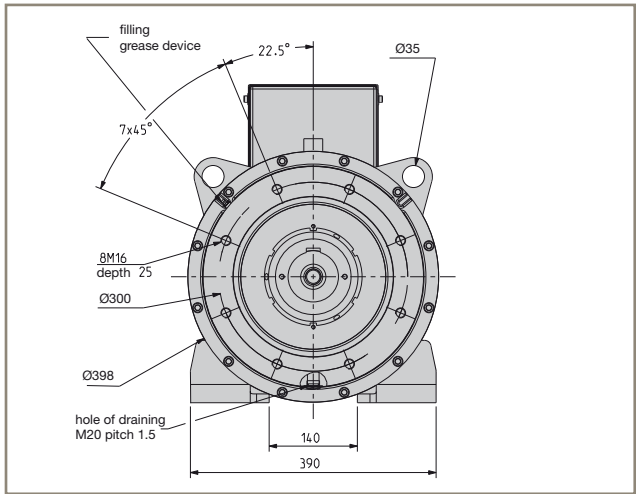
Rear view



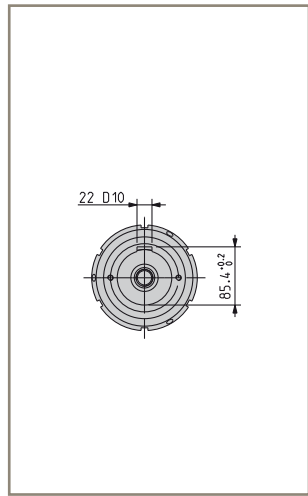
Side view



Front view



Shaft End



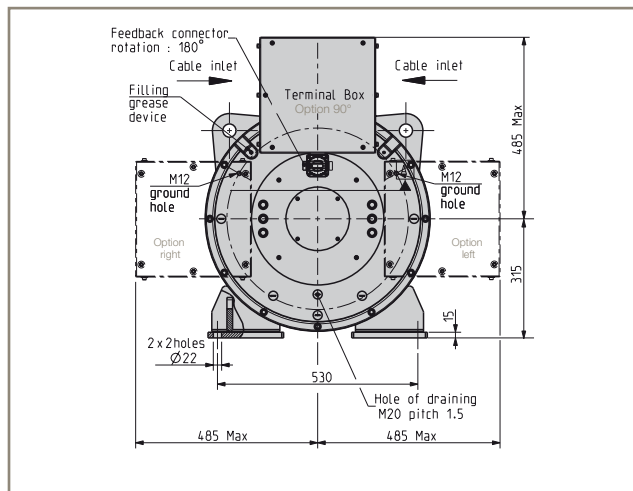
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW204	760	630	362	360	365
TMW205	760	630	362	360	380
TMW206	760	630	362	360	395
TMW207	860	730	462	460	435
TMW208	860	730	462	460	450

TMW30x-01

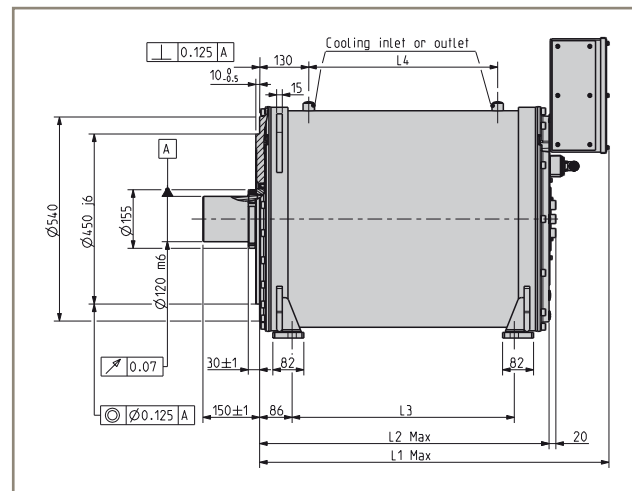
Dimensions [mm]

Shaft Height 315 mm / Roller Bearing

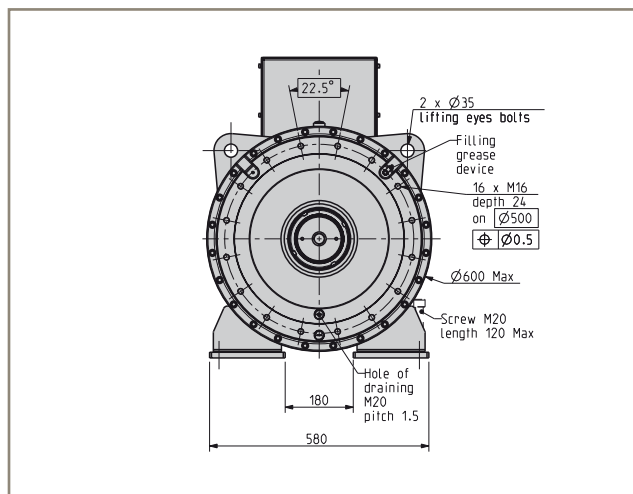
Rear view



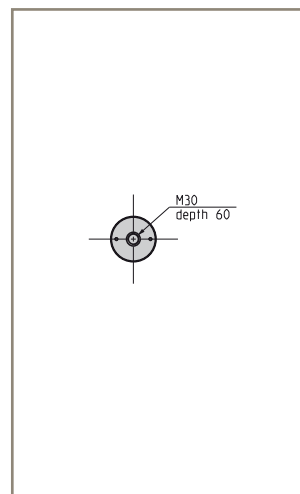
Side view



Front view



Shaft End

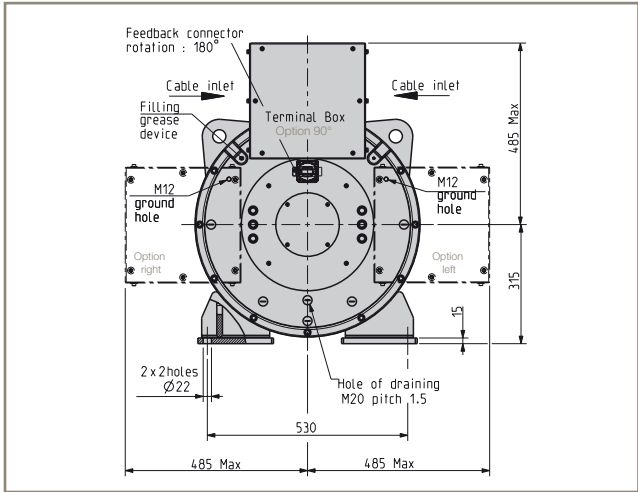


Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW304	630	470	288	200	520
TMW305	730	570	388	300	580
TMW306	730	570	388	300	600
TMW308	930	770	588	500	715
TMW30A	930	770	588	500	755

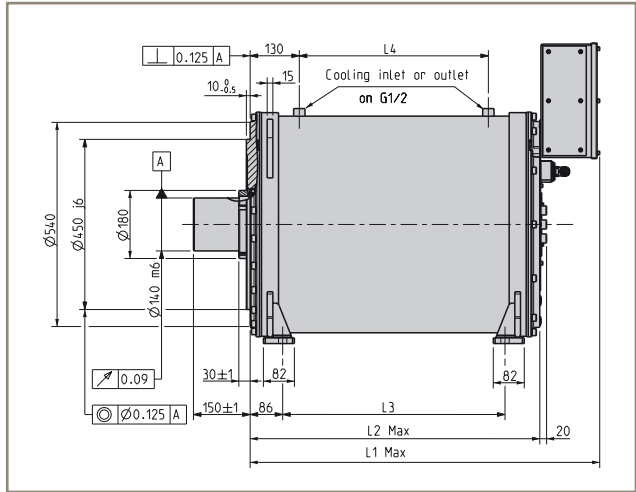
TMW30x-00

Shaft Height 315 mm / Ball Bearing

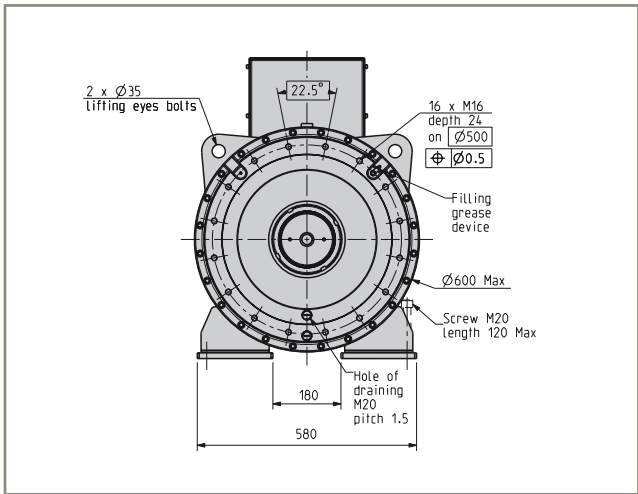
Rear view



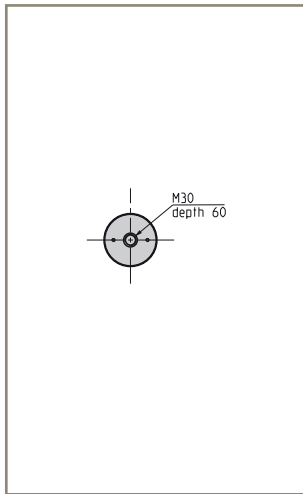
Side view



Front view



Shaft End



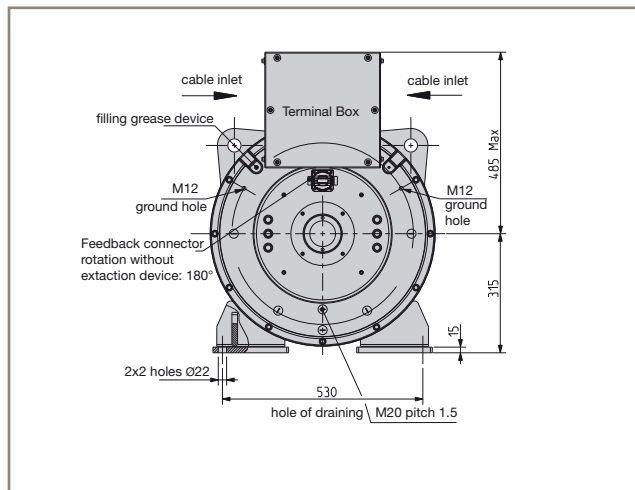
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW304	630	470	288	200	525
TMW305	730	570	388	300	585
TMW306	730	570	388	300	605
TMW308	930	770	588	500	720
TMW30A	930	770	588	500	760

TMW30x-22

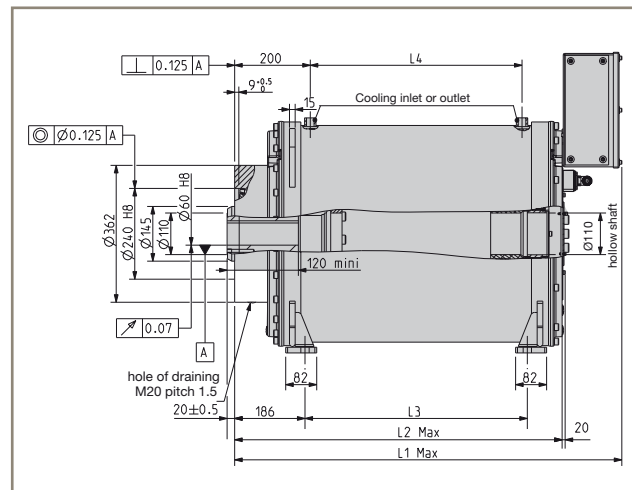
Dimensions [mm]

Shaft Height 315 mm / Thrust Bearing 29422

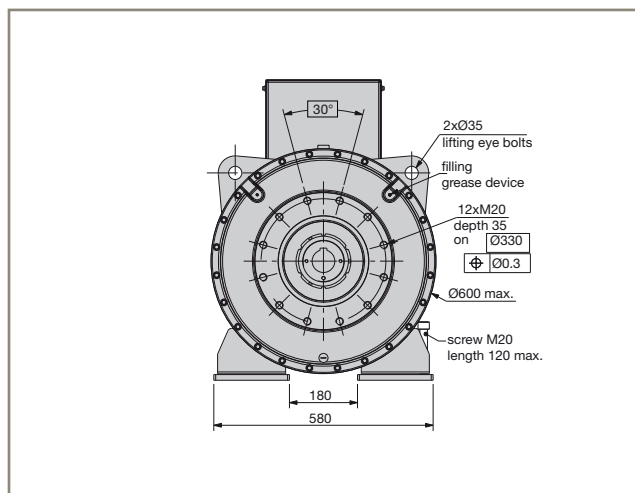
Rear view



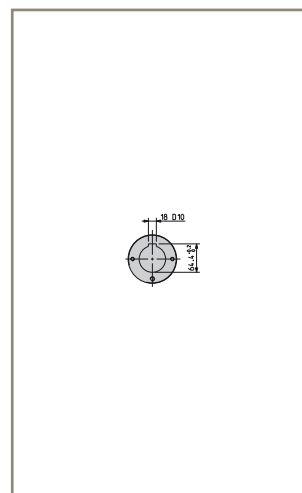
Side view



Front view



Shaft End

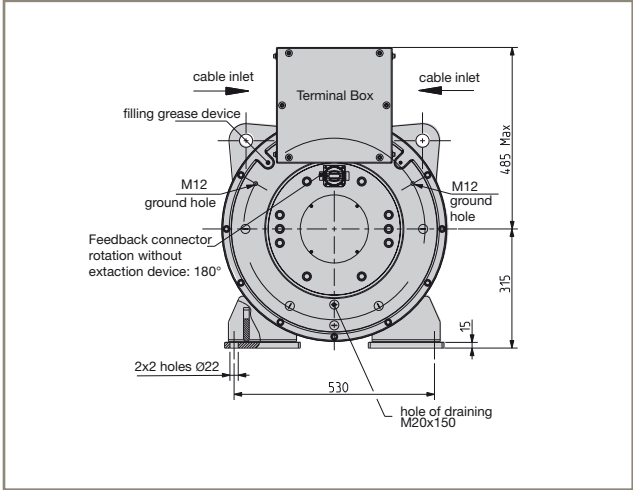


Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW304	730	570	288	260	585
TMW305	830	670	388	360	645
TMW306	830	670	388	360	665
TMW308	1030	870	588	560	780
TMW30A	1030	870	588	560	820

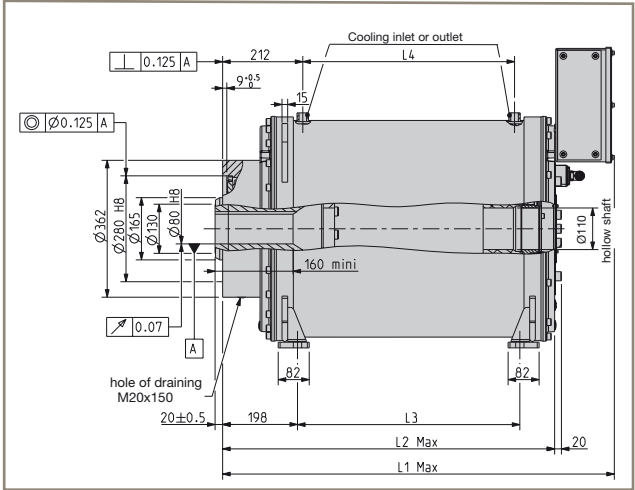
TMW30x-26

Shaft Height 315 mm / Thrust Bearing 29426

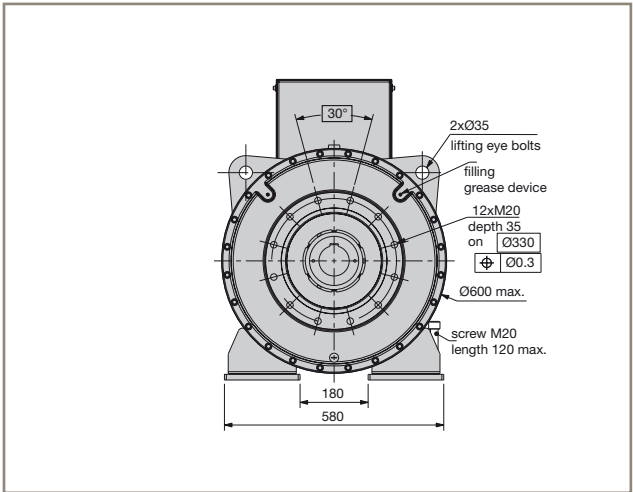
Rear view



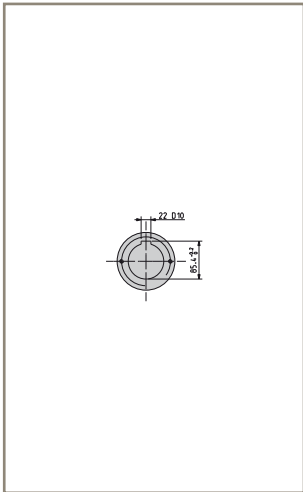
Side view



Front view



Shaft End



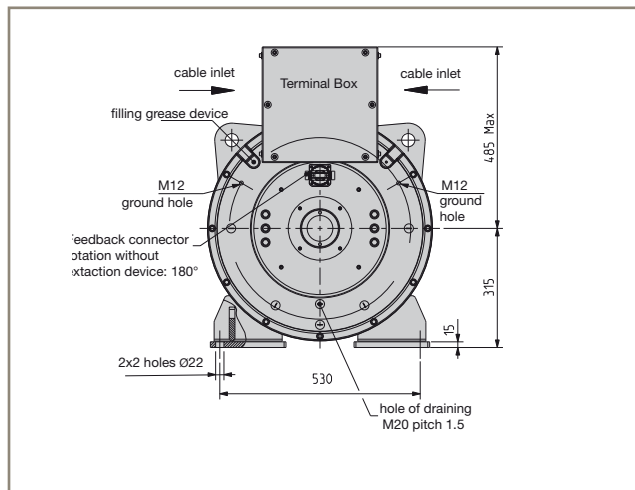
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW304	740	580	288	260	585
TMW305	840	680	388	360	645
TMW306	840	680	388	360	665
TMW308	1040	880	588	560	780
TMW30A	1040	880	588	560	820

TMW30x-30

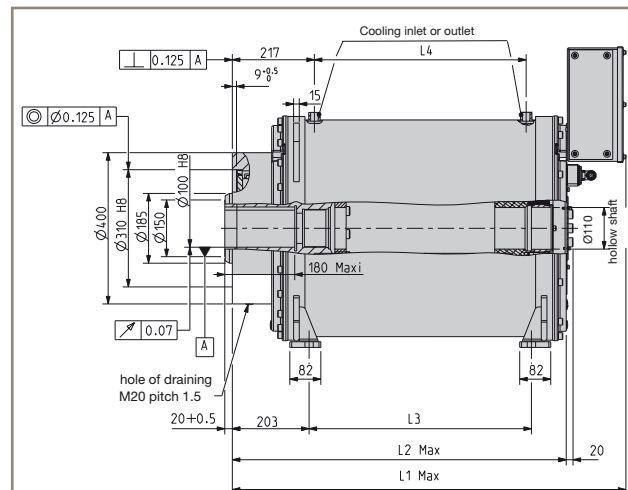
Dimensions [mm]

Shaft Height 315 mm / Thrust Bearing 29430

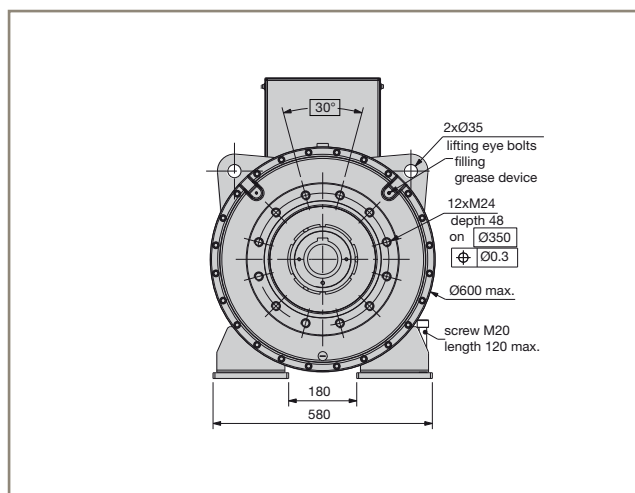
Rear view



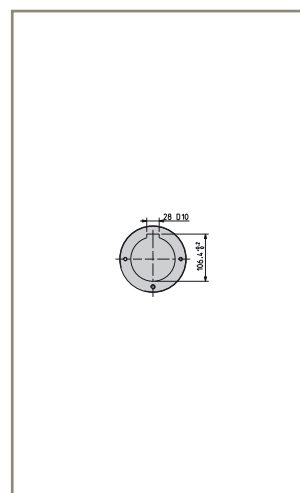
Side view



Front view



Shaft End

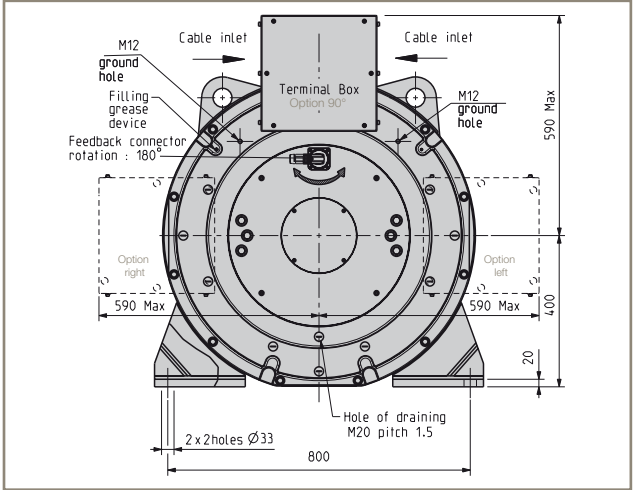


Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW304	745	585	288	260	605
TMW305	845	685	388	360	665
TMW306	845	685	388	360	685
TMW308	1045	885	588	560	800
TMW30A	1045	885	588	560	840

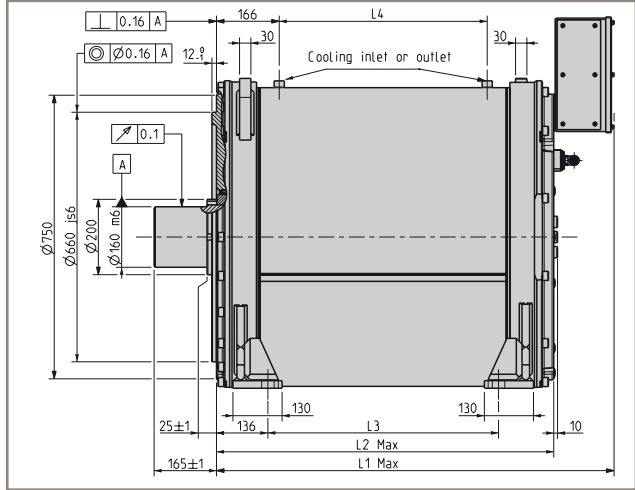
TMW40x-01

Shaft Height 400 mm / Roller Bearing

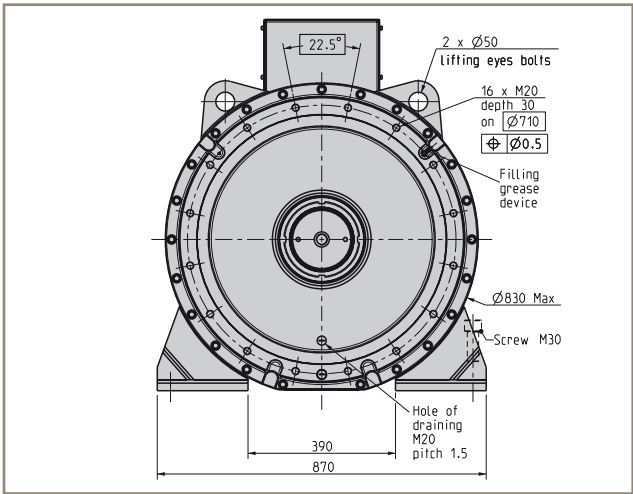
Rear view



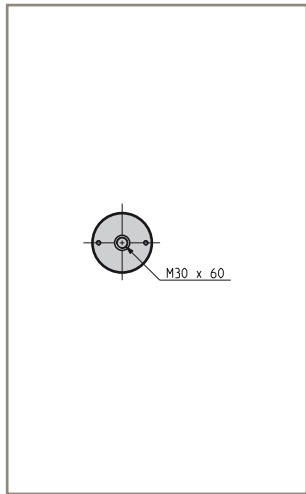
Side view



Front view



Shaft End



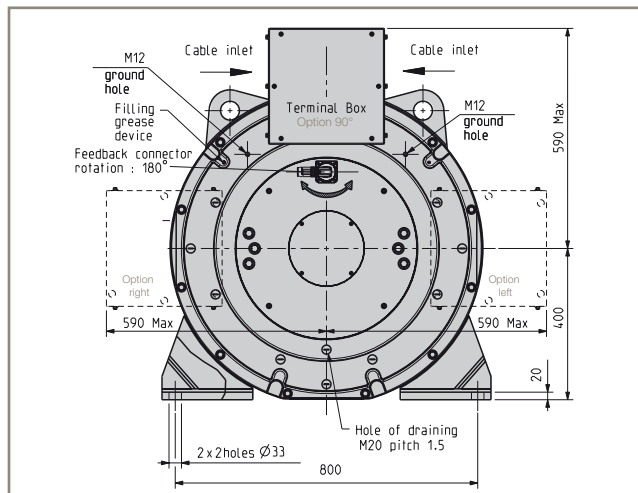
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW406	754	594	310	250	1290
TMW408	854	694	410	350	1430
TMW40A	1054	894	610	550	1620
TMW40C	1054	894	610	550	1700

TMW40x-00

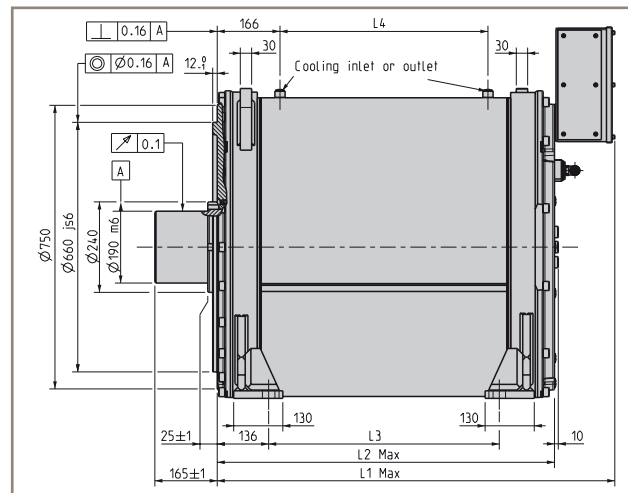
Dimensions [mm]

Shaft Height 400 mm / Ball Bearing

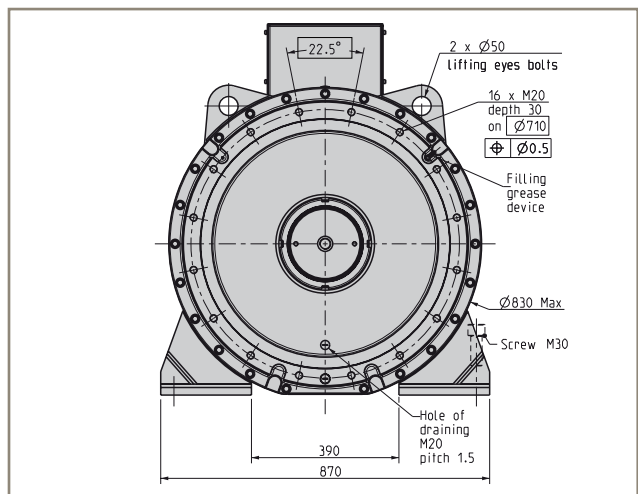
Rear view



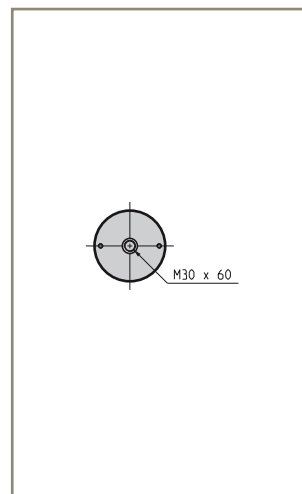
Side view



Front view



Shaft End



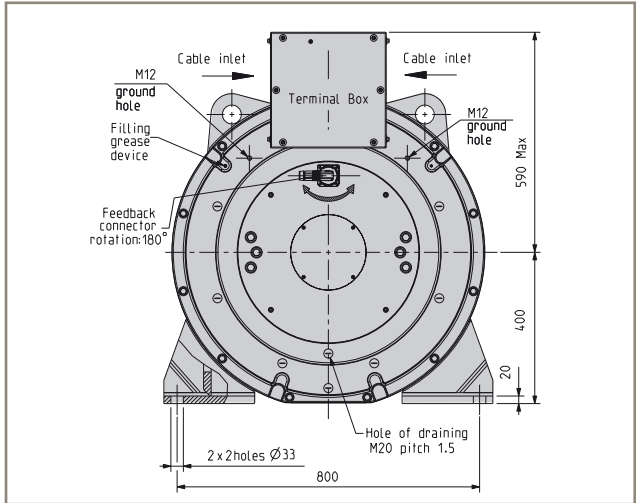
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW406	754	594	310	250	1290
TMW408	854	694	410	350	1430
TMW40A	1054	894	610	550	1620
TMW40C	1054	894	610	550	1700

Dimensions [mm]

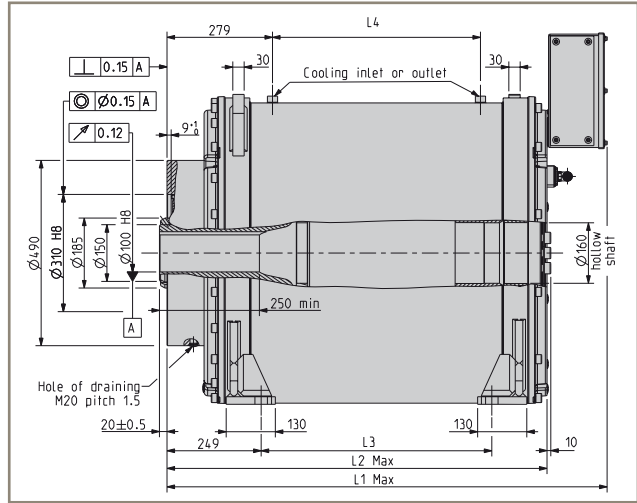
TMW40x-30

Shaft Height 400 mm / Thrust Bearing 29430

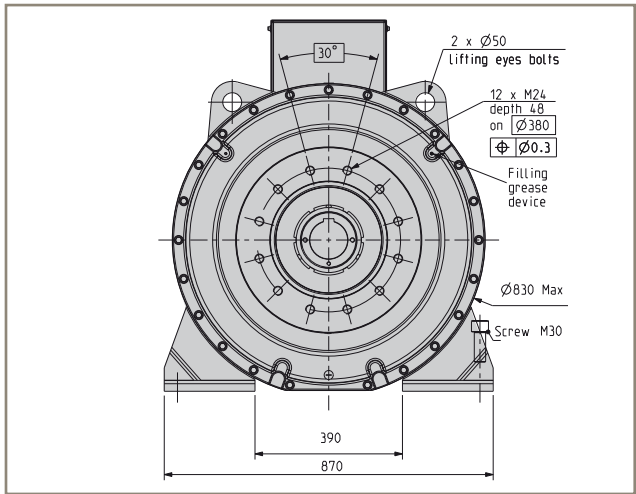
Rear view



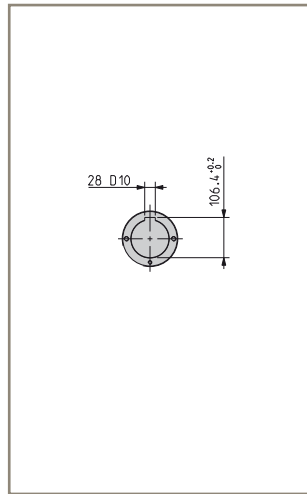
Side view



Front view



Shaft End



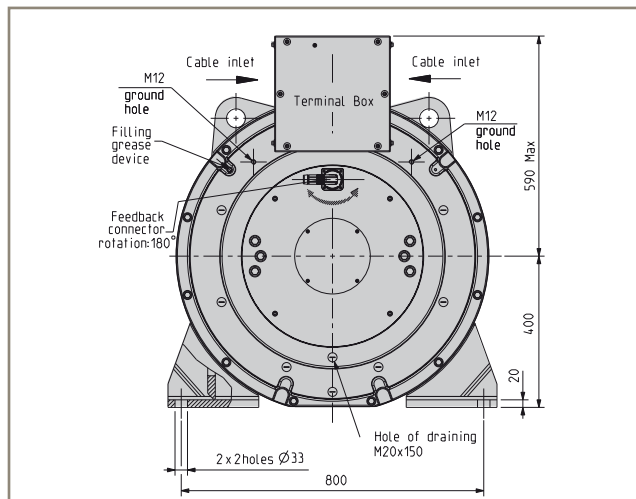
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW406	867	707	310	250	1410
TMW408	967	807	410	350	1550
TMW40A	1167	1007	610	550	1740
TMW40C	1167	1007	610	550	1820

TMW40x-34

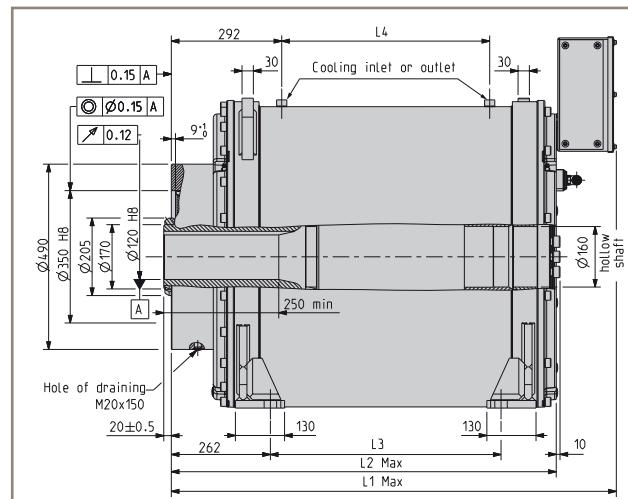
Dimensions [mm]

Shaft Height 400 mm / Thrust Bearing 29434

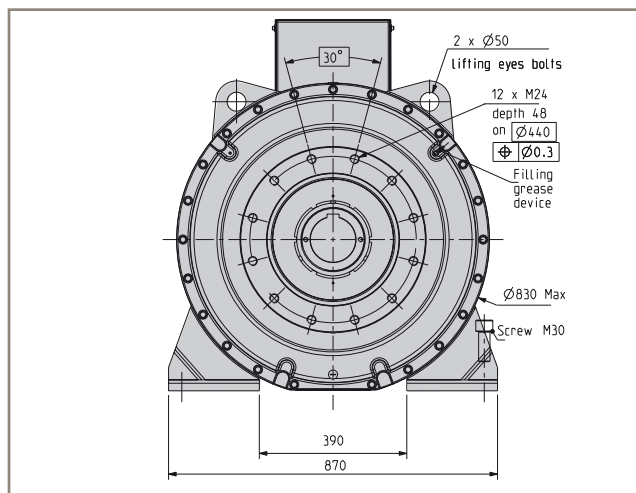
Rear view



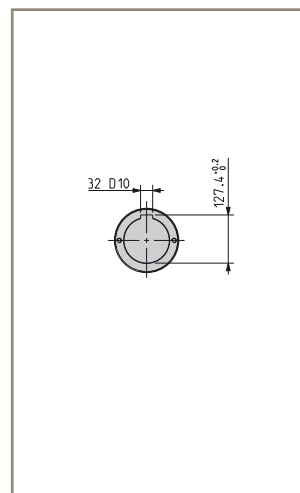
Side view



Front view



Shaft End



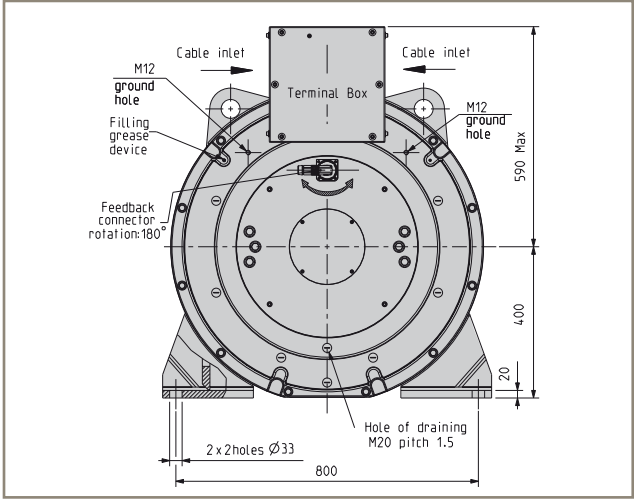
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW406	880	720	310	250	1410
TMW408	980	820	410	350	1550
TMW40A	1180	1020	610	550	1750
TMW40C	1180	1020	610	550	1820

Dimensions [mm]

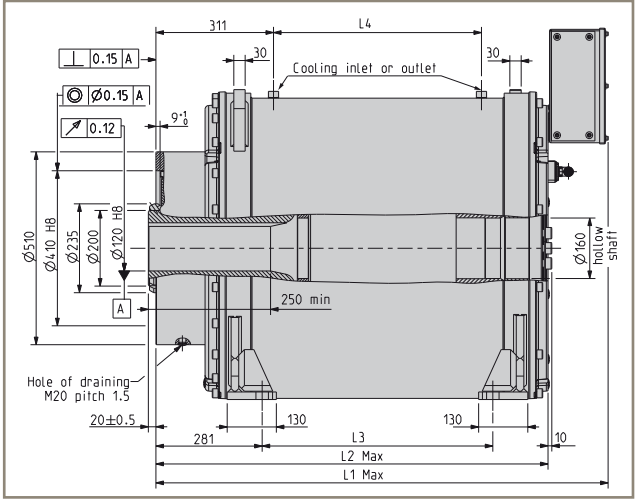
TMW40x-40

Shaft Height 400 mm / Thrust Bearing 29440

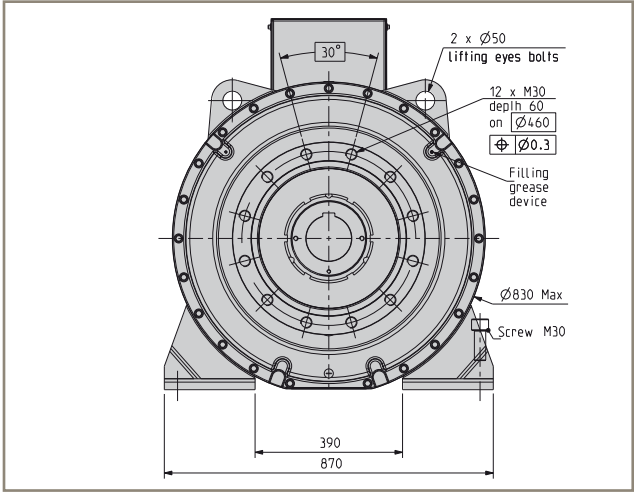
Rear view



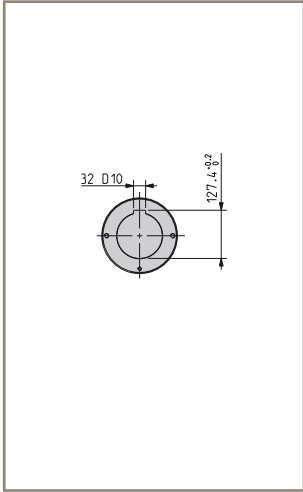
Side view



Front view



Shaft End



Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW406	899	739	310	250	1445
TMW408	999	839	410	350	1585
TMW40A	1199	1039	610	550	1775
TMW40C	1199	1039	610	550	1855

User Data Checklist for Extruders

General application data

Nominal power		[kW]
Nominal/max. speed		[min ⁻¹]
Nominal/max. torque		[Nm]
Water cooling availability		[Y/N]

Extruder data

Screw diameter		[mm]
Cylinder pressure		[bar]
Screw extraction		[Front/Back]
Screw cooling		[Y/N]

Mechanical Interface

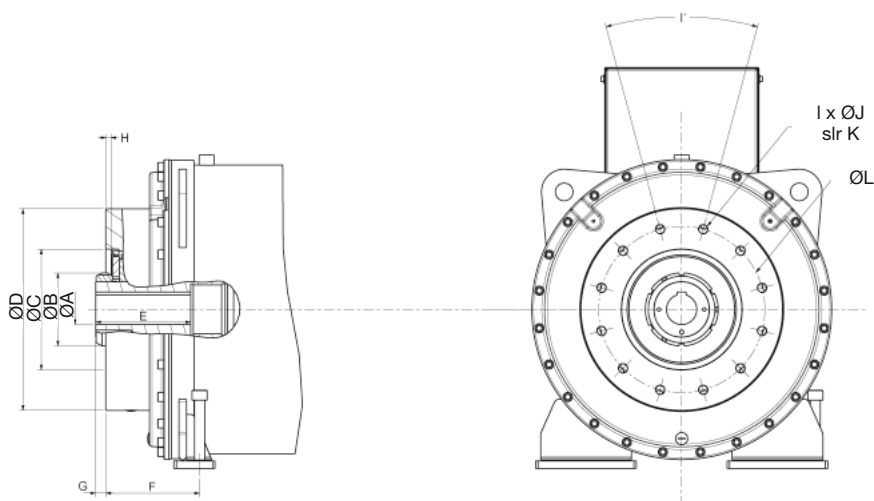
Customized Interface - Dimension Limits [mm]

Motor		TMW200		TMW300			TMW400		
Thrust bearing		29420	29424	29422	29426	29430	29430	29434	29440
Hollow shaft Ø max.	A	60	90	60	80	110	110	120	150
External shaft Ø	B	135	155	145	165	185	185	205	235
Centering Ø min.	C	215	255	240	280	310	310	350	410
External front Ø	D	286.5	350	400	400	400	490	490	510
Length keyway max. (with G max)	E	185	185	179	179	179	270	270	270
Front length min.	F	163	174	186	198	203	249	262	281
Shaft length min. (with F min.)	G	28.5	28.5	20	20	20	20	20	20
Shaft length max. (with F min.)	G	71	60	45	33	28	55	42	23
Centering depth max.	H	9	9	9	9	9	9	9	9
Other dimensions	I to L	free	free	free	free	free	free	free	free
Screw extraction from the rear									
Hollow shaft Ø max.	A	60	80 (*)	60	80	90 (*)	110	120	135 (*)

(*) don't forget the key or other part on extruder screw

Required drawings

1. Screw interface
2. Barrel interface



Order Code

	1	2	3	4	5	6	7	8	9	10
Order example	TM	W	30	6LR	C	22	U	F	R	0003

1 Motor type	TM Torque Motor
2 Cooling method	W Water cooling (standard) A Natural convection (with derating, consult local sales office for details)
3 Shaft height	20 200 mm 30 315 mm 40 400 mm
4 Torque/speed characteristics	(see motors data tables "Technical Data")
5 Feedback sensor	C EnDat encoder (standard) Cable Ref.for AC890: CS4UV1F3R0xxx* B Direct EnDat encoder (option) Cable Ref.for AC890: CS4UV1F3R0xxx* A Resolver (on request) * xxx = Cable length in meter
6 Bearing	20 Thrust bearing 29420 only for TMW204...208 24 Thrust bearing 29424 only for TMW204...208 22 Thrust bearing 29422 only for TMW304...30A 26 Thrust bearing 29426 only for TMW304...30A 30 Thrust bearing 29430 only for TMW305...30A, TMW406...40C 34 Thrust bearing 29434 only for TMW406...40C 40 Thrust bearing 29440 only for TMW406...40C 00 Ball bearing 01 Roller bearing
7 Terminal Box	U Upper rear (standard) R At the rear on the right side (front view) (option) L At the rear on the left side (front view) (option)
8 Extruder Screw Extraction/Cooling	F Front extruder screw extraction P Front extruder screw extraction (extruder screw cooling possible) R Rear extruder screw extraction (extruder screw cooling possible) (consult us) Z No screw extraction - no screw cooling
9 Fixed character	R Fixed character
10 Shaft type and mechanical interface	0001 Hollow shaft with keyway Ø60 for TM200 with 29420 0002 Hollow shaft with keyway Ø80 for TM200 with 29424 0003 Hollow shaft with keyway Ø60 for TM300 with 29422 0004 Hollow shaft with keyway Ø80 for TM300 with 29426 0005 Hollow shaft with keyway Ø100 for TM300 with 29430 0006 Hollow shaft with keyway Ø100 for TM400 with 29430 0007 Hollow shaft with keyway Ø120 for TM400 with 29434 0008 Hollow shaft with keyway Ø120 for TM400 with 29440 7001 Solid shaft Ø95 for TM200 with roller bearing 7002 Solid shaft Ø110 for TM200 with ball bearing 7003 Solid shaft Ø120 for TM300 with roller bearing 7004 Solid shaft Ø140 for TM300 with ball bearing 7005 Solid shaft Ø160 for TM400 with roller bearing 7006 Solid shaft Ø190 for TM400 with ball bearing xxxx Other shaft interface, please consult us



Parker's Motion & Control Technologies

At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker. For further info call 00800 27 27 5374



Aerospace Key Markets

Aftermarket services
Commercial transports
Engines
General & business aviation
Helicopters
Launch vehicles
Military aircraft
Missiles
Power generation
Regional transports
Unmanned aerial vehicles

Key Products

Control systems & actuation products
Engine systems & components
Fluid conveyance systems & components
Fluid metering, delivery & atomization devices
Fuel systems & components
Fuel tank inerting systems
Hydraulic systems & components
Thermal management
Wheels & brakes



Climate Control Key Markets

Agriculture
Air conditioning
Construction Machinery
Food & beverage
Industrial machinery
Life sciences
Oil & gas
Precision cooling
Process
Refrigeration
Transportation

Key Products

Accumulators
Advanced actuators
CO₂ controls
Electronic controllers
Filter driers
Hand shut-off valves
Heat exchangers
Hose & fittings
Pressure regulating valves
Refrigerant distributors
Safety relief valves
Smart pumps
Solenoid valves
Thermostatic expansion valves



Electromechanical Key Markets

Aerospace
Factory automation
Life science & medical
Machine tools
Packaging machinery
Paper machinery
Plastics machinery & converting
Primary metals
Semiconductor & electronics
Textile
Wire & cable

Key Products

AC/DC drives & systems
Electric actuators, gantry robots & slides
Electrohydraulic actuation systems
Electromechanical actuation systems
Human machine interface
Linear motors
Stepper motors, servo motors, drives & controls
Structural extrusions



Filtration Key Markets

Aerospace
Food & beverage
Industrial plant & equipment
Life sciences
Marine
Mobile equipment
Oil & gas
Power generation & renewable energy
Process
Transportation
Water Purification

Key Products

Analytical gas generators
Compressed air filters & dryers
Engine air, coolant, fuel & oil filtration systems
Fluid condition monitoring systems
Hydraulic & lubrication filters
Hydrogen, nitrogen & zero air generators
Instrumentation filters
Membrane & fiber filters
Microfiltration
Sterile air filtration
Water desalination & purification filters & systems



Fluid & Gas Handling Key Markets

Aerial lift
Agriculture
Bulk chemical handling
Construction machinery
Food & beverage
Fuel & gas delivery
Industrial machinery
Life sciences
Marine
Mining
Mobile
Oil & gas
Renewable energy
Transportation

Key Products

Check valves
Connectors for low pressure fluid conveyance
Deep sea umbilicals
Diagnostic equipment
Hose couplings
Industrial hose
Mooring systems & power cables
PTFE hose & tubing
Quick couplings
Rubber & thermoplastic hose
Tube fittings & adapters
Tubing & plastic fittings

Hydraulics Key Markets

Aerial lift
Agriculture
Alternative energy
Construction machinery
Forestry
Industrial machinery
Machine tools
Marine
Material handling
Mining
Oil & gas
Power generation
Refuse vehicles
Renewable energy
Truck hydraulics
Turf equipment

Key Products

Accumulators
Cartridge valves
Electrohydraulic actuators
Human machine interfaces
Hybrid drives
Hydraulic cylinders
Hydraulic motors & pumps
Hydraulic systems
Hydraulic valves & controls
Hydrostatic steering
Integrated hydraulic circuits
Power take-offs
Power units
Rotary actuators
Sensors

Pneumatics Key Markets

Aerospace
Conveyor & material handling
Factory automation
Life science & medical
Machine tools
Packaging machinery
Transportation & automotive

Key Products

Air preparation
Brass fittings & valves
Manifolds
Pneumatic accessories
Pneumatic actuators & grippers
Pneumatic valves & controls
Quick disconnects
Rotary actuators
Rubber & thermoplastic hose & couplings
Structural extrusions
Thermoplastic tubing & fittings
Vacuum generators, cups & sensors

Process Control Key Markets

Alternative fuels
Biopharmaceuticals
Chemical & refining
Food & beverage
Marine & shipbuilding
Medical & dental
Microelectronics
Nuclear Power
Offshore oil exploration
Oil & gas
Pharmaceuticals
Power generation
Pulp & paper
Steel
Water/wastewater

Key Products

Analytical Instruments
Analytical sample conditioning products & systems
Chemical injection fittings & valves
Fluoropolymer chemical delivery fittings, valves & pumps
High purity gas delivery fittings, valves, regulators & digital flow controllers
Industrial mass flow meters/ controllers
Permanent no-weld tube fittings
Precision industrial regulators & flow controllers
Process control double block & bleeds
Process control fittings, valves, regulators & manifold valves

Sealing & Shielding Key Markets

Aerospace
Chemical processing
Consumer
Fluid power
General Industrial
Information technology
Life sciences
Microelectronics
Military
Oil & gas
Power generation
Renewable energy
Telecommunications
Transportation

Key Products

Dynamic seals
Elastomeric o-rings
Electro-medical instrument design & assembly
EMI shielding
Extruded & precision-cut, fabricated elastomeric seals
High temperature metal seals
Homogeneous & inserted elastomeric shapes
Medical device fabrication & assembly
Metal & plastic retained composite seals
Shielded optical windows
Silicone tubing & extrusions
Thermal management
Vibration dampening

Parker Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai
Tel: +971 4 8127100
parker.me@parker.com

AT – Austria, Wiener Neustadt
Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt
Tel: +43 (0)2622 23501 900
parker.easteurope@parker.com

AZ – Azerbaijan, Baku
Tel: +994 50 2233 458
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles
Tel: +32 (0)67 280 900
parker.belgium@parker.com

BG – Bulgaria, Sofia
Tel: +359 2 980 1344
parker.bulgaria@parker.com

BY – Belarus, Minsk
Tel: +375 17 209 9399
parker.belarus@parker.com

CH – Switzerland, Etoy
Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com

CZ – Czech Republic, Klecany
Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst
Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid
Tel: +34 902 330 001
parker.spain@parker.com

FI – Finland, Vantaa
Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine s/Arve
Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Athens
Tel: +30 210 933 6450
parker.greece@parker.com

HU – Hungary, Budaörs
Tel: +36 23 885 470
parker.hungary@parker.com

IE – Ireland, Dublin
Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IT – Italy, Corsico (MI)
Tel: +39 02 45 19 21
parker.italy@parker.com

KZ – Kazakhstan, Almaty
Tel: +7 7273 561 000
parker.easteurope@parker.com

NL – The Netherlands, Oldenzaal
Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Asker
Tel: +47 66 75 34 00
parker.norway@parker.com

PL – Poland, Warsaw
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal, Leca da Palmeira
Tel: +351 22 999 7360
parker.portugal@parker.com

RO – Romania, Bucharest
Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow
Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga
Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SK – Slovakia, Banská Bystrica
Tel: +421 484 162 252
parker.slovakia@parker.com

SL – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parker.slovenia@parker.com

TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com

UA – Ukraine, Kiev
Tel: +380 44 494 2731
parker.ukraine@parker.com

UK – United Kingdom, Warwick
Tel: +44 (0)1926 317 878
parker.uk@parker.com

ZA – South Africa, Kempton Park
Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario
Tel: +1 905 693 3000

US – USA, Cleveland
Tel: +1 216 896 3000

Asia Pacific

AU – Australia, Castle Hill
Tel: +61 (0)2-9634 7777

CN – China, Shanghai
Tel: +86 21 2899 5000

HK – Hong Kong
Tel: +852 2428 8008

IN – India, Mumbai
Tel: +91 22 6513 7081-85

JP – Japan, Tokyo
Tel: +81 (0)3 6408 3901

KR – South Korea, Seoul
Tel: +82 2 559 0400

MY – Malaysia, Shah Alam
Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington
Tel: +64 9 574 1744

SG – Singapore
Tel: +65 6887 6300

TH – Thailand, Bangkok
Tel: +662 186 7000-99

TW – Taiwan, Taipei
Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129

BR – Brazil, Sao Jose dos Campos
Tel: +55 800 727 5374

CL – Chile, Santiago
Tel: +56 2 623 1216

MX – Mexico, Toluca
Tel: +52 72 2275 4200

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Free phone: 00 800 27 27 5374
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US Product Information Centre
Toll-free number: 1-800-27 27 537
www.parker.com

ARA[®]
PNEUMATIK
ul. Wyciągowa 38, 53-012 Wrocław
tel. 71 364 72 82, ara@arapneumatik.pl
www.arapneumatik.pl

