

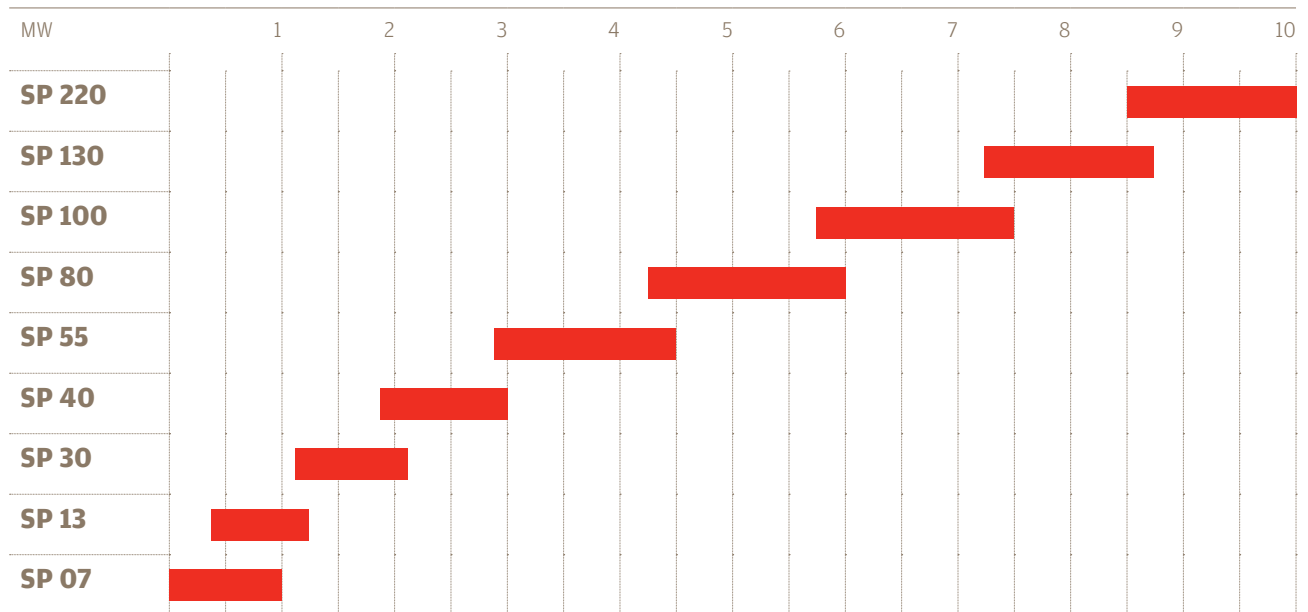
Wind Energy Solutions

Pitch and Yaw Drives

From 0.5 to 10 MW Nominal Power

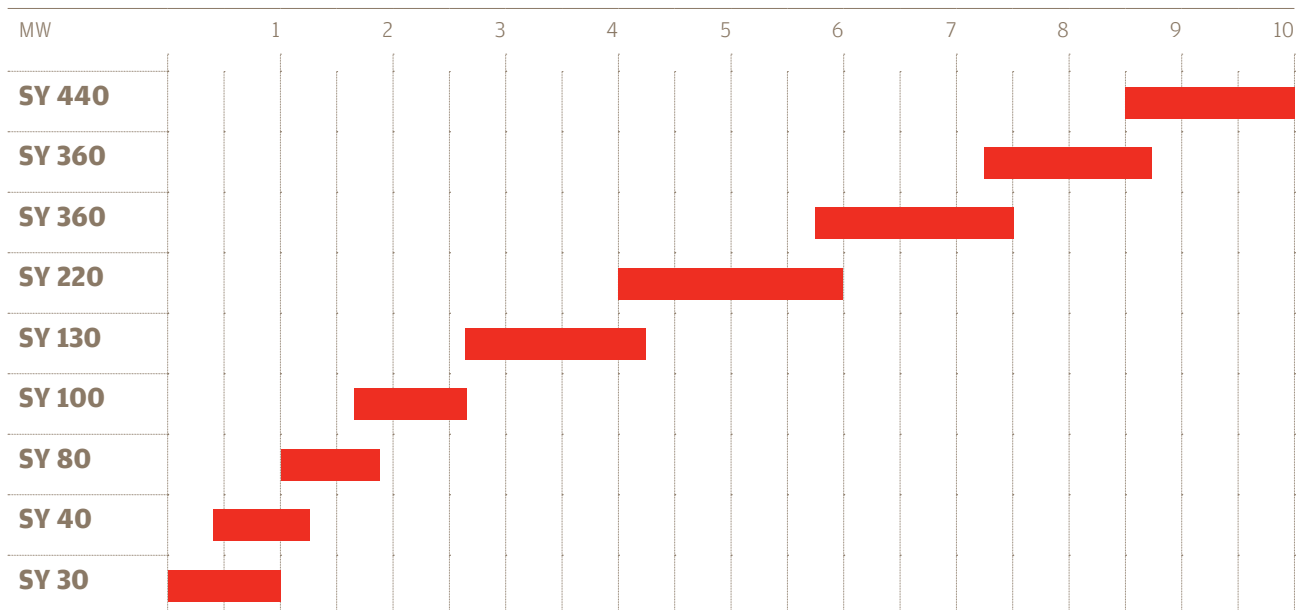
Pitch Drives

Wind Generator / Nominal Power



Yaw Drives

Wind Generator / Nominal Power



Pitch & Yaw Drives

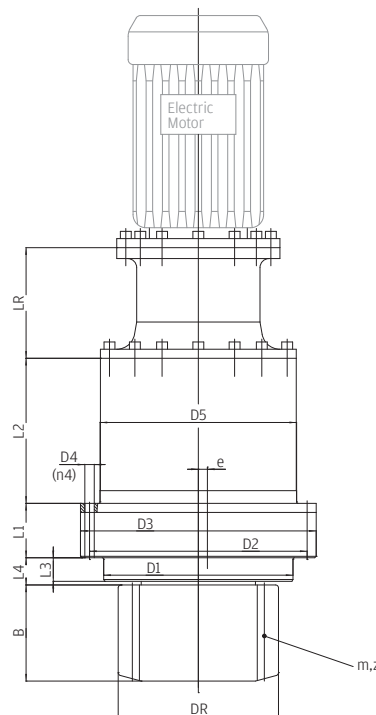
Pitch Drives

Requirements & concept

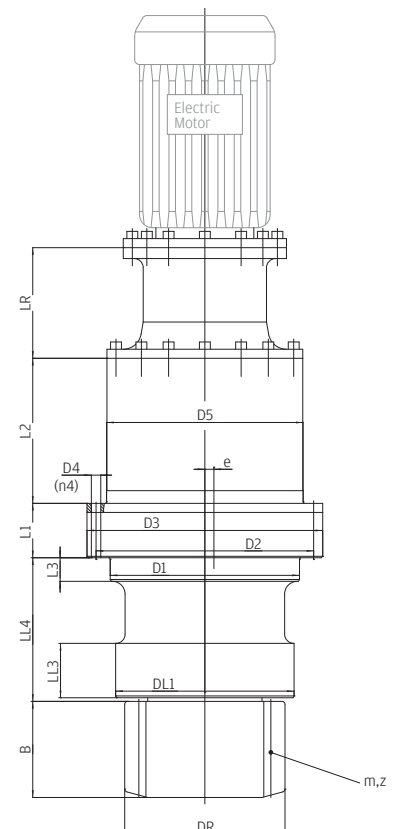
- › Coverage of Generator Power Classes 500 KW - 10,000 KW
 - › Ratios: 20 ... 2,500
 - › Motor / Motor-connection optional depending on application
 - › Planetary stages: 2 - 3
 - › Planetary stages modular from existing O&K - F - Drive range
 - › Standard and Long Support version variable housing
- Output pinions optional depending on application

Key Features

- › High quality design
- › Extremely high reliability
- › Tailor made solution available
- › Different pinions configuration available
- › Compact dimensions



Standard version



Long Support version

SP		07	13	30	40	55	80	100	130	220
Static output torque	KNm	7	13	30	40	55	80	100	130	220
Nominal output torque	KNm	3.5	7.5	15	20	27.5	40	50	65	110
Ratio	(-)	63.5	22-250	20-250	20-250	23-250	20-250	23-250	23-250	26-2,500
Planetary stages	(-)	2	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3
OUTPUT PINION ^[1]										
Module m	mm	8	8	12	14	16	18	20	22	24
Number of teeth z		12	14	14	14	14	14	14	14	14
Tip circle diameter DR	mm	117.5	136	204	238	272	306	340	374	408
Width B	mm	90	82	120	142	162	180	200	220	186
DIMENSIONS										
L1	mm	23	102	144	99	143	158	165	170	60
L2	mm	135	120	164	185	220	223	204	232.5	380
L3	mm	17	31	36	50	55	60	60	60	50
LL3 (Long Support)	mm	53	65	75	95	95	105	110	120	60
L4 (Standard)	mm	n.a.	40	46	54	62	68	69	70	150
LL4 (Long Support)	mm	162	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]
LR	mm	63	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]
D1	mm	160	195	250	275	330	380	388	430	520
DL1 (Long Support)	mm	150	190	245	270	320	370	380	420	510
D2	mm	220	260	305	335	400	450	460	500	585
D3	mm	250	290	335	370	435	490	500	550	630
D4	mm	18	17.5	17.5	17.5	22	25	26	26	26
n4	mm	4	8	18	20	20	20	24	32	24
D5	mm	185	220	270	295	350	400	408	450	524
e	mm	0.5	0.5	1	1	1	1.5	1.5	1.5	2
Electric Motor		[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]

[1] Alternative pinions on request

[2] LR = variable length depending on ratio / number of planetary stages

[3] LL4 = variable length depending on request

[4] Electric Motor and motor connection depending on request

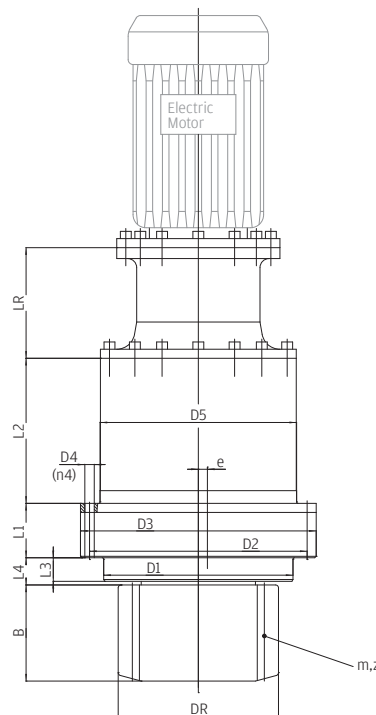
Yaw Drives

Requirements & concept

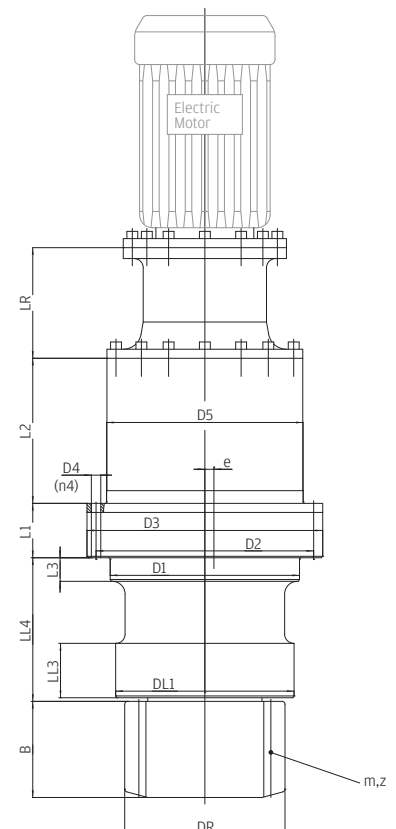
- › Coverage of Generator Power Classes 500 KW - 10,000 KW
 - › Ratios: 20 ... 2,500
 - › Motor / Motor-connection optional depending on application
 - › Planetary stages: 2 - 5
 - › Planetary stages modular from existing O&K - F - Drive range
 - › Standard and Long Support version variable housing
- Output pinions optional depending on application

Key Features

- › High quality design
- › Extremely high reliability
- › Tailor made solution available
- › Different pinions configuration available
- › Compact dimensions



Standard version



Long Support version

SY		30	35	40	55	80	100	130	220	360	440
Static output torque	KNm	30	35	40	55	80	100	130	220	360	440
Nominal output torque	KNm	15	16.7	20	27.5	40	50	65	110	180	220
Ratio	(-)	20-2,500	1,433	20-2,500	23-2,500	20-2,500	23-2,500	23-2,500	26-2,500	26-2,500	26-2,500
Planetary stages	(-)	2-5	4	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5

OUTPUT PINION ^[1]

Module m	mm	12	12	14	16	18	20	22	24	26	30
Number of teeth z		14	15	14	14	14	14	14	14	14	14
Tip circle diameter DR	mm	204	213	238	272	306	340	374	408	440	508
Width B	mm	120	97	142	162	180	200	220	186	186	280

DIMENSIONS

L1	mm	144	34	99	143	158	165	170	60	80	80
L2	mm	164	120	185	220	223	204	232.5	380	520	680
L3	mm	36	10	50	55	60	60	60	50	50	50
LL3 (Long Support)	mm	75	75	95	95	105	110	120	60	70	80
L4 (Standard)	mm	46	n.a.	54	62	68	69	70	150	155	165
LL4 (Long Support)	mm	^[3]	245	^[3]	^[3]	^[3]	^[3]	^[3]	^[3]	^[3]	^[3]
LR	mm	^[2]	115	^[2]	^[2]	^[2]	^[2]	^[2]	^[2]	^[2]	^[2]
D1	mm	250	270	275	330	380	388	430	520	560	630
DL1 (Long Support)	mm	245	230	270	320	370	380	420	510	550	600
D2	mm	305	315	335	400	450	460	500	585	680	730
D3	mm	335	355	370	435	490	500	550	630	775	800
D4	mm	17.5	17.5	17.5	22	25	26	26	26	32	32
n4	mm	18	20	20	20	20	24	32	24	30	30
D5	mm	270	275	295	350	400	408	450	524	650	715
e	mm	1	1	1	1	1.5	1.5	1.5	2	2	2.5
Electric Motor		^[4]	^[4]	^[4]	^[4]	^[4]	^[4]	^[4]	^[4]	^[4]	^[4]

^[1] Alternative pinions on request

^[2] LR = variable length depending on ratio / number of planetary stages

^[3] LL4 = variable length depending on request

^[4] Electric Motor and motor connection depending on request

