

Slow Speed Shaft Direction	
Horizontal, slow speed shaft level	H
Vertical, slow speed shaft down	V
Vertical, slow speed shaft up	W
Universal mounting	N

Mounting style	
Foot	H
V flange	V
Flange	F

Type of Input	
Gearmotor	M
With adaptor	JM

Special Specifications	
Standard specification	blank
Special specification	S

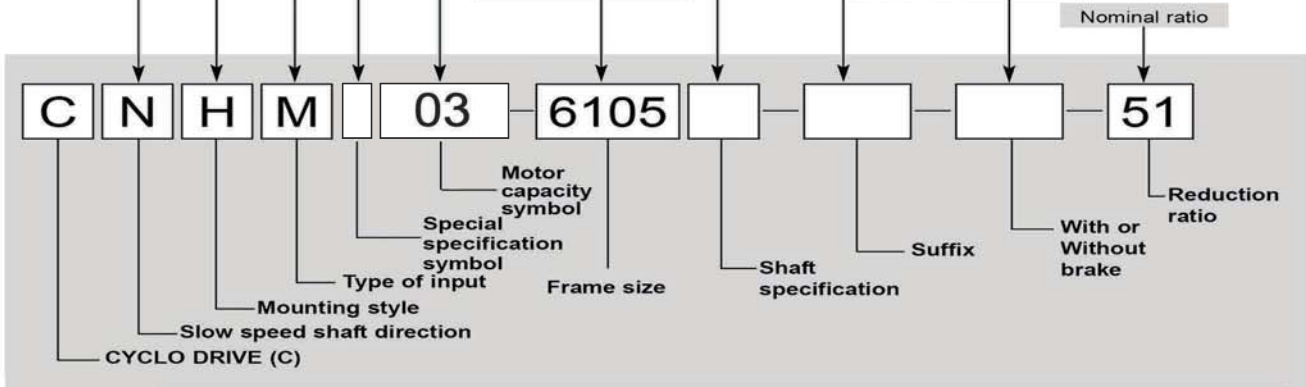
		Motor Capacity Symbol						
4P	Capacity symbol	01	02	03	05	08	1	
	kW (HP)	0.1 (1/8)	0.2 (1/4)	0.25 (1/3)	0.4 (1/2)	0.55 (3/4)	0.75 (1)	
	Capacity symbol	1H	2	3	4	5	8	
	kW (HP)	1.1 (1.5)	1.5 (2)	2.2 (3)	3.0 (4)	3.7 (5)	5.5 (7.5)	
	Capacity symbol	10	15	20	25	30	40	
	kW (HP)	7.5 (10)	11 (15)	15 (20)	18.5 (25)	22 (30)	30 (40)	
6P	Capacity symbol	50	60	75	100			
	kW (HP)	37 (50)	45 (60)	55 (75)	75 (100)			
	Capacity symbol	016	026	036	056	086	16	
	kW (HP)	0.1 (1/8)	0.2 (1/4)	0.25 (1/3)	0.4 (1/2)	0.55 (3/4)	0.75 (1)	
	Capacity symbol	1H6	26	36	46	56	86	
	kW (HP)	1.1 (1.5)	1.5 (2)	2.2 (3)	3.0 (4)	3.7 (5)	5.5 (7.5)	
6P	Capacity symbol	106	156	206	256	306	406	
	kW (HP)	7.5 (10)	11 (15)	15 (20)	18.5 (25)	22 (30)	30 (40)	
	Capacity symbol	506	606	756	1006	1256	1506	
	kW (HP)	37 (50)	45 (60)	55 (75)	75 (100)	90 (125)	110 (150)	
	Capacity symbol	1756						
	kW (HP)	132 (175)						

Shaft specification	
Metric JIS (Standard)	-
Inch size	Y
Metric DIN	G

Suffix		
Standard	-	Low Backlash
Light Heavy Radial	R1	With AF (inverter) motor
High Cap. Brg. Ductile Casing	R2	Servo Motor
Baseplate	BP	DC Motor
HH Type Ceiling	H1	High Efficiency Motor
Modification Left Wall	H2	Torque Limiter
Modification Right Wall	H3	

With or Without Brake	
Without brake	-
With brake	B

Frame size
(Refer to Selection
Tables starting from
page B-13.)

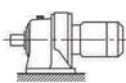


Product and Nomenclature Symbol Examples (Gearmotor)

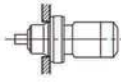
Standard and various application products of CYCLO GEARMOTOR are classified by their nomenclature symbol as below. Refer to specific catalogs or consult us for details on our application products.

CYCLO® GEARMOTORS

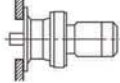
CHHM
(CNHM)



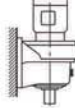
CHFM
(CNFM)



CHVM
(CNVM)



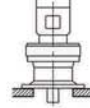
CVHM
(CNHM)



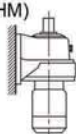
CVFM
(CNFM)



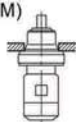
CVVM
(CNVM)



CWHM
(CNHM)



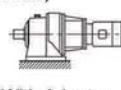
CWFM
(CNFM)



CWVM
(CNVM)

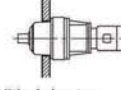


CHHJM
(CNHJM)



With Adaptor

CHFJM
(CNFJM)



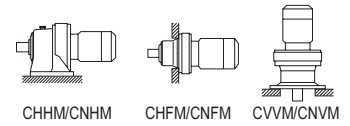
With Adaptor

CVVJM
(CNVJM)



With Adaptor

Selection Tables Gearmotors #CNHM03, #CHHM03, #CNVM03, #CVVM03

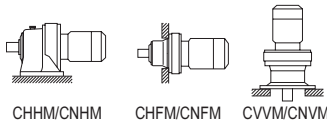


0.25 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n ₁	r/min	1450	980	1750	1165

50Hz						60Hz						Nomenclature			Page of Dimension Sheet				
Output Speed n ₂	Output Torque Tout		Allowable Radial Load Pro		SF	Output Speed n ₂	Output Torque Tout		Allowable Radial Load Pro		SF	Input Capacity Symbol	Frame Size	Reduction Ratio	CNHM CHHM	CNFM CHFM	CNVM CVVM		
r/min	N·m	kgf·m	N	kgf		r/min	N·m	kgf·m	N	kgf									
242	9.39	0.957	795	81.1	1.14	292	7.78	0.793	749	76.3	1.14	03 -	6065	-	6	B-100	B-116	B-135	
			1390	141	1.39				1310	133	1.39		6070	-	6	B-100	B-116	B-135	
			1390	141	1.63				1310	133	1.63		6075	-	6	B-100	B-116	B-135	
			1930	197	2.37				1810	185	2.37		6080	-	6	B-100	B-116	B-135	
181	12.5	1.28	908	92.5	1.14	219	10.4	1.06	855	87.2	1.14	03 -	6065	-	8	B-100	B-116	B-135	
			1530	156	1.39				1450	147	1.39		6070	-	8	B-100	B-116	B-135	
			1530	156	1.63				1450	147	1.63		6075	-	8	B-100	B-116	B-135	
			2090	213	2.37				1970	201	2.37		6080	-	8	B-100	B-116	B-135	
132	17.2	1.75	1180	120	1.14	159	14.3	1.45	1160	118	1.14	03 -	6065	-	11	B-100	B-116	B-135	
			1720	175	1.39				1620	165	1.39		6070	-	11	B-100	B-116	B-135	
			1720	175	1.63				1620	165	1.63		6075	-	11	B-100	B-116	B-135	
			2310	236	2.37				2180	222	2.37		6080	-	11	B-100	B-116	B-135	
112	20.3	2.07	1180	120	1.14	135	16.8	1.72	1180	120	1.14	03 -	6065	-	13	B-100	B-116	B-135	
			1770	180	1.39				1710	174	1.39		6070	-	13	B-100	B-116	B-135	
			1770	180	1.63				1710	174	1.63		6075	-	13	B-100	B-116	B-135	
			2490	254	2.37				2340	239	2.37		6080	-	13	B-100	B-116	B-135	
96.7	23.5	2.39	1180	120	1.14	117	19.4	1.98	1180	120	1.14	03 -	6065	-	15	B-100	B-116	B-135	
			1770	180	1.39				1720	175	1.39		6070	-	15	B-100	B-116	B-135	
			1770	180	1.63				1720	175	1.63		6075	-	15	B-100	B-116	B-135	
			2560	261	2.37				2420	247	2.37		6080	-	15	B-100	B-116	B-135	
85.3	26.6	2.71	1180	120	1.13	103	22.0	2.25	1180	120	1.14	03 -	6065	-	17	B-100	B-116	B-135	
			1770	180	1.39				1770	180	1.39		6070	-	17	B-100	B-116	B-135	
			1770	180	1.63				1770	180	1.63		6075	-	17	B-100	B-116	B-135	
			2560	261	2.37				2540	258	2.37		6080	-	17	B-100	B-116	B-135	
69.0	32.8	3.35	1180	120	0.91	83.3	27.2	2.77	1180	120	0.94	03 -	6065	-	21	B-100	B-116	B-135	
			1770	180	1.28				1770	180	1.28		03 -	6070	-	21	B-100	B-116	B-135
			1770	180	1.63				1770	180	1.63		6075	-	21	B-100	B-116	B-135	
			2560	261	1.91				2470	252	1.91		6080	-	21	B-100	B-116	B-135	
58.0	39.1	3.99	1770	180	1.18	70.0	32.4	3.30	1770	180	1.18	03 -	6075	-	25	B-100	B-116	B-135	
			2560	261	1.36				2540	259	1.36		6080	-	25	B-100	B-116	B-135	
			2560	261	1.90				2540	259	1.90		6085	-	25	B-100	B-116	B-135	
			3340	340	2.68				3340	340	2.68		6090	-	25	B-100	B-116	B-135	
50.0	45.4	4.62	1770	180	1.14	60.3	37.6	3.83	1770	180	1.14	03 -	6075	-	29	B-100	B-116	B-135	
			2560	261	1.36				2560	261	1.36		6080	-	29	B-100	B-116	B-135	
			2560	261	1.87				2560	261	1.87		6085	-	29	B-100	B-116	B-135	
			3340	340	2.50				3340	340	2.50		6090	-	29	B-100	B-116	B-135	
41.4	54.7	5.58	1770	180	1.09	50.0	45.4	4.62	1770	180	1.12	03 -	6075	-	35	B-100	B-116	B-135	
			2560	261	1.16				2560	261	1.32		6080	-	35	B-100	B-116	B-135	
			2560	261	1.31				2560	261	1.48		6085	-	35	B-100	B-116	B-135	
			3340	340	2.45				3340	340	2.45		6090	-	35	B-100	B-116	B-135	
33.7	67.3	6.86	1500	152	0.89	40.7	55.7	5.68	1740	178	0.90	03 -	6075	-	43	B-100	B-116	B-135	
			2560	261	1.00				2560	261	1.00		03 -	6080	-	43	B-100	B-116	B-135
			2560	261	1.18				2560	261	1.18		6085	-	43	B-100	B-116	B-135	
			3340	340	1.74				3340	340	1.74		6090	-	43	B-100	B-116	B-135	
28.4	79.8	8.13	2490	253	0.96	34.3	66.1	6.74	2560	261	0.96	03 -	6085	-	51	B-100	B-116	B-135	
			3340	340	1.33				3340	340	1.33		6090	-	51	B-100	B-116	B-135	
			3340	340	1.63				3340	340	1.69		6095	-	51	B-100	B-116	B-135	
			5400	550	2.24				5400	550	2.24		6100	-	51	B-101	B-117	B-136	
24.6	92.3	9.41	2390	244	0.94	29.7	76.5	7.79	2540	259	0.94	03 -	6085	-	59	B-100	B-116	B-135	
			3340	340	1.24				3340	340	1.24		03 -	6090	-	59	B-100	B-116	B-135
			3340	340	1.34				3340	340	1.49		6095	-	59	B-100	B-116	B-135	
			5400	550	2.06				5400	550	2.06		6100	-	59	B-101	B-117	B-136	
			5400	550	2.72				5400	550	2.83	03 -	6105	-	59	B-101	B-117	B-136	

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n₁ and n₂. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

Selection Tables Gearmotors #CNHM03, #CHHM03, #CNVM03, #CVVM03



0.25 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n ₁	r/min	1450	980	1750	1165

n₁: Motor Speed

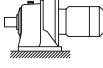
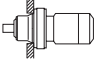

50Hz					60Hz					Nomenclature			Page of Dimension Sheet							
Output Speed n ₂ r/min	Output Torque Tout N·m kgf·m		Allowable Radial Load Pro N kgf		SF	Output Speed n ₂ r/min	Output Torque Tout N·m kgf·m		Allowable Radial Load Pro N kgf		SF	Input Capacity Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM			
															CHHM	CHFM	CVVM			
20.4	111	11.3	3340	340	1.01	24.6	92	9.4	3340	340	1.01	03 -	6090	- 71	B-100	B-116	B-135			
			3340	340	1.11				3340	340	1.20				03 -	6095	- 71	B-100	B-116	B-135
			5400	550	1.74				5400	550	1.74				03 -	6100	- 71	B-101	B-117	B-136
			5400	550	2.02				5400	550	2.24				03 -	6105	- 71	B-101	B-117	B-136
16.7	136	13.9	3340	340	1.05	20.1	113	11.5	3340	340	1.20	03 -	6095	- 87	B-100	B-116	B-135			
			5400	550	1.73				5400	550	1.73				03 -	6100	- 87	B-101	B-117	B-136
			5400	550	2.01				5400	550	2.26				03 -	6105	- 87	B-101	B-117	B-136
			3340	340	1.17				3340	340	1.42				03 -	6095DA	- 104	B-108	B-124	B-143
13.9	154	15.7	5400	550	1.62	16.8	128	13.0	5400	550	1.72	03 -	6100DA	- 104	B-108	B-124	B-143			
			5400	550	1.72				5400	550	1.72				03 -	6105DA	- 104	B-108	B-124	B-143
			3340	340	1.17				3340	340	1.42				03 -	6095DA	- 104	B-108	B-124	B-143
			5400	550	1.62				5400	550	1.72				03 -	6100DA	- 104	B-108	B-124	B-143
12.2	186	19.0	5400	550	1.14	14.7	154	15.7	5400	550	1.14	03 -	6105	- 119	B-101	B-117	B-136			
			3340	340	0.89				3340	340	1.08				03 -	6095DA	- 121	B-108	B-124	B-143
			5400	550	1.39				5400	550	1.68				03 -	6100DA	- 121	B-108	B-124	B-143
			5400	550	1.72				5400	550	1.72				03 -	6105DA	- 121	B-108	B-124	B-143
12.0	179	18.3	5400	550	1.72	14.5	149	15.1	5400	550	1.72	03 -	6105DA	- 121	B-108	B-124	B-143			
			9810	1000	2.93				9810	1000	3.53				03 -	6120DB	- 121	B-108	B-124	B-143
			3340	340	*1				3340	340	*1				03 -	6090DA	- 143	B-108	B-124	B-143
			5400	550	1.18				5400	550	1.42				03 -	6095DA	- 143	B-108	B-124	B-143
10.1	212	21.6	5400	550	1.42	12.2	176	17.9	5400	550	1.71	03 -	6105DA	- 143	B-108	B-124	B-143			
			9810	1000	1.72				9810	1000	1.72				03 -	6120DA	- 143	B-108	B-124	B-143
			9810	1000	2.48				9810	1000	2.99				03 -	6120DB	- 143	B-108	B-124	B-143
			9810	1000	2.97				9810	1000	3.59				03 -	6125DB	- 143	B-108	B-124	B-143
8.79	245	24.9	3340	340	*1	10.6	203	20.7	3340	340	*1	03 -	6095DA	- 165	B-108	B-124	B-143			
			3340	340	0.82				3340	340	0.98				03 -	6095DA	- 165	B-108	B-124	B-143
			5400	550	1.02				5400	550	1.23				03 -	6100DA	- 165	B-108	B-124	B-143
			5400	550	1.23				5400	550	1.48				03 -	6105DA	- 165	B-108	B-124	B-143
7.44	289	29.5	9810	1000	1.72	8.97	239	24.4	9810	1000	1.72	03 -	6120DA	- 165	B-108	B-124	B-143			
			9810	1000	2.15				9810	1000	2.59				03 -	6120DB	- 165	B-108	B-124	B-143
			9810	1000	2.58				9810	1000	3.11				03 -	6125DB	- 165	B-108	B-124	B-143
			14700	1500	2.70				14700	1500	3.26				03 -	6130DB	- 195	B-109	B-125	B-144
6.28	342	34.9	3340	340	*1	7.58	284	28.9	3340	340	*1	03 -	6100DA	- 231	B-108	B-124	B-143			
			4940	504	0.88				5400	550	1.06				03 -	6105DA	- 231	B-108	B-124	B-143
			9810	1000	1.52				9810	1000	1.72				03 -	6120DA	- 231	B-108	B-124	B-143
			9810	1000	1.52				9810	1000	1.84				03 -	6120DB	- 231	B-108	B-124	B-143
5.31	405	41.2	9810	1000	1.84	6.41	335	34.2	9810	1000	1.72	03 -	6125DA	- 231	B-108	B-124	B-143			
			14700	1500	2.28				9810	1000	2.22				03 -	6125DB	- 231	B-108	B-124	B-143
			14700	1500	2.75				14700	1500	2.75				03 -	6130DB	- 231	B-109	B-125	B-144
			14700	1500	2.75				14700	1500	3.31				03 -	6135DB	- 231	B-109	B-125	B-144
5.31	405	41.2	5400	550	*1	6.41	335	34.2	5400	550	*1	03 -	6105DA	- 273	B-108	B-124	B-143			
			9810	1000	1.29				9810	1000	1.56				03 -	6120DA	- 273	B-108	B-124	B-143
			9810	1000	1.56				9810	1000	1.72				03 -	6125DA	- 273	B-108	B-124	B-143
			9810	1000	1.56				9810	1000	1.88				03 -	6125DB	- 273	B-108	B-124	B-143
5.31	405	41.2	14700	1500	1.72	6.41	335	34.2	14700	1500	1.72	03 -	6130DA	- 273	B-109	B-125	B-144			
			14700	1500	1.93				14700	1500	1.72				03 -	6130DB	- 273	B-109	B-125	B-144
			14700	1500	1.93				14700	1500	2.33				03 -	6130DB	- 273	B-109	B-125	B-144
			14700	1500	2.32				14700	1500	2.80				03 -	6135DB	- 273	B-109	B-125	B-144

GEARMOTORS

Selection Tables
0.25 kW

- "*2" indicate models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "*3" indicate models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "*1" in the SF column. They cannot be operated with 100% motor rating.

Selection Tables Gearmotors #CNHM03, #CHHM03, #CNVM03, #CVVM03

0.25 kW		n ₁ : Motor Speed								 CHHM/CNHM  CHFM/CNFM  CVVM/CNVM									
		Hz		50Hz		60Hz													
		P	r/min	4	6	4	6												
		n ₁	r/min	1450	980	1750	1165												
50Hz					60Hz					Nomenclature			Page of Dimension Sheet						
Output Speed n ₂	Output Torque Tout	Allowable Radial Load Pro		SF	Output Speed n ₂	Output Torque Tout	Allowable Radial Load Pro		SF	Input Capacity Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM				
r/min	N·m	kgf·m	N	kgf	r/min	N·m	kgf·m	N	kgf				CHHM	CHFM	CVVM				
4.55	473	48.2	9810	1000	1.10	5.49	392	39.9	9810	1000	1.33	03 - 6120DA	- 319	B-108	B-124	B-143			
			9810	1000	1.33				9810	1000	1.61	03 - 6125DA	- 319	B-108	B-124	B-143			
			14700	1500	1.65				14700	1500	1.72	03 - 6130DA	- 319	B-109	B-125	B-144			
			14700	1500	1.65				14700	1500	1.99	03 - 6130DB	- 319	B-109	B-125	B-144			
			14700	1500	1.72				14700	1500	1.72	03 - 6135DA	- 319	B-109	B-125	B-144			
			14700	1500	1.99				14700	1500	2.40	03 - 6135DB	- 319	B-109	B-125	B-144			
			16000	1630	2.59				16000	1630	3.13	03 - 6140DB	- 319	B-109	B-125	B-144			
16000	1630	2.90	16000	1630	3.50	03 - 6145DB	- 319	B-109	B-125	B-144									
3.85	559	56.9	9810	1000	1.13	4.64	463	47.2	9810	1000	1.36	03 - 6125DA	- 377	B-108	B-124	B-143			
			14700	1500	1.40				14700	1500	1.69	03 - 6130DA	- 377	B-109	B-125	B-144			
			14700	1500	1.68				14700	1500	1.72	03 - 6135DA	- 377	B-109	B-125	B-144			
			14700	1500	1.68				14700	1500	2.03	03 - 6135DB	- 377	B-109	B-125	B-144			
			16000	1630	1.72				16000	1630	1.72	03 - 6140DA	- 377	B-109	B-125	B-144			
			16000	1630	2.19				16000	1630	2.65	03 - 6140DB	- 377	B-109	B-125	B-144			
			16000	1630	2.45				16000	1630	2.96	03 - 6145DB	- 377	B-109	B-125	B-144			
3.07	701	71.5	525	53.5	*1	3.70	581	59.2	525	53.5	*1	03 - 6120DA	- 473	B-108	B-124	B-143			
			9810	1000	0.90				9810	1000	1.08	03 - 6125DA	- 473	B-108	B-124	B-143			
			14700	1500	1.11				14700	1500	1.34	03 - 6130DA	- 473	B-109	B-125	B-144			
			14700	1500	1.34				14700	1500	1.62	03 - 6135DA	- 473	B-109	B-125	B-144			
			16000	1630	1.72				16000	1630	1.72	03 - 6140DA	- 473	B-109	B-125	B-144			
			16000	1630	1.75				16000	1630	2.11	03 - 6140DB	- 473	B-109	B-125	B-144			
			16000	1630	1.95				16000	1630	2.36	03 - 6145DB	- 473	B-109	B-125	B-144			
2.59	828	84.4	630	64.2	*1	3.13	686	70.0	630	64.2	*1	03 - 6125DA	- 559	B-108	B-124	B-143			
			14700	1500	1.13				14700	1500	1.37	03 - 6135DA	- 559	B-109	B-125	B-144			
			16000	1630	1.48				16000	1630	1.72	03 - 6140DA	- 559	B-109	B-125	B-144			
			16000	1630	1.48				16000	1630	1.78	03 - 6140DB	- 559	B-109	B-125	B-144			
			16000	1630	1.65				16000	1630	1.72	03 - 6145DA	- 559	B-109	B-125	B-144			
			16000	1630	1.65				16000	1630	2.00	03 - 6145DB	- 559	B-109	B-125	B-144			
			14700	1500	1.09				14700	1500	1.32	03 - 6135DA	- 649	B-109	B-125	B-144			
2.23	962	98.0	16000	1630	1.27	2.70	797	81.2	16000	1630	1.54	03 - 6140DA	- 649	B-109	B-125	B-144			
			16000	1630	1.42				16000	1630	1.72	03 - 6145DA	- 649	B-109	B-125	B-144			
			780	79.5	*1				2.39	898	91.5	780	79.5	*1	03 - 6130DA	- 731	B-109	B-125	B-144
			14700	1500	0.87							14700	1500	1.05	03 - 6135DA	- 731	B-109	B-125	B-144
16000	1630	1.13	16000	1630	1.36	03 - 6140DA	- 731	B-109				B-125	B-144						
16000	1630	1.26	16000	1630	1.53	03 - 6145DA	- 731	B-109	B-125	B-144									
1.72	940	95.8	14700	1500	*1	2.08	940	95.8	14700	1500	*1	03 - 6135DA	- 841	B-109	B-125	B-144			
			1250	127	16000				1630	1.10	03 - 6145DA	- 841	B-109	B-125	B-144				
			16000	1630	1.10				16000	1630	1.33	03 - 6145DB	- 841	B-109	B-125	B-144			
1.45	1050	107	14700	1500	*1	1.74	1050	107	14700	1500	*1	03 - 6135DA	- 1003	B-109	B-125	B-144			
			1230	125	16000				1630	*1	03 - 6140DA	- 1003	B-109	B-125	B-144				
			1490	152	16000				1630	0.92	03 - 6145DA	- 1003	B-109	B-125	B-144				
1.16	1370	140	15700	1600	*1	1.40	1370	140	15700	1600	*1	03 - 6145DA	- 1247	B-109	B-125	B-144			
0.702	2100	214	22100	2250	*1	0.847	2100	214	22100	2250	*1	03 - 6165DA	- 2065	B-110	B-126	B-145			
0.572	2530	258	29500	3010	*1	0.690	2530	258	29500	3010	*1	03 - 6170DA	- 2537	B-110	B-126	B-145			
0.476	3150	321	29500	3010	*1	0.575	3150	321	29500	3010	*1	03 - 6175DA	- 3045	B-110	B-126	B-145			

- Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
- Motor slippage may affect n₁ and n₂. Refer to technical data for details.
- CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
- Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
- "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.