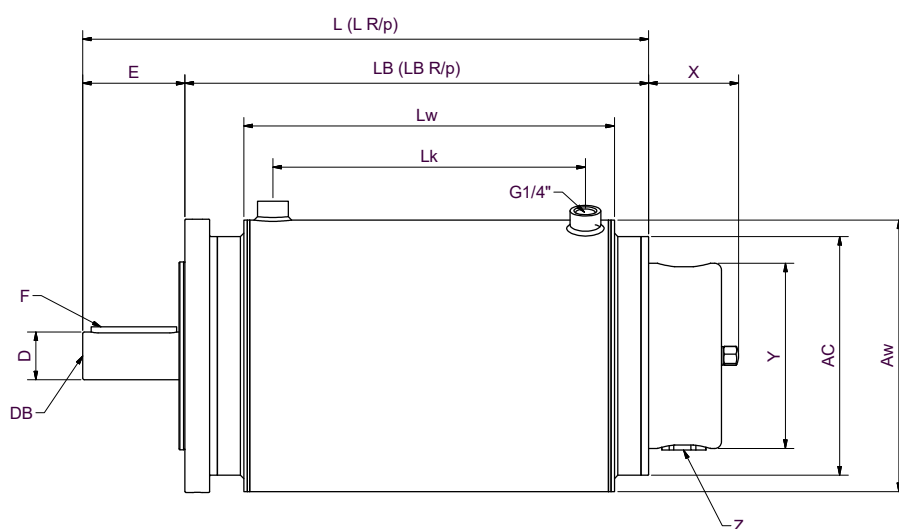
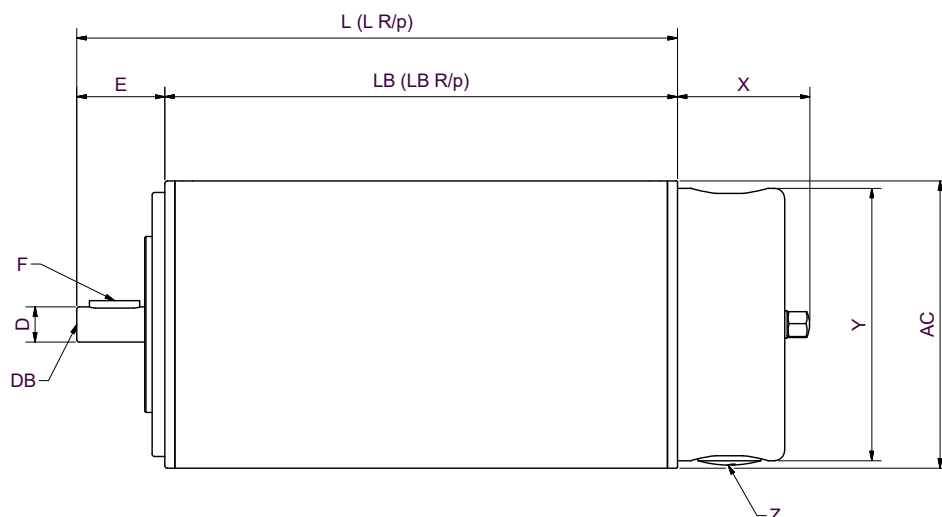




**STAINLESS STEEL DRIVE MOTOR &
PLANETARY SPEED REDUCER**



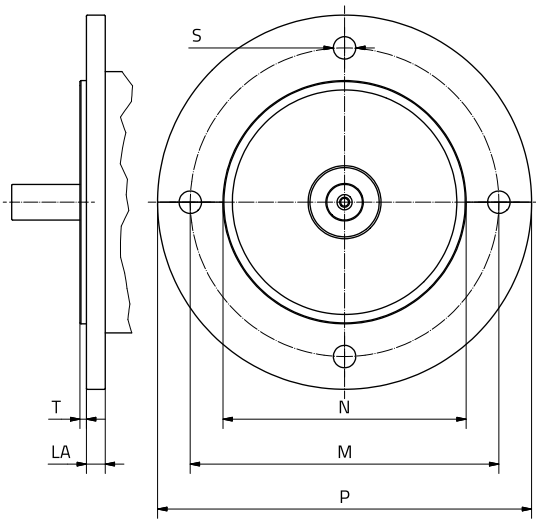
MOTOR

Type	IEC Size	L (L R/p*)	LB (LB R/p*)	AC Ø	D Ø	E	F	X	Y	Z Ø	DB DIN332-D	Flange	Weight [kg]	Water cooled		
														Lw	Lk	Aw Ø
MRS14	IEC 71	239 (327,5)	209 (297,5)	114,3	14j6	30	5x20	53	108	20	M5	B5	12	169	135	139,7
												B14a	11			
												B14b	11,5			
MRS18	IEC 80	302,5 (391)	262,5 (351)	139,7	19j6	40	6x30	53	108	20	M6	B5	21,5	217	183	159
												B14a	20,5			
												B14b	21			
MRS20	IEC 90	370,5 (465,5)	320,5 (415,5)	158	24j6	50	8x40	53	108	20	M8	B5	32,5	252	218	193,7
												B14a	30			
												B14b	31			

All dimensions are in mm. Keyway according to DIN 6885.

* Only with brake or encoder.

DIMENSIONS

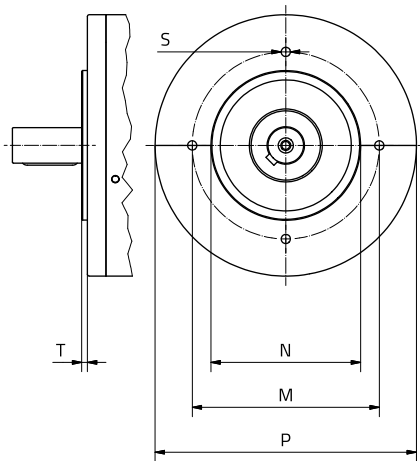


IEC FLANGE

B5

IEC size	P Ø	M Ø	N Ø	S Ø	T	LA
IEC 63	140	115	95h6	9	3	9
IEC 71	160	130	110h6	9	3,5	9
IEC 80	200	165	130h6	12	3,5	10
IEC 90	200	165	130h6	12	3,5	10
IEC 100	250	215	180h6	15	4	14,5

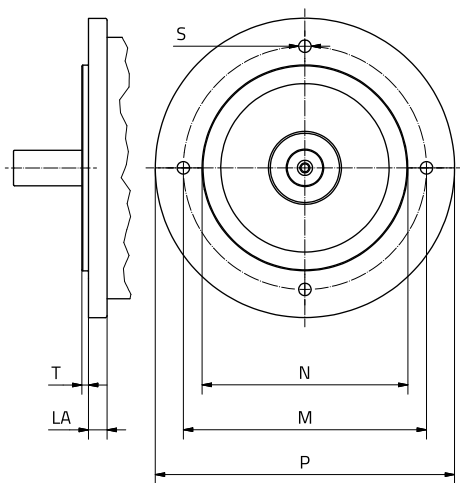
All dimensions are in mm.



B14a

IEC size	P Ø	M Ø	N Ø	S Ø	T	LA
IEC 63	90	75	60h6	M5	2,5	X
IEC 71	105	85	70h6	M6	2,5	X
IEC 80	120	100	80h6	M6	3	X
IEC 90	140	115	95h6	M8	3	X
IEC 100	160	130	110h6	M8	3,5	X

All dimensions are in mm.



B14b

IEC size	P Ø	M Ø	N Ø	S Ø	T	LA
IEC 63	120	100	80h6	M6	3	8
IEC 71	140	115	95h6	M8	3	8
IEC 80	160	130	110h6	M8	3,5	8
IEC 90	160	130	110h6	M8	3,5	10
IEC 100	200	165	130h6	M10	3,5	12

All dimensions are in mm.

NON-VENTILATED MOTOR (TENV)

Type	IEC Size	Power [kW]	Duty Cycle	n nom [RPM]	T nom [Nm]	Efficiency	Power-factor cos φ	I nom 400V [A]	Starting Torque Ts/Tn	Starting Current Is/In	Max Torque Tm/Tn
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MRS Series, 2-poles, 3-phase

MRS14a-2	71	0,18	S1-100%	2935	0,6	57,6%	0,64	0,7	9,6	8,1	9,7
MRS14b-2	71	0,25	S1-100%	2910	0,8	65,9%	0,73	0,8	6,8	6,9	6,9
MRS14d-2	71	0,37	S3-60%	2880	1,2	70,6%	0,79	1,0	4,6	5,8	4,6
MRS18a-2	80	0,37	S1-100%	2965	1,2	70,7%	0,65	1,2	7,9	11,7	10,3
MRS18b-2	80	0,55	S1-100%	2950	1,8	76,8%	0,75	1,4	5,3	9,9	6,9
MRS18c-2	80	0,75	S1-100%	2935	2,4	80,7%	0,82	1,7	3,8	8,2	5,0
MRS20a-2	90	0,9	S1-100%	2965	2,9	82,7%	0,75	2,1	6,8	13,6	9,3
MRS20b-2	90	1,1	S1-100%	2955	3,6	83,0%	0,8	2,4	5,5	11,9	7,6
MRS20c-2	90	1,5	S1-100%	2940	4,9	85,8%	0,85	3,0	4,0	9,5	5,5

MRS Series, 4-poles, 3-phase

MRS14a-4	71	0,18	S1-100%	1460	1,2	65,9%	0,55	0,7	5,9	6,4	6,5
MRS14b-4	71	0,25	S1-100%	1445	1,7	71,7%	0,64	0,8	4,2	5,9	4,7
MRS14d-4	71	0,37	S3-60%	1420	2,5	73,5%	0,75	1,0	2,8	4,9	3,1
MRS18a-4	80	0,37	S1-100%	1470	2,4	72,6%	0,49	1,5	7,1	7,7	7,8
MRS18b-4	80	0,55	S1-100%	1460	3,6	78,1%	0,61	1,7	4,7	6,8	5,2
MRS18c-4	80	0,75	S1-100%	1445	5,0	82,5%	0,7	1,9	3,4	5,9	3,8
MRS18d-4	80	0,9	S3-25%	1430	6,0	83,0%	0,75	2,2	2,8	5,2	3,1
MRS20a-4	90	0,9	S1-100%	1475	5,8	83,0%	0,6	2,7	5,3	8,8	7,7
MRS20b-4	90	1,1	S1-100%	1470	7,1	84,1%	0,66	2,9	4,3	8,2	6,3
MRS20c-4	90	1,5	S1-100%	1460	9,8	85,3%	0,75	3,4	3,1	7,0	4,6

MRS Series, 6-poles, 3-phase

MRS14a-6	71	0,09	S1-100%	960	0,9	48,0%	0,48	0,6	4,7	3,6	4,9
MRS14d-6	71	0,12	S3-25%	950	1,2	54,0%	0,54	0,6	3,5	3,4	3,6
MRS18a-6	80	0,18	S1-100%	980	1,8	61,5%	0,41	1,1	6,6	5,8	8,6
MRS18b-6	80	0,25	S1-100%	975	2,5	67,6%	0,5	1,1	4,7	5,6	6,1
MRS18d-6	80	0,37	S3-60%	965	3,7	72,4%	0,61	1,2	3,1	5,0	4,1
MRS20a-6	90	0,55	S1-100%	970	5,4	80,0%	0,68	1,5	3,1	6,3	3,8
MRS20b-6	90	0,75	S1-100%	955	7,5	80,3%	0,76	1,8	2,2	5,1	2,7

For MRS14: size IEC63 on request.

For MRS18 and MRS20: size IEC100 on request.

Specifications 8-pole motor on request.

Ts = Starting torque

Tn = Nominal torque

Tm = Maximum torque

Is = Starting current

In = Nominal current

Stainless steel electric motors

ABI b.v., located in Haarlem, Holland, has been developing and manufacturing electric motors and gear motors since 1955. Responding to market needs, ABI has developed a completely stainless steel aseptic electric motor, especially designed for markets dealing with high standards in hygiene and cleaning. In the past years these motors have been further developed into the current full range of stainless steel products.

The range is characterized by high quality and reliability. Years of experience, market feedback and optimization of the design ensure that our motors live up to your expectations, even in the toughest of environments.

IP69k certified

The motors are manufactured out of AISI 304, DIN 1.4301 and the shaft out of AISI 420, DIN 1.4021. All ABI stainless steel motors and gearboxes are IP69k certified by Dekra. The protection class is IP69k, which means that the motors are pressure washer proof according to DIN-40050. The maximum water pressure is 100bar, with a maximum temperature of 80°C. This assures effortless high pressure cleaning. Stainless steel motors often fail because of moisture (condensation) which builds up in the motor over time. This is caused by a combination of temperature changes, wash downs at different temperatures and a high humidity environment. Specially designed seals and pressure proof chambers in the ABI motors prevent this moisture build-up.

Fields of application for these motors are environments which have to conform to the HACCP regulations as well as situations with special requirements regarding hygiene and cleaning or extremely humid environments. For example: food and dairy production, meat and poultry processing, carwashes and the pharmaceutical industry.

IE3 / IE4 efficiency

The stainless steel motors produced by ABI meet the highest standard in efficiency, the IE3 standard (premium efficiency).

The future IE4 (super premium) standard is in preparation. Reducing energy consumption by the application of highly energy efficient motors is only one of the advantages of stainless steel motors. Due to the higher efficiency, heat production is reduced, offering large advantages in safety and applicability. The future IE4 (super premium) standard is in preparation.

TCO and machine downtime

By choosing an ABI stainless steel motor, you contribute to a lower energy consumption, and the motor can offer you a considerable reduction in costs over time.

In the long run, 'Total Cost of Ownership' is more important than the initial purchase price of a machine. In tough conditions, where corrosion or wear by moisture occurs, it has been proven that an IP69k motor (our ABI quality) has a much longer life span than a lesser quality motor. Next to the cost reductions by greatly reducing machine downtime, this also cuts down on replacement costs of the motors themselves.

Because of high efficiency and a longer life span, the ABI stainless steel motors add to a much lower TCO. The ABI sales engineers are happy to help you with your TCO calculations.





Water cooled motor

WATER COOLED MOTOR (TELC)

Type	IEC Size	Power [kW]	Duty Cycle	n nom [RPM]	T nom [Nm]
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MRSL Series, 2-poles, 3-phase

MRSL14a-2	71	0.37	S1-100%	2880	1,2
MRSL14b-2	71	0.55	S1-100%	2840	1,8
MRSL14c-2	71	0.75	S1-100%	2760	2,6
MRSL18a-2	80	1.5	S1-100%	2865	5,0
MRSL18b-2	80	1.85	S1-100%	2825	6,3
MRSL18c-2	80	2.2	S1-100%	2775	7,6
MRSL20b-2	90	3	S1-100%	2880	10,0
MRSL20c-2	90	4	S1-100%	2820	13,5

MRSL Series, 4-poles, 3-phase

MRSL14a-4	71	0,37	S1-100%	1420	2,5
MRSL14b-4	71	0,55	S1-100%	1370	3,8
MRSL14c-4	71	0,75	S1-100%	1280	5,6
MRSL18a-4	80	1,1	S1-100%	1415	7,4
MRSL18b-4	80	1,5	S1-100%	1370	10,5
MRSL18c-4	80	1,85	S1-100%	1300	13,6
MRSL20a-4	90	2,2	S1-100%	1440	14,6
MRSL20b-4	90	3	S1-100%	1415	20,3
MRSL20c-4	90	4	S1-100%	1365	28,0

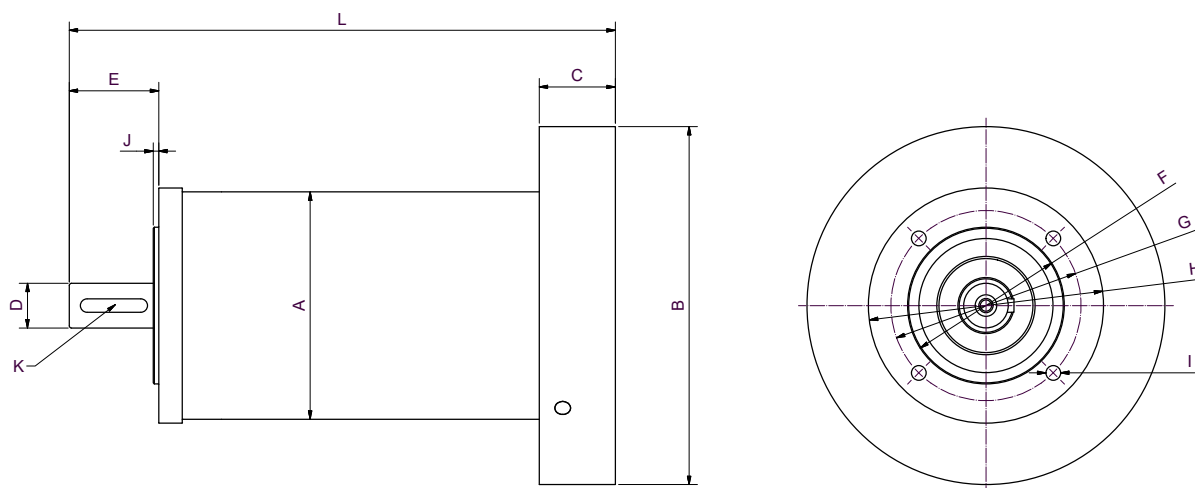
MRSL Series, 6-poles, 3-phase

MRSL14a-6	71	0,18	S1-100%	925	1,9
MRSL14b-6	71	0,25	S1-100%	875	2,7
MRSL18a-6	80	0,75	S1-100%	920	7,8
MRSL18b-6	80	1,1	S1-100%	830	12,7
MRSL20b-6	90	1,5	S1-100%	870	16,5

For MRSL14: size IEC63 on request.

For MRSL18 and MRSL20: size IEC100 on request.

Specifications 8-pole motor on request.



PLANETARY GEARBOX

Type	i	L	A ∅	B ∅	C	D ∅	E	F ∅	G ∅	H ∅	I	J	K	Weight [kg]	Input Flange
PRS80	3..8	216,5	101,5	160	24	20j6	40	70h6	85	105	M8	2,5	6x30	8	IEC 71 B14b
	9..64	234												9	IEC 80 B14b
	60..512	251,5												10	IEC 80 B14b
PRS120	3..8	286,5	159	200	31	35j6	70	110h6	130	160	M8	3,5	10x50	20	IEC 80 B5
	9..64	314												23	IEC 90 B5
	60..512	341,5												26	IEC 90 B5

All dimensions are in mm. Keyway according to DIN 6885.

PLANETARY GEARBOX (PRS80)

PRS80	$T_n^{(1)}$ [Nm]	1 Stage				2 Stages								
		60	75	75	35	85	80	75	80	80	75	80	75	35
	i	3	4	5	8	9	12	15	16	20	25	32	40	64

MOTOR		n2 [RPM]	1 Stage				2 Stages								
n1 [RPM]	P [W]		467	350	280	175	156	117	93	88	70	56	44	35	22
1400	180	[Nm] ⁽²⁾	3,5	4,7	5,9	9,4	10	14	17	18	23	29	37	46	74
	250		4,9	6,5	8,2	13	14	19	24	26	32	40	51	64	103
370	7,3		9,7	12	19	21	28	36	38	47	59	76	95		
550	11		14	18	29	32	42	53	56	71	88	113	141		
750	15		20	25	39	43	58	72	77	96	120	154			
900	18		24	29	47	52	69	87	92	115					

PRS80	$T_n^{(1)}$ [Nm]	3 Stages								
		75	80	80	75	80	75	80	75	35
	i	60	80	100	120	160	200	256	320	512

MOTOR		n2 [RPM]	3 Stages								
n1 [RPM]	P [W]		23	18	14	12	9	7	5	4	3
1400	180	[Nm] ⁽²⁾	66	88	111	133	177	221	283	354	566
	250		92	123	153						
	370		136								

(1) T_n is nominal output torque. T_n allows a short incidental overload of 50%. Other motor speeds on request.

(2) If the given torque > T_n (2) then $S_f < 1$.



PLANETARY GEARBOX (PRS120)

PRS120	$T_n^{(1)}$ [Nm]	1 Stage				2 Stages								
		75	105	130	80	140	170	150	170	170	150	170	150	80
	i	3	4	5	8	9	12	15	16	20	25	32	40	64

MOTOR		n2 [RPM]	1 Stage				2 Stages								
n1 [RPM]	P [W]		467	350	280	175	156	117	93	88	70	56	44	35	22
1400 1400 1400 1400 1400 1400	370	[Nm] ⁽²⁾	7,3	9,7	12	19	21	28	36	38	47	59	76	95	152
	550		11	14	18	29	32	42	53	56	71	88	113	141	226
	750		15	20	25	39	43	58	72	77	96	120	154	192	
	900		18	24	29	47	52	69	87	92	115	144	185	231	
	1100		22	29	36	58	63	85	106	113	141	176	226		
	1500		29	39	49	79	87	115	144	154	192	240	308		

PRS120	$T_n^{(1)}$ [Nm]	3 Stages								
		170	170	170	150	170	150	170	150	80
	i	60	80	100	120	160	200	256	320	512

MOTOR		n2 [RPM]	3 Stages								
n1 [RPM]	P [W]		23	18	14	12	9	7	5	4	3
1400 1400 1400	370	[Nm] ⁽²⁾	136	182	227	273	363	454	582	727	1163
	550		203	270							
	750		276								

(1) T_n is nominal output torque. T_n allows a short incidental overload of 50%. Other motor speeds on request.

(2) If the given torque > $T_n^{(2)}$ then $S_f < 1$.

