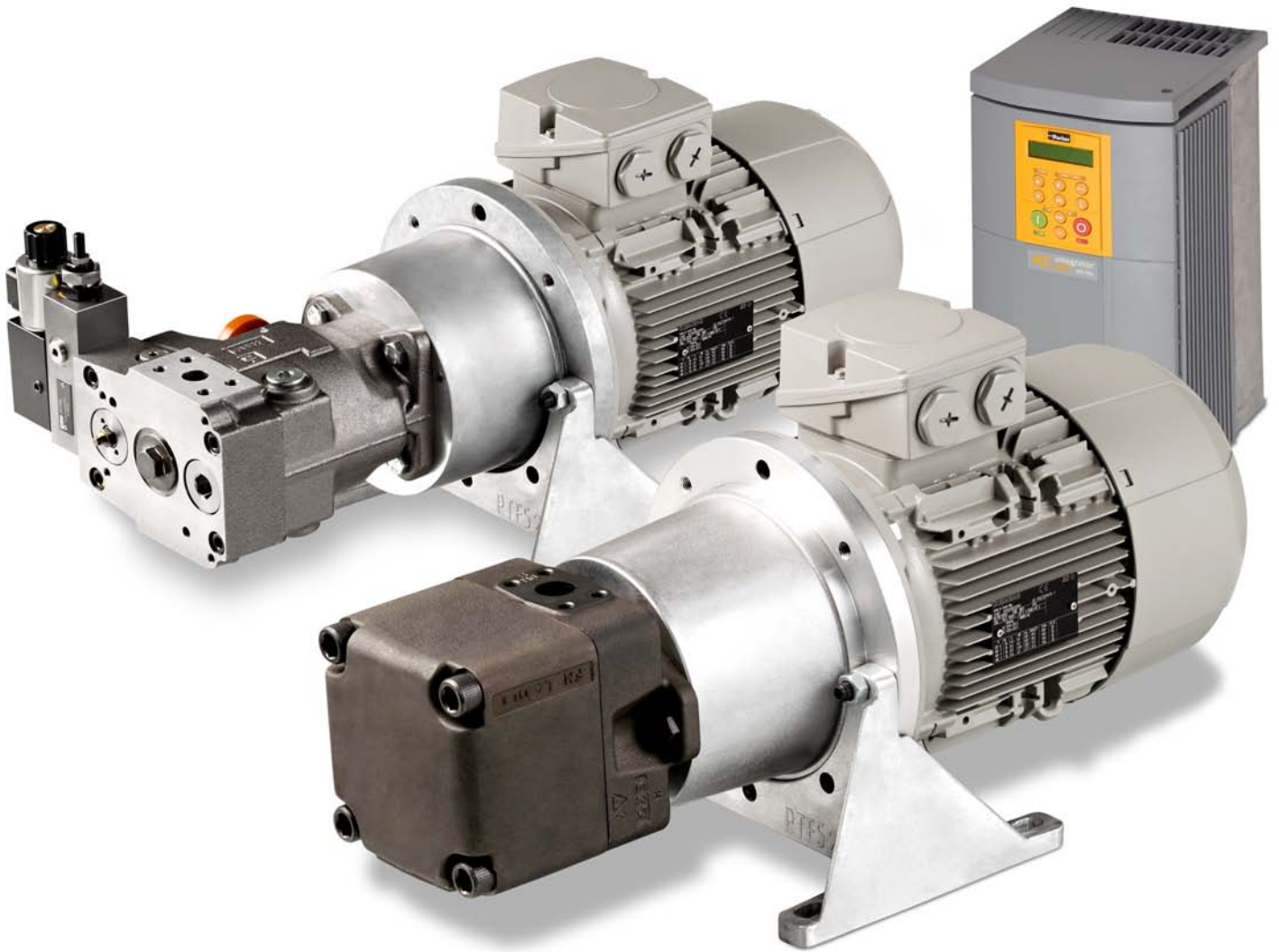




Drive Controlled Pump

Energy-Efficient Hydraulic System Solutions

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



ENGINEERING YOUR SUCCESS.

Note

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

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

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

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The Drive Controlled Pump system solutions from Parker are variable-speed hydraulic pump systems. They essentially consist of an AC drive unit (frequency controller and regulation electronics), an asynchronous or synchronous motor, as well as a hydraulic pump. They enable the central, regulated hydraulic supply of all drives. In so doing, they provide the exact power that is required in the cycle at all times.

The controller continuously records target values for the volume flow and pressure of the higher-level machine control system and compares them to actual pressure values. The drive speed of the electric motor is regulated so that the pump provides the exact amount of oil required to achieve the target value. In the event of volume flow control, the motor speed is controlled so that the pump delivers oil quantities corresponding to the volume flow target value.

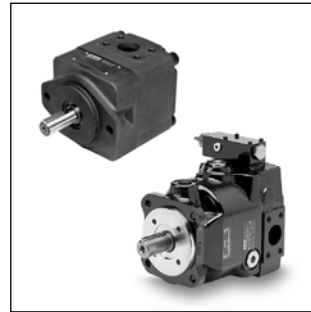
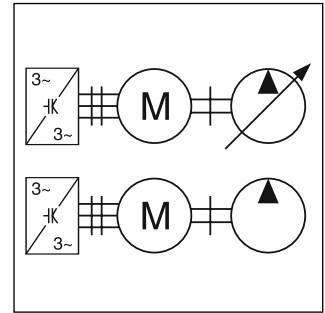
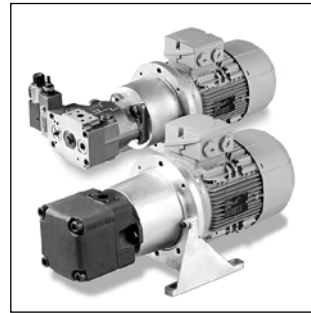
With the Drive Controlled Pump, Parker optionally employs vane pumps or axial piston pumps or combinations of both.

The vane pump represents the ideal basis for systems with fixed displacement pumps. Her minimum speed increases from zero proportional to pressure up to 300 rpm at maximum pressure. Thanks to the very wide range of speed up to 3000 rpm and the high operating pressures of up to 320 bar, this system solution can be tuned exactly to a customer's specific requirements. The robust double lip design makes the pump impervious to particle contamination and maintains a high degree of efficiency in the long term.

The axial piston pump is utilized if high peak pressures are introduced or if high pressures must be maintained for long periods. The housings increased rigidity ensures low vibration and therefore reduces the noise level. The reduced pressure and volume flow pulsation also reduces the load on the piping system.

Features

- Suitable for 400 V supplies
- Replacement pressure/volume flow control
- Optimum dimensioning of all components using the special DriveCreator software
- Standard interfaces for simple conversion of conventional pump systems
- Dual pump systems for larger volume flows possible – also as a combination of variable and fixed displacement pumps
- High precision and dynamic operation for flow and pressure control
- High energy efficiency through optimum adjustment to cycle requirements
- Low noise emissions through optimized pump design and speed adjustment



Recommended fluids

We recommend high-quality mineral hydraulic fluids: HLP oils as per DIN 51524. For general applications, the Bruggen value should be at least 30 N/mm²; 50 N/mm² for heavy-duty systems (measured as per DIN 51347-2. Also see document HY30-3248/DE Parker "Hydraulic Fluids"). Under normal conditions, the viscosity should be between 16 and 100 mm²/s (cSt). Maximum start-up viscosity is 800 mm²/s (cSt).

The fluid must have a purity in conformance with ISO 4406:1999. The filter elements must also conform to ISO standards and fulfil the minimum requirements of filter quality x (mm): For maximum life-span purity level 20/8/15 in accordance with ISO 4406:1999; otherwise, purity level 18/16/13 (19/17/14 for vane pumps) in accordance with ISO 4406:1999.

Components of the drive-controlled pump system

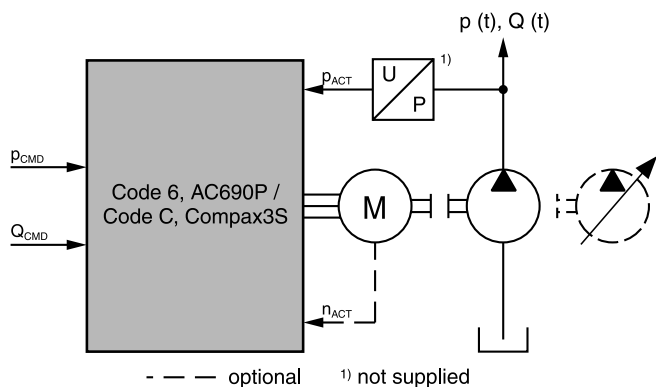
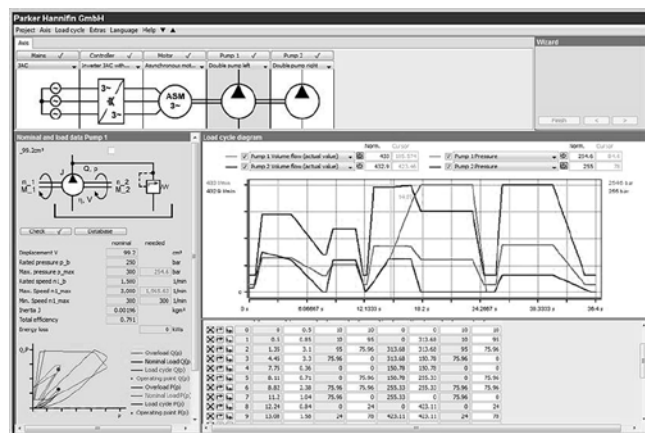
1. Motor
 - Asynchronous standard motor or
 - Square frame asynchronous motor, catalogue 192-490323, or
 - Synchronous servo motor, catalogue 192-061012
2. Pump
 - Vane pump T7, catalogue HY29-0110, or
 - Axial piston pump PVplus, catalogue HY30-3245, or
 - Combination of vane pump and axial piston pump
 - Mounting accessories for the motor pump assembly:
 - Coupling
 - Pump support
 - Pump foot
3. AC Drive Controller
 - AC690+, catalogue 192-490323, or
 - Compax3, catalogue 192-120013
4. Accessories that may be required
 - Shield connection
 - Power cables
 - Sensor cables
 - Braking resistor
 - Mains filters
 - Measuring transducers for pressure and volume flow

DriveCreator

For optimum yet simple selection and dimensioning of the components, Parker offers a unique software tool: the DriveCreator.

Firstly, the most precise cycle data possible (pressure and volume flow during the course of a cycle) is entered. Subsequently, the optimum pump or combination of pumps is selected using this data, and then the necessary motor and drive suitable for the power consumption.

With support from a database, the DriveCreator calculates the best combination of components possible with the highest degree of energy efficiency.



Further combinations in addition to those contained in this catalogue are available upon request. Detailed information on all Parker components can be found in the respective product catalogues (see above).

Ordering Code

Drive Controlled Pump

DCP						
Drive-controlled pump system	Drive	Current [A] (constant torque kW/A 400 VAC)	Interface	Function	Motor type	Rated power [kW]

Code	Drive
6	AC690+
C	Compax3

Current			
AC690+		Compax3	
Code	[A]	Code	[A]
2P5	2.5	002	1.5
4P5	4.5	004	3.8
5P5	5.5	008	7.5
9P5	9.5	015	15
012	12	030	30
014	14	050	50
016	16	090	90
023	23	125	125
030	30	155	155
031	31		
038	38		
045	45		
059	59		
073	73		
087	87		
105	105		
145	145		
180	180		
216	216		
250	250		
316	316		
361	361		
375	375		
420	420		
480	480		
520	520		
590	590		

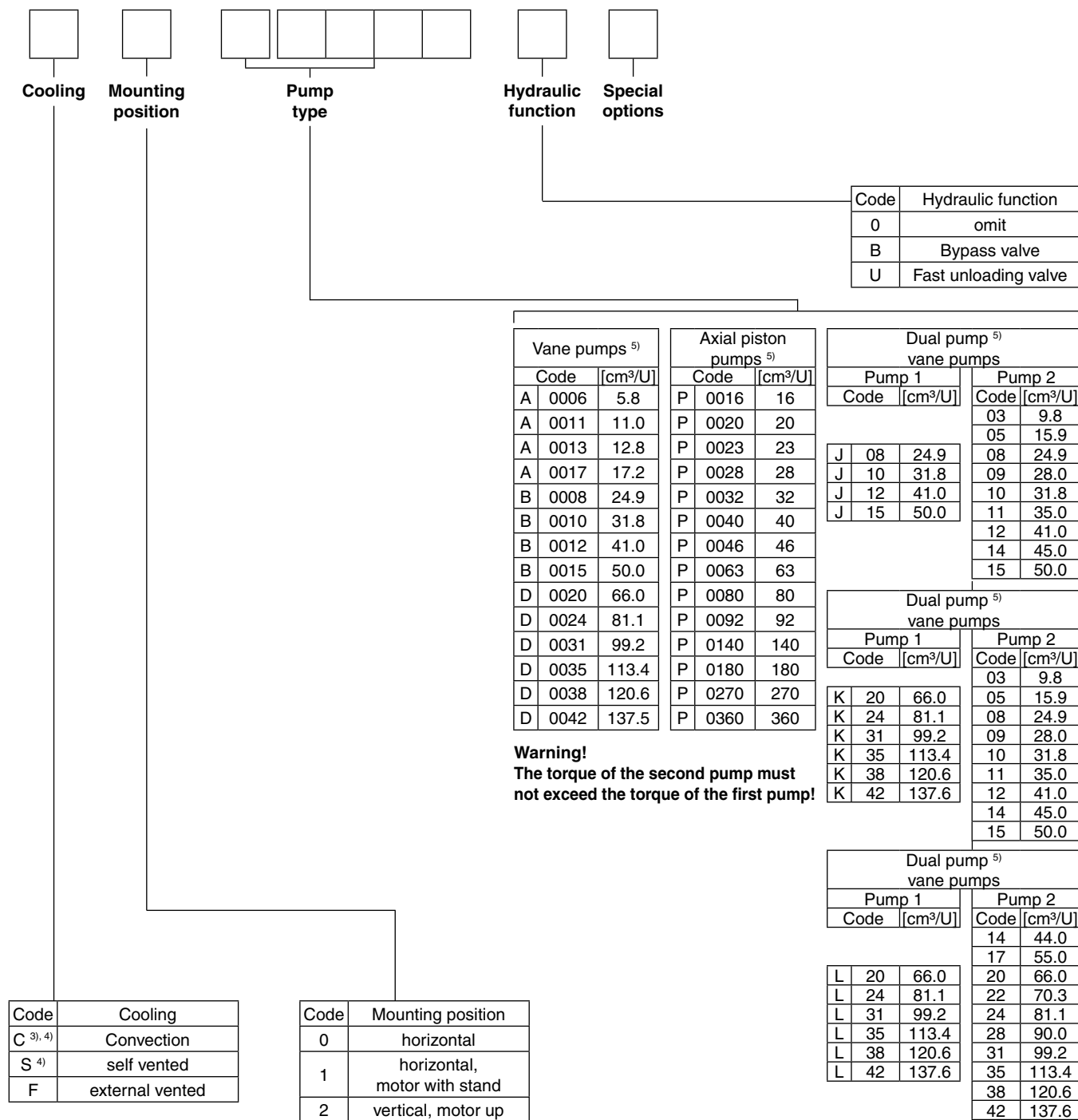
Code	Motor type ²⁾
0	omit
N	Standard asynchronous motor
Q	Square frame asynchronous motor
S	Synchronous servo motor

Rated power					
Norm motor Code N		Square frame motor code Q		Servo motor Code S	
Code	[kW]			Code	[kW]
0P5	0.55	1P5	1.50	0P7	0.66
0P7	0.75	2P2	2.20	1P1	1.13
1P1	1.10	3	3.00	1P4	1.35
1P5	1.50	4	4.00	1P7	1.67
2P2	2.20	6	6.00	002	2.17
003	3.00	8	8.20	2P5	2.48
004	4.00	10	10.0	004	3.99
006	5.50	16	16.0	4P1	4.12
008	7.50	21	21.0	4P2	4.21
011	11.0	24	24.0	6P6	6.63
015	15.0	30	30.0	008	8.07
019	18.5	40	40.0	013	13.10
022	22.0	45	45.0	016	16.43
030	30.0	49	49.0	019	19.35
037	37.0	56	56.0	027	27.33
045	45.0	64	64.0	045	45.24
055	55.0	80	80.0	058	58.12
075	75.0	88	88.0	068	67.54
090	90.0	93	93.0	184	184.0
110	110.0	130	130.0	270	270.0
132	132.0	184	184.0		
160	160.0	270	270.0		
200	200.0	342	342.0		
250	250.0				
315	315.0				

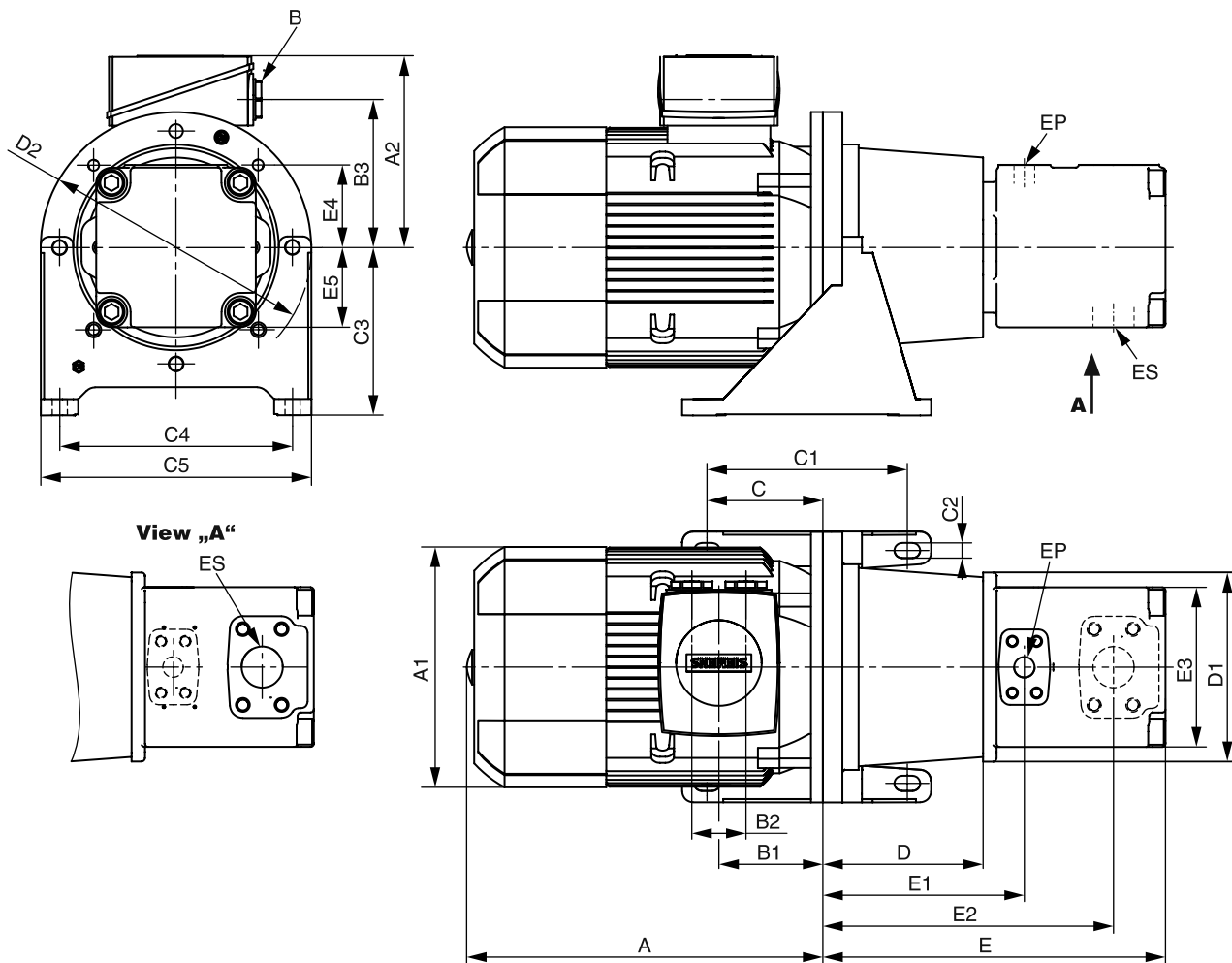
Code	Interface
0	omit
A	analogue
C	CANopen
D	DeviceNet
E ¹⁾	EtherCAT
P	PROFIBUS
N ¹⁾	PROFINET

Code	Function
0	Q control
2	p/Q control
3	p/Q p closed loop control

Drive Controlled Pump



5) Code build from letter and 4 digit number

Vane pump with standard asynchronous motor

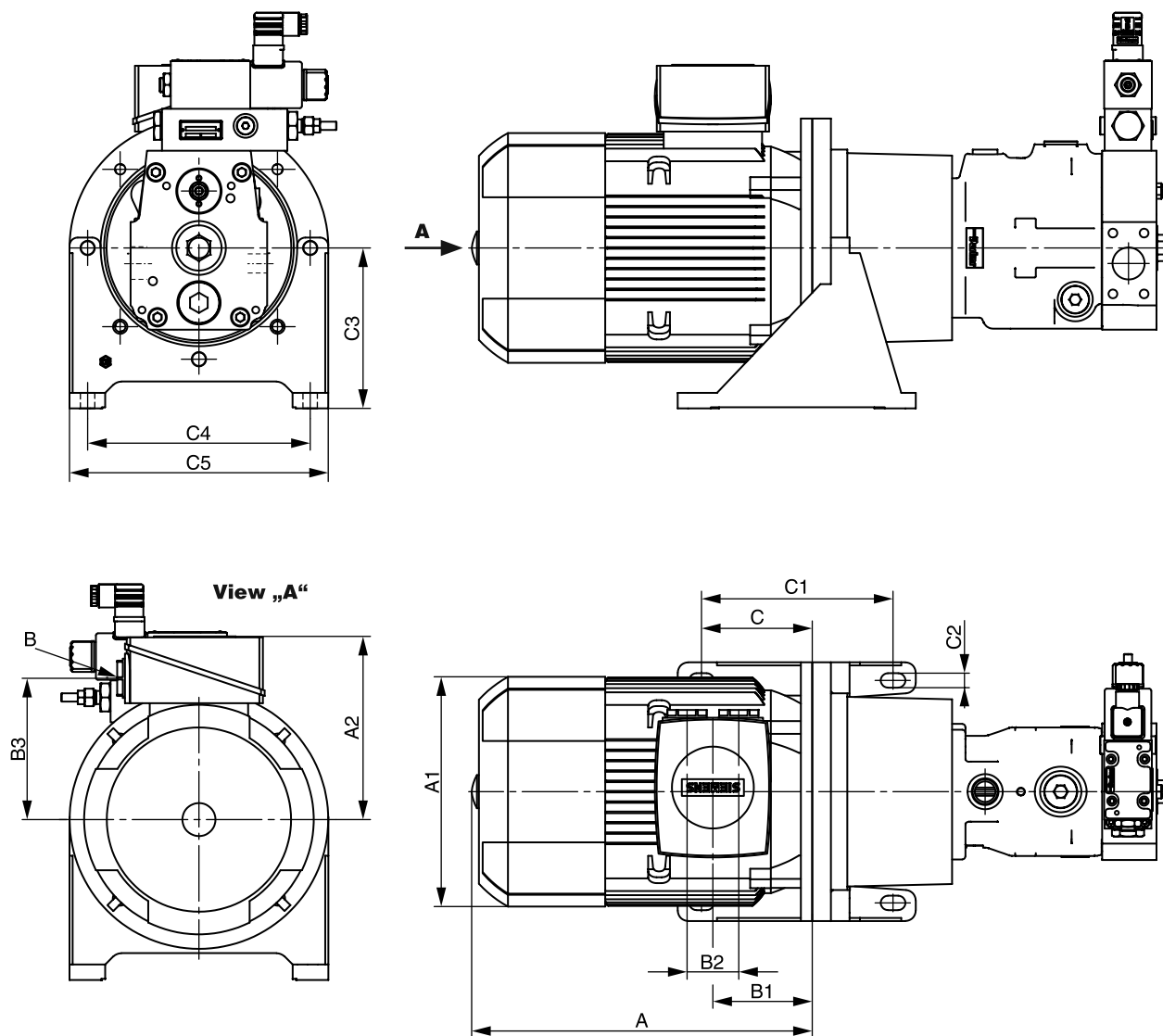
Dimensions**Drive Controlled Pump**

Motor code	Pump code	Motor size	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	B2 [mm]	B3 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	C4 [mm]	C5 [mm]
OP5 - OP7	A0006 - 13	80M	252	159	121	1 x M25 x 1.5	73	0	96.5	-20	60	11	112	180	210
1P1 - 1P5	A0006 - 17	90S/90L	297	178	126	1 x M25 x 1.5	78.5	0	101.5	-20	60	11	112	180	210
1P5	B008	90L	297	178	126	1 x M25 x 1.5	78.5	0	101.5	-20	60	11	112	180	210
2P2 - 003	A0006 - 17	100L	328.5	198	193	2 x M32 x 1.5	100.5	48	147	107.5	185	14	155	215	250
2P2 - 003	B0008 - 15	100L	328.5	198	193	2 x M32 x 1.5	100.5	48	147	107.5	185	14	155	215	250
004	A0006 - 17	112M	322	222	195	2 x M32 x 1.5	100.5	48	150	107.5	185	14	155	215	250
004	B0008 - 15	112M	322	222	195	2 x M32 x 1.5	100.5	48	150	107.5	185	14	155	215	250
004	D0020	112M	322	222	195	2 x M32 x 1.5	100.5	48	150	107.5	185	14	155	215	250
006 - 008	A0011 - 17	132S/132M	376.5	262	214.5	2 x M32 x 1.5	115.5	48	169	130.5	225	14	185	265	300
006 - 008	B0008 - 15	132S/132M	376.5	262	214.5	2 x M32 x 1.5	115.5	48	169	130.5	225	14	185	265	300
006 - 008	D0020 - 31	132S/132M	376.5	262	214.5	2 x M32 x 1.5	115.5	48	169	130.5	225	14	185	265	300
011 - 015	A0013 - 17	160M/160L	484	314	261	2 x M40 x 1.5	145	60	213	149	265	18	235	300	350
011 - 015	B0008 - 15	160M/160L	484	314	261	2 x M40 x 1.5	145	60	213	149	265	18	235	300	350
011 - 015	D0020 - 31	160M/160L	484	314	261	2 x M40 x 1.5	145	60	213	149	265	18	235	300	350
019 - 022	B0008 - 15	180M/180L	558	356	286	2 x M40 x 1.5	155	60	234	149	265	18	235	300	350
019 - 022	D0020 - 31	180M/180L	558	356	286	2 x M40 x 1.5	155	60	234	149	265	18	235	300	350
030	B0010 - 15	200L	610	402	300	2 x M50 x 1.5	196	85	247	174	300	18	260	350	400
030	D0020 - 31	200L	610	402	300	2 x M50 x 1.5	196	85	247	174	300	18	260	350	400
037	D0020 - 31	225S	649	442	325	2 x M50 x 1.5	196	85	272	199	335	18	295	400	450
045	D0020 - 31	225M	709	442	325	2 x M50 x 1.5	196	85	272	199	335	18	295	400	450
055	D0024 - 31	250M	817	495	392	2 x M63 x 1.5	237	110	308	249	415	18	350	500	550
075	D0031	280S	820	555	432	2 x M63 x 1.5	252	110	348	249	415	18	350	500	550

Motor code	D [mm]	D1 [mm]	D2 [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	E4 [mm]	E5 [mm]	EP	ES
OP5 - OP7	100	124	200	238.5	216.3	138.2	110	67	61.8	3/4" BSPP	1 1/4" BSPP
1P1 - 1P5	110	140	200	248.5	226.3	148.2	110	67	61.8	3/4" BSPP	1 1/4" BSPP
1P5	140	179	200	308.5	178.1	222.3	146	76.2	76.2	1" ; 4x M10 x 19 deep	1 1/2" ; 4x M12 x 22.4 deep
2P2 - 003	124	124	250	262.5	240.3	162.2	110	67	61.8	3/4" BSPP	1 1/4" BSPP
2P2 - 003	148	166	250	316.5	186.1	230.3	146	76.2	76.2	1" ; 4x M10 x 19 deep	1 1/2" ; 4x M12 x 22.4 deep
004	124	124	250	262.5	240.3	162.2	110	67	61.8	3/4" BSPP	1 1/4" BSPP
004	148	166	250	316.5	186.1	230.3	146	76.2	76.2	1" ; 4x M10 x 19 deep	1 1/2" ; 4x M12 x 22.4 deep
004	175	250	250	359.9	213.1	262.4	147.4	82.6	82.6	1 1/4" ; 4x M12 x 22.3 deep	2 1/2" ; 4x M12 x 23.9 deep
006 - 008	144	205	300	282.5	260.3	182.2	110	67	61.8	3/4" BSPP	1 1/4" BSPP
006 - 008	168	220	300	336.5	206.1	250.3	146	76.2	76.2	1" ; 4x M10 x 19 deep	1 1/2" ; 4x M12 x 22.4 deep
006 - 008	196	220	300	380.9	234.1	283.4	147.4	82.6	82.6	1 1/4" ; 4x M12 x 22.3 deep	2 1/2" ; 4x M12 x 23.9 deep
011 - 015	188	225	350	326.5	304.3	226.2	110	67	61.8	3/4" BSPP	1 1/4" BSPP
011 - 015	204	225	350	372.5	242.1	286.3	146	76.2	76.2	1" ; 4x M10 x 19 deep	1 1/2" ; 4x M12 x 22.4 deep
011 - 015	228	248	350	412.9	266.1	315.4	147.4	82.6	82.6	1 1/4" ; 4x M12 x 22.3 deep	2 1/2" ; 4x M12 x 23.9 deep
019 - 022	204	225	350	372.5	242.1	286.3	146	76.2	76.2	1" ; 4x M10 x 19 deep	1 1/2" ; 4x M12 x 22.4 deep
019 - 022	228	248	350	412.9	266.1	315.4	147.4	82.6	82.6	1 1/4" ; 4x M12 x 22.3 deep	2 1/2" ; 4x M12 x 23.9 deep
030	204	230	400	372.5	242.1	286.3	146	76.2	76.2	1" ; 4x M10 x 19 deep	1 1/2" ; 4x M12 x 22.4 deep
030	228	279	400	412.9	266.1	315.4	147.4	82.6	82.6	1 1/4" ; 4x M12 x 22.3 deep	2 1/2" ; 4x M12 x 23.9 deep
037	262	315	450	446.9	300.1	349.4	147.4	82.6	82.6	1 1/4" ; 4x M12 x 22.3 deep	2 1/2" ; 4x M12 x 23.9 deep
045	262	315	450	446.9	300.1	349.4	147.4	82.6	82.6	1 1/4" ; 4x M12 x 22.3 deep	2 1/2" ; 4x M12 x 23.9 deep
055	265	360	550	449.9	303.1	352.4	147.4	82.6	82.6	1 1/4" ; 4x M12 x 22.3 deep	2 1/2" ; 4x M12 x 23.9 deep
075	265	360	550	449.9	303.1	352.4	147.4	82.6	82.6	1 1/4" ; 4x M12 x 22.3 deep	2 1/2" ; 4x M12 x 23.9 deep

1) Pressure port, BSPP or SAE 4-hole flange - J518 - ISO/DIS6162-1

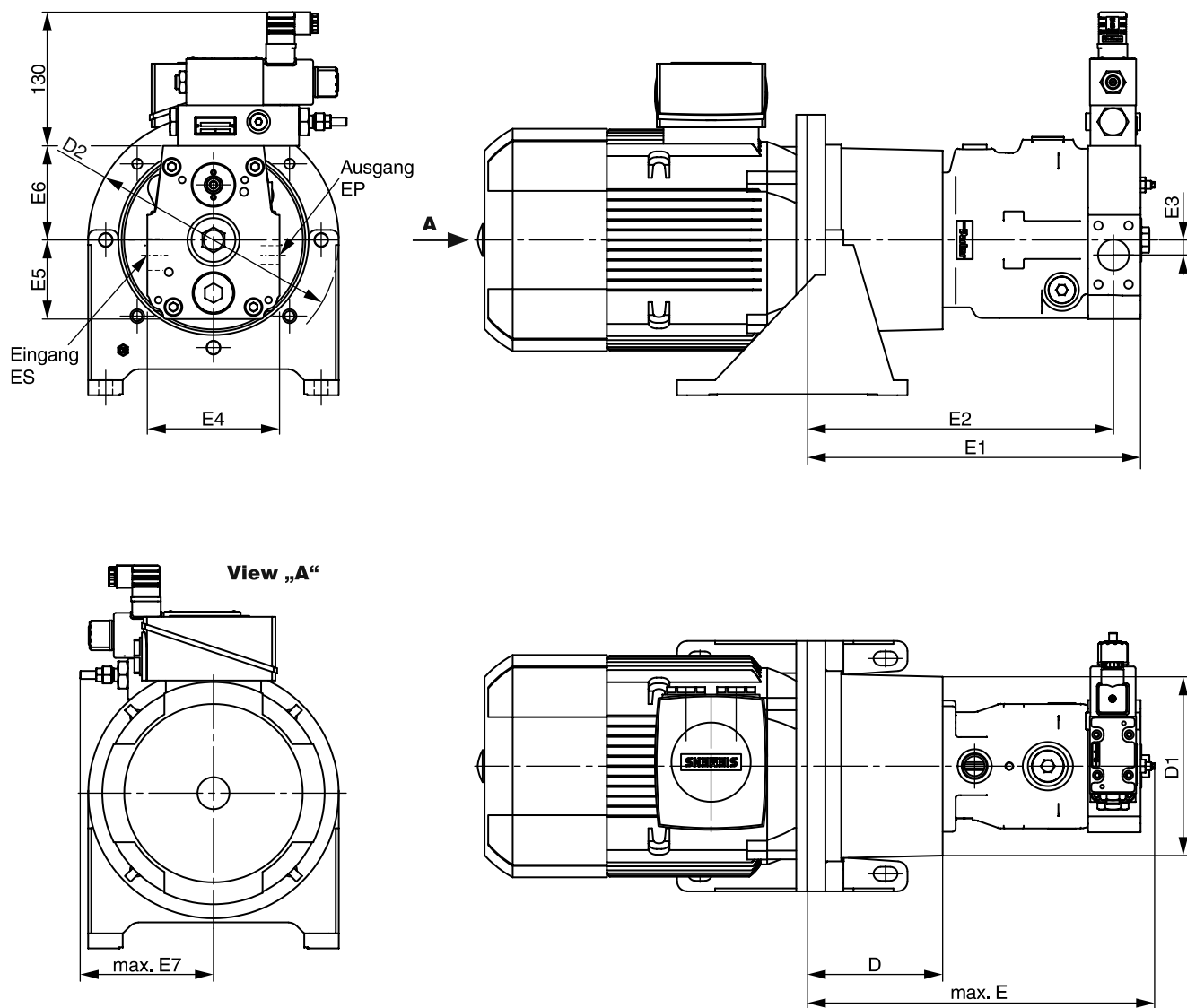
2) Suction port, BSPP or SAE 4-hole flange - J518 - ISO/DIS6162-1

Axial piston pump with standard asynchronous motor

Dimensions**Drive Controlled Pump**

Motor code	Pump code	Motor size	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	B2 [mm]	B3 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	C4 [mm]	C5 [mm]
0P7	P0016	80M	252	159	121	1 x M25 x 1.5	73	0	96.5	-20	60	11	112	180	210
1P1 - 1P5	P0016 - 28	90S / 90L	297	178	126	1 x M25 x 1.5	78.5	0	101.5	-20	60	11	112	180	210
2P2 - 003	P0016 - 28	100L	328.5	198	193	2 x M32 x 1.5	100.5	48	147	107.5	185	14	155	215	250
2P2 - 003	P0032 - 46	100L	328.5	198	193	2 x M32 x 1.5	100.5	48	147	107.5	185	14	155	215	250
004	P0016 - 28	112M	322	222	195	2 x M32 x 1.5	100.5	48	150	107.5	185	14	155	215	250
004	P0032 - 46	112M	322	222	195	2 x M32 x 1.5	100.5	48	150	107.5	185	14	155	215	250
004	P0063 - 80	112M	on request												
006 - 008	P0016 - 28	132S / 132M	376.5	262	214.5	2 x M32 x 1.5	115.5	48	169	130.5	225	14	185	265	300
006 - 008	P0032 - 46	132S / 132M	376.5	262	214.5	2 x M32 x 1.5	115.5	48	169	130.5	225	14	185	265	300
006 - 008	P0063 - 92	132S / 132M	376.5	262	214.5	2 x M32 x 1.5	115.5	48	169	130.5	225	14	185	265	300
008	P0140	132M	376.5	262	214.5	2 x M32 x 1.5	115.5	48	169	130.5	225	14	185	265	300
011 - 015	P0016 - 28	160M / 160L	484	314	261	2 x M40 x 1.5	145	60	213	149	265	18	235	300	350
011 - 015	P0032 - 46	160M / 160L	484	314	261	2 x M40 x 1.5	145	60	213	149	265	18	235	300	350
011 - 015	P0063 - 92	160M / 160L	484	314	261	2 x M40 x 1.5	145	60	213	149	265	18	235	300	350
011 - 015	P0140 - 180	160M / 160L	484	314	261	2 x M40 x 1.5	145	60	213	149	265	18	235	300	350
015	P0270	160L	on request												
019 - 022	P0020 - 28	180M / 180L	558	356	286	2 x M40 x 1.5	155	60	234	149	265	18	235	300	350
019 - 022	P0032 - 46	180M / 180L	558	356	286	2 x M40 x 1.5	155	60	234	149	265	18	235	300	350
019 - 022	P0063 - 92	180M / 180L	558	356	286	2 x M40 x 1.5	155	60	234	149	265	18	235	300	350
019 - 022	P0140 - 180	180M / 180L	558	356	286	2 x M40 x 1.5	155	60	234	149	265	18	235	300	350
019 - 022	P0270 - 360	180M / 180L	on request												
030	P0028	200L	611	396	315	2 x M50 x 1.5	164	85	259	174	300	18	260	350	400
030	P0032 - 46	200L	611	396	315	2 x M50 x 1.5	164	85	259	174	300	18	260	350	400
030	P0063 - 92	200L	611	396	315	2 x M50 x 1.5	164	85	259	174	300	18	260	350	400
030	P0140 - 180	200L	611	396	315	2 x M50 x 1.5	164	85	259	174	300	18	260	350	400
030	P0270 - 360	200L	611	396	315	2 x M50 x 1.5	164	85	259	174	300	18	260	350	400
037	P0040 - 46	225S	648	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450
037	P0063 - 92	225S	648	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450
037	P0140 - 180	225S	648	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450
037	P0270 - 360	225S	648	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450
045	P0046	225M	708	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450
045	P0063 - 92	225M	708	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450
045	P0140 - 180	225M	708	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450
045	P0270 - 360	225M	708	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450
055	P0063 - 92	250M	747	497	410	2 x M63 x 1.5	192	110	322	249	415	18	350	500	550
055	P0140 - 180	250M	747	497	410	2 x M63 x 1.5	192	110	322	249	415	18	350	500	550
055	P0270	250M	747	497	410	2 x M63 x 1.5	192	110	322	249	415	18	350	500	550
055	P0360	250M	747	497	410	2 x M63 x 1.5	192	110	322	249	415	18	350	500	550
075	P0080 - 92	280S	820	551	433	2 x M63 x 1.5	210	110	345	249	415	18	350	500	550
075	P0140 - 180	280S	820	551	433	2 x M63 x 1.5	210	110	345	249	415	18	350	500	550
075	P0270	280S	820	551	433	2 x M63 x 1.5	210	110	345	249	415	18	350	500	550
075	P0360	280S	820	551	433	2 x M63 x 1.5	210	110	345	249	415	18	350	500	550
090	P0092	280M	820	551	433	2 x M63 x 1.5	210	110	345	249	415	18	350	500	550
090	P0140 - 180	280M	820	551	433	2 x M63 x 1.5	210	110	345	249	415	18	350	500	550
090	P0270	280M	820	551	433	2 x M63 x 1.5	210	110	345	249	415	18	350	500	550
090	P0360	280M	820	551	433	2 x M63 x 1.5	210	110	345	249	415	18	350	500	550
110	P0140 - 180	315S	912	616	515	2 x M63 x 1.5	238	110	404	298.5	495	22	380	600	660
110	P0270	315S	912	616	515	2 x M63 x 1.5	238	110	404	298.5	495	22	380	600	660
110	P0360	315S	912	616	515	2 x M63 x 1.5	238	110	404	298.5	495	22	380	600	660
132	P0140 - 180	315M	1077	616	515	2 x M63 x 1.5	238	110	404	298.5	495	22	380	600	660
132	P0270	315M	1077	616	515	2 x M63 x 1.5	238	110	404	298.5	495	22	380	600	660
132	P0360	315M	1077	616	515	2 x M63 x 1.5	238	110	404	298.5	495	22	380	600	660
160	P0180	315L	1077	616	515	2 x M63 x 1.5	238	110	404	298.5	495	22	380	600	660
160	P0270	315L	1077	616	515	2 x M63 x 1.5	238	110	404	298.5	495	22	380	600	660
160	P0360	315L	1077	616	515	2 x M63 x 1.5	238	110	404	298.5	495	22	380	600	660
200 - 250	P0270	315L	on request												
200 - 250	P0360	315L	on request												
315	P0360	315L	on request												

continuing next page ➞

Axial piston pump with standard asynchronous motor

Dimensions

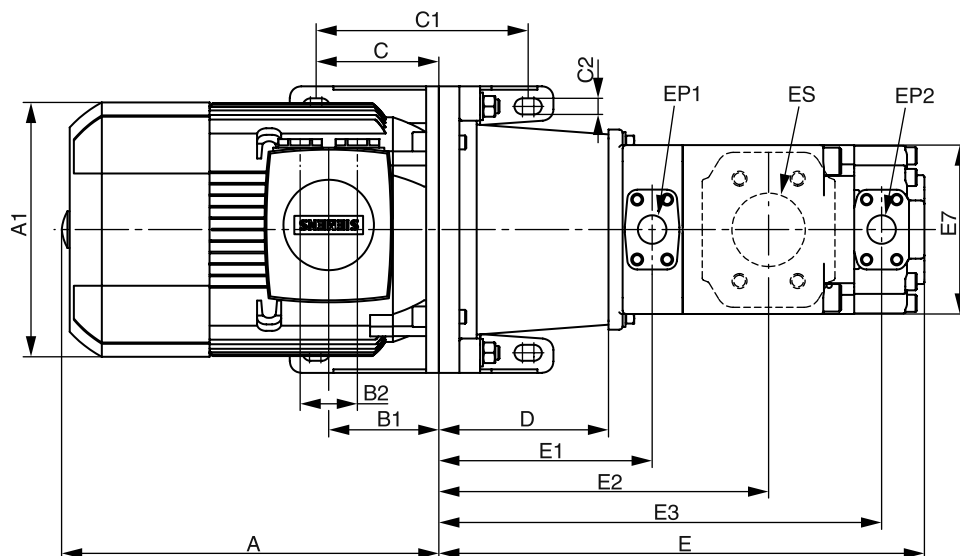
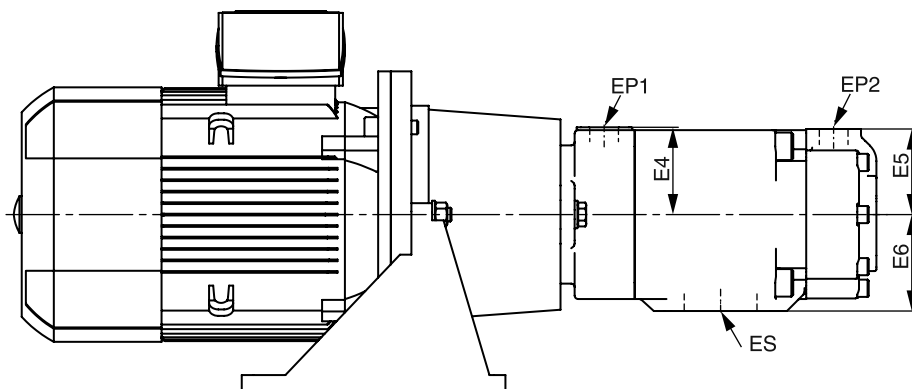
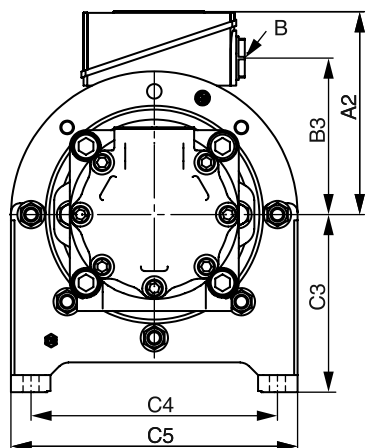
Drive Controlled Pump

Motor code	Pump code	D [mm]	D1 [mm]	D2 [mm]	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	E4 [mm]	E5 [mm]	E6 [mm]	E7 [mm]	EP (PN 400 bar)	ES
0P7	P0016	110	145	200	322	307.5	280.5	15	132	79	94	130	DN19; 4xM10x18 deep	DN32; PN 250 bar; 4xM10x18 deep
1P1 - 1P5	P0016 - 28	124	145	200	336	321.5	294.5	15	132	79	94	130	DN19; 4xM10x18 deep	DN32; PN 250 bar; 4xM10x18 deep
2P2 - 003	P0016 - 28	135	180	250	347	332.5	305.5	15	132	79	94	130	DN19; 4xM10x18 deep	DN32; PN 250 bar; 4xM10x18 deep
2P2 - 003	P0032 - 46	159	186	250	407	386	356	17	160	97	112.5	130	DN25; 4xM12x18 deep	DN38; PN 200 bar; 4xM12x18 deep
004	P0016 - 28	135	180	250	347	332.5	305.5	15	132	79	94	130	DN19; 4xM10x18 deep	DN32; PN 250 bar; 4xM10x18 deep
004	P0032 - 46	159	186	250	407	386	356	17	160	97	112.5	130	DN25; 4xM12x18 deep	DN38; PN 200 bar; 4xM12x18 deep
004	P0063 - 80	on request												
006 - 008	P0016 - 28	155	205	300	367	352.5	325.5	15	132	79	94	130	DN19; 4xM10x18 deep	DN32; PN 250 bar; 4xM10x18 deep
006 - 008	P0032 - 46	168	220	300	416	395	365	17	160	97	112.5	130	DN25; 4xM12x18 deep	DN38; PN 200 bar; 4xM12x18 deep
006 - 008	P0063 - 92	196	220	300	504	483	448	26	200	120	132	133	DN32; 4xM12x20 deep	DN51; PN 200 bar; 4xM12x20 deep
008	P0140	196	220	300	582	546	491 ¹⁾	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
011 - 015	P0016 - 28	188	225	350	400	385.5	358.5	15	132	79	94	130	DN19; 4xM10x18 deep	DN32; PN 250 bar; 4xM10x18 deep
011 - 015	P0032 - 46	204	225	350	452	431	401	17	160	97	112.5	130	DN25; 4xM12x18 deep	DN38; PN 200 bar; 4xM12x18 deep
011 - 015	P0063 - 92	228	248	350	536	515	480	26	200	120	132	133	DN32; 4xM12x20 deep	DN51; PN 200 bar; 4xM12x20 deep
011 - 015	P0140 - 180	228	248	350	614	578	523 ¹⁾	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
015	P0270	on request												
019 - 022	P0020 - 28	204	225	350	416	401.5	374.5	15	132	79	94	130	DN19; 4xM10x18 deep	DN32; PN 250 bar; 4xM10x18 deep
019 - 022	P0032 - 46	204	225	350	452	431	401	17	160	97	112.5	130	DN25; 4xM12x18 deep	DN38; PN 200 bar; 4xM12x18 deep
019 - 022	P0063 - 92	228	248	350	536	515	480	26	200	120	132	133	DN32; 4xM12x20 deep	DN51; PN 200 bar; 4xM12x20 deep
019 - 022	P0140 - 180	228	248	350	614	578	523 ¹⁾	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
019 - 022	P0270 - 360	on request												
030	P0028	204	230	400	416	401.5	374.5	15	132	79	94	130	DN19; 4xM10x18 deep	DN32; PN 250 bar; 4xM10x18 deep
030	P0032 - 46	204	230	400	452	431	401	17	160	97	112.5	130	DN25; 4xM12x18 deep	DN38; PN 200 bar; 4xM12x18 deep
030	P0063 - 92	228	279	400	536	515	480	26	200	120	132	133	DN32; 4xM12x20 deep	DN51; PN 200 bar; 4xM12x20 deep
030	P0140 - 180	228	279	400	614	578	523 ¹⁾	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
030	P0270 - 360	256	290	400	766	728.5	659	0	265	176	184	133	DN38; 4xM16x30 deep	DN89; PN 35 bar; 4xM16x30 deep
037	P0040 - 46	234	260	450	482	461	431	17	160	97	112.5	130	DN25; 4xM12x18 deep	DN38; PN 200 bar; 4xM12x18 deep
037	P0063 - 92	262	315	450	570	549	514	26	200	120	132	133	DN32; 4xM12x20 deep	DN51; PN 200 bar; 4xM12x20 deep
037	P0140 - 180	262	315	450	648	612	557 ¹⁾	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
037	P0270 - 360	285	325	450	795	757.5	688	0	265	176	184	133	DN38; 4xM16x30 deep	DN89; PN 35 bar; 4xM16x30 deep
045	P0046	234	260	450	482	461	431	17	160	97	112.5	130	DN25; 4xM12x18 deep	DN38; PN 200 bar; 4xM12x18 deep
045	P0063 - 92	262	315	450	570	549	514	26	200	120	132	133	DN32; 4xM12x20 deep	DN51; PN 200 bar; 4xM12x20 deep
045	P0140 - 180	262	315	450	648	612	557 ¹⁾	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
045	P0270 - 360	285	325	450	795	757.5	688	0	265	176	184	133	DN38; 4xM16x30 deep	DN89; PN 35 bar; 4xM16x30 deep
055	P0063 - 92	265	360	550	573	552	517	26	200	120	132	133	DN32; 4xM12x20 deep	DN51; PN 200 bar; 4xM12x20 deep
055	P0140 - 180	265	360	550	651	615	560 ¹⁾	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
055	P0270	295	360	550	805	767.5	698	0	265	176	184	133	DN38; 4xM16x30 deep	DN89; PN 35 bar; 4xM16x30 deep
055	P0360	315	400	550	825	792	723	0	250	176	184	133	DN38; 4xM16x30 deep	DN102; PN 35 bar; 4xM16x30 deep
075	P0080 - 92	265	360	550	573	552	517	26	200	120	132	133	DN32; 4xM12x20 deep	DN51; PN 200 bar; 4xM12x20 deep
075	P0140 - 180	265	360	550	651	615	560 ¹⁾	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
075	P0270	295	360	550	805	767.5	698	0	265	176	184	133	DN38; 4xM16x30 deep	DN89; PN 35 bar; 4xM16x30 deep
075	P0360	315	400	550	825	792	723	0	250	176	184	133	DN38; 4xM16x30 deep	DN102; PN 35 bar; 4xM16x30 deep
090	P0092	265	360	550	573	552	517	26	200	120	132	133	DN32; 4xM12x20 deep	DN51; PN 200 bar; 4xM12x20 deep
090	P0140 - 180	265	360	550	651	615	560 ¹⁾	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
090	P0270	295	360	550	805	767.5	698	0	265	176	184	133	DN38; 4xM16x30 deep	DN89; PN 35 bar; 4xM16x30 deep
090	P0360	315	400	550	825	792	723	0	250	176	184	133	DN38; 4xM16x30 deep	DN102; PN 35 bar; 4xM16x30 deep
110	P0140 - 180	310	410	660	696	660	605 ¹⁾	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
110	P0270	330	400	660	840	802.5	733	0	265	176	184	133	DN38; 4xM16x30 deep	DN89; PN 35 bar; 4xM16x30 deep
110	P0360	330	400	660	840	807	738	0	250	176	184	133	DN38; 4xM16x30 deep	DN102; PN 35 bar; 4xM16x30 deep
132	P0140 - 180	310	410	660	696	660	605 ¹⁾	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
132	P0270	310	410	660	696	660	605	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
132	P0360	330	400	660	840	802.5	733	0	265	176	184	133	DN38; 4xM16x30 deep	DN89; PN 35 bar; 4xM16x30 deep
160	P0180	330	400	660	840	807	738 ¹⁾	0	250	176	184	133	DN38; 4xM16x30 deep	DN102; PN 35 bar; 4xM16x30 deep
160	P0270	330	400	660	716	680	625	0	200	145	158	133	DN32; 4xM12x20 deep	DN64; PN 160 bar; 4xM12x20 deep
160	P0360	330	400	660	840	802.5	733	0	265	176	184	133	DN38; 4xM16x30 deep	DN89; PN 35 bar; 4xM16x30 deep
200 - 250	P0270	on request												
200 - 250	P0360	on request												
315	P0360	on request												

EP: Pressure port, flange acc. to ISO 6162

ES: Suction port, flange acc. to ISO 6162

¹⁾ Dimension for suction port +10 mm

Dimensions**Drive Controlled Pump****Dual vane pump with standard asynchronous motor**

Dimensions

Drive Controlled Pump

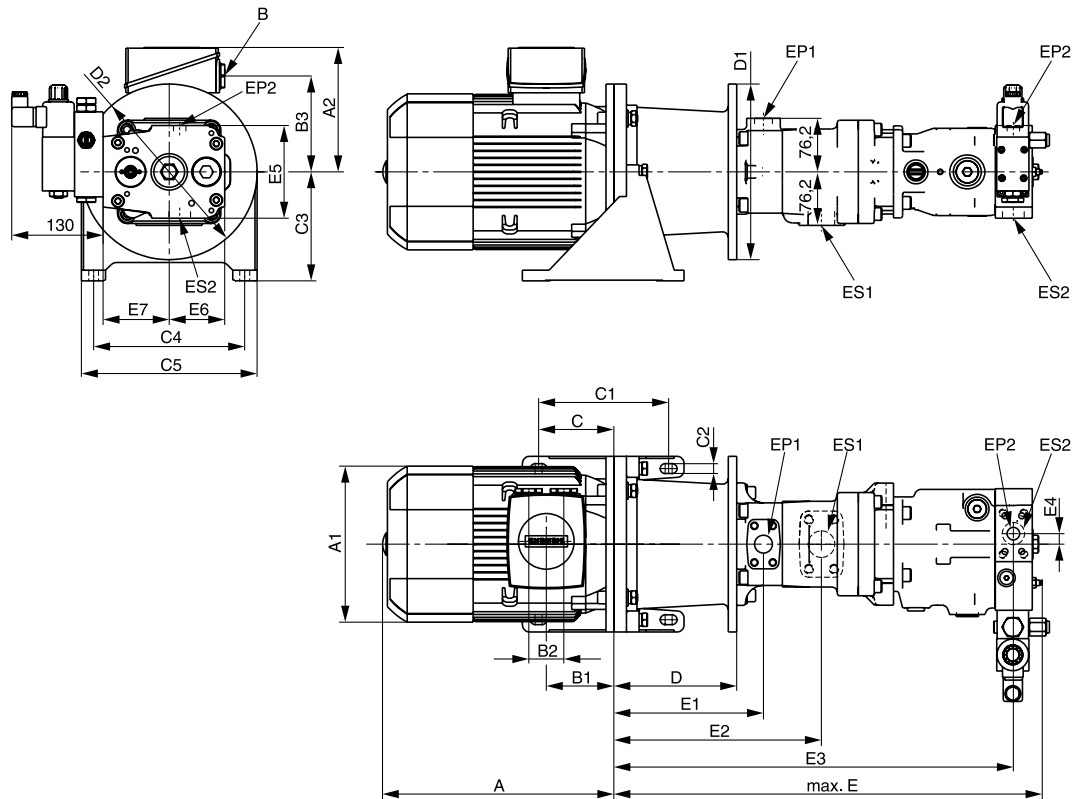
Motor Code	Motor size	Pump code	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	B2 [mm]	B3 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	C4 [mm]	C5 [mm]	D [mm]	D1 [mm]	D2 [mm]
2P2 - 003	100L	J****	328.5	198	193	2 x M32 x 1.5	100.5	48	147	107.5	185	14	155	215	250	148	166	250
004	112M	J****	322	222	195	2 x M32 x 1.5	100.5	48	150	107.5	185	14	155	215	250	148	166	250
004	112M	K****	322	222	195	2 x M32 x 1.5	100.5	48	150	on request								
006 - 008	132S/132M	J****	376.5	262	214.5	2 x M32 x 1.5	115.5	48	169	130.5	225	14	185	265	300	168	220	300
006 - 008	132S/132M	K****	376.5	262	214.5	2 x M32 x 1.5	115.5	48	169	130.5	225	14	185	265	300	196	220	300
006 - 008	132S/132M	L****	376.5	262	214.5	2 x M32 x 1.5	115.5	48	169	on request								
011 - 015	160M/160L	J****	484	314	261	2 x M40 x 1.5	145	60	213	149	265	18	235	300	350	204	225	350
011 - 015	160M/160L	K****	484	314	261	2 x M40 x 1.5	145	60	213	149	265	18	235	300	350	228	248	350
011 - 015	160M/160L	L****	484	314	261	2 x M40 x 1.5	145	60	213	on request								
019 - 022	180M/180L	J****	558	356	286	2 x M40 x 1.5	155	60	234	149	265	18	235	300	350	204	225	350
019 - 022	180M/180L	K****	558	356	286	2 x M40 x 1.5	155	60	234	149	265	18	235	300	350	228	248	350
019 - 022	180M/180L	L****	558	356	286	2 x M40 x 1.5	155	60	234	on request								
030	200L	J****	611	396	315	2 x M50 x 1.5	164	85	259	174	300	18	260	350	400	204	230	400
030	200L	K****	611	396	315	2 x M50 x 1.5	164	85	259	174	300	18	260	350	400	228	279	400
030	200L	L****	611	396	315	2 x M50 x 1.5	164	85	259	on request								
037	225S	J****	648	449	338	2 x M50 x 1.5	164	85	282	on request								
037	225S	K****	648	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450	262	315	450
037	225S	L****	648	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450	234	260	450
045	225M	J****	708	449	338	2 x M50 x 1.5	164	85	282	on request								
045	225M	K****	708	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450	262	315	450
045	225M	L****	708	449	338	2 x M50 x 1.5	164	85	282	199	335	18	295	400	450	234	260	450
055	250M	J****	747	497	410	2 x M63 x 1.5	192	110	322	on request								
055	250M	K****	747	497	410	2 x M63 x 1.5	192	110	322	249	415	18	350	500	550	265	450	550
055	250M	L****	747	497	410	2 x M63 x 1.5	192	110	322	on request								
075	280S	J****	820	551	433	2 x M63 x 1.5	210	110	345	on request								
075 - 090	280S/280M	K****	820	551	433	2 x M63 x 1.5	210	110	345	249	415	18	350	500	550	265	450	550
075 - 090	280S/280M	L****	820	551	433	2 x M63 x 1.5	210	110	345	249	415	18	350	500	550	265	360	550
110	315S	K****	912	616	515	2 x M63 x 1.5	238	110	404	249	415	18	350	500	550	265	450	550
110	315S	L****	912	616	515	2 x M63 x 1.5	238	110	404	298.5	495	22	380	600	660	310	410	660
132 - 160	315M/315L	L****	1077	616	515	2 x M63 x 1.5	238	110	404	298.5	495	22	380	600	660	310	410	660

Motor Code	E [mm]	E1 [mm]	E2 [mm]	E3 [mm]	E4 [mm]	E5 [mm]	E6 [mm]	E7 [mm]	EP1	EP2	ES
2P2 - 003	410.4	186.1	287.7	386.3	76.2	74.7	84.1	140	1"; 4x M10 x 19 deep	1"; 4x M10 x 19 deep	2 1/2"; 4x M12x 22.4 deep
004	410.4	186.1	287.7	386.3	76.2	74.7	84.1	140	1"; 4x M10 x 19 deep	1"; 4x M10 x 19 deep	2 1/2"; 4x M12x 22.4 deep
004	on request								1 1/4"; 4x M12 x 22.3 deep	1"; 4x M10 x 19 deep	3"; 4x M16 x 28.4 deep
006 - 008	430.4	206.1	307.7	406.3	76.2	74.7	84.1	140	1"; 4x M10 x 19 deep	1"; 4x M10 x 19 deep	2 1/2"; 4x M12x 22.4 deep
006 - 008	482	234.1	348.4	457.9	82.6	74.7	88.9		1 1/4"; 4x M12 x 22.3 deep	1"; 4x M10 x 19 deep	3"; 4x M16 x 28.4 deep
006 - 008	on request								1 1/4"; 4x M12 x 22.3 deep	1 1/4"; 4x M12 x 24 deep	4"; 4x M16 x 30 deep
011 - 015	466.4	242.1	343.7	442.3	76.2	74.7	84.1	140	1"; 4x M10 x 19 deep	1"; 4x M10 x 19 deep	2 1/2"; 4x M12x 22.4 deep
011 - 015	514	266.1	380.4	489.9	82.6	74.7	88.9		1 1/4"; 4x M12 x 22.3 deep	1"; 4x M10 x 19 deep	3"; 4x M16 x 28.4 deep
011 - 015	on request								1 1/4"; 4x M12 x 22.3 deep	1 1/4"; 4x M12 x 24 deep	4"; 4x M16 x 30 deep
019 - 022	466.4	242.1	343.7	442.3	76.2	74.7	84.1	140	1"; 4x M10 x 19 deep	1"; 4x M10 x 19 deep	2 1/2"; 4x M12x 22.4 deep
019 - 022	514	266.1	380.4	489.9	82.6	74.7	88.9		1 1/4"; 4x M12 x 22.3 deep	1"; 4x M10 x 19 deep	3"; 4x M16 x 28.4 deep
019 - 022	on request								1 1/4"; 4x M12 x 22.3 deep	1 1/4"; 4x M12 x 24 deep	4"; 4x M16 x 30 deep
030	466.4	242.1	343.7	442.3	76.2	74.7	84.1	140	1"; 4x M10 x 19 deep	1"; 4x M10 x 19 deep	2 1/2"; 4x M12x 22.4 deep
030	514	266.1	380.4	489.9	82.6	74.7	88.9		1 1/4"; 4x M12 x 22.3 deep	1"; 4x M10 x 19 deep	3"; 4x M16 x 28.4 deep
030	on request								1 1/4"; 4x M12 x 22.3 deep	1 1/4"; 4x M12 x 24 deep	4"; 4x M16 x 30 deep
037	on request								1"; 4x M10 x 19 deep	1"; 4x M10 x 19 deep	2 1/2"; 4x M12x 22.4 deep
037	548	300.1	414.4	523.9	82.6	74.7	88.9		1 1/4"; 4x M12 x 22.3 deep	1"; 4x M10 x 19 deep	3"; 4x M16 x 28.4 deep
037	581.7	272.3	420.6	554.8	101.6	101.6	114.9	182	1 1/4"; 4x M12 x 22.3 deep	1 1/4"; 4x M12 x 24 deep	4"; 4x M16 x 30 deep
045	on request								1"; 4x M10 x 19 deep	1"; 4x M10 x 19 deep	2 1/2"; 4x M12x 22.4 deep
045	548	300.1	414.4	523.9	82.6	74.7	88.9		1 1/4"; 4x M12 x 22.3 deep	1"; 4x M10 x 19 deep	3"; 4x M16 x 28.4 deep
045	581.7	272.3	420.6	554.8	101.6	101.6	114.9	182	1 1/4"; 4x M12 x 22.3 deep	1 1/4"; 4x M12 x 24 deep	4"; 4x M16 x 30 deep
055	on request								1"; 4x M10 x 19 deep	1"; 4x M10 x 19 deep	2 1/2"; 4x M12x 22.4 deep
055	551	303.1	417.4	526.9	82.6	74.7	88.9		1 1/4"; 4x M12 x 22.3 deep	1"; 4x M10 x 19 deep	3"; 4x M16 x 28.4 deep
055	on request								1 1/4"; 4x M12 x 22.3 deep	1 1/4"; 4x M12 x 24 deep	4"; 4x M16 x 30 deep
075	on request								1"; 4x M10 x 19 deep	1"; 4x M10 x 19 deep	2 1/2"; 4x M12x 22.4 deep
075 - 090	551	303.1	417.4	526.9	82.6	74.7	88.9		1 1/4"; 4x M12 x 22.3 deep	1"; 4x M10 x 19 deep	3"; 4x M16 x 28.4 deep
075 - 090	612.7	303.3	451.6	585.8	101.6	101.6	114.9	182	1 1/4"; 4x M12 x 22.3 deep	1 1/4"; 4x M12 x 24 deep	4"; 4x M16 x 30 deep
110	551	303.1	417.4	526.9	82.6	74.7	88.9		1 1/4"; 4x M12 x 22.3 deep	1"; 4x M10 x 19 deep	3"; 4x M16 x 28.4 deep
110	657.7	348.3	496.6	630.8	101.6	101.6	114.9	182	1 1/4"; 4x M12 x 22.3 deep	1 1/4"; 4x M12 x 24 deep	4"; 4x M16 x 30 deep
132 - 160	657.7	348.3	496.6	630.8	101.6	101.6	114.9	182	1 1/4"; 4x M12 x 22.3 deep	1 1/4"; 4x M12 x 24 deep	4"; 4x M16 x 30 deep

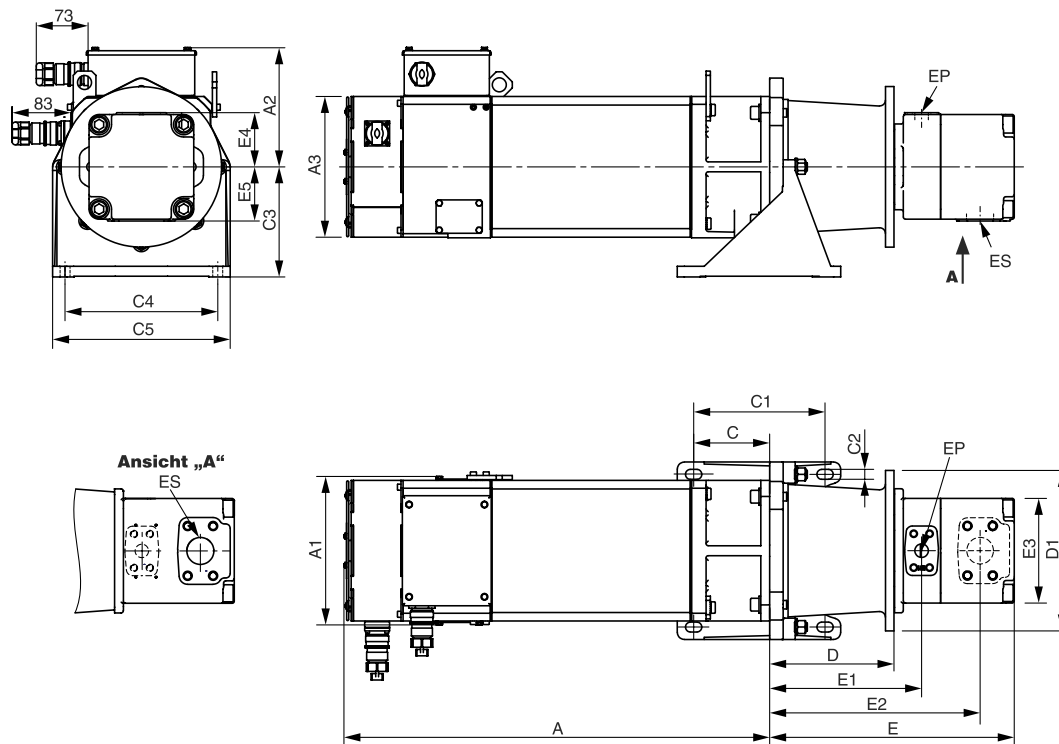
EP* : Pressure ports, SAE 4-hole flange - J518 - ISO/DIS6162-1

ES : Suction ports, SAE 4-hole flange - J518 - ISO/DIS6162-1

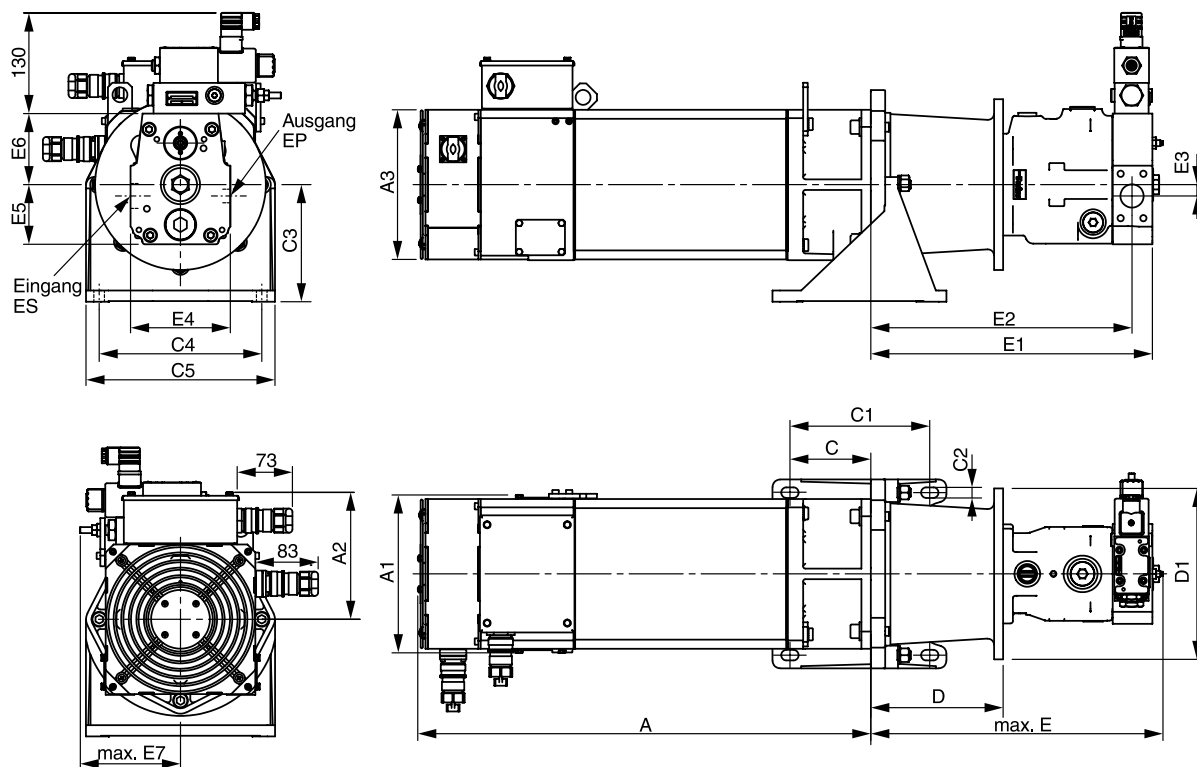
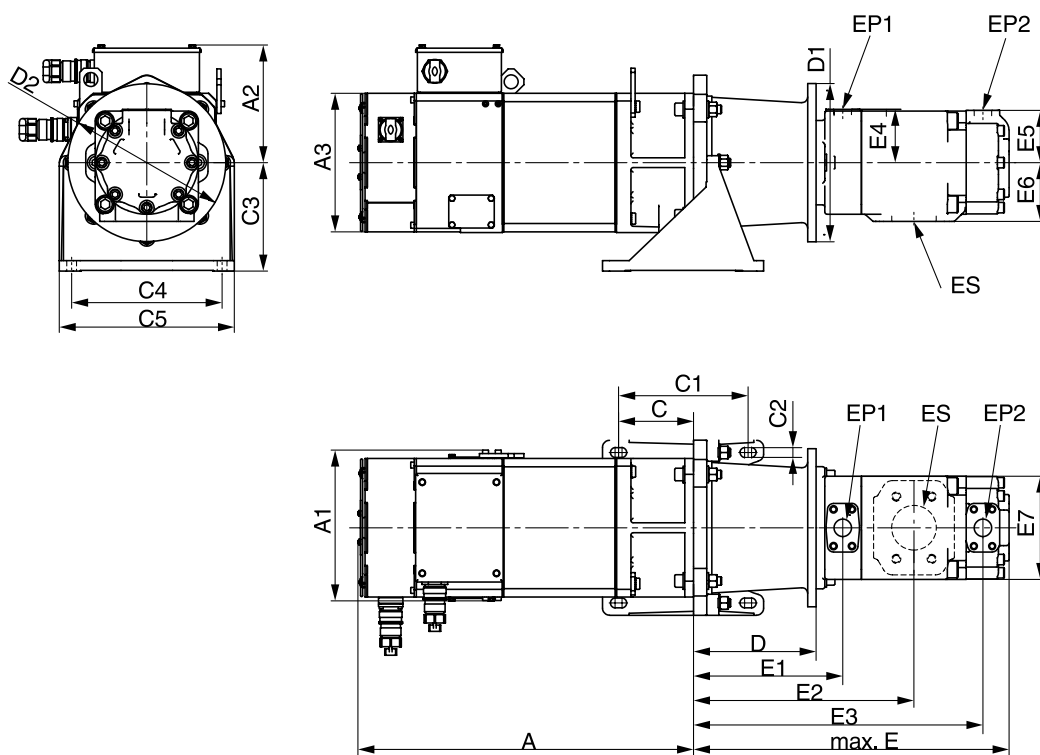
Tandem pump vane/axial piston with standard asynchronous motor



Vane pump with square frame asynchronous motor



all dimensions on request

Axial piston pump with square frame asynchronous motor**Dual vane pump with square frame asynchronous motor**

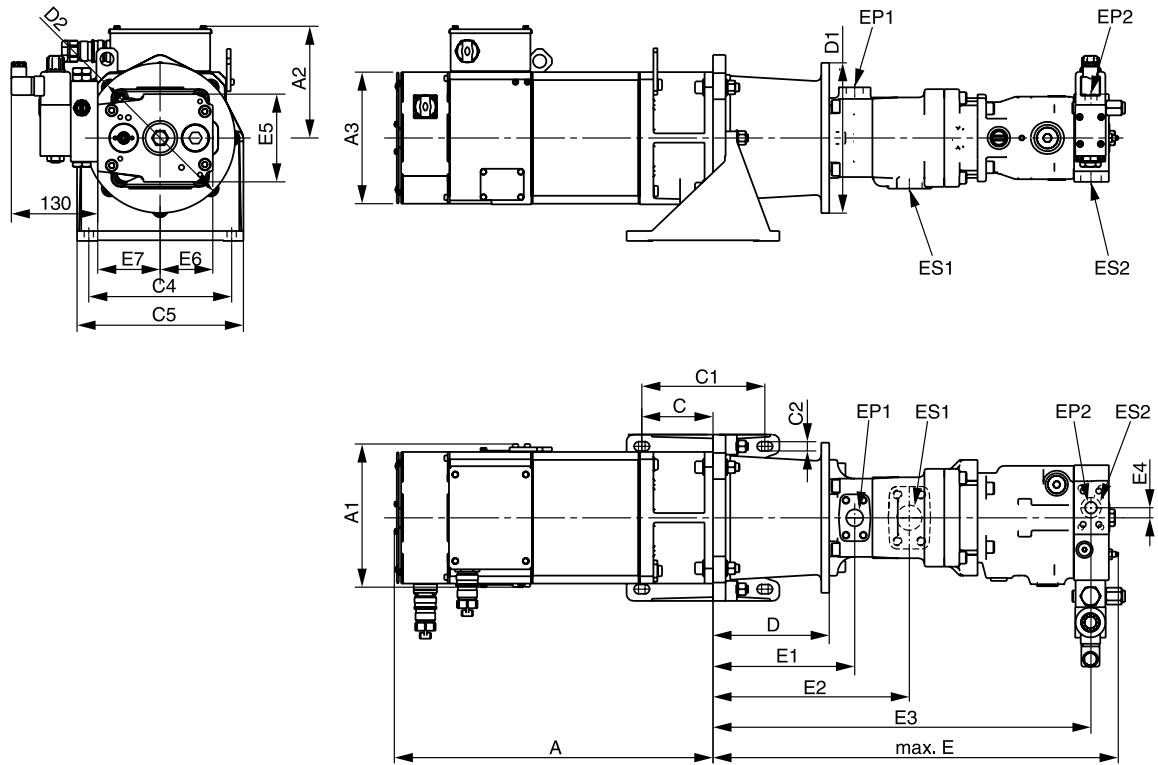
all dimensions on request

HY11-3352UK innen.indd RH 17.01.2013

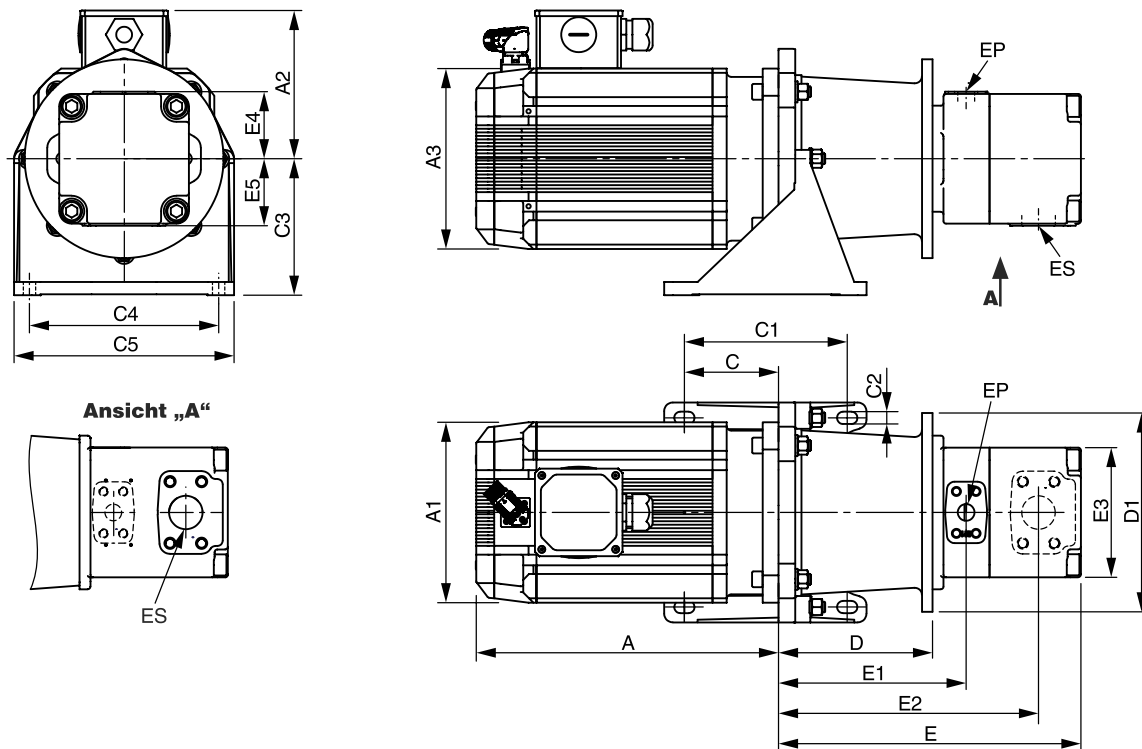
Dimensions

Drive Controlled Pump

Tandem pump vane/axial piston with square frame asynchronous motor

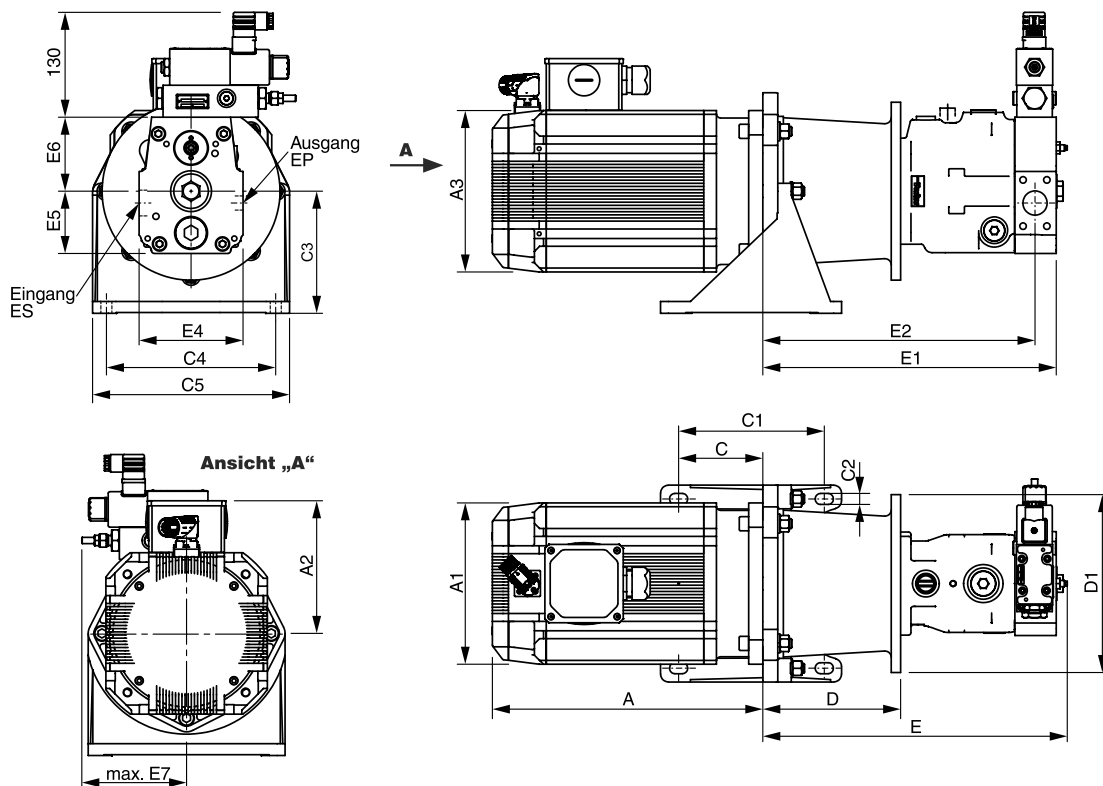
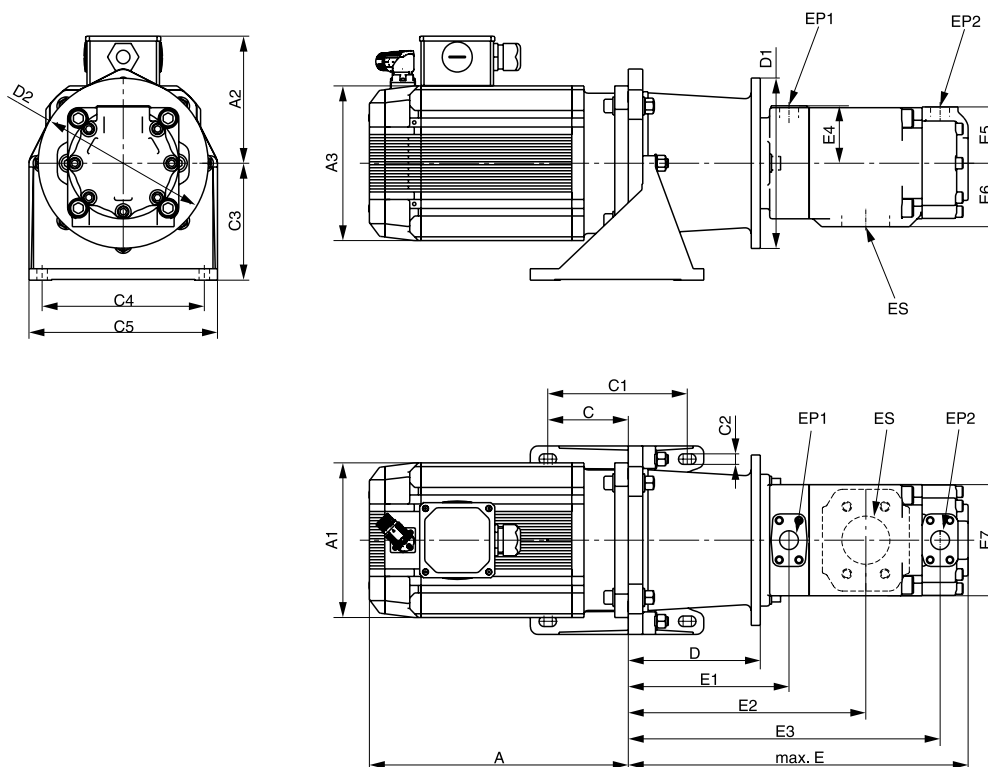


Vane pump with synchronous servo motor



all dimensions on request

HY11-3352UK innen.indd RH 17.01.2013

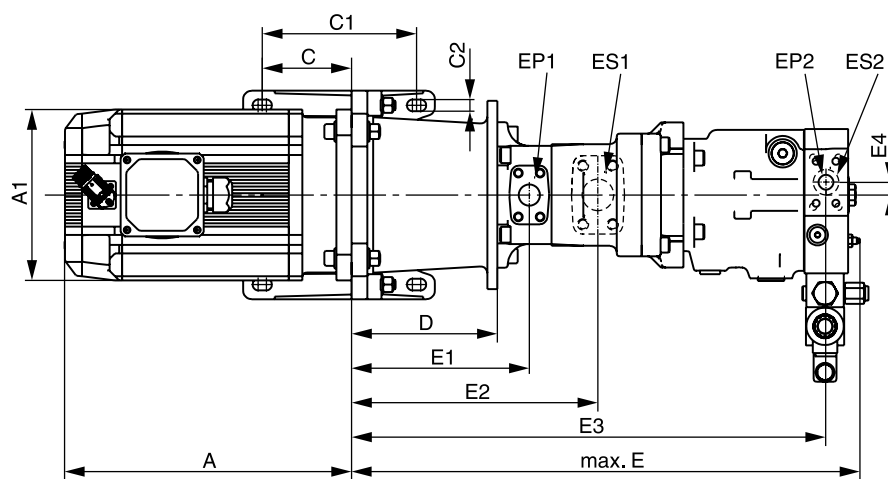
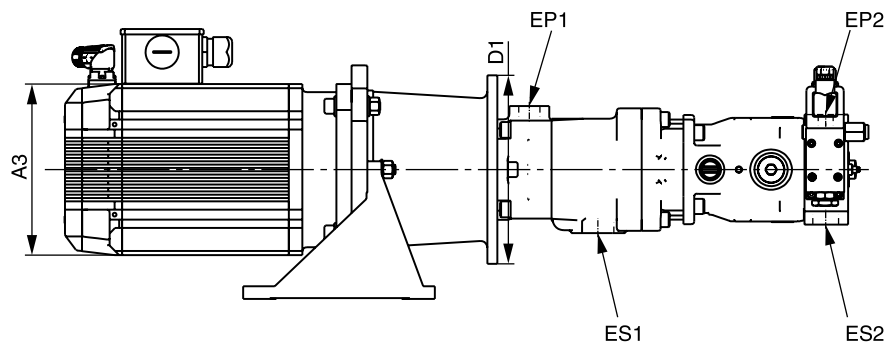
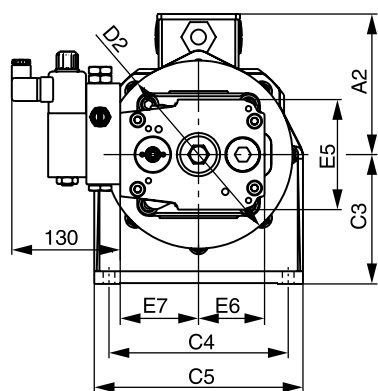
Axial piston pump with synchronous servo motor**Dual vane pump with synchronous servo motor**

all dimensions on request

HY11-3352UK innen.indd RH 17.01.2013

Dimensions

Tandem pump vane/axial piston with synchronous servo motor



all dimensions on request

Vane Pumps

Parker vane pumps are especially suited to variable speed applications. They enable very quick changes in pressure at a very high flow rate reproducibility and at a low noise level. Her minimum speed increases from zero proportional to pressure up to 300 rpm at maximum pressure. High operating pressures of up to 320 bar and small dimensions reduce installation costs. Reduced pressure increases life-span.

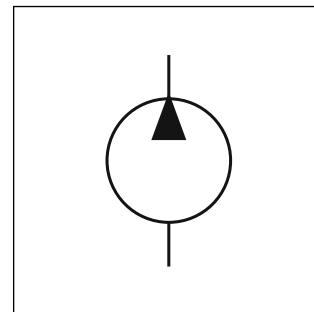
The vane pump forms a compact unit in combination with flange and e-motor. The design with two opposing pressure chambers prevents lateral forces working on the drive shaft. The pump cartridge design is suitable for drop-in installation. It is particularly modification and service friendly. The wide range of designs (displacement, shaft, connections, etc.) offers the best preconditions for individual solutions tailored to a customer's requirements.

Features

- High volumetric efficiency
- Low noise design
- High mechanical efficiency (generally over 94 %)
- Wide speed range (300–3,000 rpm)
- Low pressure pulsation (±2 bar) reduces pipe noise
- Impervious to particle contamination thanks to the double lip design



Drive Controlled Pump



Temporary maximum pressure

The unit T7 can be operated briefly at higher pressures than the operating pressure recommended for continuous operation if the average pressure per time unit is lower than or equal to the pressure for continuous operation. The calculation formula for the temporary maximum pressure only applies when taking the other parameters into consideration – speed, operating fluid, viscosity and degree of contamination. For a total cycle duration of over 15 minutes, please get in contact with your Parker representative.

Example: B0010

Work cycle 4 mins at 320 bar
 1 mins at 35 bar
 5 mins at 160 bar

$$\frac{(4 \times 320) + (1 \times 35) + (5 \times 160)}{10} = 211.5 \text{ bar}$$

211.5 bar is lower than the operating pressure of 290 bar permitted for the continuous operation of B0010 with an HLP46 operating medium.

Technical data

Pump code	Displacement [cc/rev]	min. speed [1/min]	max. speed [1/min]	Flow rate (1500 1/min, p 140 bar) [l/min]	max. operating pressure, permanent [bar]	max. operating pressure, temporary [bar]
A0006	5.8	300	3600	7.0	275	300
A0011	9.8	300	3600	14.8	275	300
A0013	12.8	300	3600	17.5	275	300
A0017	17.2	300	3600	24.1	275	300
B0008	24.9	300	3600	35.7	290	320 ¹⁾
B0010	31.8	300	3600	46.0	290	320 ¹⁾
B0012	41.0	300	3000	59.8	275	320 ¹⁾
B0015	50.0	300	2700	73.3	240	280
D0020	66.0	300	3000	92.4	250	300
D0024	81.1	300	3000	115.0	250	300
D0031	99.2	300	3000	142.2	250	300
D0035	113.4	300	3000	163.5	250	280
D0038	120.6	300	3000	174.3	250	280
D0042	137.5	300	2700	199.6	230	260

Internal leakage depending on pressure, speed and pump cartridge. All values applying for standard mineral oil.
 For more information see catalogue HY29-0110

¹⁾ Please consult Parker for applications over 300 bar.

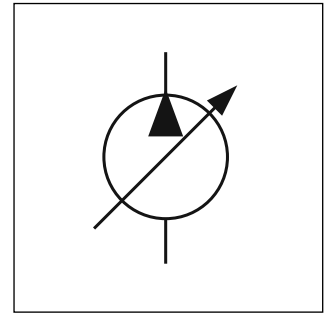
Parker axial piston pumps are particularly notable for their low noise level which is based on pulsation-weak running and a rigid housing. Drops in flow that are common when operating a positive displacement pump during the compression phase are reduced by employing a pre-compression volume. In this case, the low-pressure piston is brought to operating pressure prior to entry in the pressure kidney. As soon as the piston is in the pressure range, it connects the system and pre-compression volume and refills the oil required for compressing the next piston.

In addition to significant noise reduction, axial piston pumps offer further advantages such as high efficiency, since the holding down of the pistons works without springs and with a fixed recess. They are also installation and maintenance-friendly.

The axial piston pumps feature a drive shaft for single and multiple pumps.

Features

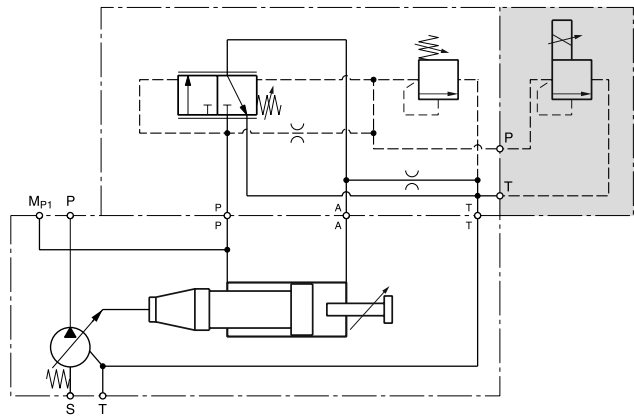
- Low noise
- Short control response times
- Service friendly
- High maximum speed
- Compact design
- 100 % torque drive shaft



Pressure-regulated pumps with proportional pilot valve

The PVACRE..35-type proportional pilot valve is installed on the top of the controller.

This version enables a variable setting of the regulated pressure between 20 and 350 bar via an electrical signal.



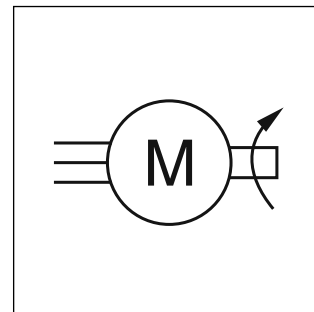
Technical data

Pump code	Displacement max. [cm ³ /U]	Flow rate (1500 1/min) [l/min]	Nominal pressure [bar]	Max. pressure p_{max} 20 % of work cycle [bar]	Min. input pressure absolute [bar]	speed min. [1/min]	Max. speed at input pressure 1 bar absolute [1/min]
PV016	16	24	350	420	0.8	400	3000
PV020	20	30					3000
PV023	23	34.5					3000
PV028	28	42					3000
PV032	32	48					2800
PV040	40	60					2800
PV046	46	69					2800
PV063	63	94.5					2800
PV080	80	120					2500
PV092	92	138					2300
PV140	140	210					2400
PV180	180	270					2200
PV270	270	405					1800
PV360	360	540					1750

For more information see catalogue HY30-3245

The standard asynchronous motors are characterized by their versatility, robustness and high efficiency. They fulfil the IE2 efficiency standard (high efficiency), and therefore allow large energy savings and conserves the environment. The design offers maximum flexibility and minimum cost when installing. The comparably low weight also has a positive effect on the overall weight of the assembly.

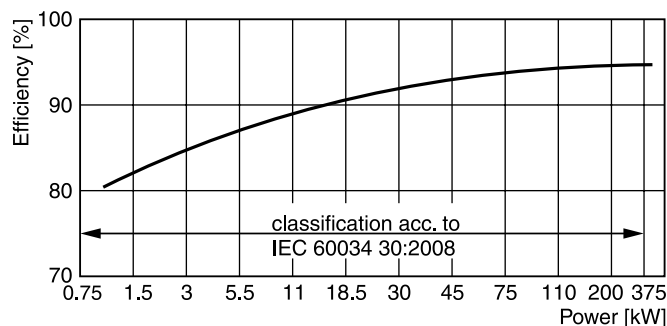
In principal, all motors can be operated on the drive at mains voltages of up to 460 V +10 %. Operating within a power range of 0.55 to 315 kW, the motors have been designed for all markets around the world. In order to achieve the best possible design, a mix of highly conductive materials is used in the rotor. The result is minimized rotor losses and excellent start-up performance.



Features

- Long life-span as a result of the simplicity and robustness of the components
- Reduction in operating costs thanks to high efficiency at IE2
- Longer motor life-span thanks to lower winding temperatures in terms of the rated load and power supply
- High overload reserves in continuous operation
- Low weight

IE2 efficiency 4-pole 50 Hz

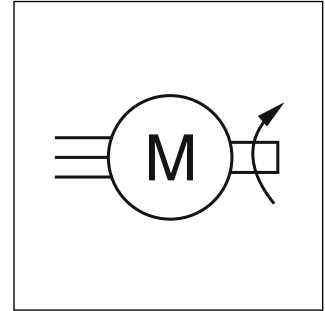
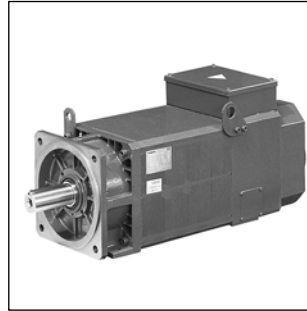


Technical data (nominal voltage 400 VAC / 50 Hz)

Code N	Rated power [kW]	Rated speed [1/min]	Efficiency factor	Rated current [A]	Rated torque [Nm]	Weight [kg]	Max. speed [1/min]	Max. torque [Nm]
0P5	0.55	1440	0.74	1.37	3.7	10	4200	11
0P7	0.75	1440	0.76	1.79	5	11	4200	16
1P1	1.1	1425	0.78	2.5	7.4	13	4200	21
1P5	1.5	1435	0.79	3.3	10	16	4200	34
2P2	2.2	1455	0.81	4.65	14	32	4200	46
003	3	1455	0.82	6.2	20	37	4200	62
004	4	1460	0.81	8.2	26	46	4200	83
006	5.5	1465	0.8	11.3	36	61	4200	104
008	7.5	1465	0.83	14.7	49	75	4200	142
011	11	1470	0.85	21	71	96	4200	198
015	15	1475	0.85	28	97	104	4200	291
019	18.5	1465	0.84	35	121	160	4200	411
022	22	1465	0.84	41.5	143	170	4200	500
030	30	1475	0.85	55	195	225	4200	604
037	37	1470	0.87	66	240	285	4500	720
045	45	1475	0.87	80	291	315	4500	902
055	55	1480	0.85	100	355	390	3700	1065
075	75	1485	0.87	132	482	560	3000	1397
090	90	1486	0.87	159	578	640	2600	1791
110	110	1490	0.86	195	705	750	2600	2115
132	132	1488	0.87	230	847	870	2600	2456
160	160	1488	0.87	280	1027	950	2600	3081
200	200	1490	0.87	350	1282	1120	2600	3974
250	250	1488	0.87	435	1605	1270	2600	5136
315	315	1488	0.86	560	2022	1480	2600	6470

The square frame asynchronous motors from the MA series offer high performance for their compact form. They were developed in particular for dynamic control with high performance variable speed drives such as the AC690+. They are therefore perfectly suited for applications with variable speeds.

The electromagnetic characteristics and mechanical design of the MA motors allows for utilization in continuous operation at maximum speeds up to 8,000 rpm. The efficient stator cooling system uses an additional electric fan. With its reduced dimensions, the MA offers continuous operation with high torque at low speeds.



Features

- Compact shape (square frame format)
- High performance
- High overload capacity
- Temperature sensor integrated in the stator
- Protection class IP54
- Insulation class F (CEI EN60034-1)
- Axial external fans
- Low mass moment of inertia

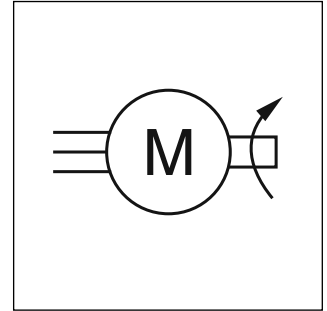
Technical data

Code	Rated power [kW]	Rated speed [1/min]	Efficiency factor	Rated current [A]	Rated torque [Nm]	Max. speed [1/min]	Max. torque [Nm]	Ext. vent 400 V [kW]
0P6	0.63	1500	0.67	2.2	4	7000	8	0.045
1P5	1.5	1500	0.8	3.4	10	7000	20	0.045
2P2	2.2	1500	0.78	5	15	7000	30	0.045
003	3	1500	0.84	6.3	20	7000	40	0.045
004	4	1500	0.76	8	25	7000	50	0.045
006	6	1500	0.78	13.7	38.2	8000	76	0.045
008	8.2	1500	0.78	18.4	52.2	8000	104	0.045
010	10	1500	0.76	23	63.7	8000	127	0.045
016	16	1500	0.83	34	102	7000	204	0.11
021	21	1500	0.84	42	134	7000	268	0.11
024	24	1500	0.83	48	153	7000	306	0.11
030	30	1500	0.83	58	191	7000	382	0.11
040	40	1500	0.85	72	255	6000	510	0.166
045	45	1500	0.86	84	287	6000	574	0.166
049	49	1500	0.85	93	312	5000	624	0.166
056	56	1500	0.84	110	357	4500	714	2.2
064	64	1500	0.83	123	407	4500	814	2.2
080	80	1500	0.84	149	509	4500	1018	2.2
088	88	1500	0.84	162	560	4000	1120	2.2
093	93	1500	0.84	178	592	3500	1184	3
130	130	1500	0.86	235	828	3500	1656	3
184	184	1500	0.86	333	1172	3500	2344	3
270	270	1500	0.9	461	1719	3000	3438	4
342	342	1500	0.85	617	2121	2800	4242	4

For more information see catalogue HA501078

The MH series of highly dynamic, brushless servo motors from Parker combines innovative technology with extremely high performance. Thanks to the high quality of the neodymium-iron-boron magnets and the encapsulation technique which is used to attach these magnets to the shaft, the MH motor series can achieve high acceleration and withstand heavy loads without risking the demagnetization or removal of the magnets.

Generously sized mechanical components, low moments of inertia in an extra strong mechanical housing and a wide range of different variants enable the utilization of the MH series in applications which demand high dynamics and absolute reliability. Due to the many different shaft and flange sizes available for all models, a suitable motor can be selected for most customer requirements.



Features

- Protection class IP64
- Ambient temperature -10/+40 °C
- Torque 2.1 to 215 Nm
- High power density
- Lifetime-lubricated ball bearings
- Convection cooling, fan as option available

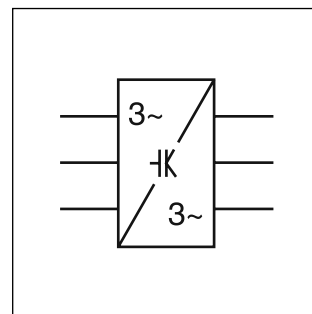
Technical data (Nominal voltage 400 VAC / 50 Hz, ambient temperature -10 ... 40 °C)

Code	Rated power [kW]	Rated speed [1/min]	Rated current [A]	Rated torque [Nm]	Max. speed [1/min]	Max. torque [Nm]
0P7	0.66	3000	1.3	2.1	3300	11
1P1	1.13	3000	2.2	3.6	3300	19.5
1P4	1.35	3000	3	4.3	3300	28
1P7	1.67	3000	3.2	5.3	3300	26.1
2	2.17	3000	4.2	6.9	3300	31.7
2P5	2.48	3000	4.6	7.9	3300	49
4	3.99	3000	7.1	12.7	3300	86
4P1	4.12	3000	7.3	13.1	3300	117
4P2	4.21	3000	7.7	13.4	3300	69
6P6	6.63	3000	11.9	21.1	3300	143
8	8.07	3000	17.1	25.7	3300	123
13	13.1	3000	25.6	41.7	3300	222
16	16.43	3000	32.1	52.3	3300	310
19	19.35	3000	37.8	61.6	3300	398
27	27.33	3000	55.4	87	3300	235
45	45.24	3000	91.7	144	3300	451
58	58.12	3000	117.8	185	3300	657
68	67.54	3000	136.9	215	3300	857

For more information see catalogue 192-061012

As a component of the Drive Controlled Pump, the AC690+ series covers the entire spectrum of speed-regulated applications for asynchronous motors.

The heart of this AC690+ is a motor control system based on the latest 32-bit microprocessor technology, which offers high dynamics and can be extended by numerous communication and regulation options. The AC690+ is available as a three-phase 380–500 V design for drives from 0.75 to 1000 kVA.

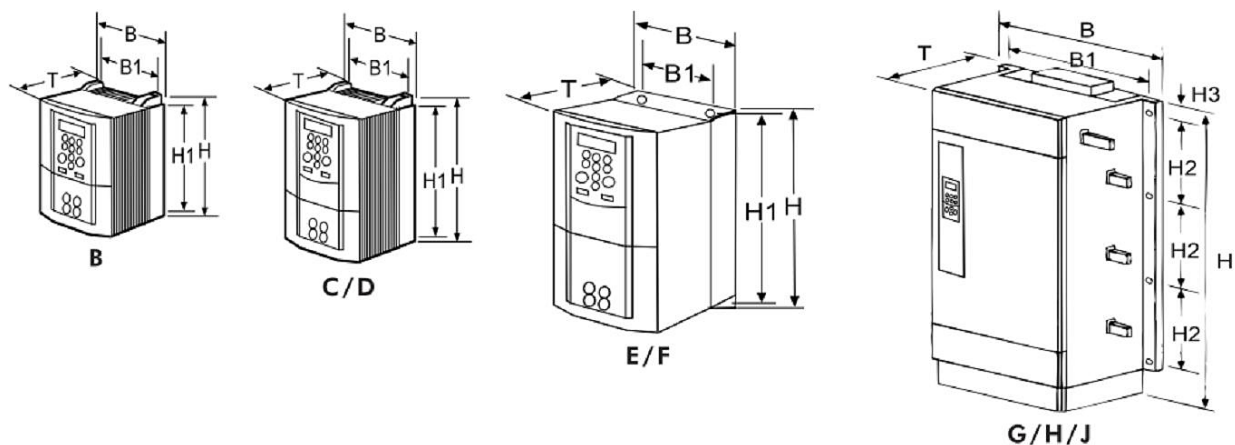


Features

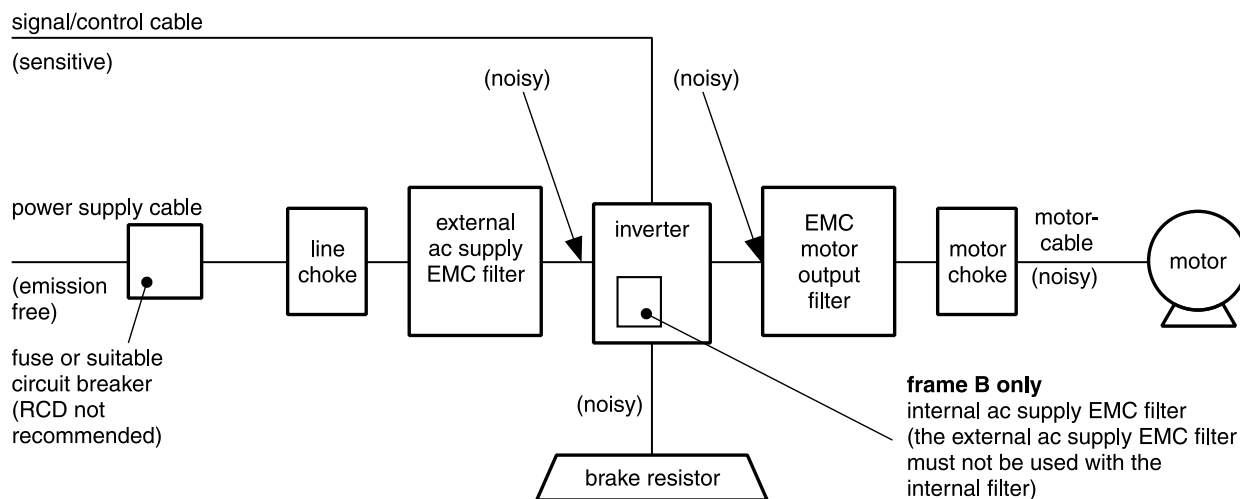
- Sensorless vector control
- p/Q regulator
- Integrated hydraulic functions
- Commissioning software
- CANopen, DeviceNet and PROFIBUS DP optional

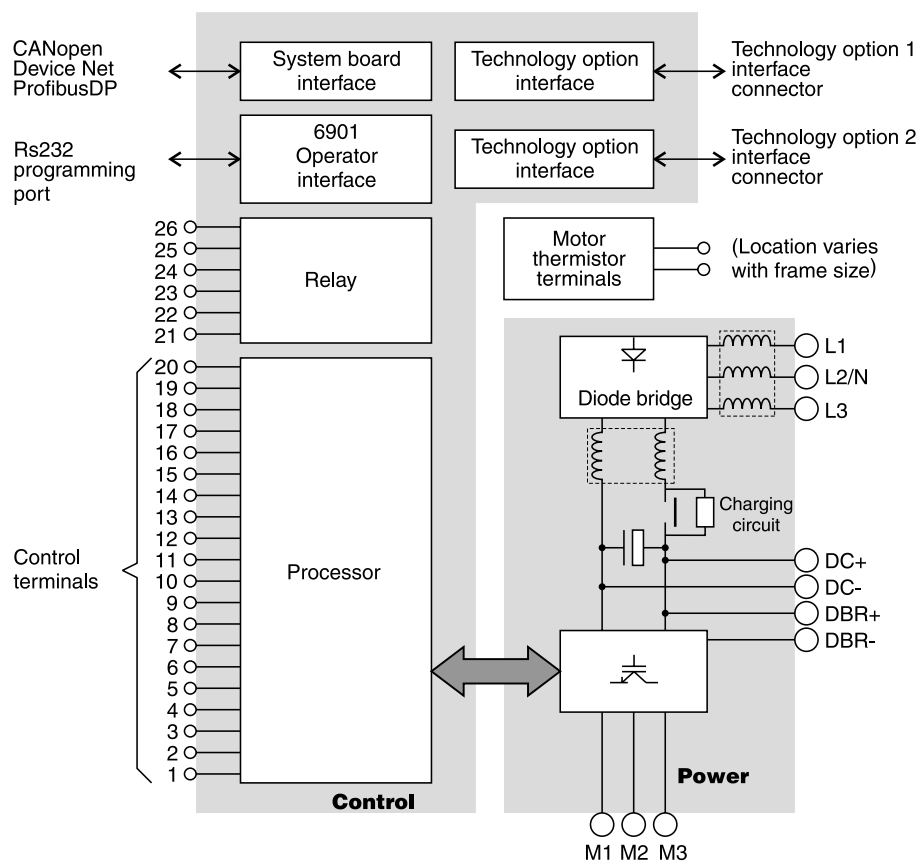
Technical data

Overload	
Constant torque	[%] 150 for 60 sec; 180 for 0.5 sec
Variable torque	[%] 110 for 60 sec; 130 for 0.5 sec
Output frequency	
Frame B/C/D/E	[Hz] 0-max. 1000
Frame F	[Hz] 0-max. 500
Frame G/H/J	[Hz] 0-120 Hz
Ambient conditions	
Temperature	[°C] 0-40
Relative humidity, max.	[%] 85 at 40 °C
performance loss	[%] 2/°C up to max. 50 °C
Protection class	IP 20
In-/outputs	
Digital inputs	8 (0-5 V=OFF; 5-15 V undef; 15-24 V=ON)
Digital outputs	3 (24 VDC)
Analogue inputs	4 (0-10 V; ±10 V; 0-20 mA; 4-20 mA)
Analogue outputs	3 (0-10 V; ±10 V; 0-20 mA; 4-20 mA)
Isolated thermistor input	1 (+10 V; -10 V; +24 V reference voltage)

Dimensions

Code	Size	Dimensions mm]			Hole pitch [mm]				Weight [kg]
		B	H	T	B1	H1	H2	H3	
014	B	176.5	233	181	129.5	223	—	—	4.3
016 - 031	C	201	348	208	150	335	—	—	9.3
038 - 059	D	252	453	245	150	440	—	—	17.4
073 - 087	E	257	668	312	150	630	—	—	32.5
105 - 180	F	257	720	355	150	700	—	—	41.0
216 - 361	G	456	1042	465	420	900	300	16	108
375 - 520	H	572	1177	465	536	900	300	16	138
590	J	677	1288	465	641	900	300	16	176

Wiring

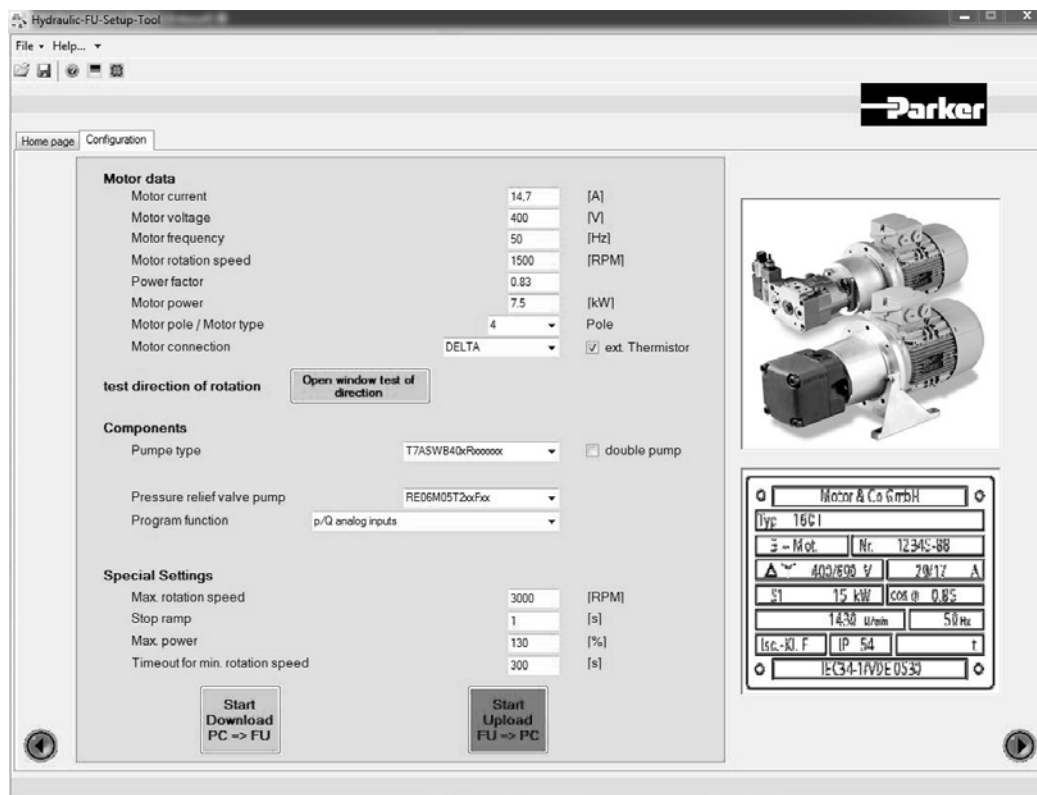
Connection overview**Terminals**

Terminal	Description	Relevance	Notes
1	0 V	pressure sensor 0 V	accumulator loading mode
2	AEIN 1	pressure sensor input (0...20 mA, 4...20 mA, 0...10 V)	accumulator loading mode
3	AEIN 2		
4	AEIN 3		
5	AEIN 4		
6	AAUS 1	pressure relief valve pump (0...20 mA, 4...20 mA, 0...10 V) pressure relief valve pump (0...20 mA, 4...20 mA, 0...10 V)	p/Q digital inputs p/Q digital inputs + time profile
7	AAUS 2	pressure relief valve system (0...10 V) pressure relief valve system (0...10 V)	p/Q digital inputs p/Q digital inputs + time profile
8	AAUS 3		
9	+ 10 V REF		
10	- 10 V REF		
11	0 V		
12	DEIN 1	no stop	
13	DEIN 2	drive release	
14	DEIN 3	switch-on pressure flow/pressure selection start cycle pQt	accumulator loading mode p/Q digital inputs p/Q digital inputs + time profile
15	DEIN 4	switch-off pressure flow/pressure selection	accumulator loading mode p/Q digital inputs
16	DEIN 5	flow/pressure selection	p/Q digital inputs
17	DEIN 6		
18	DEIN 7	quit fault	
19	DEIN 8	external fault	
20	+ 24 V	bridge to 24 V or	
21	DAUS1_A		
22	DAUS1_B	drive operating	
23	DAUS2_A		
24	DAUS2_B	fault	
25	DAUS3_A		
26	DAUS3_B		

Commissioning Software

For the commissioning of the AC690+, Parker offers a simple-to-use software tool for programming, monitoring and diagnostics of the AC drives from Parker with the aid

of a graphical user interface. This enables the user to easily create, parameterize and configure user-defined applications.



The AC690+ drive can easily be configured and put into operation using the software.

- Enter the motor data provided on the motor rating plate
- Direction of rotation test performed at low speed
- Select components from the databases available
- Configuration settings are saved in the drive controller

The following settings for programming functions are possible:

- 15 volume flows / pressures / ramp times can be selected via digital inputs (binary coding)
- Cycle sequence using a start command
- Charging operation
- Analogue target specification for volume flow and pressure
- Target specification for volume flow and pressure via CANopen / DeviceNet / PROFIBUS DP

The following diagnostics functions are available:

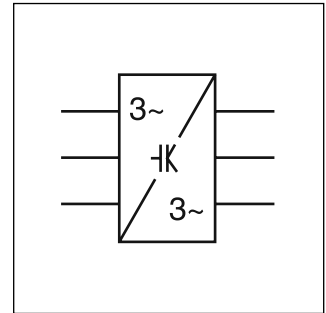
- Reading or setting digital inputs and outputs
- Current pressure, volume flow and performance values are on constant display
- Graphical presentation with zoom and save functions
- Measuring energy saving is possible:
- Graphical presentation of the machine cycle with a constant / variable speed
- Automatic calculation of energy saving in conjunction with the frequency drive controller

For more information see catalogue 190-490323

Compax3**Drive Controlled Pump**

Compax3 is the global servo drive from Parker. It was developed with the aim of providing maximum openness and flexibility for the widest range of applications. With the Drive Controlled Pump it is used as a drive for synchronous servo motors. A power range of 1 to 110 kVA is available.

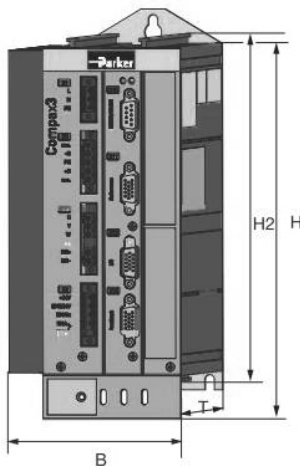
The Compax3 offers modern control technology and supports all common fieldbus interfaces. This includes PROFIBUS, CANopen, DeviceNet, and also modern Ethernet-based interfaces EtherCAT, PROFINET and Powerlink. The open communication standard OPC simplifies integration into the entire system. By using the intuitive "Parker Integrated Engineering Tool" software, the Compax3 can be used easily and efficiently.

**Features**

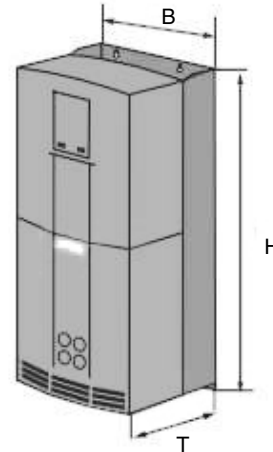
- Power range of 1 to 110 kVA.
- 1 encoder output / 1 encoder input
- 8 digital inputs / 4 digital outputs
- 3 analogue inputs -10...10 V (14 bit)
- 3 analogue inputs 0...20 mA (14 bit)
- 2 analogue outputs (8 bit)
- Fieldbus communication with open standards
- Extensive safety technology
- Software tool for configuration, commissioning, optimisation, programming and maintenance

Technical data

Code	002	004	008	015	030	050	090	125	155	
Compax3	S015V4	S038V4	S075V4	S150V4	S300V4 ¹⁾	H050V4	H090V4	H125V4	H155V4	
Motor power supply										
Supply voltage	[V]	3 * 400/480 VAC (80...528 VAC) / 50...60 Hz								
Nom. output current (effectiv)	[A]	1.5	3.8	7.5	15	30	50	90	125	155
Peak current (< 5 s)	[A]	4.5	9	15	30	60	75	135	187.5	232.5
Power	[kVA]	1.25	3.1	6.2	11.5	25	35	70	91	109
Control power supply										
Control voltage	[V]	24 VDC ±10 %. ripple <1 Vss								
Current consumption	[A]	0.8 (+ digital outputs je 0.1; + motor brake up to 1.6)								

Dimensions Compax3S

Compax3S	Dimensions				Weight [kg]
	H	B	T	H2	
S015V4	273	84	172	259	3.1
S038V4	273	100	172	259	3.5
S075V4	273	115	172	259	4.3
S150V4	273	158	172	259	6.8
S300V4	380	175	172	391	10.9

Dimensions Compax3H

Compax3H	Dimensions			Weight [kg]
	H	B	T	
H050V4	453	252	245	17.4
H090V4	669	257	312	32.5
H125V4	720	257	355	41.0
H155V4	720	257	355	41.0

For more information see catalogue 192-120013

¹⁾ Operation with condenser unit module C4.



Parker's Motion & Control Technologies

At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker. For further info call 1 800 C-Parker (1 800 272 7537)



Aerospace

Key Markets

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

Key Products

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



Climate Control

Key Markets

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

Key Products

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



Electromechanical

Key Markets

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

Key Products

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



Filtration

Key Markets

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

Key Products

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



Fluid & Gas Handling

Key Markets

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

Key Products

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



Hydraulics

Key Markets

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

Key Products

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



Pneumatics

Key Markets

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

Key Products

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



Process Control

Key Markets

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

Key Products

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



Sealing & Shielding

Key Markets

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

Key Products

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

ENGINEERING YOUR SUCCESS.

Parker worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai

Tel: +971 4 8127100
parker.me@parker.com

AT – Austria, Wiener Neustadt

Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt

Tel: +43 (0)2622 23501 900
parker.easteurope@parker.com

AZ – Azerbaijan, Baku

Tel: +994 50 22 33 458
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles

Tel: +32 (0)67 280 900
parker.belgium@parker.com

BY – Belarus, Minsk

Tel: +375 17 209 9399
parker.belarus@parker.com

CH – Switzerland, Etoy

Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com

CZ – Czech Republic, Klecany

Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst

Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup

Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid

Tel: +34 902 330 001
parker.spain@parker.com

FI – Finland, Vantaa

Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine s/Arve

Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Athens

Tel: +30 210 933 6450
parker.greece@parker.com

HU – Hungary, Budaoers

Tel: +36 23 885 470
parker.hungary@parker.com

IE – Ireland, Dublin

Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IT – Italy, Corsico (MI)

Tel: +39 02 45 19 21
parker.italy@parker.com

KZ – Kazakhstan, Almaty

Tel: +7 7273 561 000
parker.easteurope@parker.com

NL – The Netherlands, Oldenzaal

Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Asker

Tel: +47 66 75 34 00
parker.norway@parker.com

PL – Poland, Warsaw

Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal, Leca da Palmeira

Tel: +351 22 999 7360
parker.portugal@parker.com

RO – Romania, Bucharest

Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow

Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga

Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SK – Slovakia, Banská Bystrica

Tel: +421 484 162 252
parker.slovakia@parker.com

SL – Slovenia, Novo Mesto

Tel: +386 7 337 6650
parker.slovenia@parker.com

TR – Turkey, Istanbul

Tel: +90 216 4997081
parker.turkey@parker.com

UA – Ukraine, Kiev

Tel: +380 44 494 2731
parker.ukraine@parker.com

UK – United Kingdom, Warwick

Tel: +44 (0)1926 317 878
parker.uk@parker.com

ZA – South Africa, Kempton Park

Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario

Tel: +1 905 693 3000

US – USA, Cleveland

(industrial)
Tel: +1 216 896 3000

US – USA, Elk Grove Village

(mobile)
Tel: +1 847 258 6200

Asia Pacific

AU – Australia, Castle Hill

Tel: +61 (0)2-9634 7777

CN – China, Shanghai

Tel: +86 21 2899 5000

HK – Hong Kong

Tel: +852 2428 8008

IN – India, Mumbai

Tel: +91 22 6513 7081-85

JP – Japan, Fujisawa

Tel: +81 (0)4 6635 3050

KR – South Korea, Seoul

Tel: +82 2 559 0400

MY – Malaysia, Shah Alam

Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington

Tel: +64 9 574 1744

SG – Singapore

Tel: +65 6887 6300

TH – Thailand, Bangkok

Tel: +662 717 8140

TW – Taiwan, New Taipei City

Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires

Tel: +54 3327 44 4129

BR – Brazil, Cachoeirinha RS

Tel: +55 51 3470 9144

CL – Chile, Santiago

Tel: +56 2 623 1216

MX – Mexico, Apodaca

Tel: +52 81 8156 6000

EMEA Product Information Centre

Free phone: 00 800 27 27 5374

(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

US Product Information Centre

Toll-free number: 1-800-27 27 537

www.parker.com

