

Omis S.A
OMIS, VILNA

Disc screens and Crushers

Motor and Gear part lists

Raumaster pos. No.	Equipment description	Gear type	Page
3455.101	Disc screen W=1400,	Electric motor 3GBP 182 420-BDL, 22 kW	2
3455.101	Disc screen W=1400,	Gear KA107AL180	9
3455.102	Disc screen W=1400,	Electric motor 3GBP 182 420-BDL, 22 kW	2
3455.102	Disc screen W=1400,	Gear KA107AL180	15
3455.103	Crusher RBC-2-1213	Gear X3KA 210/B	21
3455.103	Crusher RBC-2-1213	Electric motor 3GBP 312 240-ADL+701, 160 kW	34
3455.104	Crusher RBC-2-1213	Gear X3KA 210/B	39
3455.104	Crusher RBC-2-1213	Electric motor 3GBP 312 240-ADL+701, 160 kW	34

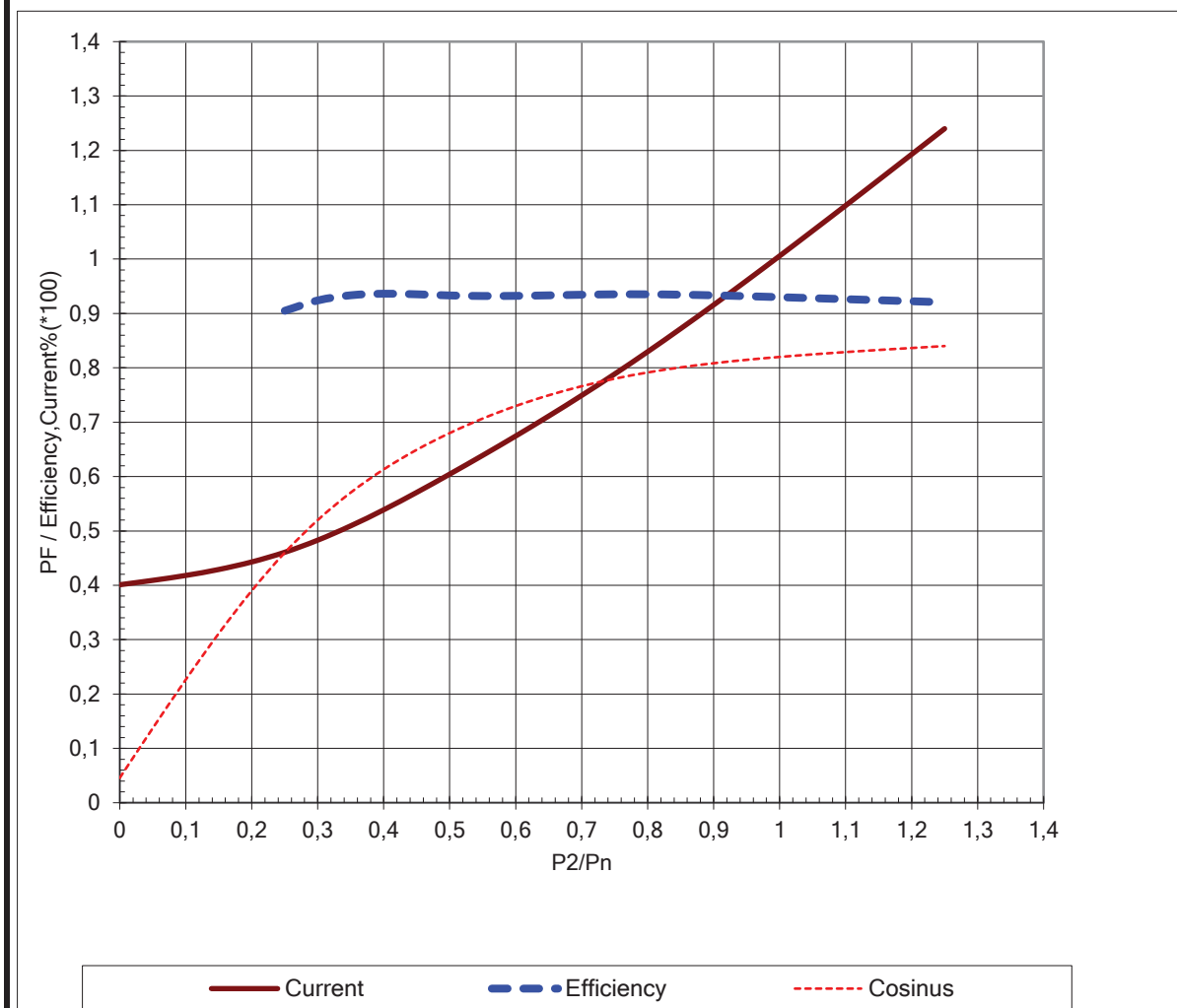
ABB Motors and Generators		Technical Data Sheet - DOL			
		Project _____		Location _____	
Department/Author _____		Customer name _____		Customer ref. _____	
Our ref. _____		Rev/Changed by A		Date of issue 5.2.2019	
				Saving ident untitled.xls	
				Item name 1,00002	
				Pages 1(3)	

No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	3GBP 182 420-BDL		Calc. ref. 3GZF021018-146	
3	Type/Frame	M3BP 180MLB 4			
4	Mounting	IM3001, B5(flange)			
5	Rated output P _N	22	kW		
6	Service factor	1			
7	Type of duty	S1(IEC) 100%			
8	Rated voltage U _N	400	VD	± 5 % (IEC 60034-1)	
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n _N	1481	r/min		
11	Rated current I _N	41,4	A		
12	No-load current	16,6	A		
13	Starting current I _s /I _N	8,3		Meet IEC 60034-12, N,(H at 60 Hz)	
14	Nominal torque T _N	142	Nm		
15	Locked rotor torque T _s /T _N	3			
16	Maximum torque T _{max} /T _N	3,2			
17	Minimum torque T _{min} /T _N	2,2			
18	Speed at minimum torque	300	r/min		
	Load characteristics (IEC 60034-2-1:2014)	Load %	Current A	Efficiency % Power factor	
19	PLL determined from residual loss	100	41,4	93,0 / IE3 0,82	
20		75	32,7	93,5 0,78	
21		50	25,0	93,3 0,68	
22		Start	344	0,48	
23	Maximum starting time from hot	15	s		
24	Maximum starting time from cold	27	s		
25	Insulation class / Temperature class	F / B			
26	Ambient temperature	40	°C		
27	Altitude	1000	m.a.s.l.		
28	Enclosure	IP55			
29	Cooling system	IC411 self ventilated			
30	Bearing DE/NDE	6310/C3 - 6209/C3			
31	Type of Grease				
32	Sound pressure level (LP dB(A) 1m)	60	dB(A)	at load	
33	Moment of inertia J = ¼ GD2	0,243	kg-m2		
34	Balancing				
35	Vibration class				
36	Position of terminal box	Top			
37	Terminal box entries; no, dimens.				
38	Number of power terminals				
39	Direction of rotation	CW or CCW			
40	Weight of rotor	61	kg		
41	Total weight of motor	229	kg		
42	Dimension drawing no.				
43					
44					
45					
Ex-motors					
46					
47					
48					
Option Variant Codes / Definition					
49					
50					
51					
52					
Remarks:					
Data based on situation 9.1.2019					
All data subject to tolerances in accordance with IEC					
Guaranteed values on request					

	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
			1,00002
Our ref.	Rev/Changed by	Date of issue	Saving ident
	A	5.2.2019	untitled.xls
			Pages
			2(3)

Product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M3BP 180MLB 4	Calc. ref.	3GZF021018-146
Product code	3GBP 182 420-BDL		
Rated output P _N	22	kW	
Type of duty	S1(IEC) 100%		

Voltage (V)	400	Current I_N (A)	41,4	Power factor at P_N	0,82
Frequency (Hz)	50	Speed (r/min)	1481	Efficiency (%) at P_N	93



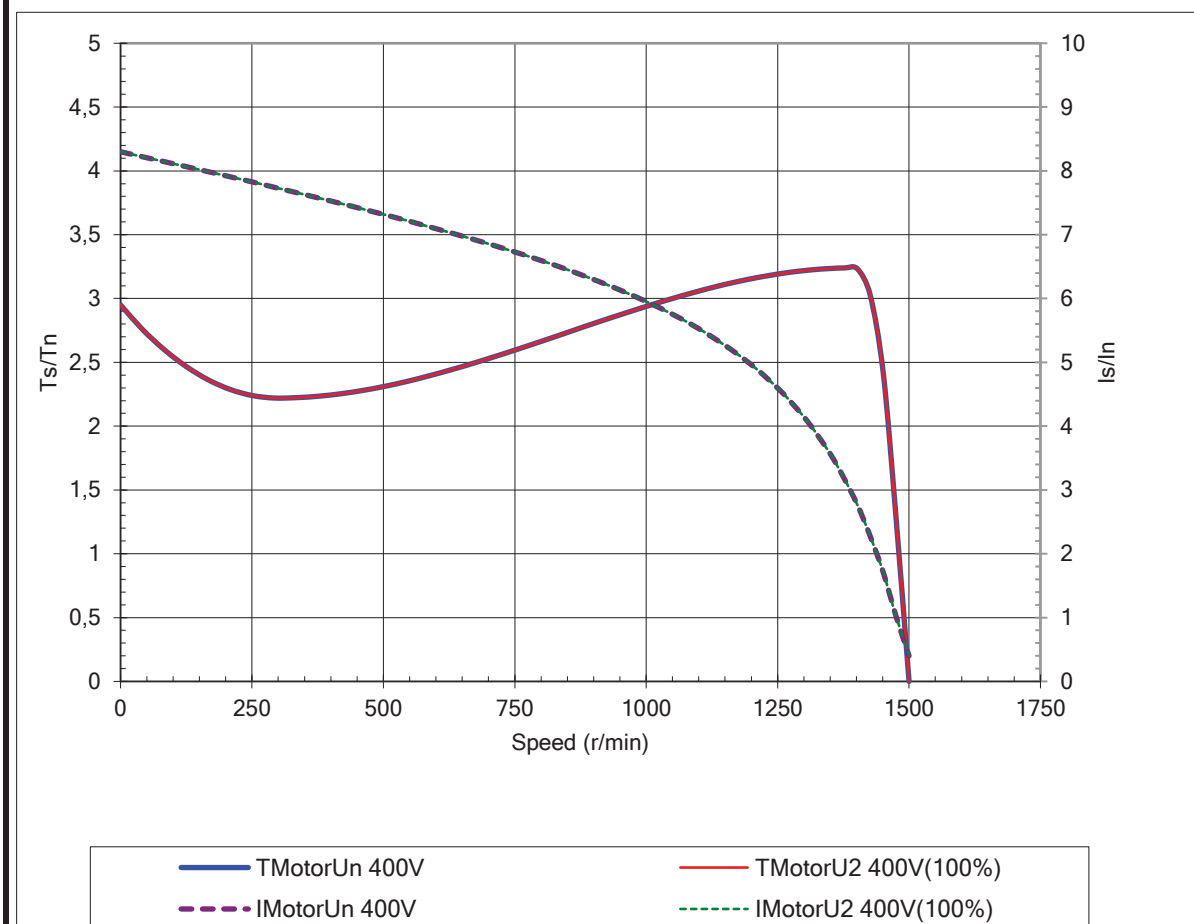
Load characteristics (IEC 60034-2-1:2014)
Data based on situation 9.1.2019

All data subject to tolerances in accordance with IEC

	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
			1,00002
Our ref.	Rev/Changed b Date of issue	Saving ident	Pages
	A 5.2.2019	untitled.xls	3(3)

Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M3BP 180MLB 4	Calc. ref.	3GZF021018-146
Product code	3GBP 182 420-BDL	Frequency (Hz)	50
Rated output P _N	22 kW	Rated current I _N	41,4 A
Type of duty	S1(IEC) 100%		

J _{motor} (kgm ²)	0,24	Voltage (V) 100%	400	Voltage (V)	400V(100%)
J _{load} (kgm ²)		T _{start} /T _N	3	T _{start} /T _N	3
Speed (r/min)	1481	Starting time (s)		Starting time (s)	
T _N (Nm)	142	Speed (r/min)		Speed (r/min)	
T _{load} (Nm)		I _s /I _N	8,3	I _s /I _N	8,3
Nbr. of Consecutive Starts at UN		T _{max} /T _N	3,2	T _{max} /T _N	3,2



Load characteristics (IEC 60034-2-1:2014)

Data based on situation 9.1.2019

All data subject to tolerances in accordance with IEC



V6.0.1 - 1.0.6950.22347

Routine Test Report				Date of Issue: 6.2.2019							
Customer: Raumaster Oy				Serial No.: 3G1F1903567607							
Customer ref.: WE4019764				Order No.: 1601750-2							
				Type: M3BP 180MLB 4 IMB5/IM3001							
				Product Code: 3GBP182420-BDL							
Rating:											
				V	Hz	kW	r/min	A	cos φ	Duty	
3~Motor				690	Y 50	22	1481	24,1	0,82	S1	
Ins. Class F				400	D 50	22	1481	41,4	0,82	S1	
IP 65				415	D 50	22	1483	40,5	0,81	S1	
229 kg				440	D 60	22	1782	37	0,83	S1	
				460	D 60	22	1784	35,8	0,82	S1	
				IE3-50HZ-93.0%(100%)-93.4%(75%)-93.0%(50%) / IE3-60HZ-93.6%(100%)							
Winding resistance		Measured at 21 °C		Insulation resistance at 21 °C							
				2000 MΩ		1000 V					
U ₁ - V ₁		0,19933 Ω									
U ₁ - W ₁		0,19933 Ω									
V ₁ - W ₁		0,19933 Ω									
				High-voltage test		2900 V		1 s			
Test		Line		Input							
		U[V]	f[Hz]	I[A]	P1 [kW]						
No-load test		397,6	D 50	16,7	0,81						
Locked-rotor test		76,1	D 50	40,3	1,67						
Vibration [mm/s]: 1,2											
Surge comparison test: OK											
Visual inspection, terminal markings and direction of rotation: OK											
Manufactured and tested acc. to IEC/EN 60034-1:2017											
On behalf of customer											
On behalf of manufacturer Date of test: 6.2.2019											
Tested by ABB Oy, Motors and Generators, Vaasa, Finland											
Tommi Panti, Test Floor Manager											



V6.0.1 - 1.0.6950.22347

Routine Test Report				Date of Issue: 7.2.2019							
Customer: Raumaster Oy				Serial No.: 3G1F1903567608							
Customer ref.: WE4019764				Order No.: 1601750-2							
				Type: M3BP 180MLB 4 IMB5/IM3001							
				Product Code: 3GBP182420-BDL							
Rating:											
				V	Hz	kW	r/min	A	cos φ	Duty	
3~Motor				690	Y 50	22	1481	24,1	0,82	S1	
Ins. Class F				400	D 50	22	1481	41,4	0,82	S1	
IP 65				415	D 50	22	1483	40,5	0,81	S1	
229 kg				440	D 60	22	1782	37	0,83	S1	
				460	D 60	22	1784	35,8	0,82	S1	
				IE3-50HZ-93.0%(100%)-93.4%(75%)-93.0%(50%) / IE3-60HZ-93.6%(100%)							
Winding resistance		Measured at 21 °C		Insulation resistance at 21 °C		2000 MΩ		1000 V			
U ₁ - V ₁		0,19878 Ω									
U ₁ - W ₁		0,19944 Ω									
V ₁ - W ₁		0,19844 Ω									
				High-voltage test 2900 V 1 s							
Test		Line U[V]		f[Hz]	Input I[A]	P1 [kW]					
No-load test		396,2	D	50	16,6	0,85					
Locked-rotor test		76,0	D	50	40,2	1,66					
Vibration [mm/s]: 1,7											
Surge comparison test: OK											
Visual inspection, terminal markings and direction of rotation: OK											
Manufactured and tested acc. to IEC/EN 60034-1:2017											
On behalf of customer											
On behalf of manufacturer Date of test: 6.2.2019											
Tested by ABB Oy, Motors and Generators, Vaasa, Finland											
Tommi Panti, Test Floor Manager											



V6.0.1 - 1.0.6950.22347

Routine Test Report				Date of Issue: 6.2.2019							
Customer: Raumaster Oy				Serial No.: 3G1F1903567609							
Customer ref.: WE4019764				Order No.: 1601750-2							
				Type: M3BP 180MLB 4 IMB5/IM3001							
				Product Code: 3GBP182420-BDL							
Rating:											
				V	Hz	kW	r/min	A	cos φ	Duty	
3~Motor				690	Y 50	22	1481	24,1	0,82	S1	
Ins. Class F				400	D 50	22	1481	41,4	0,82	S1	
IP 65				415	D 50	22	1483	40,5	0,81	S1	
229 kg				440	D 60	22	1782	37	0,83	S1	
				460	D 60	22	1784	35,8	0,82	S1	
				IE3-50HZ-93.0%(100%)-93.4%(75%)-93.0%(50%) / IE3-60HZ-93.6%(100%)							
Winding resistance		Measured at 21 °C		Insulation resistance at 21 °C		2000 MΩ		1000 V			
U ₁ - V ₁		0,19933 Ω									
U ₁ - W ₁		0,19933 Ω									
V ₁ - W ₁		0,19933 Ω									
				High-voltage test 2900 V 1 s							
Test		Line		Input							
		U[V]	f[Hz]	I[A]	P1 [kW]						
No-load test		398,3	D 50	16,7	0,88						
Locked-rotor test		76,3	D 50	40,5	1,69						
Vibration [mm/s]: 1,1											
Surge comparison test: OK											
Visual inspection, terminal markings and direction of rotation: OK											
Manufactured and tested acc. to IEC/EN 60034-1:2017											
On behalf of customer											
On behalf of manufacturer Date of test: 6.2.2019											
Tested by ABB Oy, Motors and Generators, Vaasa, Finland											
Tommi Panti, Test Floor Manager											



V6.0.1 - 1.0.6950.22347

Routine Test Report				Date of Issue: 6.2.2019						
Customer: Raumaster Oy				Serial No.: 3G1F1903567610						
Customer ref.: WE4019764				Order No.: 1601750-2						
				Type: M3BP 180MLB 4 IMB5/IM3001						
				Product Code: 3GBP182420-BDL						
Rating:										
				V	Hz	kW	r/min	A	cos φ	Duty
3~Motor				690	Y 50	22	1481	24,1	0,82	S1
Ins. Class F				400	D 50	22	1481	41,4	0,82	S1
IP 65				415	D 50	22	1483	40,5	0,81	S1
229 kg				440	D 60	22	1782	37	0,83	S1
				460	D 60	22	1784	35,8	0,82	S1
				IE3-50HZ-93.0%(100%)-93.4%(75%)-93.0%(50%) / IE3-60HZ-93.6%(100%)						
Winding resistance		Measured at 21 °C		Insulation resistance at 21 °C		2000 MΩ		1000 V		
U ₁ - V ₁		0,20056 Ω								
U ₁ - W ₁		0,20056 Ω								
V ₁ - W ₁		0,20022 Ω								
				High-voltage test		2900 V		1 s		
Test		Line U[V]	f[Hz]	Input I[A]	P1 [kW]					
No-load test		396,2 D	50	16,9	0,85					
Locked-rotor test		75,9 D	50	40,3	1,66					
Vibration [mm/s]: 1,1										
Surge comparison test: OK										
Visual inspection, terminal markings and direction of rotation: OK										
Manufactured and tested acc. to IEC/EN 60034-1:2017										
On behalf of customer										
On behalf of manufacturer Date of test: 6.2.2019										
Tested by ABB Oy, Motors and Generators, Vaasa, Finland										
Tommi Panti, Test Floor Manager										

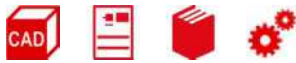
Information

This product
- is a special design

Catalog designation

KA107 AL180
Helical-bevel gear units K

Further information online on <http://www.sew-eurodrive.fi>



Reference data

Your material number : 3455.101
Your reference number : 3455/141927

Product data

Speed [r/min]	: 1400 / 96
Total ratio [i]	: 14,64 / infinite
Ma max [Nm]	: 3.040
Mounting position	: M4A
Lubricant / -volume [l]	: CLP HC 220 Synth.Oil / 31,00
Oil manufacturer designation	: Mobil SHC 630
Corrosion protection	: Yes
Surface protection	: OS2 to technical data sheet 01802__94
Paint coat	: Top coat RAL5015 (sky blue)
Ma max G [Nm]	: 6890
Hollow shaft	: 90mm
Design	: Hollow shaft
Output oil seal	: 2 oil seals
Documentation no. A	: 25803662
	: 28481607
Parts list	: 382691795
Bore on input side	: w/o hole
Special design coupling	: Adapter without coupling
	: SEW code 070
Parts list	: 232810499
Nameplate	: English
Nameplate position	: Attached to the gear unit
Opera.instr. A lang./quantity	: Finnish
Commodity code	: 84834023
Weight	: 300 KG

Parts List

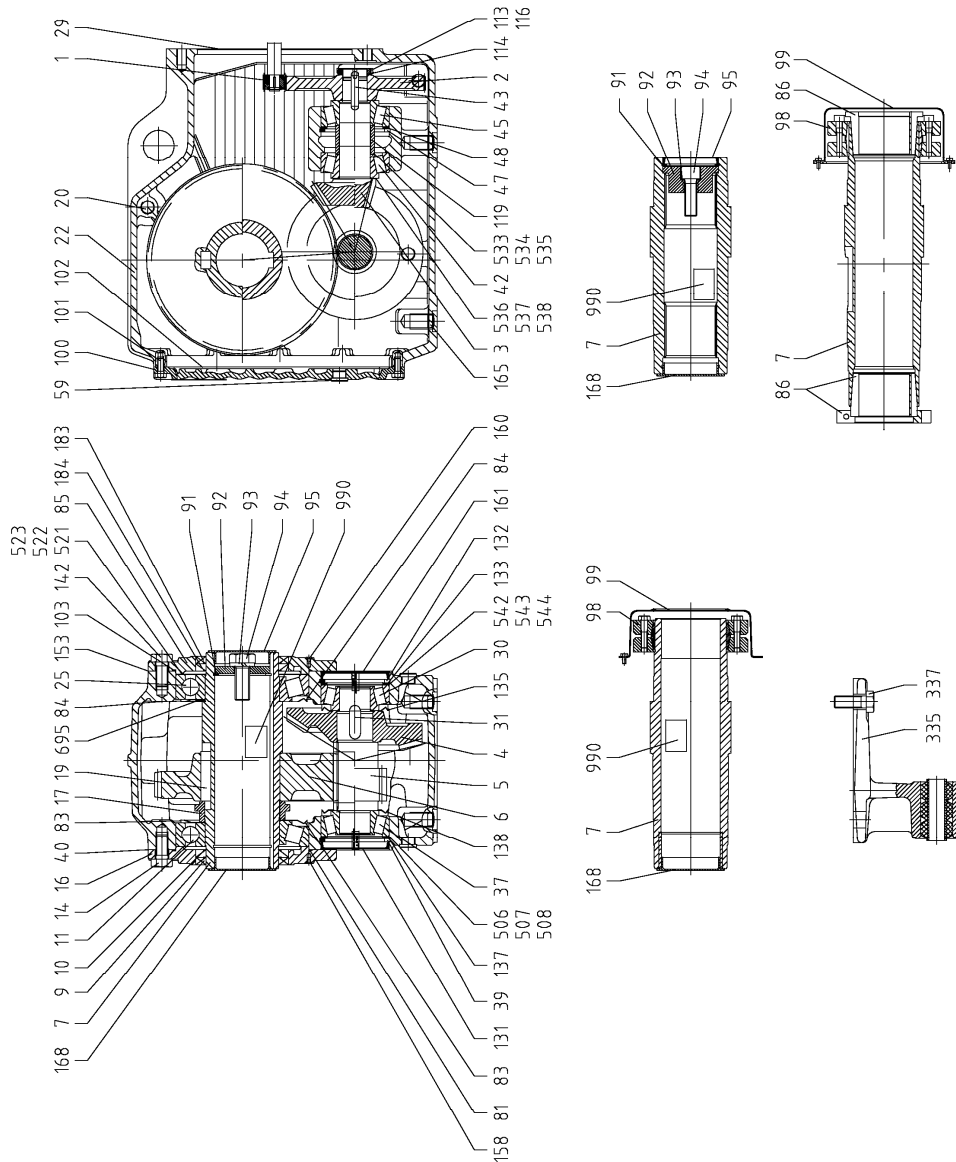
38 269 17 95

SEW
EURODRIVE

Helical-bevel gear unit

KA107, KH107, KV107, KT107, KA107B, KH107B, KV107B, KT107B

EN Page 1 / 4
EG 29.02.2016



When ordering spare parts always quote nameplate data with serial number and designation with part number!
Mount-on gear units have motors, variable speed gear units or special input shaft assemblies mounted on the drive end. For parts see appropriate parts list.

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Parts List

38 269 17 95

Helical-bevel gear unit

KA107, KH107, KV107, KT107, KA107B, KH107B, KV107B, KT107B

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EG 29.02.2016

No.	Description	Additional specifications	SEW standard label	Part No.	Qty.
1	Pinion			*	1
2	Gear			*	1
3	Pinion shaft			*	1
4	Gear			*	1
5	Pinion shaft			*	1
6	Gear			*	1
7	Hollow Shaft	KA107; KA107B	Ø 90 mm	0643262X	1
7	Hollow Shaft (inch)	KA107; KA107B	Ø 3,625 in.	06432840	1
7	Hollow shaft complete	KH107; KH107B	Ø 95 mm	06431798	1
7	Hollow shaft complete	KH107; KH107B; stainless	Ø 95 mm	00426679	1
7	Hollow shaft complete	KH107; KH107B	Ø 95/96 mm	06436978	1
7	Splined hollow shaft	KV107; KV107B	85x3x30x27	06434029	1
7	Hollow Shaft	KT107; KT107B	NG95	10678794	1
7	Hollow Shaft	KT107; KT107B	NG95 AB	10678808	1
7	Hollow Shaft	KT107; KT107B; stainless	NG95	10679162	1
7	Hollow Shaft	KT107; KT107B; stainless	NG95 AB	10679170	1
9	Oil seal		W AS118x150x12-NBR	00115339	1
9	Oil seal	optional oil seal in FKM; ATEX model according to category II2G, II2D, II3G, II3D	W AS118x150x12-FKM	00176095	1
10	Oil seal	Double sealing as an option	W A118x150x12-NBR	0011555X	1
10	Oil seal	optional oil seal in FKM; Double sealing as an option; ATEX model according to category II2G, II2D, II3G, II3D	W A118x150x12-FKM	00175307	1
11	Deep groove ball bearing		6224	00117277	1
11	Tapered roller bearing	Reinforced bearings; KH107, KH107B in reduced backlash design; cold storage	30224	00112666	1
14	Hex head screw		ISO4017 M20x40-8.8-A2F	00122718	4
16	Oil Seal Flange			06431887	1
17	Spacer tube		Ø121,6xØ138x34 mm	06437001	1
17	Spacer tube	Reinforced bearings; KH107, KH107B in reduced backlash design; cold storage	Ø121,6xØ138x30,5 mm	06433367	1
19	Key		DIN6885-1 B28x16x80 55HRC	00116084	1
20	Breather valve		W4087 M22x1,5-CuZn-HEI	0013032X	1
22	Gear Housing	KA107; KH107; KV107; KT107		0643083X	1
22	Gear Housing	KA107B; KH107B; KV107B; KT107B		06430813	1
25	Deep groove ball bearing		6224	00117277	1
25	Tapered roller bearing	Reinforced bearings; KH107, KH107B in reduced backlash design; cold storage	30224	00112666	1
29	Sealing compound			09102558	X)
30	Tapered roller bearing		32310	0012124X	1
31	Key		DIN6885-1 AB18x11x45 55HRC	00135496	1
37	Tapered roller bearing		32310	0012124X	1
39	Retaining ring		W4161 110x5-FS	00130184	1
40	Sealing compound			09102558	X)
42	Tapered roller bearing		32310	0012124X	1
43	Key		DIN6885-1 B12x8x50 55HRC	00135100	1
45	Tapered roller bearing		32310	0012124X	1
47	Retaining ring		W4161 110x5-FS	00130184	1
48	Supporting disc		DIN988 S90x110x3,5-FS	00103594	1
59	Screw plug		W4085 B-M22x1,5-St-	00114316	7
81	O-ring		W4283 210x3-NBR70	00176575	1
83	Shield ring		W4585 6224-AV	00118036	1

* Gearing parts have embossed part numbers. These must always be quoted!

X) if required

When ordering spare parts always quote nameplate data with serial number and designation with part number!

Mount-on gear units have motors, variable speed gear units or special input shaft assemblies mounted on the drive end. For parts see appropriate parts list.

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Parts List

38 269 17 95

Helical-bevel gear unit

KA107, KH107, KV107, KT107, KA107B, KH107B, KV107B, KT107B

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EG 29.02.2016

No.	Description	Additional specifications	SEW standard label	Part No.	Qty.
83	Shield ring	Reinforced bearings; KH107, KH107B in reduced backlash design; cold storage	W4587 30224-AV	00111228	1
84	Shield ring		W4585 6224-AV	00118036	1
84	Shield ring	Reinforced bearings; KH107, KH107B in reduced backlash design; cold storage	W4587 30224-AV	00111228	1
85	Oil Seal Flange			06431887	1
86	Clamp set complete	KT107; KT107B	Ø 80 mm	10680462	1
86	Clamp set complete	KT107; KT107B	Ø 85 mm	10680470	1
86	Clamp set complete	KT107; KT107B	Ø 90 mm	10680489	1
86	Clamp set complete	KT107; KT107B	Ø 92 mm	10680527	1
86	Clamp set complete	KT107; KT107B	Ø 95 mm	10680497	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 80 mm	10679189	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 85 mm	10679197	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 90 mm	10679200	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 92 mm	10679243	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 95 mm	10679219	1
86	Clamp set complete	KT107; KT107B	Ø 3,250 in.	10680500	1
86	Clamp set complete	KT107; KT107B	Ø 3,4375 in.	10680519	1
86	Clamp set complete	KT107; KT107B	Ø 3,625 in.	10680527	1
86	Clamp set complete	KT107; KT107B	Ø 3,750 in.	10680535	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 3,250 in.	10679227	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 3,4375 in.	10679235	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 3,625 in.	10679243	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 3,750 in.	10679251	1
91	Retaining ring	KA107; KV107; KA107B; KV107B	DIN472 90x3-FS	00103268	1
91	Retaining ring	KA107; KA107B; For inch hollow shaft	DIN472 92x3-FS	08069352	1
92	Disc	KA107; KA107B	W4126 26x89x12-St	01034111	1
92	Disc	KA107; KA107B	W4126 13/16x3,6x1/2-St	08069514	1
92	Disc	KV107; KV107B		0117407X	1
93	Lock washer	KA107; KA107B	DIN128 A24-FS-Q3F	00109975	1
93	Lock washer	KA107; KA107B; For inch hollow shaft	DIN128 A20-FS-Q3F	00109967	1
93	Supporting disc	KV107; KV107B	DIN988 S22x32x2-FS	00103446	1
94	Hex head screw	KA107; KA107B	ISO4017 M24x60-8.8-A2F	00110205	1
94	Hex head screw	KA107; KA107B	ASME 3/4-10x2-GR5-A2F	08069581	1
94	Machine screw	KV107; KV107B	ISO4762 M20x60-8.8-A2F	00123315	1
95	Closing plug	KA107; KA107B	W4299 1-91-PE-LD-BK	01146602	1
95	Closing plug	KA107; KA107B	W4299 7-91,5-PE-LD-BK	00127779	1
95	Closing cap	KV107; KV107B	W4300 1-90x12	00111627	1
98	Shrink disk	KH107; KH107B	W4941 DK-115x185	01226495	1
98	Shrink disk	KT107; KT107B	W4941 DK-115x185-TL	10679278	1
98	Shrink disk	KH107; KH107B; KT107; KT107B; stainless	W4941 DK-115x185-Niro	19067704	1
99	Hood cover complete	KH107; KH107B		0643519X	1
99	Hood cover complete	KH107; KH107B; ATEX model according to category II2G, II2D, II3G, II3D; stainless		06421814	1
99	Hood cover complete	KT107; KT107B; stainless		10679111	1
100	Gear unit cover			06432484	1
101	Hex head screw		ISO4017 M10x25-8.8-A2F	00101168	10
102	Sealing compound			09102558	X)
103	O-ring		W4283 210x3-NBR70	00176575	1
113	Grooved nut		DIN981 KM8-St	0012172X	1
114	Multi-tang washer		DIN5406 MB8-St	00121592	1
116	Threadlocker			09102426	1
119	Spacer tube		Ø51xØ63x46 mm	06433472	1
131	Closing cap		W4300 1-110x12	0011166X	1
132	Retaining ring		W4161 110x5-FS	00130184	1
133	Supporting disc		DIN988 S90x110x3,5-FS	00103594	1

X) if required

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Parts List

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Helical-bevel gear unit

KA107, KH107, KV107, KT107, KA107B, KH107B, KV107B, KT107B

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No.	Description	Additional specifications	SEW standard label	Part No.	Qty.
135	Shield ring	Only for mounting positions M5A, MXA or M5B, MXB with reverse direction of rotation or M5 with multi-stage gear unit	W4587 32310-AV	00136476	1
137	Supporting disc		DIN988 S90x110x3,5-FS	00103594	1
138	Shield ring	Only for mounting positions M6B, MXB or M6A, MXA with reverse direction of rotation or M6 with multi-stage gear unit	W4587 32310-AV	00136476	1
142	Hex head screw		ISO4017 M20x40-8.8-A2F	00122718	4
153	Sealing compound			09102558	X)
158	Closing plug		W4299 4-5,4-PE-LD-NA	00113824	4
160	Closing plug		W4299 4-5,4-PE-LD-NA	00113824	4
161	Closing cap		W4300 1-110x12	0011166X	1
165	Closing plug	KA107; KH107; KV107; KT107	W4299 1-21,7-PE-LD-NA	0011376X	4
168	Closing plug	KA107; KH107B	W4299 1-91-PE-LD-BK	01146602	1
168	Closing plug	KA107; KA107B; For inch hollow shaft	W4299 7-91,5-PE-LD-BK	00127779	1
168	Closing plug	KH107; KH107B	W4299 1-96-PE-LD-BK	00126845	1
168	Closing cap	KV107; KV107B	W4300 1-90x12	00111627	1
183	Oil seal		W AS118x150x12-NBR	00115339	1
183	Oil seal	optional oil seal in FKM; ATEX model according to category II2G, II2D, II3G, II3D	W AS118x150x12-FKM	00176095	1
184	Oil seal	Double sealing as an option	W A118x150x12-NBR	0011555X	1
184	Oil seal	optional oil seal in FKM; Double sealing as an option; ATEX model according to category II2G, II2D, II3G, II3D	W A118x150x12-FKM	00175307	1
335	Torque arm complete	KA107; KH107; KV107; KT107		06434436	1
337	Fastening part	optional for torque arm		18760678	1
506	Shim		DIN988 90x110x0,1-St	00103829	X)
507	Shim		DIN988 90x110x0,3-St	0010406X	X)
508	Shim		DIN988 90x110x0,5-St	00104221	X)
521	Shim		W4140 185x215x0,1-St	00113360	X)
522	Shim		W4140 185x215x0,3-St	00113492	X)
523	Shim		W4140 185x215x0,5-St	00113573	X)
533	Shim		DIN988 50x62x0,1-St	00103764	X)
534	Shim		DIN988 50x62x0,3-St	00104000	X)
535	Shim		DIN988 50x62x0,5-St	00104183	X)
536	Shim		DIN988 50x62x0,1-St	00103764	X)
537	Shim		DIN988 50x62x0,3-St	00104000	X)
538	Shim		DIN988 50x62x0,5-St	00104183	X)
542	Shim		DIN988 90x110x0,1-St	00103829	X)
543	Shim		DIN988 90x110x0,3-St	0010406X	X)
544	Shim		DIN988 90x110x0,5-St	00104221	X)
695	Supporting disc	not necessary with reinforced bearings	DIN988 S120x150x3,5-FS	00120324	1
990	Contact corrosion inhibitor	KA107; KV107; KA107B; KV107B		09107819	2
990	Contact corrosion inhibitor	KH107; KT107; KH107B; KT107B		09107819	1

X) if required

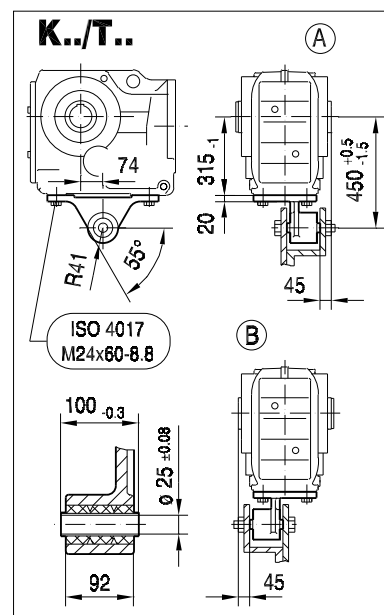
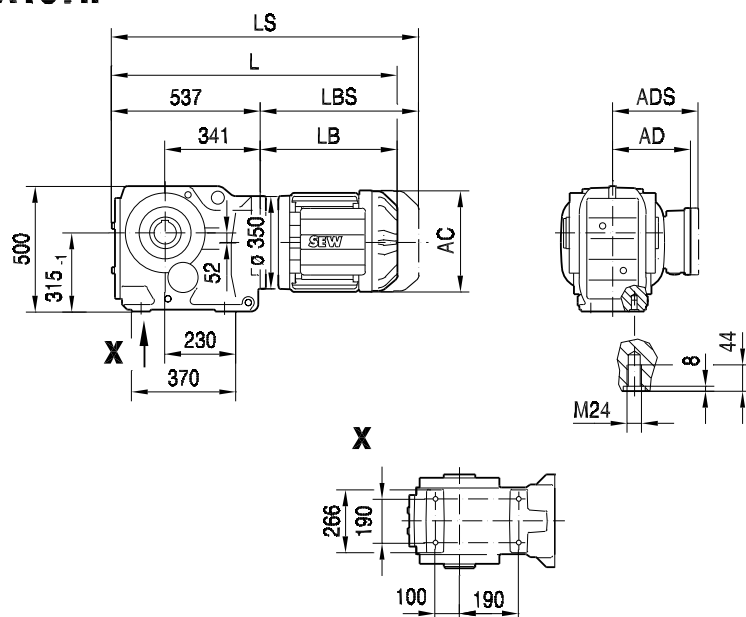
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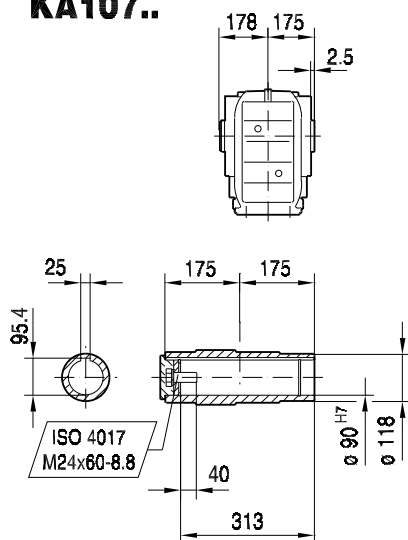
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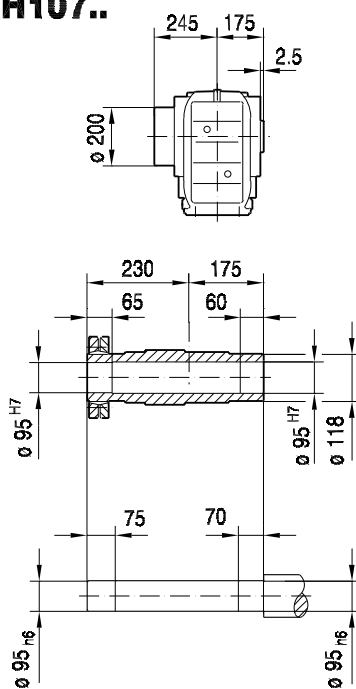
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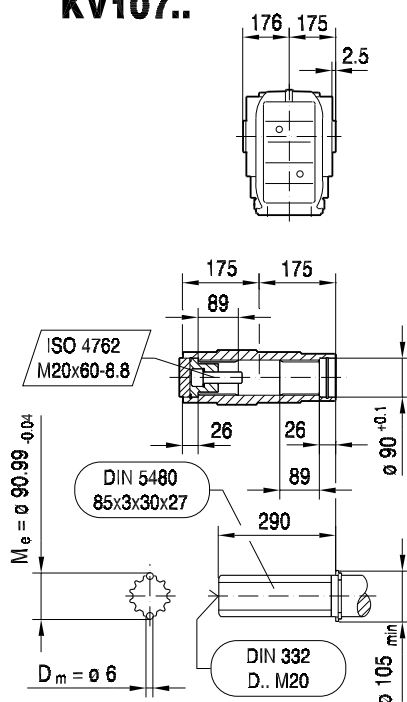
KA107..



KH107..



KV107..



(→ 131)	DR100L/LC	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC
AC	197	221	221	270	316	316	394	394	394
AD	157	170	170	228	253	253	283	283	283
ADS	158	172	172	228	253	253	283	283	283
L	857	900	950	991	1060	1120	1193	1193	1243
LS	950	1012	1062	1128	1249	1309	1398	1398	1448
LB	320	363	413	454	523	583	656	656	706
LBS	413	475	525	591	712	772	861	861	911

Information

This product
- is a special design

Catalog designation

KA107 AL180
Helical-bevel gear units K

Further information online on <http://www.sew-eurodrive.fi>



Reference data

Your material number : 3455.102
Your reference number : 3455/141927

Product data

Speed [r/min]	: 1400 / 96
Total ratio [i]	: 14,64 / infinite
Ma max [Nm]	: 3.040
Mounting position	: M4B
Lubricant / -volume [l]	: CLP HC 220 Synth.Oil / 31,00
Oil manufacturer designation	: Mobil SHC 630
Corrosion protection	: Yes
Surface protection	: OS2 to technical data sheet 01802__94
Paint coat	: Top coat RAL5015 (sky blue)
Ma max G [Nm]	: 6890
Hollow shaft	: 90mm
Design	: Hollow shaft
Output oil seal	: 2 oil seals
Documentation no. A	: 25803662
	: 28481607
Parts list	: 382691795
Bore on input side	: w/o hole
Special design coupling	: Adapter without coupling
	: SEW code 070
Parts list	: 232810499
Nameplate	: English
Nameplate position	: Attached to the gear unit
Opera.instr. A lang./quantity	: Finnish
Commodity code	: 84834023
Weight	: 300 KG

Parts List

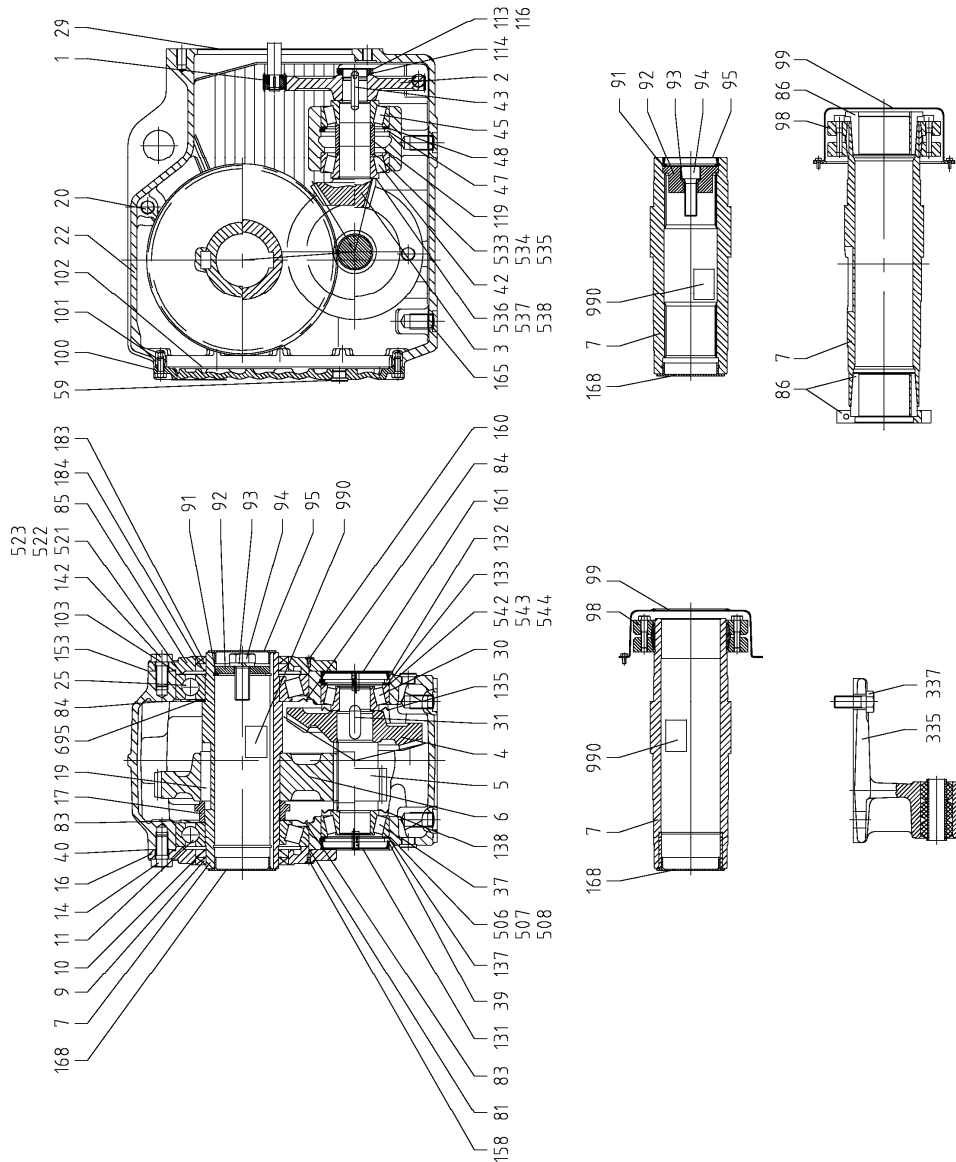
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Helical-bevel gear unit

KA107, KH107, KV107, KT107, KA107B, KH107B, KV107B, KT107B

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Parts List

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Helical-bevel gear unit

KA107, KH107, KV107, KT107, KA107B, KH107B, KV107B, KT107B

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EG 29.02.2016

No.	Description	Additional specifications	SEW standard label	Part No.	Qty.
1	Pinion			*	1
2	Gear			*	1
3	Pinion shaft			*	1
4	Gear			*	1
5	Pinion shaft			*	1
6	Gear			*	1
7	Hollow Shaft	KA107; KA107B	Ø 90 mm	0643262X	1
7	Hollow Shaft (inch)	KA107; KA107B	Ø 3,625 in.	06432840	1
7	Hollow shaft complete	KH107; KH107B	Ø 95 mm	06431798	1
7	Hollow shaft complete	KH107; KH107B; stainless	Ø 95 mm	00426679	1
7	Hollow shaft complete	KH107; KH107B	Ø 95/96 mm	06436978	1
7	Splined hollow shaft	KV107; KV107B	85x3x30x27	06434029	1
7	Hollow Shaft	KT107; KT107B	NG95	10678794	1
7	Hollow Shaft	KT107; KT107B	NG95 AB	10678808	1
7	Hollow Shaft	KT107; KT107B; stainless	NG95	10679162	1
7	Hollow Shaft	KT107; KT107B; stainless	NG95 AB	10679170	1
9	Oil seal		W AS118x150x12-NBR	00115339	1
9	Oil seal	optional oil seal in FKM; ATEX model according to category II2G, II2D, II3G, II3D	W AS118x150x12-FKM	00176095	1
10	Oil seal	Double sealing as an option	W A118x150x12-NBR	0011555X	1
10	Oil seal	optional oil seal in FKM; Double sealing as an option; ATEX model according to category II2G, II2D, II3G, II3D	W A118x150x12-FKM	00175307	1
11	Deep groove ball bearing		6224	00117277	1
11	Tapered roller bearing	Reinforced bearings; KH107, KH107B in reduced backlash design; cold storage	30224	00112666	1
14	Hex head screw		ISO4017 M20x40-8.8-A2F	00122718	4
16	Oil Seal Flange			06431887	1
17	Spacer tube		Ø121,6xØ138x34 mm	06437001	1
17	Spacer tube	Reinforced bearings; KH107, KH107B in reduced backlash design; cold storage	Ø121,6xØ138x30,5 mm	06433367	1
19	Key		DIN6885-1 B28x16x80 55HRC	00116084	1
20	Breather valve		W4087 M22x1,5-CuZn-HEI	0013032X	1
22	Gear Housing	KA107; KH107; KV107; KT107		0643083X	1
22	Gear Housing	KA107B; KH107B; KV107B; KT107B		06430813	1
25	Deep groove ball bearing		6224	00117277	1
25	Tapered roller bearing	Reinforced bearings; KH107, KH107B in reduced backlash design; cold storage	30224	00112666	1
29	Sealing compound			09102558	X)
30	Tapered roller bearing		32310	0012124X	1
31	Key		DIN6885-1 AB18x11x45 55HRC	00135496	1
37	Tapered roller bearing		32310	0012124X	1
39	Retaining ring		W4161 110x5-FS	00130184	1
40	Sealing compound			09102558	X)
42	Tapered roller bearing		32310	0012124X	1
43	Key		DIN6885-1 B12x8x50 55HRC	00135100	1
45	Tapered roller bearing		32310	0012124X	1
47	Retaining ring		W4161 110x5-FS	00130184	1
48	Supporting disc		DIN988 S90x110x3,5-FS	00103594	1
59	Screw plug		W4085 B-M22x1,5-St-	00114316	7
81	O-ring		W4283 210x3-NBR70	00176575	1
83	Shield ring		W4585 6224-AV	00118036	1

* Gearing parts have embossed part numbers. These must always be quoted!

X) if required

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Parts List

38 269 17 95

Helical-bevel gear unit

KA107, KH107, KV107, KT107, KA107B, KH107B, KV107B, KT107B

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No.	Description	Additional specifications	SEW standard label	Part No.	Qty.
83	Shield ring	Reinforced bearings; KH107, KH107B in reduced backlash design; cold storage	W4587 30224-AV	00111228	1
84	Shield ring		W4585 6224-AV	00118036	1
84	Shield ring	Reinforced bearings; KH107, KH107B in reduced backlash design; cold storage	W4587 30224-AV	00111228	1
85	Oil Seal Flange			06431887	1
86	Clamp set complete	KT107; KT107B	Ø 80 mm	10680462	1
86	Clamp set complete	KT107; KT107B	Ø 85 mm	10680470	1
86	Clamp set complete	KT107; KT107B	Ø 90 mm	10680489	1
86	Clamp set complete	KT107; KT107B	Ø 92 mm	10680527	1
86	Clamp set complete	KT107; KT107B	Ø 95 mm	10680497	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 80 mm	10679189	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 85 mm	10679197	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 90 mm	10679200	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 92 mm	10679243	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 95 mm	10679219	1
86	Clamp set complete	KT107; KT107B	Ø 3,250 in.	10680500	1
86	Clamp set complete	KT107; KT107B	Ø 3,4375 in.	10680519	1
86	Clamp set complete	KT107; KT107B	Ø 3,625 in.	10680527	1
86	Clamp set complete	KT107; KT107B	Ø 3,750 in.	10680535	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 3,250 in.	10679227	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 3,4375 in.	10679235	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 3,625 in.	10679243	1
86	Clamp set complete	KT107; KT107B; stainless	Ø 3,750 in.	10679251	1
91	Retaining ring	KA107; KV107; KA107B; KV107B	DIN472 90x3-FS	00103268	1
91	Retaining ring	KA107; KA107B; For inch hollow shaft	DIN472 92x3-FS	08069352	1
92	Disc	KA107; KA107B	W4126 26x89x12-St	01034111	1
92	Disc	KA107; KA107B	W4126 13/16x3,6x1/2-St	08069514	1
92	Disc	KV107; KV107B		0117407X	1
93	Lock washer	KA107; KA107B	DIN128 A24-FS-Q3F	00109975	1
93	Lock washer	KA107; KA107B; For inch hollow shaft	DIN128 A20-FS-Q3F	00109967	1
93	Supporting disc	KV107; KV107B	DIN988 S22x32x2-FS	00103446	1
94	Hex head screw	KA107; KA107B	ISO4017 M24x60-8.8-A2F	00110205	1
94	Hex head screw	KA107; KA107B	ASME 3/4-10x2-GR5-A2F	08069581	1
94	Machine screw	KV107; KV107B	ISO4762 M20x60-8.8-A2F	00123315	1
95	Closing plug	KA107; KA107B	W4299 1-91-PE-LD-BK	01146602	1
95	Closing plug	KA107; KA107B	W4299 7-91,5-PE-LD-BK	00127779	1
95	Closing cap	KV107; KV107B	W4300 1-90x12	00111627	1
98	Shrink disk	KH107; KH107B	W4941 DK-115x185	01226495	1
98	Shrink disk	KT107; KT107B	W4941 DK-115x185-TL	10679278	1
98	Shrink disk	KH107; KH107B; KT107; KT107B; stainless	W4941 DK-115x185-Niro	19067704	1
99	Hood cover complete	KH107; KH107B		0643519X	1
99	Hood cover complete	KH107; KH107B; ATEX model according to category II2G, II2D, II3G, II3D; stainless		06421814	1
99	Hood cover complete	KT107; KT107B; stainless		10679111	1
100	Gear unit cover			06432484	1
101	Hex head screw		ISO4017 M10x25-8.8-A2F	00101168	10
102	Sealing compound			09102558	X)
103	O-ring		W4283 210x3-NBR70	00176575	1
113	Grooved nut		DIN981 KM8-St	0012172X	1
114	Multi-tang washer		DIN5406 MB8-St	00121592	1
116	Threadlocker			09102426	1
119	Spacer tube		Ø51xØ63x46 mm	06433472	1
131	Closing cap		W4300 1-110x12	0011166X	1
132	Retaining ring		W4161 110x5-FS	00130184	1
133	Supporting disc		DIN988 S90x110x3,5-FS	00103594	1

X) if required

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Parts List

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Helical-bevel gear unit

KA107, KH107, KV107, KT107, KA107B, KH107B, KV107B, KT107B

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No.	Description	Additional specifications	SEW standard label	Part No.	Qty.
135	Shield ring	Only for mounting positions M5A, MXA or M5B, MXB with reverse direction of rotation or M5 with multi-stage gear unit	W4587 32310-AV	00136476	1
137	Supporting disc		DIN988 S90x110x3,5-FS	00103594	1
138	Shield ring	Only for mounting positions M6B, MXB or M6A, MXA with reverse direction of rotation or M6 with multi-stage gear unit	W4587 32310-AV	00136476	1
142	Hex head screw		ISO4017 M20x40-8.8-A2F	00122718	4
153	Sealing compound			09102558	X)
158	Closing plug		W4299 4-5,4-PE-LD-NA	00113824	4
160	Closing plug		W4299 4-5,4-PE-LD-NA	00113824	4
161	Closing cap		W4300 1-110x12	0011166X	1
165	Closing plug	KA107; KH107; KV107; KT107	W4299 1-21,7-PE-LD-NA	0011376X	4
168	Closing plug	KA107; KH107B	W4299 1-91-PE-LD-BK	01146602	1
168	Closing plug	KA107; KA107B; For inch hollow shaft	W4299 7-91,5-PE-LD-BK	00127779	1
168	Closing plug	KH107; KH107B	W4299 1-96-PE-LD-BK	00126845	1
168	Closing cap	KV107; KV107B	W4300 1-90x12	00111627	1
183	Oil seal		W AS118x150x12-NBR	00115339	1
183	Oil seal	optional oil seal in FKM; ATEX model according to category II2G, II2D, II3G, II3D	W AS118x150x12-FKM	00176095	1
184	Oil seal	Double sealing as an option	W A118x150x12-NBR	0011555X	1
184	Oil seal	optional oil seal in FKM; Double sealing as an option; ATEX model according to category II2G, II2D, II3G, II3D	W A118x150x12-FKM	00175307	1
335	Torque arm complete	KA107; KH107; KV107; KT107		06434436	1
337	Fastening part	optional for torque arm		18760678	1
506	Shim		DIN988 90x110x0,1-St	00103829	X)
507	Shim		DIN988 90x110x0,3-St	0010406X	X)
508	Shim		DIN988 90x110x0,5-St	00104221	X)
521	Shim		W4140 185x215x0,1-St	00113360	X)
522	Shim		W4140 185x215x0,3-St	00113492	X)
523	Shim		W4140 185x215x0,5-St	00113573	X)
533	Shim		DIN988 50x62x0,1-St	00103764	X)
534	Shim		DIN988 50x62x0,3-St	00104000	X)
535	Shim		DIN988 50x62x0,5-St	00104183	X)
536	Shim		DIN988 50x62x0,1-St	00103764	X)
537	Shim		DIN988 50x62x0,3-St	00104000	X)
538	Shim		DIN988 50x62x0,5-St	00104183	X)
542	Shim		DIN988 90x110x0,1-St	00103829	X)
543	Shim		DIN988 90x110x0,3-St	0010406X	X)
544	Shim		DIN988 90x110x0,5-St	00104221	X)
695	Supporting disc	not necessary with reinforced bearings	DIN988 S120x150x3,5-FS	00120324	1
990	Contact corrosion inhibitor	KA107; KV107; KA107B; KV107B		09107819	2
990	Contact corrosion inhibitor	KH107; KT107; KH107B; KT107B		09107819	1

X) if required

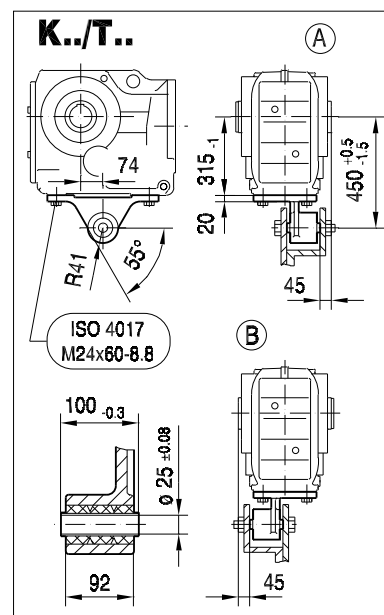
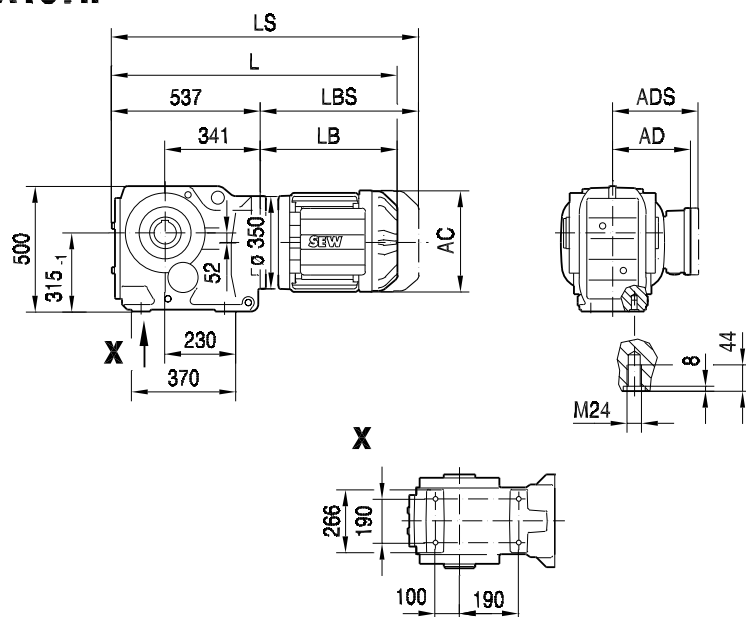
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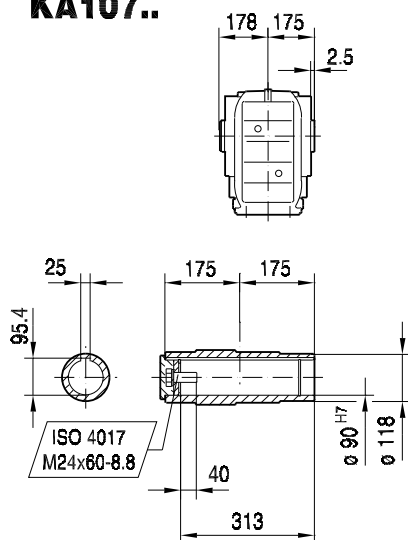
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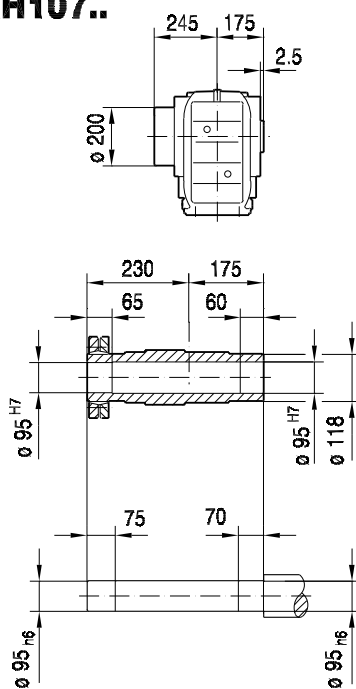
KA107..



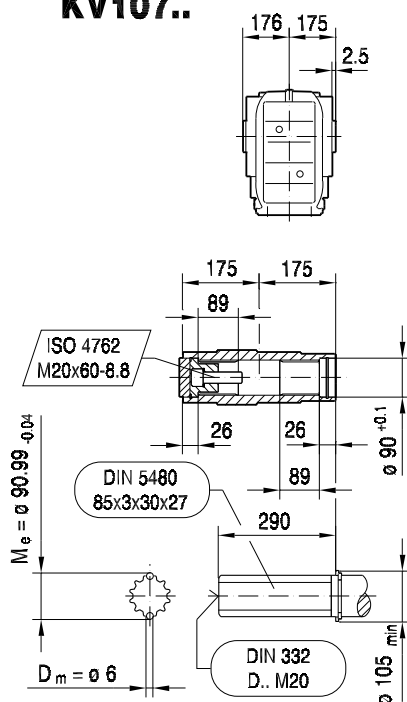
KA107..



KH107..



KV107..



(→ 131)	DR100L/LC	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC
AC	197	221	221	270	316	316	394	394	394
AD	157	170	170	228	253	253	283	283	283
ADS	158	172	172	228	253	253	283	283	283
L	857	900	950	991	1060	1120	1193	1193	1243
LS	950	1012	1062	1128	1249	1309	1398	1398	1448
LB	320	363	413	454	523	583	656	656	706
LBS	413	475	525	591	712	772	861	861	911

Technical specification to the order

Date: 27.12.2018

P.O.number/ Date :	3455/141927	Date:	19.12.2018
Order number/ Position:	6470 77243149 100		
Description:	Bevel-helical gear unit		
Type:	X3KA210/HU/B		
Your material number:	3455.103		
Quantity:	1		

Serialnumber	: 64.7724314901.0001.19
Industry	: Energy
Field of Application	: Crushers
Type of driving machine	: AC-motor
Operating time per day	: More than 10 hours
Operating cycle / hour ED [%]	: 100
Altitude [m above MSL]	: 0...< 1000
Installation site	: Large rooms and halls (Va >= 1.4 m/s)
Ambient conditions	: normal
Housing machining	: Universal
Ambient temp. min./max. [°C]	: -25 / 50
Motor power, nominal PM [kW]	: 160,00
Operating power PK1 [kW]	: 160,00
Operating torque MK2 [Nm]	: 44133
Input speed [r/min]	: 1500,0
Ratio	: 44,85
Output speed [rpm]	: 33
Nominal power PN1 [kW]	: 326,00
Nominal gear torque MN2 [Nm]	: 90000
Service factor Fs	: 2,03
Reference value for Fs	: Nominal motor power PM
Add. forces at input shaft end	: None
Add.forces at output shaft end	: None
Mounting position	: M1
Shaft position	: 03
Mounting surface	: F1
Input shaft [mm]	: 80m6 x 170
Low speed shaft LSS [mm]	: 190
Rotation direction output	: Both
LSS type	: Hollow shaft with keyway
Housing fixation	: Foot mounting
Speed HSS, n1 min [1/min]	: 1500
Speed HSS, n1 max [1/min]	: 1500
Outp. torque MK2 at n2 min[Nm]	: 44000
Outp. torque MK2 at n2 max[Nm]	: 44000
Type of lubrication	: Splash lubrication
Oil level check	: Oil level glass
Oil drain	: Oil drain valve
Oil drain valve angle [°]	: 0
ISO code	: CLP HC 220 Synth.Oil
Lubricant qty. [l] gear unit	: 105
Max. perm. oil viscosity [cSt]	: 19.000
Scope of delivery lubricant	: With oil filling
Note	: The correct oil level may change during

Technical specification to the order

Date: 27.12.2018

transportation and due to different ambient conditions at the installation site. Therefore, you must check the oil filling before startup and correct, if necessary. Decisive for the oil quantity to be filled is the marking on the oil sight glass or oil dipstick. The nameplate data are approximate values, refer to the operating instructions for detailed information.

Number of fans	: 1
Scope of delivery fan guard	: Fan guard included in delivery
Useful shaft end fan mounting	: 80x115
Breather position	: Enclosed in delivery
Sealing system HSS	: Dust-protected, oil seal with dust protection cover
HSS oil seal material	: FKM
Sealing system LSS	: Dust-protected, oil seal with dust protection cover
LSS oil seal material	: FKM
LSS oil seal quantity	: 2
Bearing variant output shaft	: Reinforced axial 1
Dokumentation language / qty	: English / 1
Documentation no. A	: 23022116
Dokumentation language / qty	: Lithuanian / 1
Documentation no. B	: 19359071
Surface protection	: OS2 to technical data sheet 01802__94
Color	: RAL5015 Sky blue
Nameplate	: English
Commodity code	: 84834023
net weight [kg]	: approx. 1990/PC 1990/Pos.

Technical specification to the order

Date: 27.12.2018

Technical specification to the order

Date: 27.12.2018

Do you require additional information regarding your order?

The transaction overview offers you a compact overview of all your current orders after initial activation:

[https://www.sew-](https://www.sew-eurodrive.fi/os/c/main.do?viewset=OVERVIEW)

[eurodrive.fi/os/c/main.do?viewset=OVERVIEW](https://www.sew-eurodrive.fi/os/c/main.do?viewset=OVERVIEW)<(>&<)>type=order<(>&<)>language=EN_US<(>&<)>utm_source=out
put

It also contains CAD data, documentations, or technical product data for the ordered products.

In addition, you can create a documentation package for several products.

List of spare and wear parts

Bevel-helical gear unit
X3KA210/HU/B
i = 44,85

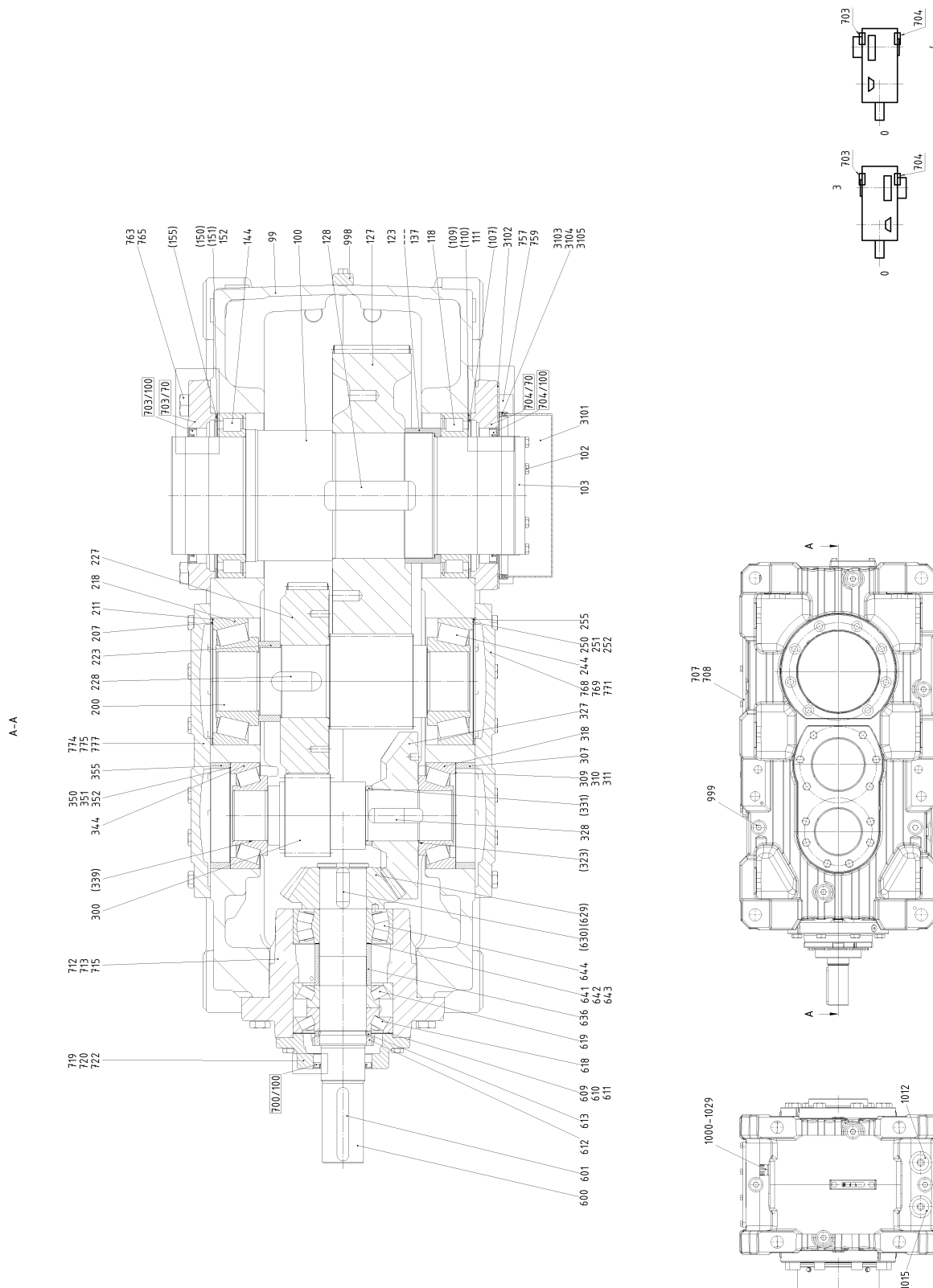
Order no.: 77243149
Serial no.: 64.7724314901.0001.19
Cust. order no.: 3455/141927
Customer ref.: Tuominen

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EN

Page 1 / 8

27.12.2018



1) The component has a serial number depending on its position on the housing in the specified area.
Refer to the list of spare and wear parts for the relevant serial number.

List of spare and wear parts

Bevel-helical gear unit
X3KA210/HU/B
i = 44,85

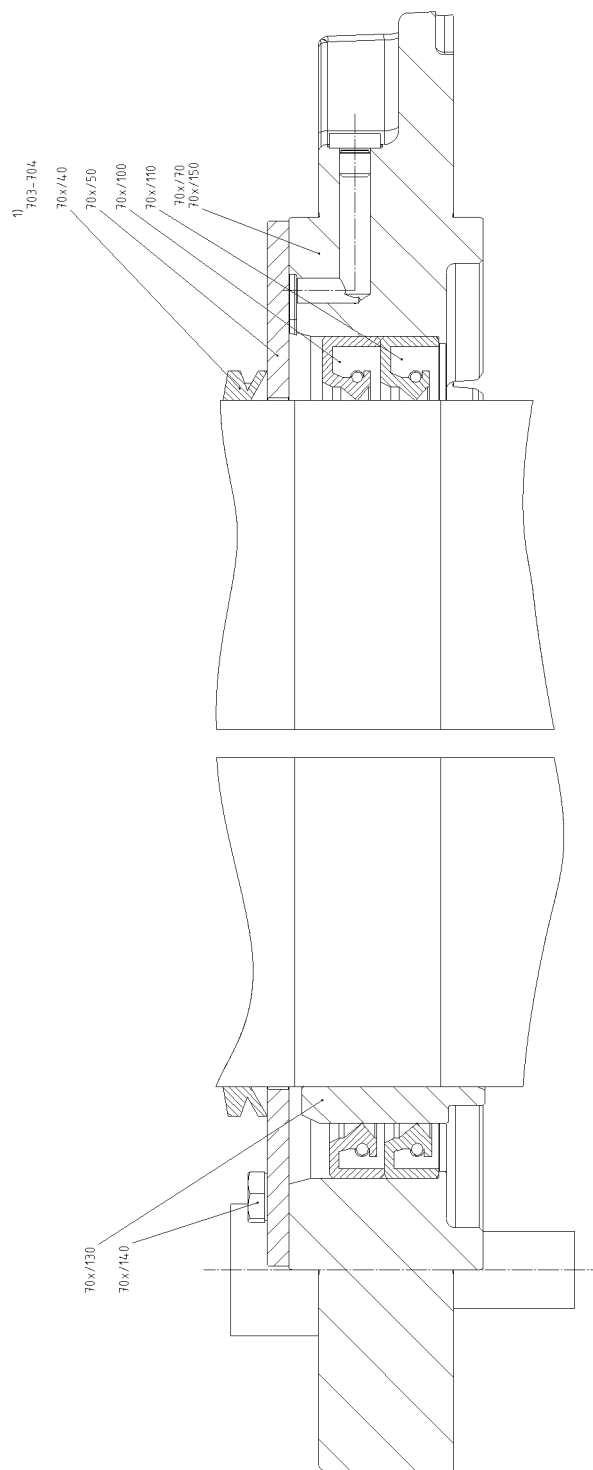
Order no.: 77243149
Serial no.: 64.7724314901.0001.19
Cust. order no.: 3455/141927
Customer ref.: Tuominen

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EN

Page 2 / 8

27.12.2018



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List of spare and wear parts

Bevel-helical gear unit
X3KA210/HU/B
i = 44,85

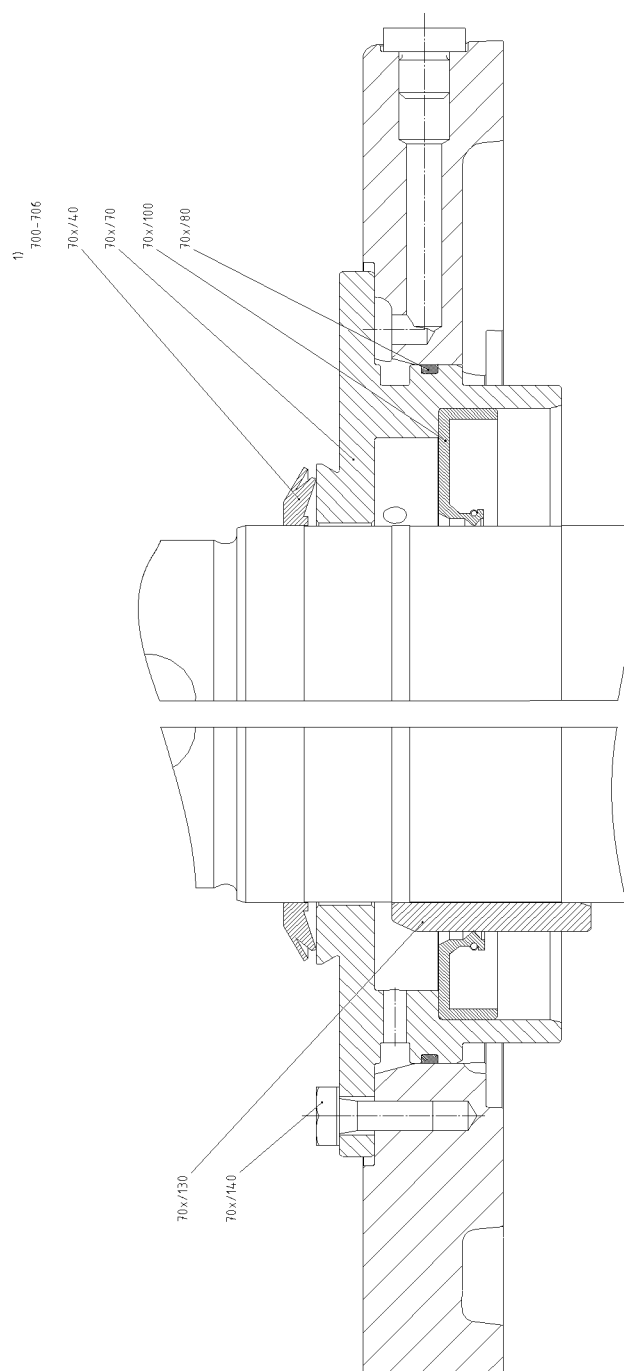
Order no.: 77243149
Serial no.: 64.7724314901.0001.19
Cust. order no.: 3455/141927
Customer ref.: Tuominen

SEW
EURODRIVE

EN

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27.12.2018



¹⁾The component has a serial number depending on its position on the housing in the specified area.
Refer to the list of spare and wear parts for the relevant serial number.

List of spare and wear parts

Bevel-helical gear unit
X3KA210/HU/B
 $i = 44,85$

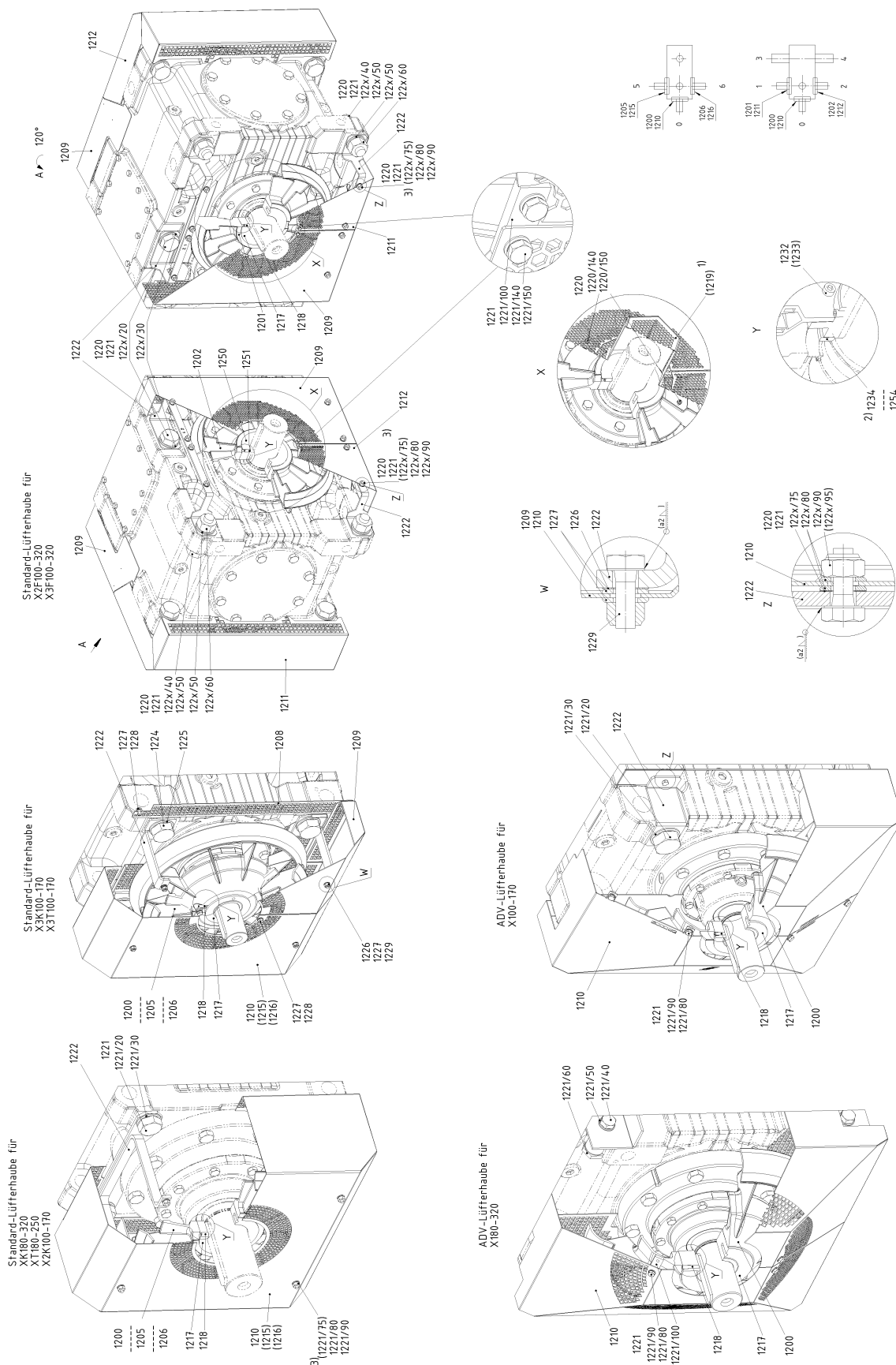
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Serial no.: 64.7724314901.0001.19
Cust. order no.: 3455/141927
Customer ref.: Tuominen

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EURODRIVE

EN

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27.12.2018



1) The component has a serial number depending on its position on the housing in the specified area. Refer to the list of spare and wear parts for the relevant serial number.

List of spare and wear parts

Bevel-helical gear unit
X3KA210/HU/B
i = 44,85

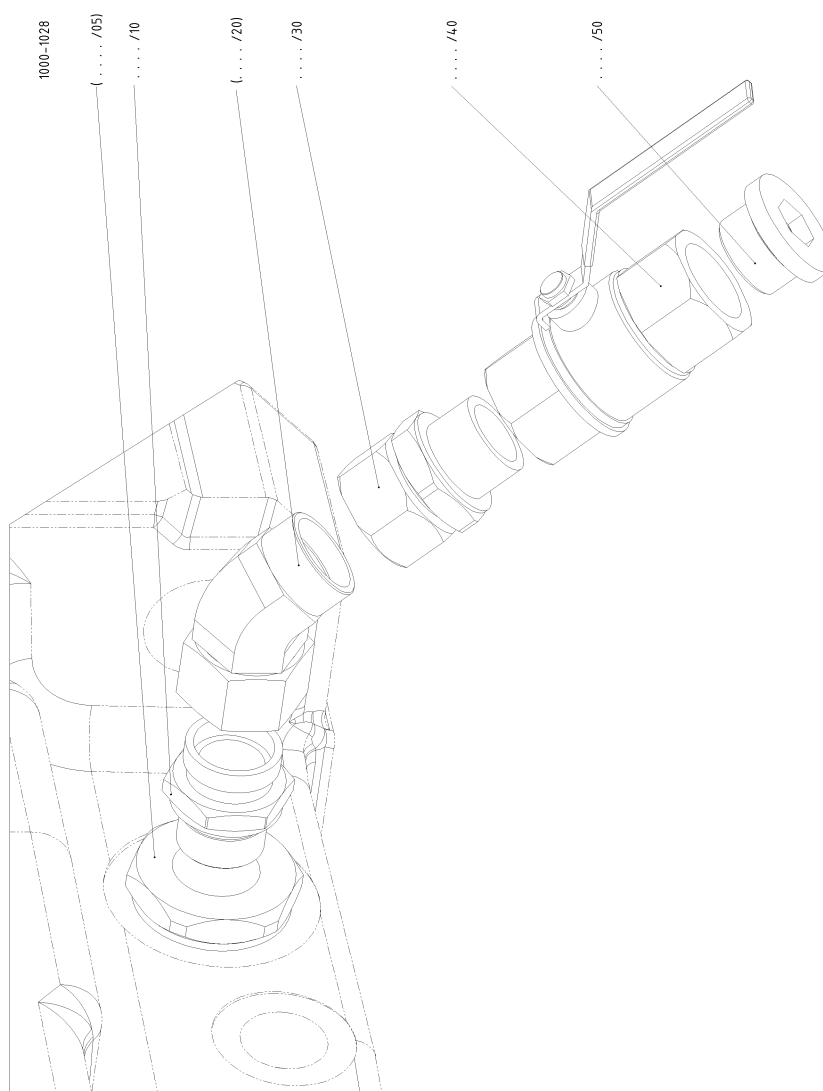
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Serial no.: 64.7724314901.0001.19
Cust. order no.: 3455/141927
Customer ref.: Tuominen

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27.12.2018



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Refer to the list of spare and wear parts for the relevant serial number.

List of spare and wear parts

Bevel-helical gear unit
X3KA210/HU/B
i = 44,85

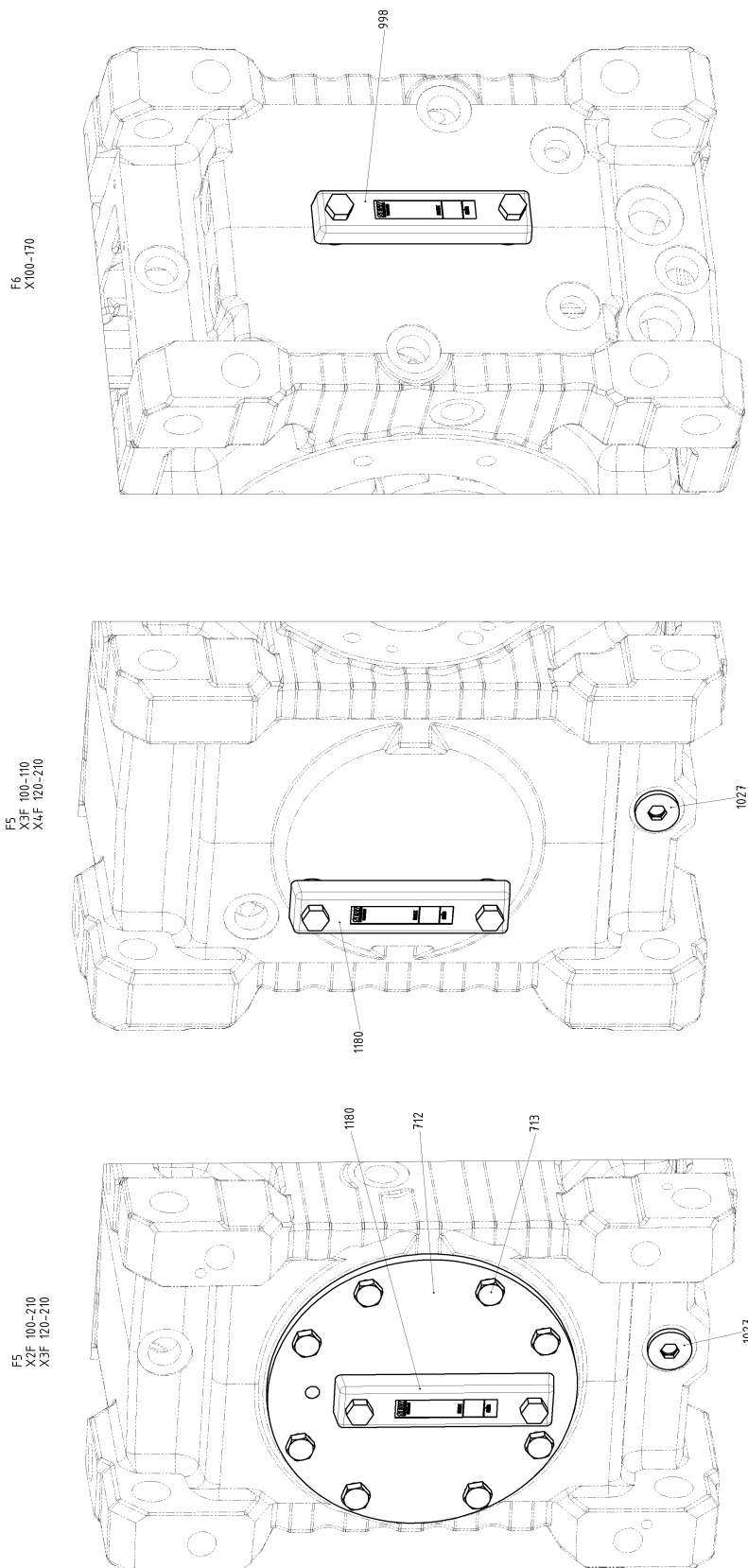
Order no.: 77243149
Serial no.: 64.7724314901.0001.19
Cust. order no.: 3455/141927
Customer ref.: Tuominen

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27.12.2018



1) The component has a serial number depending on its position on the housing in the specified area.
Refer to the list of spare and wear parts for the relevant serial number.

List of spare and wear parts

Bevel-helical gear unit
X3KA210/HU/B
i = 44,85

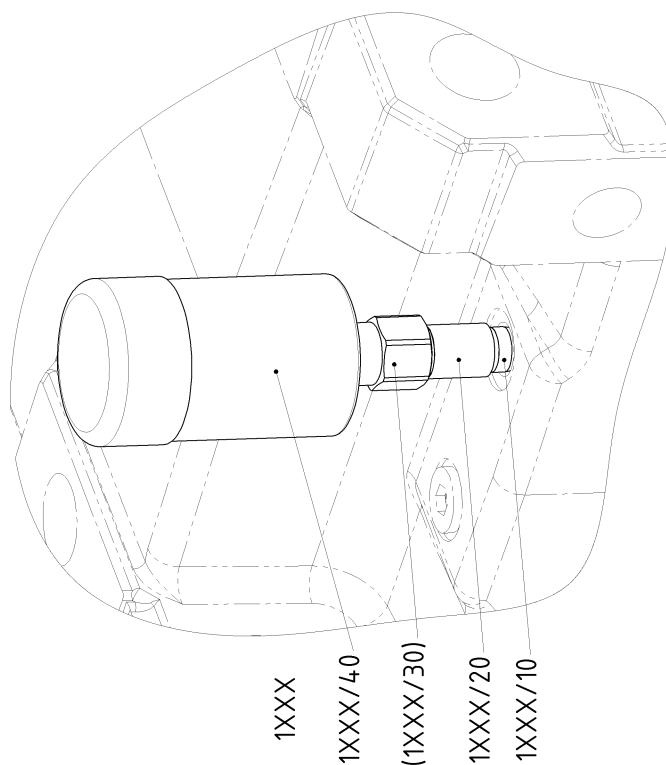
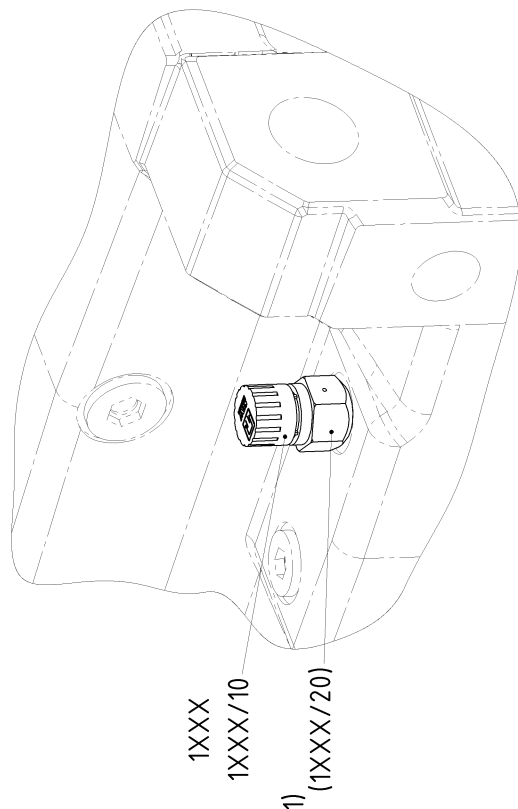
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Serial no.: 64.7724314901.0001.19
Cust. order no.: 3455/141927
Customer ref.: Tuominen

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EURODRIVE

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27.12.2018



¹⁾The component has a serial number depending on its position on the housing in the specified area.
Refer to the list of spare and wear parts for the relevant serial number.

List of spare and wear parts



Bevel-helical gear unit
X3KA210/HU/B
i = 44,85

Order no.: 77243149
Serial no.: 64.7724314901.0001.19
Cust. order no.: 3455/141927
Customer ref.: Tuominen

EN

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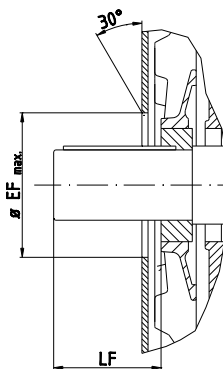
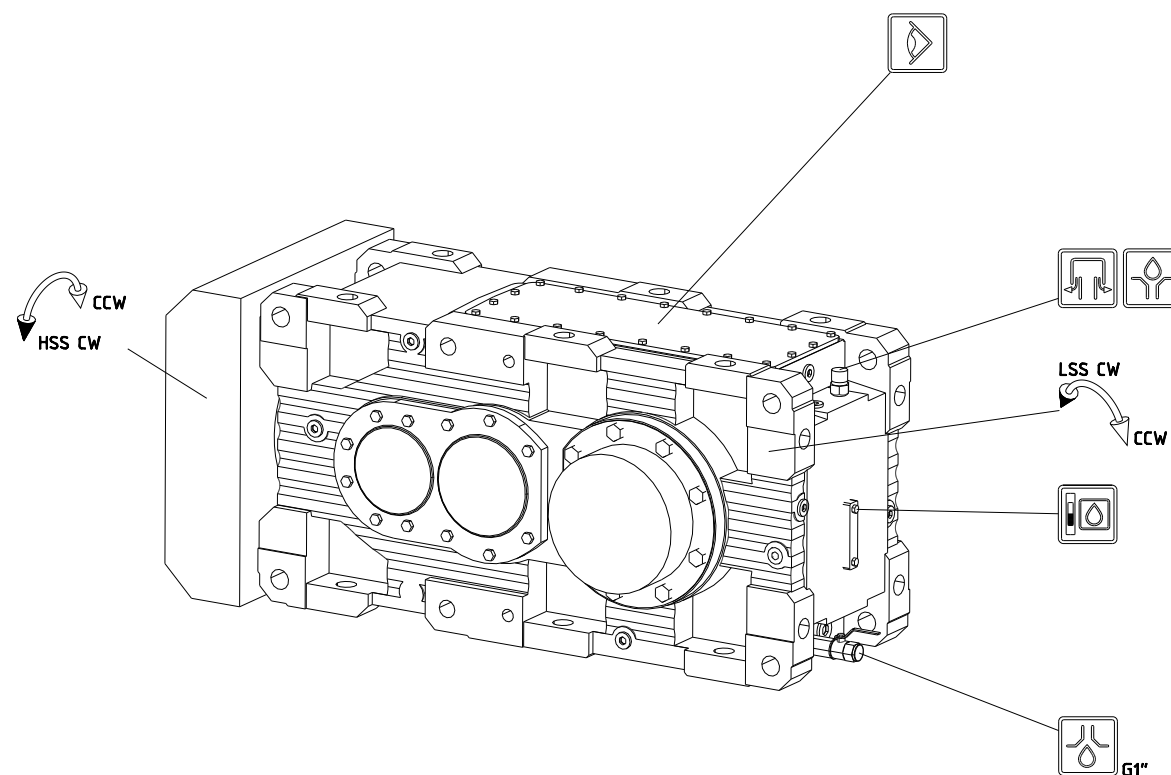
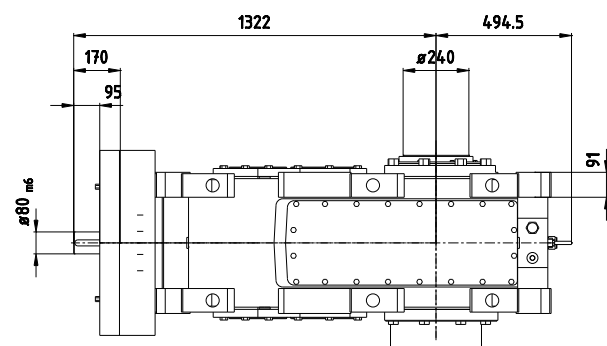
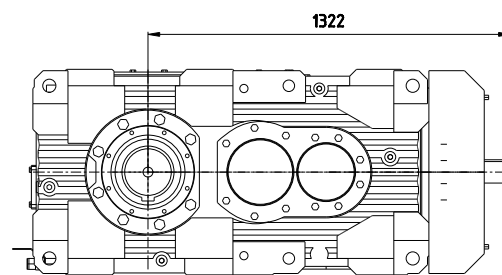
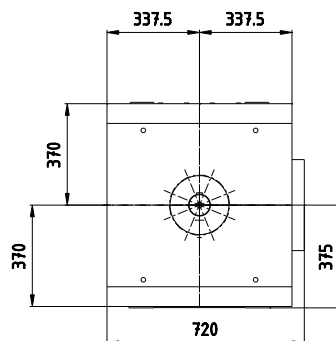
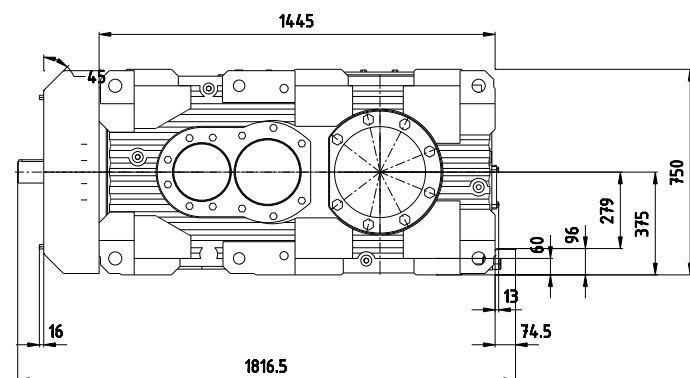
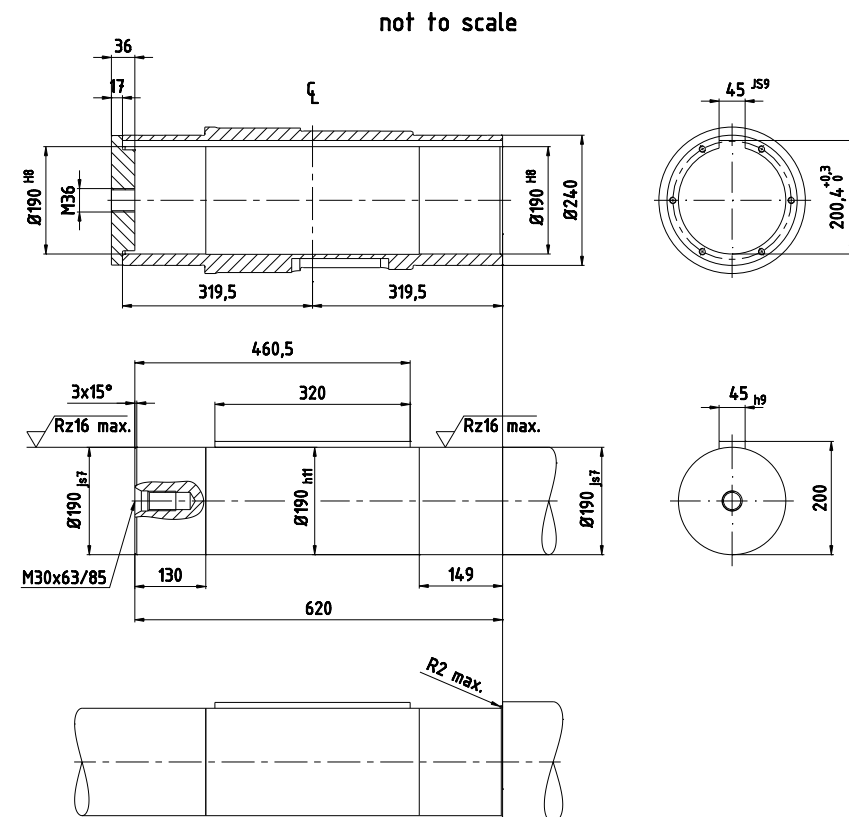
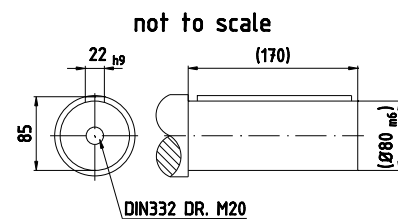
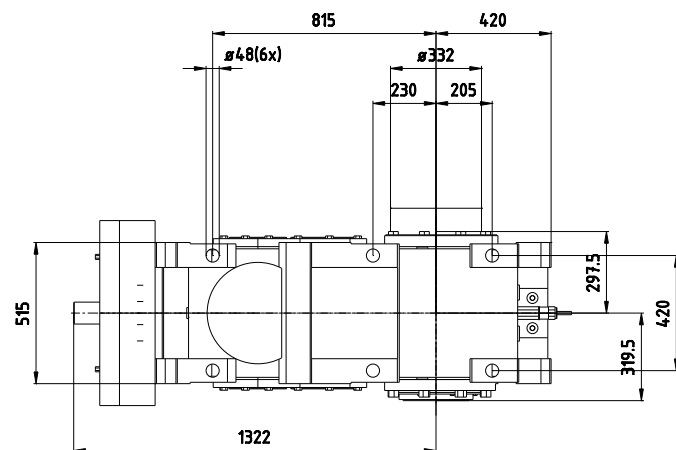
27.12.2018

Running no.	Description	SEW- standard label	Part No.	Qty.	Wear part
-------------	-------------	---------------------	----------	------	-----------

Spare part designations following the letter W... in the SEW designation usually correspond to the associated DIN standard with extended specifications.

When ordering spare parts, please quote nameplate data with serialnumber and part number. This technical document is subject to copyright protection. Observe proprietary note pursuant to DIN ISO 16016.

¹⁾The component has a serial number depending on its position on the housing in the specified area.
Refer to the list of spare and wear parts for the relevant serial number.



EF = 215
LF = 115

Drawn	Date	DIN ISO 5456	Material
Check	2016.02.27	SEW	Material No.
Stand		Scale	Made from
		1 : 9.50	Weight (kg) 1990
		The reproduction, distribution and utilization of this document as well as the communication of its contents to others without express authorization is prohibited. Offenders will be held liable for the payment of damages. All rights reserved in the event of the grant of a patent, utility model or design.	
Mod.-No	Type	X3KA210/HU/B	Material No.
Quant.	WL 03		
Date	1=45		
		Dimension Drawing	
		X3KA210/HU/B	
		1894 062 5.1 0.0 Pos.100	
		Alt. for:	
		Sh. 1 / 1	

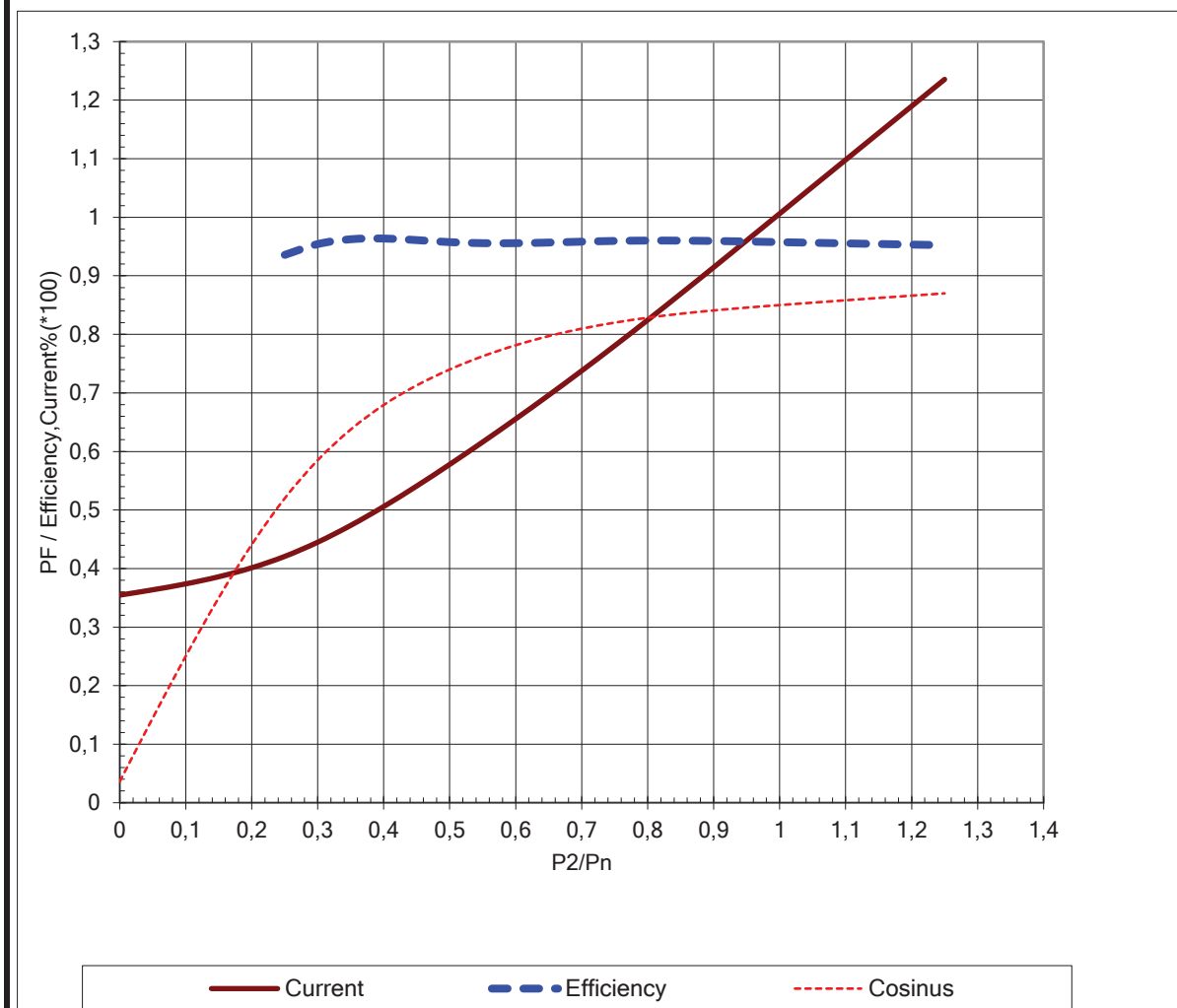
ABB Motors and Generators		Technical Data Sheet - DOL			
		Project		Location	
Department/Author		Customer name		Customer ref.	Item name 1,00001
Our ref.		Rev/Changed by A	Date of issue 5.2.2019	Saving ident untitled.xls	Pages 1(3)

No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	3GBP 312 240-ADL		Calc. ref. 3GZF021031-427	
3	Type/Frame	M3BP 315SMD 4			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	160	kW		
6	Service factor	1			
7	Type of duty	S1(IEC) 100%			
8	Rated voltage U _N	400	VD	± 5 % (IEC 60034-1)	
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n _N	1488	r/min		
11	Rated current I _N	282	A		
12	No-load current	100	A		
13	Starting current I _s /I _N	6,9		Meet IEC 60034-12, N,(H at 60 Hz)	
14	Nominal torque T _N	1027	Nm		
15	Locked rotor torque T _s /T _N	2,2			
16	Maximum torque T _{max} /T _N	3			
17	Minimum torque T _{min} /T _N	2,0			
18	Speed at minimum torque	1200	r/min		
	Load characteristics (IEC 60034-2-1:2014)	Load %	Current A	Efficiency % Power factor	
19	PLL determined from residual loss	100	282	95,8 / IE3 0,85	
20		75	220	96 0,82	
21		50	163	95,8 0,74	
22		Start	1946	0,33	
23	Maximum starting time from hot	18	s		
24	Maximum starting time from cold	33	s		
25	Insulation class / Temperature class	F / B			
26	Ambient temperature	40	°C		
27	Altitude	1000	m.a.s.l.		
28	Enclosure	IP55			
29	Cooling system	IC411 self ventilated			
30	Bearing DE/NDE	6319/C3 - 6316/C3			
31	Type of Grease				
32	Sound pressure level (LP dB(A) 1m)	71	dB(A)	at load	
33	Moment of inertia J = ¼ GD ²	3,2	kg-m ²		
34	Balancing				
35	Vibration class				
36	Position of terminal box	Top			
37	Terminal box entries; no, dimens.				
38	Number of power terminals				
39	Direction of rotation	CW or CCW			
40	Weight of rotor	247	kg		
41	Total weight of motor	1065	kg		
42	Dimension drawing no.				
43					
44					
45					
Ex-motors					
46					
47					
48					
Option Variant Codes / Definition					
49					
50					
51					
52					
Remarks:					
Data based on situation 9.10.2017					
All data subject to tolerances in accordance with IEC					
Guaranteed values on request					

	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
			1,00001
Our ref.	Rev/Changed by	Date of issue	Saving ident
	A	5.2.2019	untitled.xls
			Pages
			2(3)

Product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M3BP 315SMD 4	Calc. ref.	3GZF021031-427
Product code	3GBP 312 240-ADL		
Rated output P _N	160	kW	
Type of duty	S1(IEC) 100%		

Voltage (V)	400	Current I_N (A)	282	Power factor at P_N	0,85
Frequency (Hz)	50	Speed (r/min)	1488	Efficiency (%) at P_N	95,8



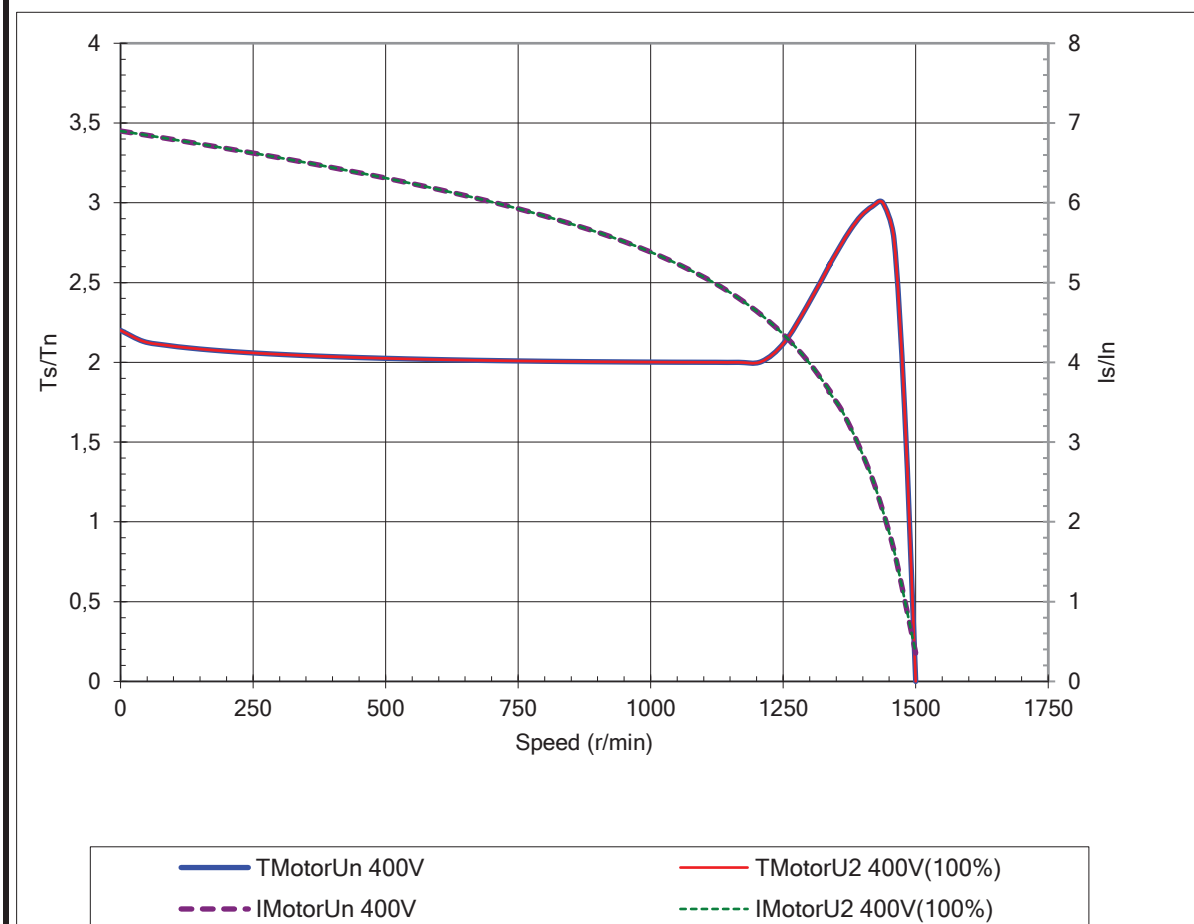
Load characteristics (IEC 60034-2-1:2014)
Data based on situation 9.10.2017

All data subject to tolerances in accordance with IEC

	Project	Location	
Department/Author	Customer name	Customer ref.	Item name
Our ref.	Rev/Changed b Date of issue	Saving ident	Pages
	A 5.2.2019	untitled.xls	3(3)

Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M3BP 315SMD 4	Calc. ref.	3GZF021031-427
Product code	3GBP 312 240-ADL	Frequency (Hz)	50
Rated output P_N	160 kW	Rated current I_N	282 A
Type of duty	S1(IEC) 100%		

J_{motor} (kgm ²)	3,2	Voltage (V) 100%	400	Voltage (V)	400V(100%)
J_{load} (kgm ²)		T_{start}/T_N	2,2	T_{start}/T_N	2,2
Speed (r/min)	1488	Starting time (s)		Starting time (s)	
T_N (Nm)	1027	Speed (r/min)		Speed (r/min)	
T_{load} (Nm)		I_s/I_N	6,9	I_s/I_N	6,9
Nbr. of Consecutive Starts at UN		T_{max}/T_n	3	T_{max}/T_n	3



Load characteristics (IEC 60034-2-1:2014)

Data based on situation 9.10.2017

All data subject to tolerances in accordance with IEC



V6.0.1 - 1.0.6950.22347

Routine Test Report				Date of Issue: 31.1.2019							
Customer: Raumaster Oy				Serial No.: 3G1F1902567605							
				Order No.: 1601750-1 Type: M3BP 315SMD 4 IMB3/IM1001 Product Code: 3GBP312240-ADL							
Customer ref.: WE4019764											
Rating:											
				V	Hz	kW	r/min	A	cos φ	Duty	
3~Motor				690	Y	50	160	1488	164	0,85	S1
Ins. Class F				400	D	50	160	1488	286	0,85	S1
IP 65				415	D	50	160	1489	277	0,84	S1
1065 kg				440	D	60	160	1789	256	0,86	S1
				460	D	60	160	1790	249	0,85	S1
				IE3-50HZ-95.8%(100%)-95.8%(75%)-95.3%(50%) / IE2-60HZ-95.0%(100%)							
Winding resistance		Measured at 20 °C		Insulation resistance at 20 °C		19000 MΩ		1000 V			
U ₁ - V ₁		0,01481 Ω		U ₁ - W ₁		0,01480 Ω		V ₁ - W ₁		0,01481 Ω	
				High-voltage test 2900 V 1 s							
Test		Line U[V] f[Hz]			Input I[A] P1 [kW]						
No-load test		399,7	D	50	95,9	3,99					
Locked-rotor test		62,1	D	50	264,7	8,12					
Vibration [mm/s]: 0,9											
Surge comparison test: OK Visual inspection, terminal markings and direction of rotation: OK											
Manufactured and tested acc. to IEC/EN 60034-1:2017											
On behalf of customer											
On behalf of manufacturer Date of test: 31.1.2019											
Tested by ABB Oy, Motors and Generators, Vaasa, Finland Tommi Pantti, Test Floor Manager											



V6.0.1 - 1.0.6950.22347

Routine Test Report				Date of Issue: 30.1.2019							
Customer: Raumaster Oy				Serial No.: 3G1F1902567606							
Customer ref.: WE4019764				Order No.: 1601750-1							
				Type: M3BP 315SMD 4 IMB3/IM1001							
				Product Code: 3GBP312240-ADL							
Rating:											
				V	Hz	kW	r/min	A	cos φ	Duty	
3~Motor				690	Y 50	160	1488	164	0,85	S1	
Ins. Class F				400	D 50	160	1488	286	0,85	S1	
IP 65				415	D 50	160	1489	277	0,84	S1	
1065 kg				440	D 60	160	1789	256	0,86	S1	
				460	D 60	160	1790	249	0,85	S1	
				IE3-50HZ-95.8%(100%)-95.8%(75%)-95.3%(50%) / IE2-60HZ-95.0%(100%)							
Winding resistance		Measured at 20 °C		Insulation resistance at 20 °C							
				35000 MΩ		1000 V					
U ₁ - V ₁		0,01486 Ω									
U ₁ - W ₁		0,01488 Ω									
V ₁ - W ₁		0,01491 Ω									
				High-voltage test		2900 V		1 s			
Test		Line U[V]	f[Hz]	Input I[A]	P1 [kW]						
No-load test		403,5	D 50	98,1	3,95						
Locked-rotor test		62,7	D 50	270,8	8,66						
Vibration [mm/s]: 1,0											
Surge comparison test: OK											
Visual inspection, terminal markings and direction of rotation: OK											
Manufactured and tested acc. to IEC/EN 60034-1:2017											
On behalf of customer											
On behalf of manufacturer Date of test: 29.1.2019											
Tested by ABB Oy, Motors and Generators, Vaasa, Finland											
Tommi Pantti, Test Floor Manager											

Technical specification to the order

Date: 28.12.2018

P.O.number/ Date :	3455/141927	Date:	19.12.2018
Order number/ Position:	6470 77243149 200		
Description:	Bevel-helical gear unit		
Type:	X3KA210/HU/B		
Your material number:	3455.104		
Quantity:	1		

Serialnumber	: 64.7724314902.0001.19
Industry	: Energy
Field of Application	: Crushers
Type of driving machine	: AC-motor
Operating time per day	: More than 10 hours
Operating cycle / hour ED [%]	: 100
Altitude [m above MSL]	: 0...< 1000
Installation site	: Large rooms and halls ($V_a \geq 1.4$ m/s)
Ambient conditions	: normal
Housing machining	: Universal
Ambient temp. min./max. [°C]	: -25 / 50
Motor power, nominal PM [kW]	: 160,00
Operating power PK1 [kW]	: 160,00
Operating torque MK2 [Nm]	: 44133
Input speed [r/min]	: 1500,0
Ratio	: 44,85
Output speed [rpm]	: 33
Nominal power PN1 [kW]	: 326,00
Nominal gear torque MN2 [Nm]	: 90000
Service factor F_s	: 2,03
Reference value for F_s	: Nominal motor power PM
Add. forces at input shaft end	: None
Add.forces at output shaft end	: None
Mounting position	: M1
Shaft position	: 04
Mounting surface	: F1
Input shaft [mm]	: 80m6 x 170
Low speed shaft LSS [mm]	: 190
Rotation direction output	: Both
LSS type	: Hollow shaft with keyway
Housing fixation	: Foot mounting
Speed HSS, n_1 min [1/min]	: 1500
Speed HSS, n_1 max [1/min]	: 1500
Outp. torque MK2 at n_2 min[Nm]	: 44000
Outp. torque MK2 at n_2 max[Nm]	: 44000
Type of lubrication	: Splash lubrication
Oil level check	: Oil level glass
Oil drain	: Oil drain valve
Oil drain valve angle [°]	: 0
ISO code	: CLP HC 220 Synth.Oil
Lubricant qty. [l] gear unit	: 105
Max. perm. oil viscosity [cSt]	: 19.000
Scope of delivery lubricant	: With oil filling
Note	: The correct oil level may change during

Technical specification to the order

Date: 28.12.2018

transportation and due to different ambient conditions at the installation site. Therefore, you must check the oil filling before startup and correct, if necessary. Decisive for the oil quantity to be filled is the marking on the oil sight glass or oil dipstick. The nameplate data are approximate values, refer to the operating instructions for detailed information.

Number of fans	: 1
Scope of delivery fan guard	: Fan guard included in delivery
Useful shaft end fan mounting	: 80x115
Breather position	: Enclosed in delivery
Sealing system HSS	: Dust-protected, oil seal with dust protection cover
HSS oil seal material	: FKM
Sealing system LSS	: Dust-protected, oil seal with dust protection cover
LSS oil seal material	: FKM
LSS oil seal quantity	: 2
Bearing variant output shaft	: Reinforced axial 1
Dokumentation language / qty	: English / 1
Documentation no. A	: 23022116
Dokumentation language / qty	: Lithuanian / 1
Documentation no. B	: 19359071
Surface protection	: OS2 to technical data sheet 01802__94
Color	: RAL5015 Sky blue
Nameplate	: English
Commodity code	: 84834023
net weight [kg]	: approx. 1990/PC 1990/Pos.

Technical specification to the order

Date: 28.12.2018

Technical specification to the order

Date: 28.12.2018

Do you require additional information regarding your order?

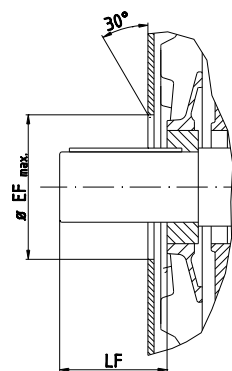
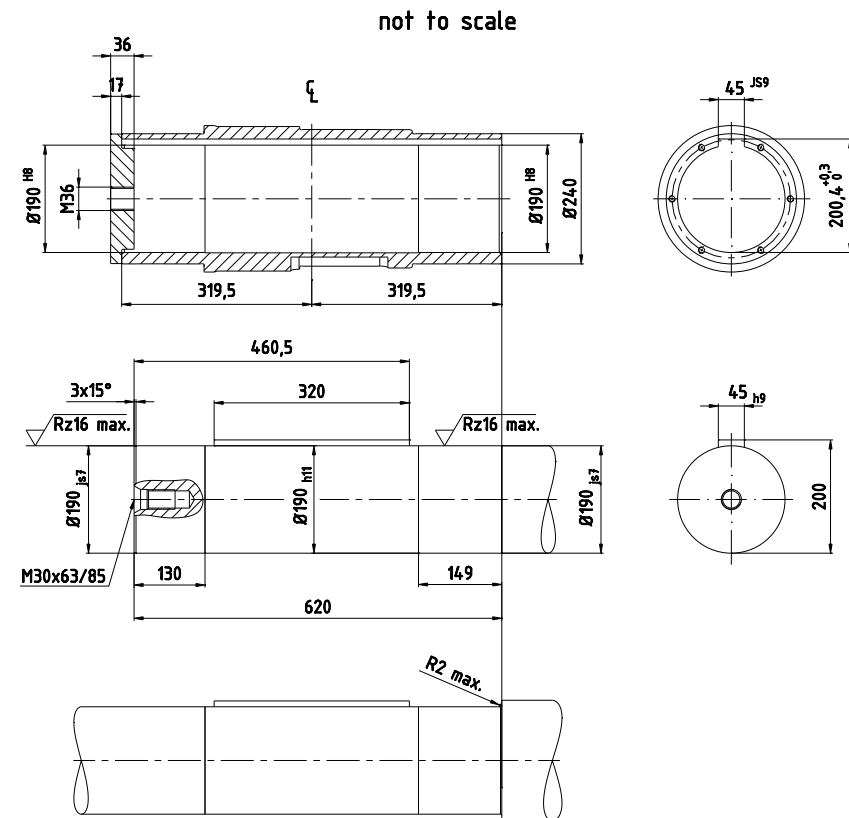
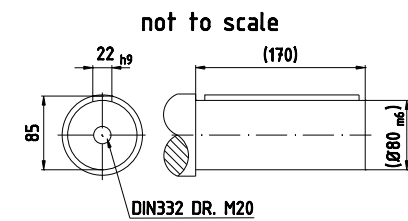
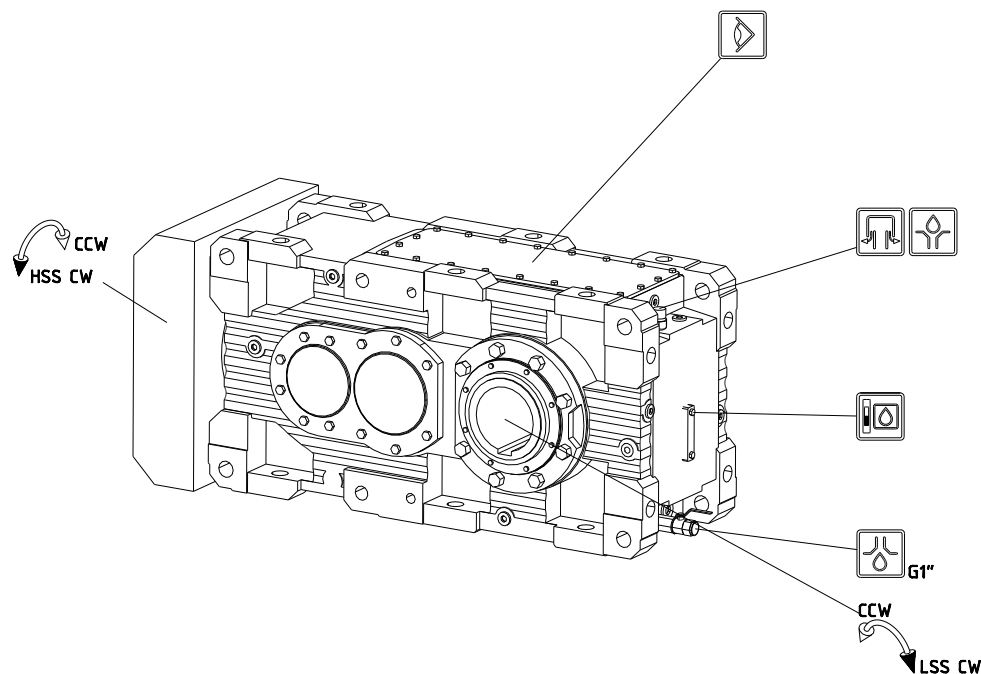
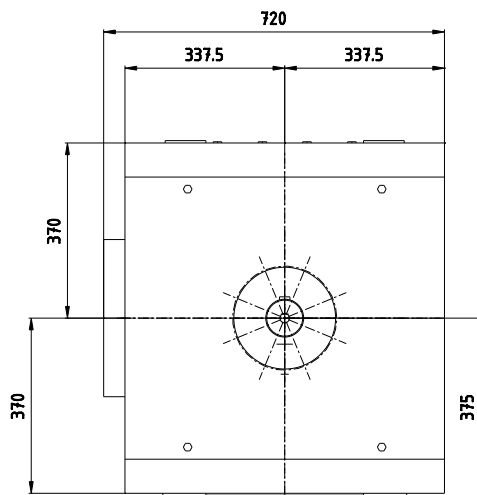
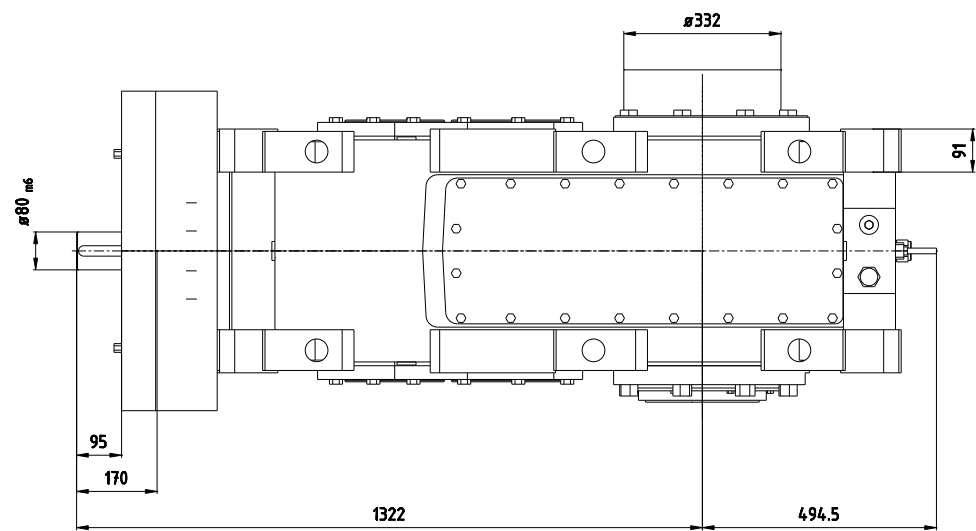
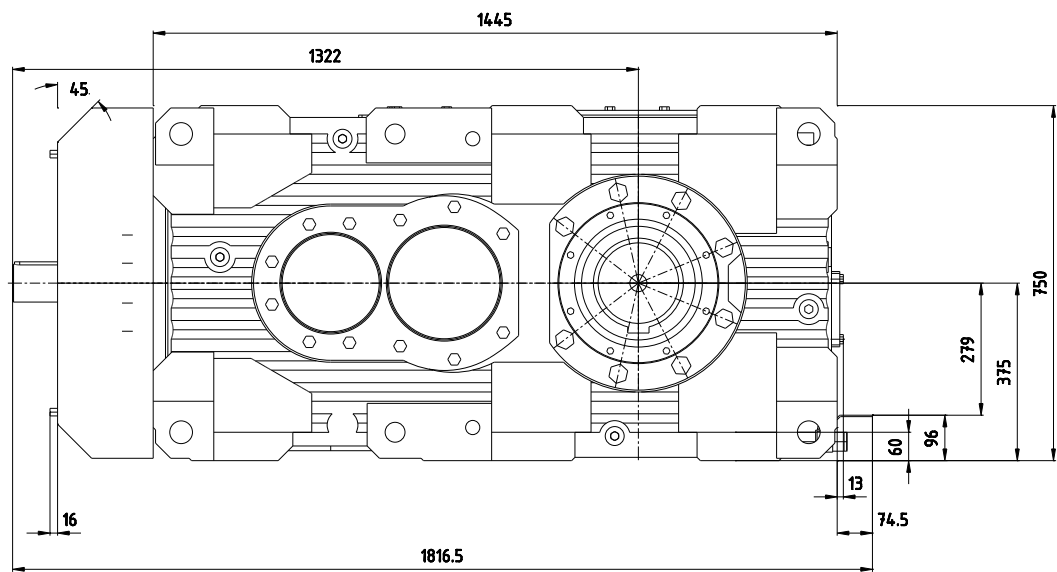
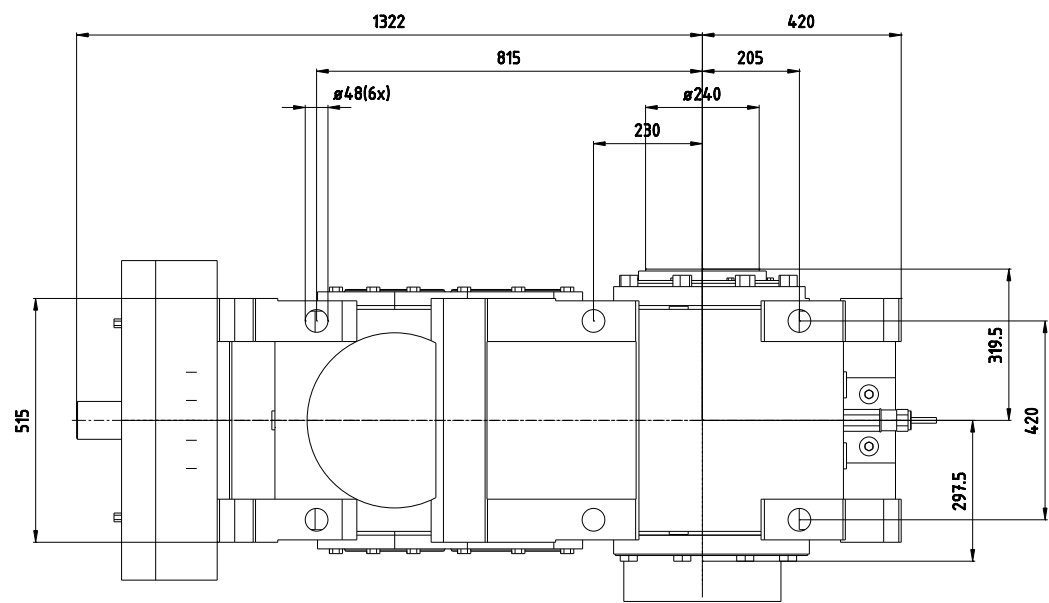
The transaction overview offers you a compact overview of all your current orders after initial activation:

[https://www.sew-](https://www.sew-eurodrive.fi/os/c/main.do?viewset=OVERVIEW)

[eurodrive.fi/os/c/main.do?viewset=OVERVIEW](https://www.sew-eurodrive.fi/os/c/main.do?viewset=OVERVIEW)<(>&<)>type=order<(>&<)>language=EN_US<(>&<)>utm_source=out
put

It also contains CAD data, documentations, or technical product data for the ordered products.

In addition, you can create a documentation package for several products.



EF = 215
LF = 115

Date		DIN ISO 5456	Material No.
Drawn	2016.02.28	2016.02.28	
Check			
Stand			
Scale	1 : 5,50	Made from	Weight (kg) 1990
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Mod.-No		Type	X3KA210/HU/B
Quant.		WL 04	
Date		1-45	
Dimension Drawing		Part number	Rev. Validity
X3KA210/HU/B		1894 068 4.1 0.0 Pos.200	
Alt. for:		Sh. 1 / 1	