

These large motors are designed for use in the most arduous applications, requiring considerable power, torque, robustness and reliability



Operating information

Working pressure: Max 7 bar
 Temperature range: -20°C to +110°C
 Medium: Filtered dry air and oil mist, purity class ISO 8573-1 class 3,-.5 for indoor use and with a dew point lower than ambient temperature for outdoor use
 For more information see www.parker.com/euro_pneumatic

Reversible motor without gear box, IEC Flange

Max power	Free speed	Speed at max power	Torque at max power	Min start torque	Air consumption at max power	Conn.	Min pipe ID	Weight	Order code
kW	rpm	rpm	Nm	Nm	m³/min		mm	Kg	
5,1	6000	3000	16.2	24.4	6.2	G1	25	27	P1V-B510A0600
9	6000	3000	28.6	43	10	G1	25	25	P1V-B900A0600
18	6000	3000	57	85	20	G2	43	54	P1V-BJ00A0600

Technical data

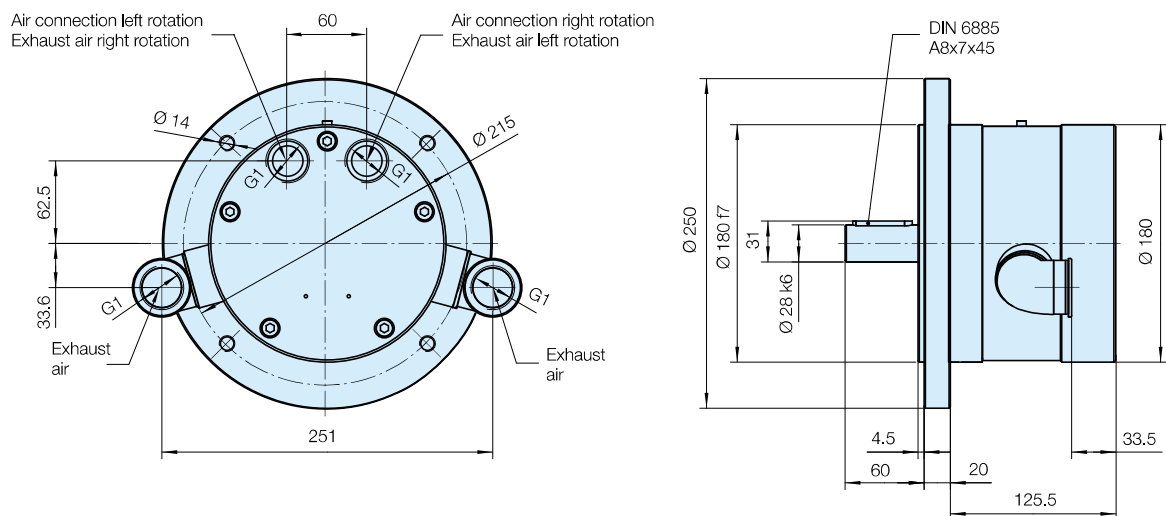
Air motor size & type	P1V-B510	P1V-B900	P1V-BJ00
Nominal power (watts)	5100	9000	18000
Working pressure (bar)	3 to 7		
Working temperature (°C)	-20 to +110		
Ambient temperature (°C)	-20 to +110		
Air flow required (l/min)	6200	10000	20000
Min pipe ID, inlet (mm)	25	25	43
Min pipe ID, outlet (mm)	25	25	43
Choice of treatment unit: recommended min air flow (l/min) at p1 7.5 bar and 0.8 bar pressure drop			
	6400	10300	20400
Choice of valve: recommended min nominal air flow (l/min) at p1 6 bar and 1 bar pressure drop			
	6600	10600	20800
Medium	40µm filtered, oil mist or dry unlubricated compressed air		
Oil operation	1-2 drop per cube meter, ISO8573-1 purity class 3,-.5		
Recommended oil	Foodstuffs industry Klüber oil 4 UH 1-32 N		
Shaft radial force (N)	7500	7500	7500
Shaft axial force (N)	11000	11000	11000

Material specification

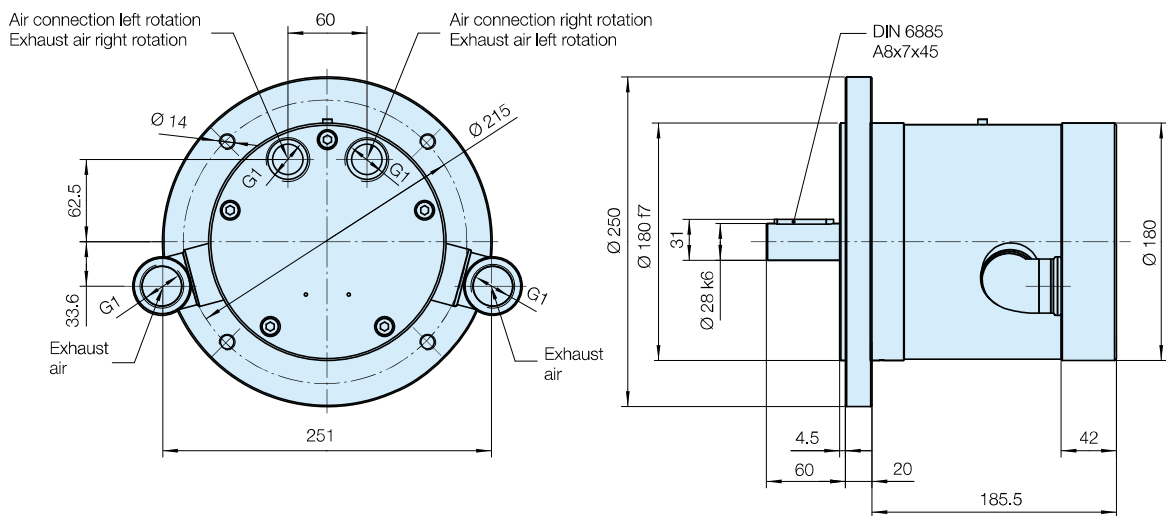
Air motor size & type	P1V-B510	P1V-B900	P1V-BJ00
Motor housing	Cast iron, synthetic paint, black color		
Shaft	High grade steel		
Key	Hardened steel		
External seal	Nitrile rubber, NBR		
Internal steel parts	High grade steel		
Vanes	Patented, no data		

Dimensions (mm)

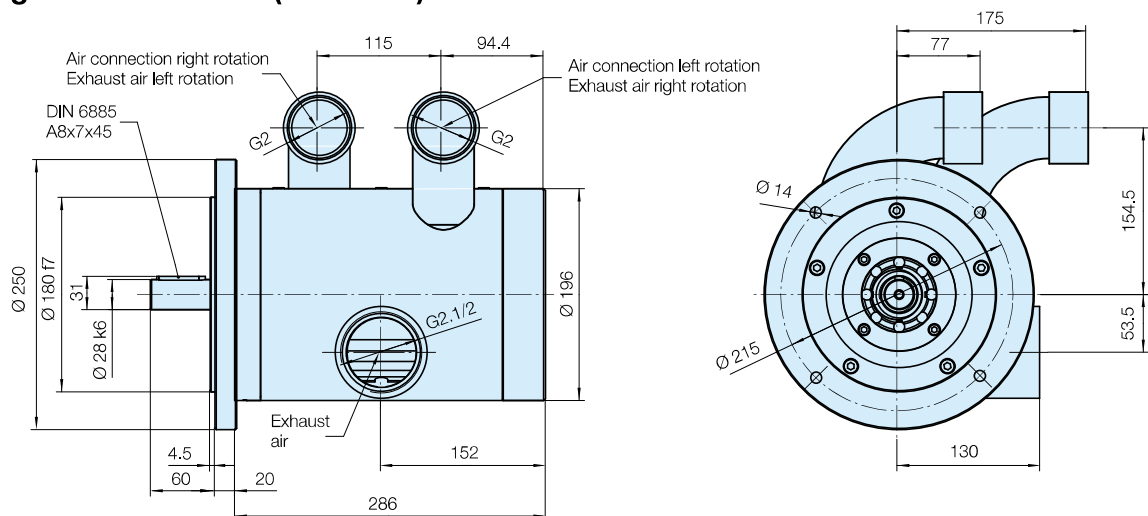
Flange motor IEC112A (P1V-B510)



Flange motor IEC112A (P1V-B900)



Flange motor IEC112A (P1V-BJ00)



Technical data

Note: All technical data are based on a working pressure of 6 bar and with oil. Speed tolerance accuracy in between clock and anti-clockwise directions is $\pm 10\%$.

Air motor size & type	P1V-A160	P1V-A260	P1V-A360
Nominal power (watts)	1600	2600	3600
Working pressure (bar)	3 to 7, 6 in explosive atmosphere		
Working temperature (°C)	-20 to +110		
Ambient temperature (°C)	-20 to +110		
Air flow required (l/min)	1900	3600	5800
Min pipe ID, inlet (mm)	15	19	25
Min pipe ID, outlet (mm)	15	19	25

Choice of treatment unit: recommended min air flow (l/min) at p1 7.5 bar and 0.8 bar pressure drop

	2100	3900	6200
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Choice of valve: recommended min nominal air flow (l/min) at p1 6 bar and 1 bar pressure drop

	2300	4200	6600
Medium	40µm filtered, oil mist lubricated compressed air		
Oil operation	1-2 drop per cube meter, ISO8573-1 purity class 3.-.5		
Recommended oil	Foodstuffs industry Klüber oil 4 UH1- 32 N		
Sound level free outlet (dB(A))	120	131	131
With outlet silencer (dB(A))	97.5	99	101

Note: sound levels are measured at free speed with the measuring instrument positioned 1 meter away from the air motor at an height of 1 meter.

Material specification

Air motor size & type	P1V-A160	P1V-A260	P1V-A360
Without gear box			
Motor housing	Cast iron, synthetic paint, silver grey color		
Shaft	High grade steel		
Key	Hardened steel		
External seal	Nitrile rubber, NBR		
Internal steel parts	High grade steel		
Vanes	Patented, no data		
Screws	Zinc coated steel		
With gear boxes, common data			
Housing	Alloy steel, synthetic paint, silver grey color		
Shaft	Hardened steel		
Key	Hardened steel		
Shaft seal	Nitrile rubber, NBR		
Screws	Zinc coated steel		
With planetary gear box			
Housing	Cast iron, synthetic paint, silver grey color		
With helical gear box			
Housing	Aluminium or cast iron, synthetic paint, silver grey color		
With worm gear box			
Housing	Aluminium or cast iron, synthetic paint, silver grey color		
Pinion	Chili cast phosphor bronze		
Worm	Alloyed, hardened steel		

P1V-A Air Motor - Without gear box

NOTE! All technical data are based on a working pressure of 6 bar and with oil.
Speed tolerance accuracy is $\pm 10\%$.



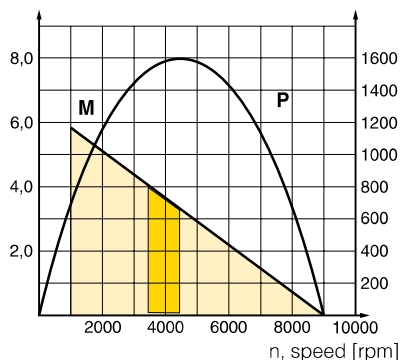
A: Basic reversible motor without gear box, IEC Flange

Max power	Free speed*	Nominal speed	Nominal torque	Min start torque	Air consumption at max power	Con- nec- tion	Min pipe ID inlet/ outlet	Weight	Order code
kW	rpm	rpm	Nm	Nm	l/s		mm	Kg	
1,600	9000	4500	3,3	5,0	32	G1/2	15	4,2	P1V-A160A0900
2,600	7000	3500	7,1	11,0	60	G3/4	19	7,9	P1V-A260A0700
3,600	6000	3000	11,5	17,0	97	G1	25	16,5	P1V-A360A0600

* maximum admissible speed (idling)

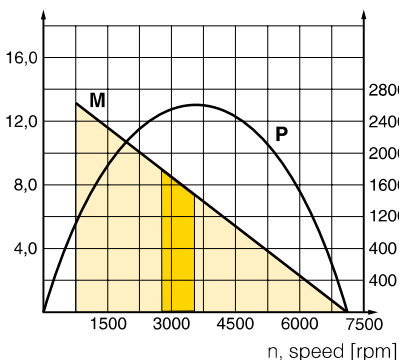
P1V-A160A0900

M, torque [Nm]

**P1V-A260A0700**

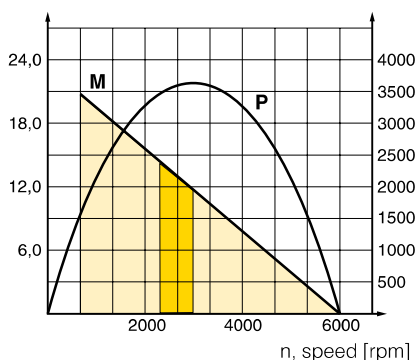
M, torque [Nm]

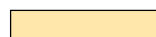
P, power [W]

**P1V-A360A0600**

M, torque [Nm]

P, power [W]



 Possible working range of motor.

 Optimum working range of motor.
Higher speeds = more vane wear
Lower speeds with high torque = more gearbox wear

Permitted shaft loadings

Max permitted load on output shaft for basic motors (based on 10,000,000 revolutions of the output shaft, with 90% probable service life for ball bearings).

	F_{ax} N	F_{rad} N	a mm
P1V-A160A0900	600	1000	15
P1V-A260A0700	700	1400	20
P1V-A360A0600	900	1900	25

F_{rad} = Radial loading (N)

F_{ax} = Axial loading (N)

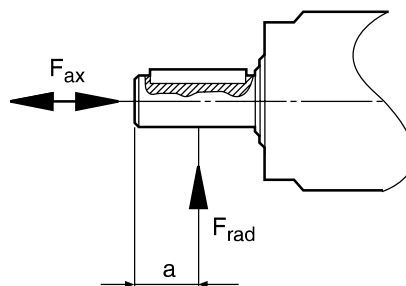
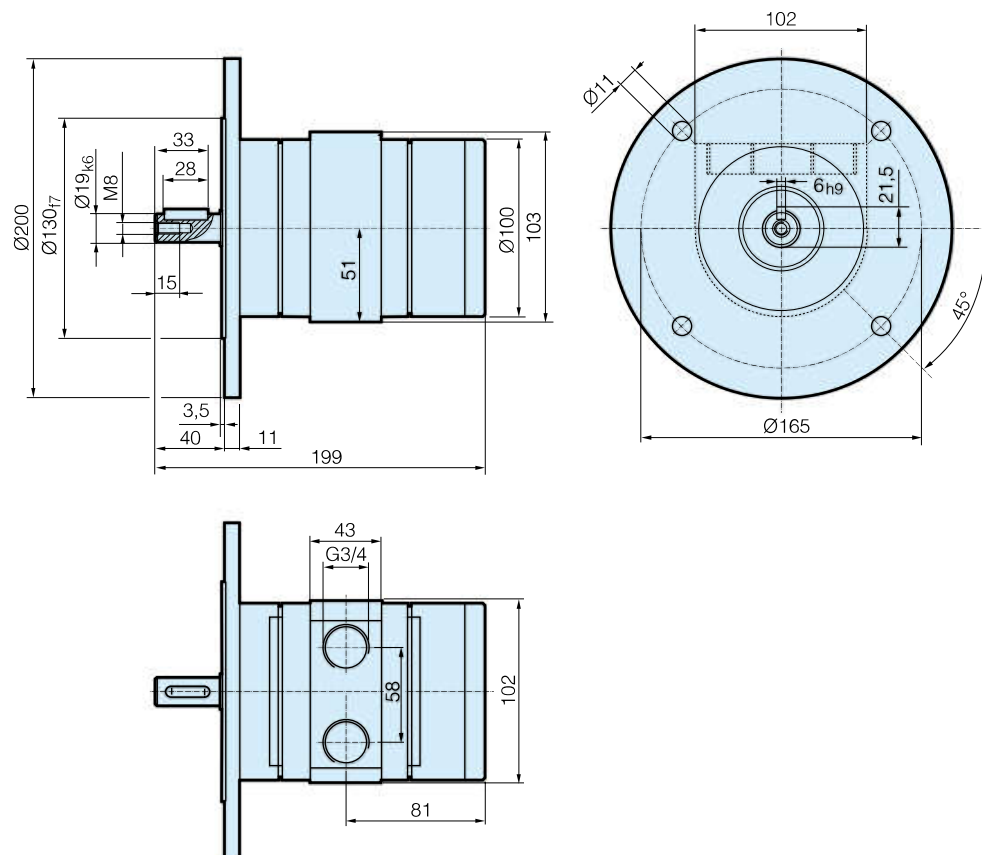


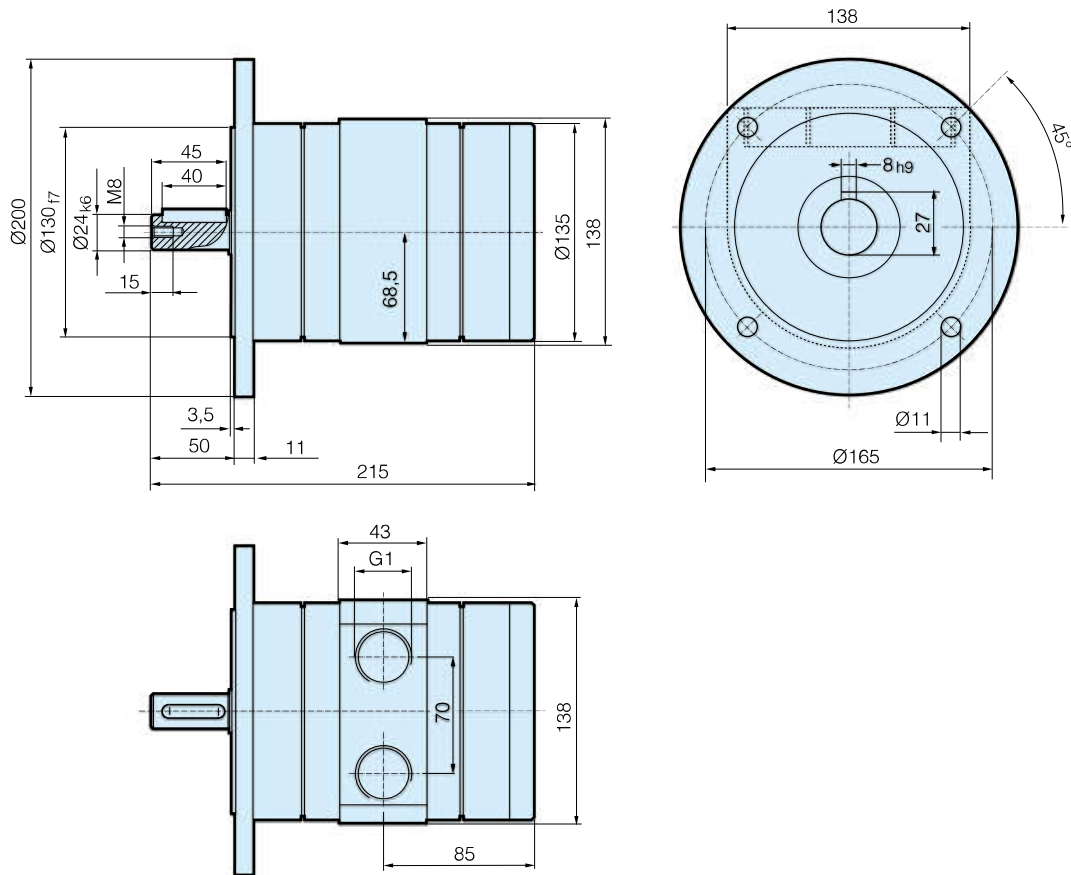
Fig. 1: Loading on output shaft.

Flange motor IEC71AB5 (P1V-A160)



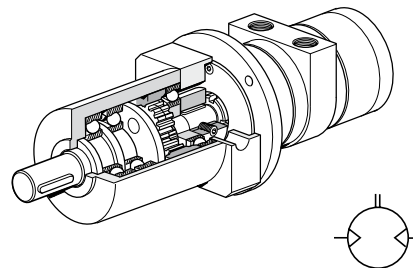
Dimensions (mm)

Flange motor IEC90AB5 (P1V-A360)



P1V-A Air Motor - Planetary Gear

NOTE! All technical data are based on a working pressure of 6 bar and with oil.
Speed tolerance accuracy is $\pm 10\%$.



B: Reversible motor with planetary gear, flange mounting, free installation position

Max power kW	Max speed* rpm	Nominal speed rpm	Nominal Torque Nm	Min start torque Nm	Max permanent torque** Nm	Air consumption at max power l/s	Connection	Min pipe ID inlet/outlet mm	Weight Kg	Order code
Series P1V-A160										
1,600	1200	900	16	24	40	32	G1/2	15	8,3	P1V-A160B0120
1,600	600	450	32	48	35	32	G1/2	15	8,3	P1V-A160B0060
1,600	190	180	77	115	100	32	G1/2	15	15,4	P1V-A160B0019
Series P1V-A260										
2,600	1200	700	34	51	40	60	G3/4	19	12,0	P1V-A260B0120
2,600	600	350	67	100	40	60	G3/4	19	12,0	P1V-A260B0060
2,600	190	140	160	240	40	60	G3/4	19	13,0	P1V-A260B0019
Series P1V-A360										
3,600	960	600	55	82	100	97	G1	25	25,5	P1V-A360B0096
3,600	480	300	110	165	100	97	G1	25	25,5	P1V-A360B0048

* maximum admissible speed (idling)

** Max gear box torque for a permanent load

Permitted shaft loadings

The following calculations should be used to determine the loading on the output shaft bearing, if a service life of 10,000,000 revolutions of the output shaft is to be obtained with 90% probability.

$$F_{ax} = \max 0,24 \times F_{rad}$$

$$M = \pm F_{ax} \times r \pm F_{rad} \times (X + K)$$

Where M and K are found in the table below

	M Nm	K N
P1V-A160B120	2651	0,031
P1V-A160B060	2651	0,031
P1V-A160B019	7385	0,040
P1V-A160B010	7385	0,040
P1V-A260B120	2651	0,031
P1V-A260B060	2651	0,031
P1V-A260B019	7385	0,040
P1V-A360B096	7385	0,040
P1V-A360B048	7385	0,040

M Max. torque loading on output shaft (Nm)
r Distance from centre of output shaft to axial load (m)
X Distance from collar to radial load (m)
 F_{rad} Radial loading (N)
 F_{ax} Axial loading (N)

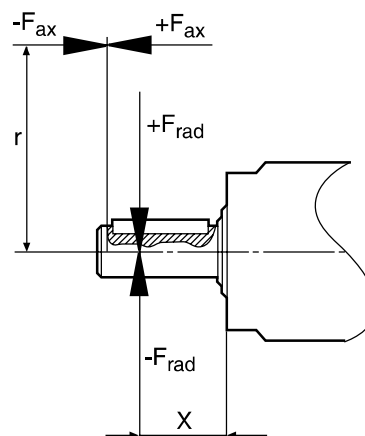
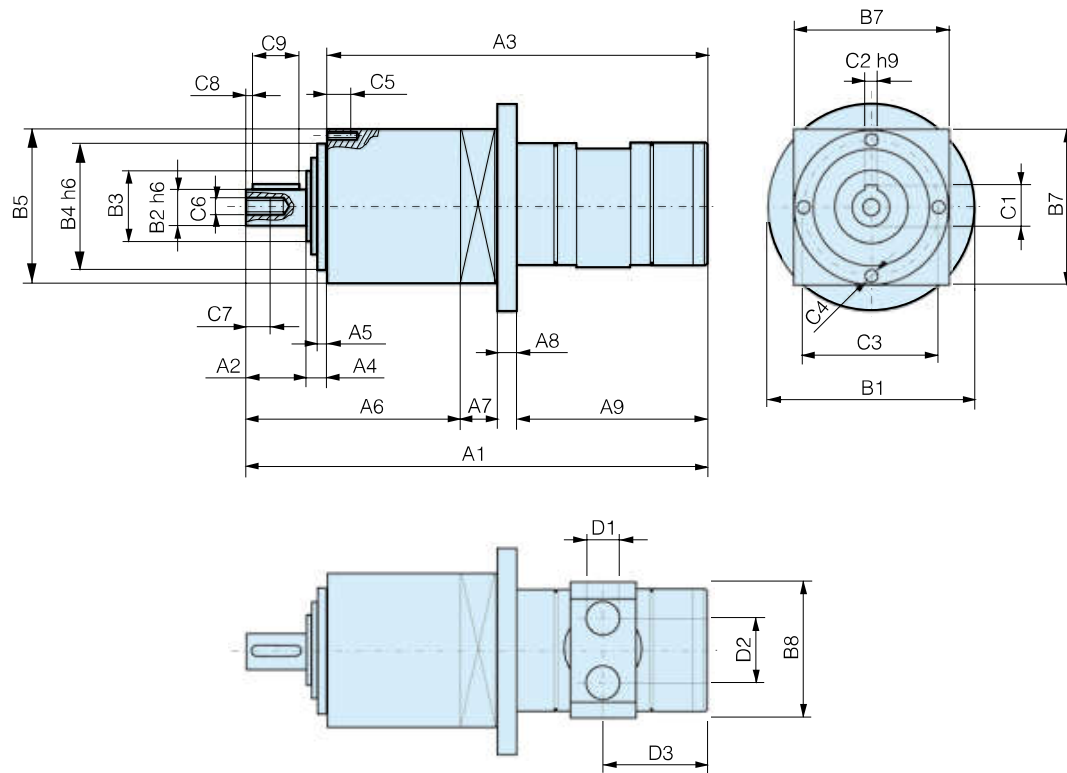


Fig 2: Load and braking torque on output shaft of planetary gear

Dimensions (mm)

B: Motor with planetary gear, flange mounting

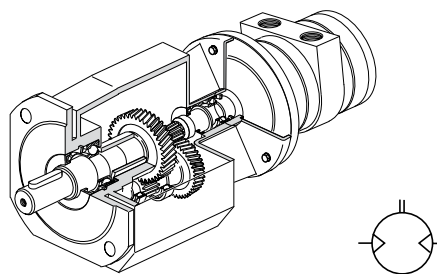


Order code	A1	A2	A3	A4	A5	A6	A7	A8	A9	B1	B2	B3	B4	B5	B6
P1V-A160B0120	274,5	36	228,5	10	5	126,0	22	10	116,5	160	22	40	68	90	80
P1V-A160B0060	274,5	36	228,5	10	5	126,0	22	10	116,5	160	22	40	68	90	80
P1V-A160B0019	359,0	58	289,0	12	5	204,5	28	10	116,5	160	32	50	90	120	80
P1V-A260B0120	317,0	36	271,0	10	6	126,0	32	11	148,0	200	22	40	68	90	100
P1V-A260B0060	317,0	36	271,0	10	6	126,0	32	11	148,0	200	22	40	68	90	100
P1V-A260B0019	391,5	58	321,5	12	6	204,5	28	11	148,0	200	32	50	90	120	100
P1V-A360B0096	375,0	58	305,0	12	6	172,0	38	11	154,0	200	32	50	90	120	135
P1V-A360B0048	375,0	58	305,0	12	6	172,0	38	11	154,0	200	32	50	90	120	135

Order code	B7	B8	C1	C2	C3	C4	C5	C6	C7	C8	C9	D1	D2	D3
P1V-A160B0120	120	85	24,5	6	80	M6	12	M8	13	2	32	G1/2	44	64
P1V-A160B0060	120	85	24,5	6	80	M6	12	M8	13	2	32	G1/2	44	64
P1V-A160B0019	120	85	35,0	10	108	M8	16	M12	22	4	50	G1/2	44	64
P1V-A260B0120	140	102	24,5	6	80	M6	12	M8	13	2	32	G3/4	58	81
P1V-A260B0060	140	102	24,5	6	80	M6	12	M8	13	2	32	G3/4	58	81
P1V-A260B0019	140	102	35,0	10	108	M8	16	M12	22	4	50	G3/4	58	81
P1V-A360B0096	140	138	35,0	10	108	M8	16	M12	22	4	50	G1	70	85
P1V-A360B0048	140	138	35,0	10	108	M8	16	M12	22	4	50	G1	70	85

P1V-A Air Motor - Helical Gear

NOTE! All technical data are based on a working pressure of 6 bar and with oil.
Speed tolerance accuracy is $\pm 10\%$.



D: Reversible motor with helical gear, flange mounting

Max power	Max speed*	Nominal speed	Nominal torque	Min start torque	Max permanent torque**	Air consumption at max power	Connection	Min pipe ID inlet/outlet	Weight	Order code
kW	rpm	rpm	Nm	Nm	Nm	l/s		mm	Kg	
Series P1V-A160										
1,600	660	590	24	36	45	32	G1/2	15	9,8	P1V-A160D0066••
1,600	320	280	50	75	140	32	G1/2	15	11,5	P1V-A160D0032••
1,600	140	120	113	171	280	32	G1/2	15	14,4	P1V-A160D0014••
1,600	80	70	197	299	560	32	G1/2	15	31,7	P1V-A160D0008••
1,600	37	33	413	626	1000	32	G1/2	15	49,2	P1V-A160D0004••
1,600	21	18	716	1084	1600	32	G1/2	15	67,2	P1V-A160D0003••
Series P1V-A260										
2,600	800	565	42	64	42	60	G3/4	19	14,9	P1V-A260D0080••
2,600	520	365	65	100	115	60	G3/4	19	16,1	P1V-A260D0052••
2,600	250	175	135	210	235	60	G3/4	19	19,0	P1V-A260D0025••
2,600	110	80	302	468	500	60	G3/4	19	36,4	P1V-A260D0011••
2,600	55	40	614	951	1000	60	G3/4	19	54,9	P1V-A260D0006••
2,600	30	20	990	1530	1600	60	G3/4	19	68,9	P1V-A260D0003••
Series P1V-A360										
3,600	1050	625	52	78	80	97	G1	25	24,6	P1V-A360D0105••
3,600	520	310	105	155	175	97	G1	25	24,6	P1V-A360D0052••
3,600	250	150	216	320	385	97	G1	25	45,0	P1V-A360D0025••
3,600	125	74	441	652	795	97	G1	25	63,5	P1V-A360D0013••
3,600	60	36	888	1312	1600	97	G1	25	77,5	P1V-A360D0006••
3,600	30	18	1800	2670	4000	97	G1	25	151,5	P1V-A360D0003••

* maximum admissible speed (idling)

** Max gear box torque for a permanent load

Note!

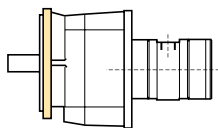
•• specify installation position in the order code as in the illustrations below.

Example: P1V-A160D0066B5

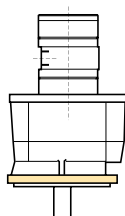
Note: Oil-bath gearboxes mean that the installation position must be decided in advance. The installation position determines the volume of oil in the gearbox and location of oil filling and drain plugs.

D: Installation positions, helical gear, flange mounting

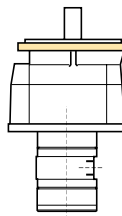
B5



V1

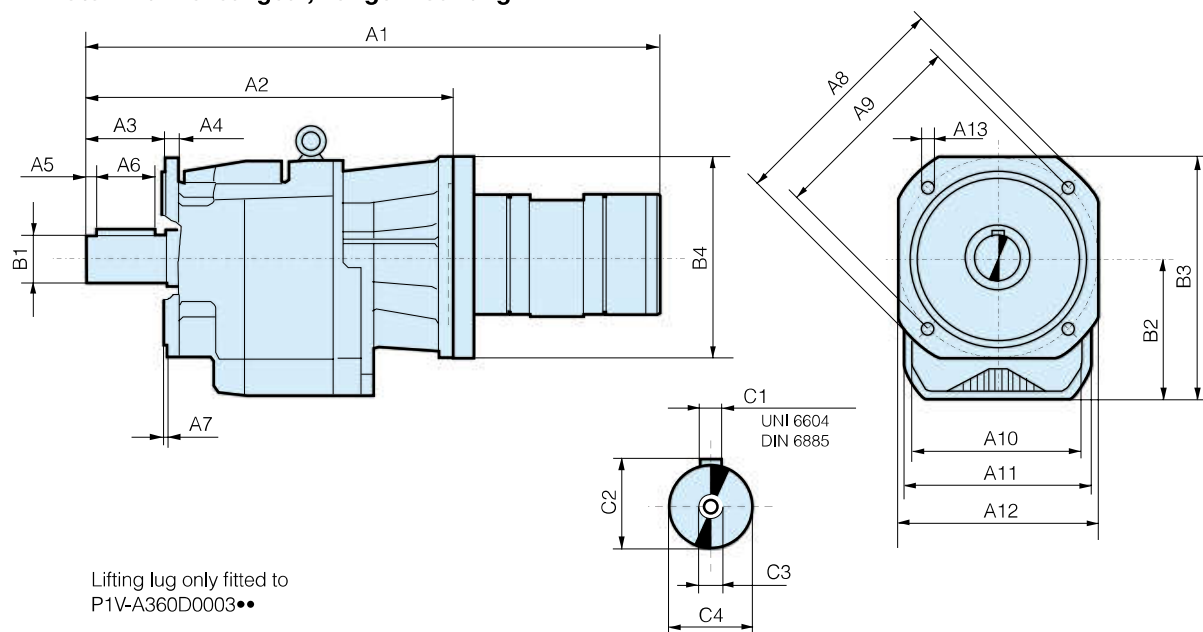


V3



Dimensions (mm)

D: Motor with helical gear, flange mounting



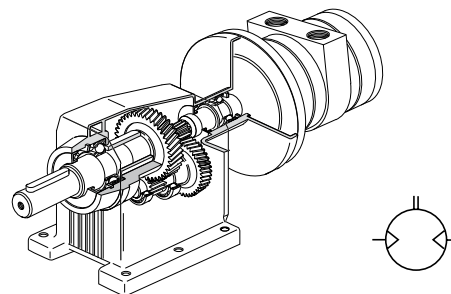
Order code	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	B1	B2	B3
P1V-A160D0066••	370,5	244	40	8	5	30	3,0	140	115	95f7	95	105	9,5	20	82	138,0
P1V-A160D0032••	399,5	273	50	10	5	40	3,5	160	130	110f7	110	135	9,5	25	92	159,5
P1V-A160D0014••	433,5	307	60	12	5	50	3,5	200	165	130f7	130	150	11,5	30	108	183,0
P1V-A160D0008••	463,5	337	70	13	5	60	4,0	250	215	180 f7	155	210	14,0	35	128	233,0
P1V-A160D0004••	559,5	433	80	16	5	70	5,0	300	265	230 f7	185	260	14,0	40	152	282,0
P1V-A160D0003••	601,5	475	100	16	5	90	5,0	300	265	230 f7	210	260	14,0	50	190	320,0
P1V-A260D0080••	423,0	264	40	8	5	30	3,0	140	115	95f7	95	105	9,5	20	82	138,0
P1V-A260D0052••	451,0	292	50	10	5	40	3,5	160	130	110f7	110	135	9,5	25	92	159,5
P1V-A260D0025••	486,0	327	60	12	5	50	3,5	200	165	130f7	130	150	11,5	30	108	183,0
P1V-A260D0011••	515,0	356	70	13	5	60	4,0	250	215	180 f7	155	210	14,0	35	128	233,0
P1V-A260D0006••	612,0	453	80	16	5	70	5,0	300	265	230 f7	185	260	14,0	40	152	282,0
P1V-A260D0003••	634,0	475	100	16	5	90	5,0	300	265	230 f7	210	260	14,0	50	190	320,0
P1V-A360D0105••	458,0	292	50	10	5	40	3,5	160	130	110f7	110	135	9,5	25	92	159,5
P1V-A360D0052••	458,0	292	50	10	5	40	3,5	160	130	110f7	110	135	9,5	25	92	159,5
P1V-A360D0025••	521,0	356	70	13	5	60	4,0	250	215	180 f7	155	210	14,0	35	128	233,0
P1V-A360D0013••	547,0	382	80	16	5	70	5,0	300	265	230 f7	185	260	14,0	40	152	282,0
P1V-A360D0006••	640,0	475	100	16	5	90	5,0	300	265	230 f7	210	260	14,0	50	190	320,0
P1V-A360D0003••	699,0	534	140	20	15	110	5,0	400	350	300 f7	320	350	18,0	80	247	424,0

Order code	B4	C1	C2	C3	C4
P1V-A160D0066••	160	6x6x30	22,5	M8x19	20 h6
P1V-A160D0032••	160	8x7x40	28,0	M8x19	25 h6
P1V-A160D0014••	160	8x7x50	33,0	M10x22	30 h6
P1V-A160D0008••	160	10x8x60	38,0	M10x22	35 h6
P1V-A160D0004••	160	12x8x70	43,0	M12x28	40 h6
P1V-A160D0003••	160	14x9x90	53,5	M16x36	50 h6
P1V-A260D0080••	200	6x6x30	22,5	M8x19	20 h6
P1V-A260D0052••	200	8x7x40	28,0	M8x19	25 h6
P1V-A260D0025••	200	8x7x50	33,0	M10x22	30 h6
P1V-A260D0011••	200	10x8x60	38,0	M10x22	35 h6
P1V-A260D0006••	200	12x8x70	43,0	M12x28	40 h6
P1V-A260D0003••	200	14x9x90	53,5	M16x36	50 h6
P1V-A360D0105••	200	8x7x40	28,0	M8x19	25 h6
P1V-A360D0052••	200	8x7x40	28,0	M8x19	25 h6
P1V-A360D0025••	200	10x8x60	38,0	M10x22	35 h6
P1V-A360D0013••	200	12x8x70	43,0	M12x28	40 h6
P1V-A360D0006••	200	14x9x90	53,5	M16x36	50 h6
P1V-A360D0003••	200	22x14x110	85,0	M20x42	80 h6

••: see previous page for installation positions

P1V-A Air Motor - Helical Gear

NOTE! All technical data are based on a working pressure of 6 bar and with oil.
Speed tolerance accuracy is $\pm 10\%$.



E: Reversible motor with helical gear, foot mounting

Max power kW	Max speed* rpm	Nominal speed rpm	Nominal torque Nm	Min start torque Nm	Max permanent torque** Nm	Air consumption at max power l/s	Connection	Min pipe ID inlet/outlet mm	Weight Kg	Order code
Series P1V-A160										
1,600	660	590	24	36	45	32	G1/2	15	9,8	P1V-A160E0066••
1,600	320	280	50	75	140	32	G1/2	15	11,5	P1V-A160E0032••
1,600	140	120	113	171	280	32	G1/2	15	14,4	P1V-A160E0014••
1,600	80	70	197	299	560	32	G1/2	15	31,7	P1V-A160E0008••
1,600	37	33	413	626	1000	32	G1/2	15	49,2	P1V-A160E0004••
1,600	21	18	716	1084	1600	32	G1/2	15	67,2	P1V-A160E0003••

Series P1V-A260

2,600	800	565	42	64	42	60	G3/4	19	14,9	P1V-A260E0080••
2,600	520	365	65	100	115	60	G3/4	19	16,1	P1V-A260E0052••
2,600	250	175	135	210	235	60	G3/4	19	19,0	P1V-A260E0025••
2,600	110	80	302	468	500	60	G3/4	19	36,4	P1V-A260E0011••
2,600	55	40	614	951	1000	60	G3/4	19	54,9	P1V-A260E0006••
2,600	30	20	990	1530	1600	60	G3/4	19	68,9	P1V-A260E0003••

Series P1V-A360

3,600	1050	625	52	78	80	97	G1	25	24,6	P1V-A360E0105••
3,600	520	310	105	155	175	97	G1	25	24,6	P1V-A360E0052••
3,600	250	150	216	320	385	97	G1	25	45,0	P1V-A360E0025••
3,600	125	74	441	652	795	97	G1	25	63,5	P1V-A360E0013••
3,600	62	36	868	1312	1600	97	G1	25	77,5	P1V-A360E0006••
3,600	30	18	1800	2670	4000	97	G1	25	151,5	P1V-A360E0003••

* maximum admissible speed (idling)

** Max gear box torque for a permanent load

Note!

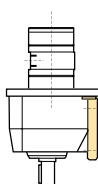
•• specify installation position in the order code as in the illustrations below.

Example: **P1V-A160E0066V5**

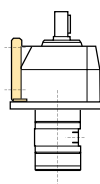
Note: Oil-bath gearboxes mean that the installation position must be decided in advance. The installation position determines the volume of oil in the gearbox and location of oil filling and drain plugs.

E: Installation positions, helical gear, foot mounting

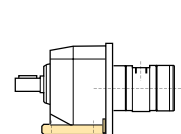
V5



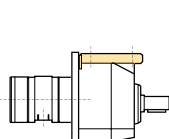
V6



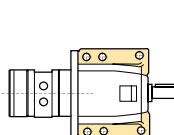
B3



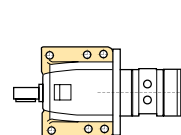
B8



B7

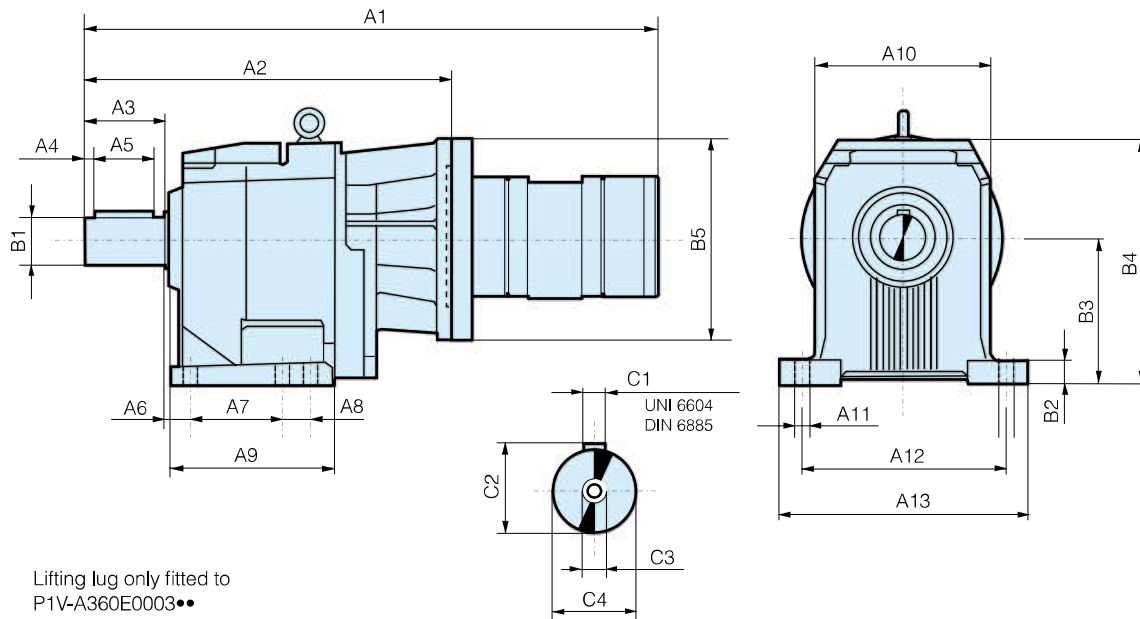


B6



Dimensions (mm)

E: Motor with helical gear, foot mounting



Lifting lug only fitted to
P1V-A360E0003**

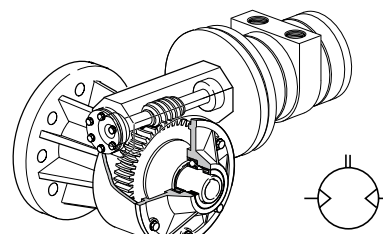
Order code	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	B1	B2	B3
P1V-A160E0066**	370,5	244	40	5	30	18	50	37,0	107,0	95	9	110	130	20	15	85
P1V-A160E0032**	399,5	273	50	5	40	18	60	47,5	137,0	110	11	130	155	25	17	100
P1V-A160E0014**	433,5	307	60	5	50	18	70	60,0	156,0	130	11	160	190	30	20	110
P1V-A160E0008**	463,5	337	70	5	60	20	105	44,5	185,5	155	14	180	216	35	18	130
P1V-A160E0004**	559,5	433	80	5	70	25	110	46,0	200,0	185	18	225	270	40	22	155
P1V-A160E0003**	601,5	475	100	5	90	25	145	35,0	222,0	210	18	250	300	50	25	195
P1V-A260E0080**	413,0	244	40	5	30	18	50	37,0	107,0	95	9	110	130	20	15	85
P1V-A260E0052**	451,0	292	50	5	40	18	60	47,5	137,0	110	11	130	155	25	17	100
P1V-A260E0025**	486,0	327	60	5	50	18	70	60,0	156,0	130	11	160	190	30	20	110
P1V-A260E0011**	515,0	356	70	5	60	20	105	44,5	185,5	155	14	180	216	35	18	130
P1V-A260E0006**	612,0	453	80	5	70	25	110	46,0	200,0	185	18	225	270	40	22	155
P1V-A260E0003**	654,0	495	100	5	90	25	145	35,0	222,0	210	18	250	300	50	25	195
P1V-A360E0105**	457,0	292	50	5	40	18	60	47,5	137,0	110	11	130	155	25	17	100
P1V-A360E0052**	457,0	292	50	5	40	18	60	47,5	137,0	110	11	130	155	25	17	100
P1V-A360E0025**	521,0	356	70	5	60	20	105	44,5	185,5	155	14	180	216	35	18	130
P1V-A360E0013**	547,0	382	80	5	70	25	110	46,0	200,0	185	18	225	270	40	22	155
P1V-A360E0006**	660,0	495	100	5	90	25	145	35,0	222,0	210	18	250	300	50	25	195
P1V-A360E0003**	699,0	534	140	15	110	33	210	—	277,0	320	26	370	440	80	35	250

Order code	B4	B5	C1	C2	C3	C4
P1V-A160E0066**	141	160	6x6x30	22,5	M8x19	20 h6
P1V-A160E0032**	166	160	8x7x40	28,0	M8x19	25 h6
P1V-A160E0014**	181	160	8x7x50	33,0	M10x22	30 h6
P1V-A160E0008**	223	160	10x8x60	38,0	M10x22	35 h6
P1V-A160E0004**	278	160	12x8x70	43,0	M12x28	40 h6
P1V-A160E0003**	316	160	14x9x90	53,5	M16x36	50 h6
P1V-A260E0080**	141	200	6x6x30	22,5	M8x19	20 h6
P1V-A260E0052**	166	200	8x7x40	28,0	M8x19	25 h6
P1V-A260E0025**	181	200	8x7x50	33,0	M10x22	30 h6
P1V-A260E0011**	223	200	10x8x60	38,0	M10x22	35 h6
P1V-A260E0006**	278	200	12x8x70	43,0	M12x28	40 h6
P1V-A260E0003**	316	200	14x9x90	53,5	M16x36	50 h6
P1V-A360E0105**	166	200	8x7x40	28,0	M8x19	25 h6
P1V-A360E0052**	166	200	8x7x40	28,0	M8x19	25 h6
P1V-A360E0025**	223	200	10x8x60	38,0	M10x22	35 h6
P1V-A360E0013**	278	200	12x8x70	43,0	M12x28	40 h6
P1V-A360E0006**	316	200	14x9x90	53,5	M16x36	50 h6
P1V-A360E0003**	420	200	22x14x110	85,0	M20x42	80 h6

** see previous page for installation positions

P1V-A Air Motor - Worm Gear

NOTE! All technical data are based on a working pressure of 6 bar and with oil.
Speed tolerance accuracy is $\pm 10\%$.



F: Reversible motor with worm gear, flange mounting left-hand

Max power kW	Max speed* rpm	Nominal speed rpm	Nominal torque Nm	Min start torque Nm	Max permanent torque** Nm	Types of self-locking	Air consumption at max power l/s	Connection	Min pipe ID inlet/outlet mm	Weight Kg	Order code
Series P1V-A160											
1,600	430	320	38	40	44	1	32	G1/2	15	7,2	P1V-A160F0043**
1,600	200	150	77	65	125	2	32	G1/2	15	10,5	P1V-A160F0020**
1,600	95	70	154	117	250	3	32	G1/2	15	17,8	P1V-A160F0010**
1,600	75	55	180	130	225	3	32	G1/2	15	17,8	P1V-A160F0008**
Series P1V-A260											
2,600	500	350	62	71	125	1	60	G3/4	19	14,5	P1V-A260F0050**
2,600	220	150	133	133	285	1	60	G3/4	19	21,0	P1V-A260F0022**
2,600	125	85	224	191	430	2	60	G3/4	19	21,0	P1V-A260F0013**
2,600	62	44	415	308	660	3	60	G3/4	19	57,0	P1V-A260F0008**
Series P1V-A360											
3,600	500	300	98	113	125	1	97	G1	25	22,9	P1V-A360F0050**
3,600	220	130	224	230	285	1	97	G1	25	31,0	P1V-A360F0022**
3,600	125	75	368	317	595	2	97	G1	25	55,0	P1V-A360F0013**
3,600	62	37	670	480	660	3	97	G1	25	65,5	P1V-A360F0006**

* maximum admissible speed (idling)

** Max gear box torque for a permanent load

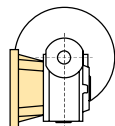
Note!

•• specify installation position in the order code as in the illustrations below.

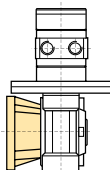
Example: **P1V-A160F0043B3**

F: Installation positions, worm gear, flange mounting left-hand

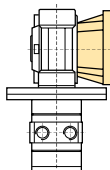
B3



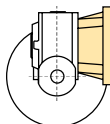
V6



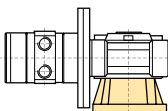
V5



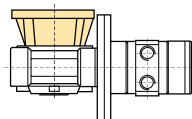
B8



B6



B7



Note: Oil-bath gearboxes mean that the installation position must be decided in advance. The installation position determines the volume of oil in the gearbox and location of oil filling and drain plugs.

Self-locking

Dynamic self-locking means that the force acting on the output shaft of the gear can not turn the gear further when the air motor is stopped. Dynamic self-locking is only possible when the gear ratio is high, and at low speeds. None of our worm drive gears are completely self-locking in dynamic conditions.

Static self-locking means that the force acting on the output shaft of the gear can not begin to turn the shaft.

When loads with considerable momentum are driven, it is necessary to have a braking time sufficient to stop the gearbox from being overloaded. It is extremely important that the maximum permitted torque is not exceeded.

Tip: Braking of the air motor can be arranged by either slowly restricting the air supply to the motor until it is completely shut off, or by slowly reducing the supply pressure to zero.

Types of Self-locking

1. Static, not self-locking
2. Static, self-locking - quicker return under vibration - not dynamically self-locking
3. Static, self-locking - return only possible under vibration - good dynamic self-locking

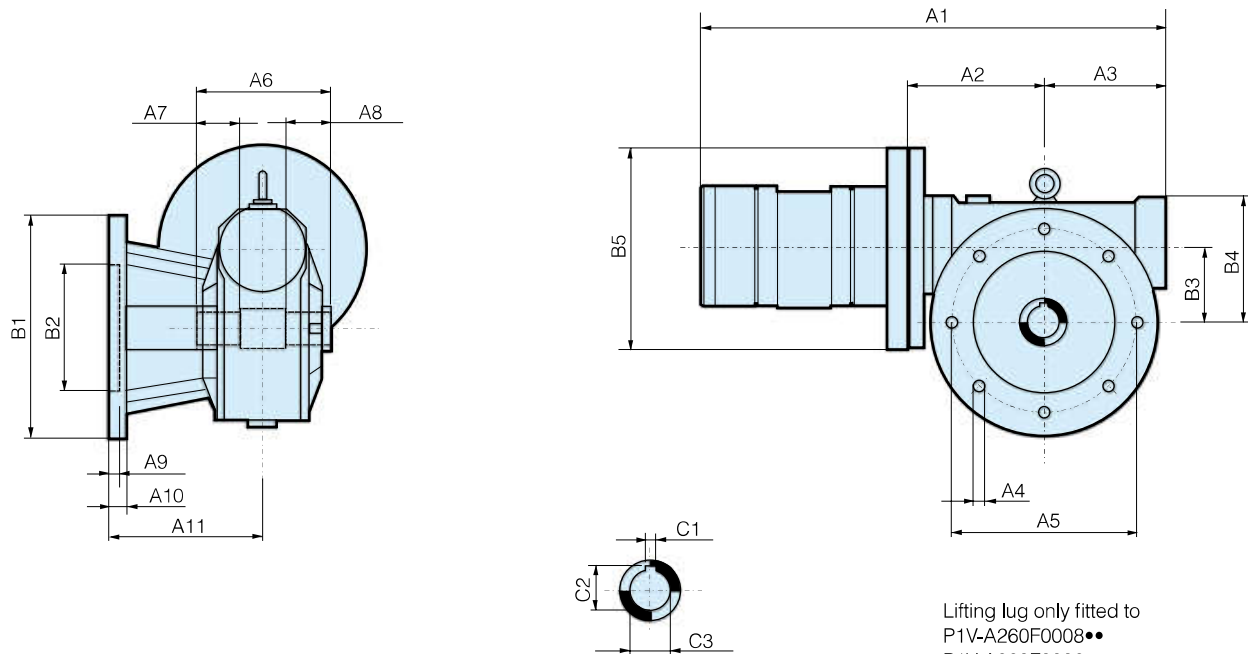


Important!

Since it is practically impossible to guarantee total self-locking, an external brake must be used to guarantee that vibration can not cause an output shaft to move.

Dimensions (mm)

F: Motor with worm gear, flange mounting



Lifting lug only fitted to
P1V-A260F0008••
P1V-A360F0006••

As standard, the motor has a hollow shaft with key slot. Please refer to page 44 for a dimension sketch of the single ended and double ended shafts and for additional flange on the opposite side.

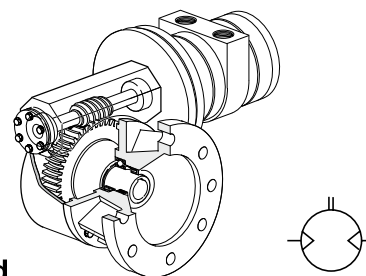
Order code	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3
P1V-A160F0043••	259,5	70	63	10,5	90	82	22,5	22,5	10	12	85,0	125	70 H8	49,50
P1V-A160F0020••	301,5	95	80	10,5	130	120	40,0	40,0	8	11	116,0	180	115 H8	62,17
P1V-A160F0010••	362,5	126	110	12,5	176	140	45,0	45,0	15	15	151,0	210	152 H8	86,90
P1V-A160F0008••	362,5	126	110	12,5	176	140	45,0	45,0	15	15	151,0	210	152 H8	86,90
P1V-A260F0050••	292,0	70	63	10,5	90	82	22,5	22,5	10	12	85,0	125	70 H8	49,50
P1V-A260F0022••	395,0	126	110	12,5	176	140	45,0	45,0	15	15	151,0	210	152 H8	86,90
P1V-A260F0013••	395,0	126	110	12,5	176	140	45,0	45,0	15	15	151,0	210	152 H8	86,90
P1V-A260F0008••	498,0	185	154	16,0	255	165	52,5	52,5	18	20	197,5	320	180 H8	130,00
P1V-A360F0050••	340,0	95	80	10,5	130	120	40,0	40,0	8	11	116,0	180	115 H8	62,17
P1V-A360F0022••	401,0	126	110	12,5	176	140	45,0	45,0	15	15	151,0	210	152 H8	86,90
P1V-A360F0013••	456,0	153	138	13,5	230	155	45,0	45,0	18	20	179,5	280	170 H8	110,10
P1V-A360F0006••	504,0	185	154	16,0	255	165	52,5	52,5	18	20	197,5	320	180 H8	130,00

Order code	B4	B5	C1	C2	C3
P1V-A160F0043••	80,0	160	8 H8	28,3	25 H7
P1V-A160F0020••	98,5	160	8 H8	28,3	25 H7
P1V-A160F0010••	138,0	160	10 H8	38,3	35 H7
P1V-A160F0008••	138,0	160	10 H8	38,3	35 H7
P1V-A260F0050••	80,0	200	8 H8	28,3	25 H7
P1V-A260F0022••	138,0	200	10 H8	38,3	35 H7
P1V-A260F0013••	138,0	200	10 H8	38,3	35 H7
P1V-A260F0008••	195,0	200	14 H8	48,8	45 H7
P1V-A360F0050••	98,5	200	8 H8	28,3	25 H7
P1V-A360F0022••	138,0	200	10 H8	38,3	35 H7
P1V-A360F0013••	169,0	200	12 H8	45,3	42 H7
P1V-A360F0006••	195,0	200	14 H8	48,8	45 H7

••: see previous page for installation positions

P1V-A Air Motor - Worm Gear

NOTE! All technical data are based on a working pressure of 6 bar and with oil.
Speed tolerance accuracy is $\pm 10\%$.



G: Reversible motor with worm gear, flange mounting right-hand

Max power kW	Max speed* rpm	Nominal speed rpm	Nominal torque Nm	Min start torque Nm	Max permanent torque** Nm	Types of self-locking	Air consumption at max power l/s	Connection	Min pipe ID inlet/outlet mm	Weight Kg	Order code
Series P1V-A160											
1,600	430	320	38	40	44	1	32	G1/2	15	7,2	P1V-A160G0043**
1,600	200	150	77	65	125	2	32	G1/2	15	10,5	P1V-A160G0020**
1,600	95	70	154	117	250	3	32	G1/2	15	17,8	P1V-A160G0010**
1,600	75	55	180	130	225	3	32	G1/2	15	17,8	P1V-A160G0008**
Series P1V-A260											
2,600	500	350	62	71	125	1	60	G3/4	19	14,5	P1V-A260G0050**
2,600	220	150	133	133	285	1	60	G3/4	19	21,0	P1V-A260G0022**
2,600	125	85	224	191	430	2	60	G3/4	19	21,0	P1V-A260G0013**
2,600	62	44	415	308	660	3	60	G3/4	19	57,0	P1V-A260G0008**
Series P1V-A360											
3,600	500	300	98	113	125	1	97	G1	25	22,9	P1V-A360G0050**
3,600	220	130	224	230	285	1	97	G1	25	31,0	P1V-A360G0022**
3,600	125	75	368	317	595	2	97	G1	25	55,0	P1V-A360G0013**
3,600	62	37	670	480	660	3	97	G1	25	65,5	P1V-A360G0006**

* maximum admissible speed (idling)

** Max gear box torque for a permanent load

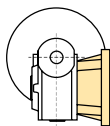
Note!

•• specify installation position in the order code as in the illustrations below.

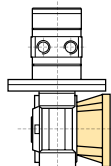
Example: **P1V-A160G0043B3**

G: Installation positions, worm gear gear, flange mounting right-hand

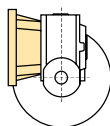
B3



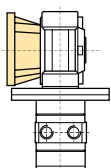
V6



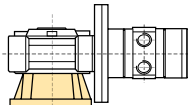
V5



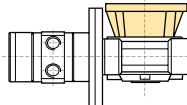
B8



B6



B7



Note: Oil-bath gearboxes mean that the installation position must be decided in advance. The installation position determines the volume of oil in the gearbox and location of oil filling and drain plugs.

Self-locking shafts and for additional flange on the opposite side.

Dynamic self-locking means that the force acting on the output shaft of the gear can not turn the gear further when the air motor is stopped. Dynamic self-locking is only possible when the gear ratio is high, and at low speeds. None of our worm drive gears are completely self-locking in dynamic conditions.

Static self-locking means that the force acting on the output shaft of the gear can not begin to turn the shaft.

When loads with considerable momentum are driven, it is necessary to have a braking time sufficient to stop the gearbox from being overloaded. It is extremely important that the maximum permitted torque is not exceeded.

Tip: Braking of the air motor can be arranged by either slowly restricting the air supply to the motor until it is completely shut off, or by slowly reducing the supply pressure to zero.

Types of Self-locking

1. Static, not self-locking
2. Static, self-locking - quicker return under vibration - not dynamically self-locking
3. Static, self-locking - return only possible under vibration - good dynamic self-locking

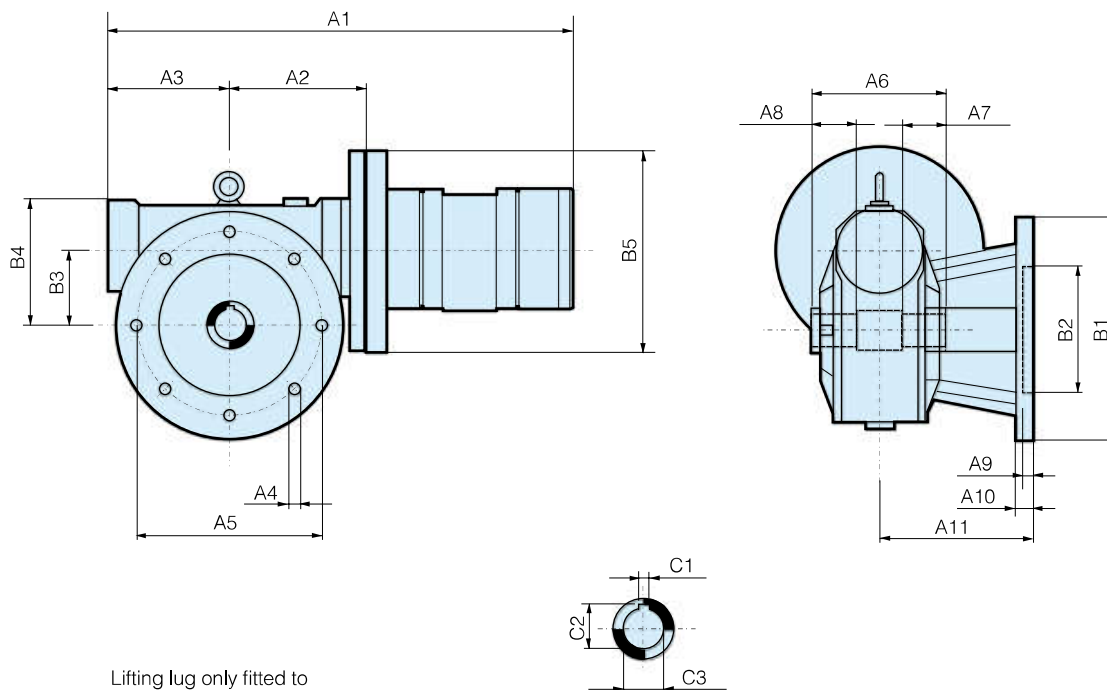


Important!

Since it is practically impossible to guarantee total self-locking, an external brake must be used to guarantee that vibration can not cause an output shaft to move.

Dimensions (mm)

G: Motor with worm gear, flange mounting



Lifting lug only fitted to
P1V-A260G0008••
P1V-A360G0006••

As standard, the motor has a hollow shaft with key slot. Please refer to page 44 for a dimension sketch of the single ended and double ended shafts and for additional flange on the opposite side.

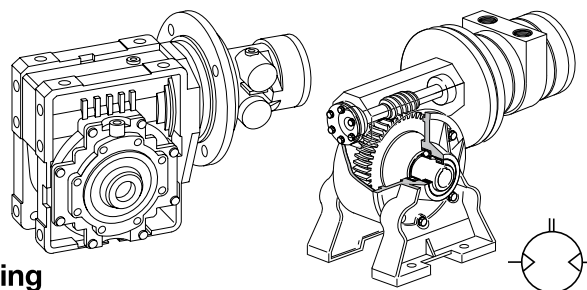
Order code	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3
P1V-A160G0043••	259,5	70	63	10,5	90	82	22,5	22,5	10	12	85,0	125	70 H8	49,50
P1V-A160G0020••	301,5	95	80	10,5	130	120	40,0	40,0	8	11	116,0	180	115 H8	62,17
P1V-A160G0010••	362,5	126	110	12,5	176	140	45,0	45,0	15	15	151,0	210	152 H8	86,90
P1V-A160G0008••	362,5	126	110	12,5	176	140	45,0	45,0	15	15	151,0	210	152 H8	86,90
P1V-A260G0050••	292,0	70	63	10,5	90	82	22,5	22,5	10	12	85,0	125	70 H8	49,50
P1V-A260G0022••	395,0	126	110	12,5	176	140	45,0	45,0	15	15	151,0	210	152 H8	86,90
P1V-A260G0013••	395,0	126	110	12,5	176	140	45,0	45,0	15	15	151,0	210	152 H8	86,90
P1V-A260G0008••	498,0	185	154	16,0	255	165	52,5	52,5	18	20	197,5	320	180 H8	130,00
P1V-A360G0050••	340,0	95	80	10,5	130	120	40,0	40,0	8	11	116,0	180	115 H8	62,17
P1V-A360G0022••	401,0	126	110	12,5	176	140	45,0	45,0	15	15	151,0	210	152 H8	86,90
P1V-A360G0013••	456,0	153	138	13,5	230	155	45,0	45,0	18	20	179,5	280	170 H8	110,10
P1V-A360G0006••	504,0	185	154	16,0	255	165	52,5	52,5	18	20	197,5	320	180 H8	130,00

Order code	B4	B5	C1	C2	C3
P1V-A160G0043••	80,0	160	8 H8	28,3	25 H7
P1V-A160G0020••	98,5	160	8 H8	28,3	25 H7
P1V-A160G0010••	138,0	160	10 H8	38,3	35 H7
P1V-A160G0008••	138,0	160	10 H8	38,3	35 H7
P1V-A260G0050••	80,0	200	8 H8	28,3	25 H7
P1V-A260G0022••	138,0	200	10 H8	38,3	35 H7
P1V-A260G0013••	138,0	200	10 H8	38,3	35 H7
P1V-A260G0008••	195,0	200	14 H8	48,8	45 H7
P1V-A360G0050••	98,5	200	8 H8	28,3	25 H7
P1V-A360G0022••	138,0	200	10 H8	38,3	35 H7
P1V-A360G0013••	169,0	200	12 H8	45,3	42 H7
P1V-A360G0006••	195,0	200	14 H8	48,8	45 H7

••: see previous page for installation positions

P1V-A Air Motor - Worm Gear

NOTE! All technical data are based on a working pressure of 6 bar and with oil.
Speed tolerance accuracy is $\pm 10\%$.



H: Reversible motor with worm gear, foot mounting

Max power kW	Max speed* rpm	Nominal speed rpm	Nominal torque Nm	Min start torque Nm	Max permanent torque** Nm	Types of self-locking	Air consumption at max power l/s	Connection	Min pipe ID inlet/outlet mm	Weight Kg	Order code
Series P1V-A160											
1,600	430	320	38	40	44	1	32	G1/2	15	7,2	P1V-A160H0043**
1,600	200	150	77	65	125	2	32	G1/2	15	10,2	P1V-A160H0020**
1,600	95	70	154	177	250	3	32	G1/2	15	20,5	P1V-A160H0010**
1,600	75	55	180	130	225	3	32	G1/2	15	20,5	P1V-A160H0008**
Series P1V-A260											
2,600	500	350	62	90	125	1	60	G3/4	19	11,0	P1V-A260H0050**
2,600	220	150	133	206	285	1	60	G3/4	19	21,0	P1V-A260H0022**
2,600	125	85	224	330	430	2	60	G3/4	19	21,0	P1V-A260H0013**
2,600	62	44	415	308	660	3	60	G3/4	19	57,0	P1V-A260H0008**
Series P1V-A360											
3,600	500	300	98	113	125	1	97	G1	25	22,5	P1V-A360H0050**
3,600	220	130	224	230	285	1	97	G1	25	33,0	P1V-A360H0022**
3,600	125	75	368	317	595	2	97	G1	25	49,0	P1V-A360H0013**
3,600	62	37	670	480	660	3	97	G1	25	65,5	P1V-A360H0006**

* maximum admissible speed (idling)

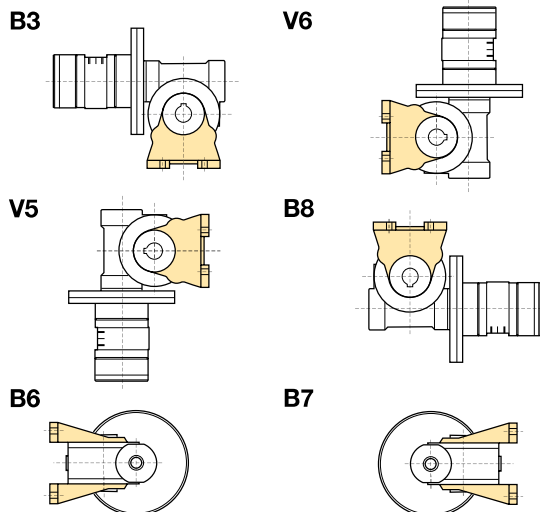
** Max gear box torque for a permanent load

Note!

•• specify installation position in the order code as in the illustrations below.

Example: **P1V-A160H0043B3**

H: Installation positions, worm gear, foot mounting



Note: Oil-bath gearboxes mean that the installation position must be decided in advance. The installation position determines the volume of oil in the gearbox and location of oil filling and drain plugs.

Self-locking

Dynamic self-locking means that the force acting on the output shaft of the gear can not turn the gear further when the air motor is stopped. Dynamic self-locking is only possible when the gear ratio is high, and at low speeds. None of our worm drive gears are completely self-locking in dynamic conditions.

Static self-locking means that the force acting on the output shaft of the gear can not begin to turn the shaft.

When loads with considerable momentum are driven, it is necessary to have a braking time sufficient to stop the gearbox from being overloaded. It is extremely important that the maximum permitted torque is not exceeded.

Tip: Braking of the air motor can be arranged by either slowly restricting the air supply to the motor until it is completely shut off, or by slowly reducing the supply pressure to zero.

Types of Self-locking

1. Static, not self-locking
2. Static, self-locking - quicker return under vibration - not dynamically self-locking
3. Static, self-locking - return only possible under vibration - good dynamic self-locking

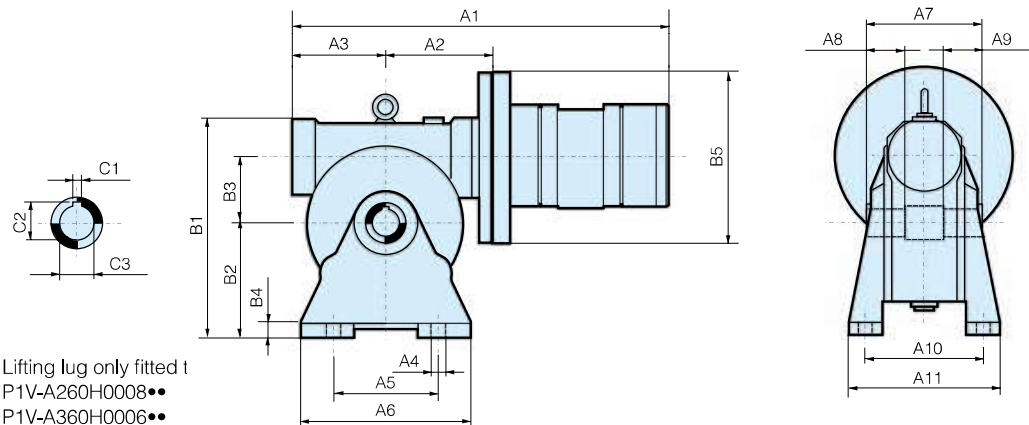


Important!

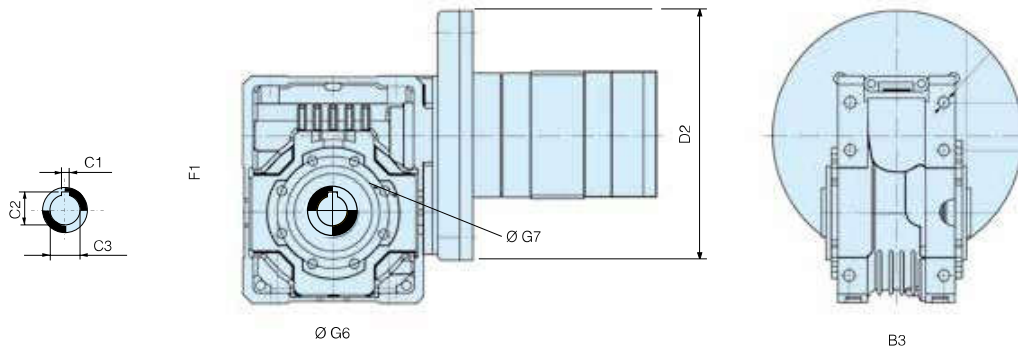
Since it is practically impossible to guarantee total self-locking, an external brake must be used to guarantee that vibration can not cause an output shaft to move.

Dimensions (mm)

H: Motor with worm gear, foot mounting



Order code	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3
P1V-A160H0043	259,5	70	63	8,5	63	110	82	22,5	22,5	98,5	124	162	82	49,50
P1V-A260H0008	498,0	185	154	16,0	220	310	165	52,5	52,5	191,0	245	398	195	130,00
P1V-A360H0006	504,0	185	154	16,0	220	310	165	52,5	52,5	191,0	245	398	195	130,00
	B4	B5	C1	C2	C3									
P1V-A160H0043	12	160	8 H8	28,3	25 H7									
P1V-A260H0008	18	200	14 H8	48,8	45 H7									
P1V-A360H0006	18	200	14 H8	48,8	45 H7									



Order code	A1	A2	A3	A5	A6	B3	D2	F1	F2	F3	F4	F5	F6	Ø F7
P1V-A160H0020	294,5	95	127	72,5	102	120	160	62,2	110,0	182,5	72,5	102	37,5	9,0
P1V-A160H0010	355,0	128	127	100,0	144	140	160	86,9	145,5	245,5	100,0	144	45,5	11,5
P1V-A160H0008	355,0	128	127	100,0	144	140	160	86,9	145,5	245,5	100,0	144	45,5	11,5
P1V-A260H0050	333,5	102	159	72,5	102	120	200	62,2	110,0	182,5	72,5	102	37,5	9,0
P1V-A260H0022	387,0	128	159	100,0	144	140	200	86,9	145,5	245,5	100,0	144	45,5	11,5
P1V-A260H0013	387,0	128	159	100,0	144	140	200	86,9	145,5	245,5	100,0	144	45,5	11,5
P1V-A360H0050	334,5	102	165	72,5	102	120	200	62,2	110,0	182,5	72,5	102	37,5	9,0
P1V-A360H0022	393,0	128	165	100,0	144	140	200	86,9	145,5	245,5	100,0	144	45,5	11,5
P1V-A360H0013	433,0	143	165	125,0	174	155	200	110,1	183,0	308,0	125,0	184	58,0	14,0
Order code	F8	G1	Ø G6	Ø G7	C1 (H8)	C2	C3 (H7)							
P1V-A160H0020	76	56,0	90	M8 depth 14	8	28,3	25							
P1V-A160H0010	101	68,0	130	M10 depth 18	10	38,3	35							
P1V-A160H0008	101	68,0	130	M10 depth 18	10	38,3	35							
P1V-A260H0050	76	53,0	90	M8 depth 14	8	28,3	25							
P1V-A260H0022	101	68,0	130	M10 depth 18	10	38,3	35							
P1V-A260H0013	101	68,0	130	M10 depth 18	10	38,3	35							
P1V-A360H0050	76	56,0	90	M8 depth 14	8	28,3	25							
P1V-A360H0022	101	68,0	130	M10 depth 18	10	38,3	35							
P1V-A360H0013	115	76,5	135	M12 depth 19	12	45,3	42							

••: see previous page for installation positions