

Table-2 Cylinder-driven DDV Servo Pump Selection Guide

\* For the cylinder-control application with DDV, refer the article ABC in the separate table A-1DDV Hydraulic Servo Pump Selection Guide for application formula and featuring guides.



① DDV Type				GA-0.4/0.2	GA-0.4/0.4	GA-3/1.0	GA-3/1.5	GA-3/2.0	GD-8/2.5	GD-8/3.5	GD-8/5.5	GD-15/2.5	GD-15/3.5	GD-15/5.5	GD-15/7.5	HM-30/7.5	HM-30/11	HM-30/15	HL-50/15	HL-50/25	HL-50/30	HL-70/15	HL-70/25	HL-70/30	SP-15/3.5	SP-40/7.5	SP-50/15	SP-70/15	SP-70/25	SP-70/35
Bi-directional pump <sup>cc/rev</sup>				0.4	0.4	3.1	3.1	3.1	8.0	8.0	8.0	15.0	15.0	15.0	15.0	30.0	30.0	30.0	50.0	50.0	50.0	70.0	70.0	70.0	15.0	40.0	50.0	70.0	70.0	70.0
Cylinder characteristics AC servo motor <sup>kW</sup>				0.2	0.4	1.0	1.5	2.0	2.5	3.5	5.5	2.5	3.5	5.5	7.5	7.5	11.0	15.0	15.0	25.0	30.0	15.0	25.0	30.0	3.5	7.5	15.0	15.0	25.0	30.0
Max-time allowed at max thrust force sec				10.5	—	4.0	7.0	15.0	10.0	11.0	—	4.0	4.0	12.0	150.0	6.5	11.5	80.0	11.0	50.0	—	4.0	8.0	50.0	4.0	4.0	11.0	4.0	8.0	50.0
Φ 32B	Max thrust force	OUT	kN	10.9	11.3	4.6	6.9	9.3	16.9	16.9	16.9	9.1	14.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	15.6	16.9	16.9	14.9	16.9	16.9	15.6	16.9	16.9
		IN		8.1	8.4	3.5	5.2	6.9	12.7	12.7	12.7	6.8	11.2	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	11.7	12.7	12.7	11.2	12.7	12.7	11.7	12.7
Φ 32B	Max speed	OUT	mm/sec	17	17	195	195	195	332	332	332	622	622	622	622	1243	1243	1243	2072	2072	2072	2901	2901	2901	622	1658	2072	2901	2901	2901
		IN		22	22	259	259	259	442	442	442	829	829	829	829	829	1658	1658	1658	2763	2763	2763	3868	3868	3868	829	2210	2763	3868	3868
Φ 40B	Max thrust force	OUT	kN	17.0	17.6	7.2	10.8	14.5	26.4	26.4	26.4	14.1	23.3	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	24.3	26.4	26.4	23.3	26.4	26.4	24.3	26.4	26.4
		IN		11.7	12.1	5.0	7.4	9.9	18.1	18.1	18.1	9.7	16.0	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	16.7	18.1	18.1	16.0	18.1	18.1	16.7	18.1
Φ 40B	Max speed	OUT	mm/sec	11	11	125	125	125	212	212	212	398	398	398	398	796	796	796	1326	1326	1326	1857	1857	1857	398	1061	1326	1857	1857	1857
		IN		15	15	181	181	181	309	309	309	580	580	580	580	580	1159	1159	1159	1932	1932	1932	2705	2705	2705	580	1546	1932	2705	2705
Φ 50B	Max thrust force	OUT	kN	26.5	27.5	11.3	16.9	22.6	41.2	41.2	41.2	22.1	36.4	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	38.0	41.2	41.2	36.4	41.2	41.2	38.0	41.2	41.2
		IN		18.2	18.9	7.8	11.6	15.5	28.3	28.3	28.3	15.2	25.0	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	26.1	28.3	28.3	25.0	28.3	28.3	26.1	28.3
Φ 50B	Max speed	OUT	mm/sec	7	7	80	80	80	136	136	136	255	255	255	255	509	509	509	849	849	849	1188	1188	1188	255	679	849	1188	1188	1188
		IN		10	10	116	116	116	198	198	198	371	371	371	371	371	742	742	742	1237	1237	1237	1731	1731	1731	371	989	1237	1731	1731
Φ 63B	Max thrust force	OUT	kN	42.1	43.6	17.9	26.9	35.9	65.5	65.5	65.5	35.1	57.8	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	60.4	65.5	65.5	57.8	65.5	65.5	60.4	65.5	65.5
		IN		28.7	29.8	12.2	18.4	24.5	44.7	44.7	44.7	23.9	39.4	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	41.2	44.7	44.7	39.4	44.7	44.7	41.2	44.7
Φ 63B	Max speed	OUT	mm/sec	4	4	50	50	50	86	86	86	160	160	160	160	321	321	321	535	535	535	749	749	749	160	428	535	749	749	749
		IN		6	6	74	74	74	125	125	125	235	235	235	235	235	470	470	470	783	783	783	1097	1097	1097	235	627	783	1097	1097
Φ 80B	Max thrust force	OUT	kN	67.9	70.4	28.9	43.4	57.8	105.6	105.6	105.6	56.6	93.2	105.6	105.6	105.6	105.6	105.6	105.6	105.6	105.6	97.4	105.6	105.6	93.2	105.6	105.6	97.4	105.6	105.6
		IN		46.4	48.1	19.8	29.7	39.5	72.2	72.2	72.2	38.7	63.7	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	66.6	72.2	72.2	63.7	72.2	72.2	66.6	72.2
Φ 80B	Max speed	OUT	mm/sec	3	3	31	31	31	53	53	53	99	99	99	99	199	199	199	332	332	332	464	464	464	99	265	332	464	464	464
		IN		4	4	46	46	46	78	78	78	146	146	146	146	146	291	291	291	485	485	485	679	679	679	146	388	485	679	679
Φ 100B	Max thrust force	OUT	kN	106.1	110.0	45.2	67.8	90.4	164.9	164.9	164.9	88.4	145.6	164.9	164.9	164.9	164.9	164.9	164.9	164.9	164.9	152.2	164.9	164.9	145.6	164.9	164.9	152.2	164.9	164.9
		IN		72.8	75.5	31.0	46.5	62.0	113.2	113.2	113.2	60.7	99.9	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	104.4	113.2	113.2	99.9	113.2	113.2	104.4	113.2
Φ 100B	Max speed	OUT	mm/sec	2	2	20	20	20	34	34	34	64	64	64	64	127	127	127	212	212	212	297	297	297	64	170	212	297	297	297
		IN		2	2	29	29	29	49	49	49	93	93	93	93	93	185	185	185	309	309	309	433	433	433	93	247	309	433	433
Φ 125B	Max thrust force	OUT	kN	165.8	171.8	70.6	105.9	141.2	257.7	257.7	257.7	138.1	227.4	257.7	257.7	257.7	257.7	257.7	257.7	257.7	257.7	237.8	257.7	257.7	227.4	257.7	257.7	237.8	257.7	257.7
		IN		152.4	157.9	64.9	97.4	129.8	236.9	236.9	236.9	127.0	209.1	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	218.6	236.9	236.9	209.1	236.9	236.9	218.6	236.9
Φ 125B	Max speed	OUT	mm/sec	1	1	13	13	13	22	22	22	41	41	41	41	81	81	81	136	136	136	190	190	190	41	109	136	190	190	190
		IN		1	1	14	14	14	24	24	24	44	44	44	44	44	89	89	89	148	148	148	207	207	207	44	118	148	207	207
Φ 140B	Max thrust force	OUT	kN	207.9	215.5	88.6	132.9	177.2	323.3	323.3	323.3	173.3	285.3	323.3	323.3	323.3	323.3	323.3	323.3	323.3	323.3	298.3	323.3	323.3	285.3	323.3	323.3	298.3	323.3	323.3
		IN		140.0	145.1	59.7	89.5	119.3	217.7	217.7	217.7	116.7	192.1	217.7	217.7	217.7	217.7	217.7	217.7	217.7	217.7	217.7	200.9	217.7	217.7	192.1	217.7	217.7	200.9	217.7
Φ 140B	Max speed	OUT	mm/sec	1	1	10	10	10	17	17	17	32	32	32	32	65	65	65	108	108	108	152	152	152	32	87	108	152	152	152
		IN		1	1	15	15	15	26	26	26	48	48	48	48	48	96	96	96	161	161	161	225	225	225	48	129	161	225	225
Φ 160B	Max thrust force	OUT	kN	271.6	281.5	115.7	173.5	231.4	422.2	422.2	422.2	226.3	372.6	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	389.6	422.2	422.2	372.6	422.2	422.2	389.6	422.2	422.2
		IN		185.7	192.4	79.1	118.6	158.2	288.6	288.6	288.6	154.7	254.7	288.6	288.6	288.6	288.6	288.6	288.6	288.6	288.6	288.6	266.3	288.6	288.6	254.7	288.6	288.6	266.3	288.6
Φ 160B	Max speed	OUT	mm/sec	1	1	8	8	8	13	13	13	25	25	25	25	50	50	50	83	83	83	116	116	116	25	66	83	116	116	116
		IN		1	1	11	11	11	19	19	19	36	36	36	36	36	73	73	73	121	121	121	170	170	170	36	97	121	170	170

- ② DDV Main frame color: Opton stand color (free of charge) : S Custom color (On-charge) : C  
Standard color is grey (color code No. DIC-514 by Japan Paint Manufacturers Association)  
For other color, the code number of this association or color sample needs be presented to Oton.
- ③ Direction of the motor terminals: Option (at free cost) : Up (standard) : S Right(R) or Left (L) in view from discharging port : Standard is "upward" (S). Rightward (R) or Leftward(L) is also available upon request.
- ④ Oil level gauge: Option (at free cost) : Right (Standard) or Left (L) in view from discharging port : Standard is Right (S). Left (L) is also available upon request.
- ⑤ Hydraulic oil: Sludgeless hydraulic oil ISO 32 (at free of charge) : S Hydrogrecole : W and other types (on-charge) : A Standard is the sludgeless oil #32. (S) Specify W for hydrogrecole or brand name and code for other type (A).
- ⑥ Power cable for motor: Nil=0 3m=3 5m=5 10m=10 20m=20 30m=30 free length m= ie.,2.5 (all length at on-charge basis) Standard is "nil". Specify if needed the length between motor and servo pack inside the power board.
- ⑦ ECD cable for motor: Nil=0 3m=3 5m=5 10m=10 20m=20 30m=30 free-m=ie2.5 (all length at on-charge basis) Standard is "nil". Specify if needed the length between motor ECD and servo pack inside the power board
- ⑧ PC interface cable: Nil: S Yes: A (on-charge) No supply for "Nil". Ask us if need.
- ⑨ PP board: Nil: S Yes: A (on-charge) No supply for "Nil". Helpful as the direct interfaceto sequencer for DDV control of position and pressure control by sequencer.
- ⑩ PP board cable: Nil: S Yes: A (on-charge) No supply for "Nil". Especial cable to interface the PP board to the amplifier.
- ⑪ PPボード operation terminal: Nil=0 0.5m=0.5 1m=1 3m=3( All lengths at on-charge. No supply for "Nil". Pendant box for changing PP board parameter change. Specify the length needed on order.

: Upon the type of DDV being found, refer the above table A-1 item ①~⑪ for selection specification needed, and fill the space below

●DDV総合型式 ① - ② - ③ - ④ - ⑤ - ⑥ - ⑦ - ⑧ - ⑨ - ⑩ - ⑪