



HITACHI

Inspire the Next

Hitachi *Neo 100*★ *Premium*

High-Efficiency Motors

Efficiency standard
IEC 60034-30



1. High efficiency, Energy saving

Compare to standard motor, iron core shape is improved and material quality is raised. Motor loss is reduced 20-30% of that of company standard motor.

2. Environment resistance, Long life

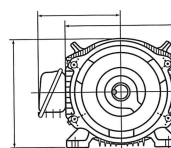
Rational design of electrical component and cooling effect by aluminum frame can lower the coil temperature apprx. from 10 to 20 %. Coil insulator lifetime is almost double compare to standard motor and bearing life is also extended.

3. Same mounting dimensions as standard motors

Interchangeable with standard motor without any re-construction because shaft height is totally same.

4. Inverter drive

Low-loss design allow the inverter operation at constant torque with lower operation speed.



Why different ?

[Iron Loss]

Adopt high-grade electromagnetic steel-plate

[Mechanical Loss]

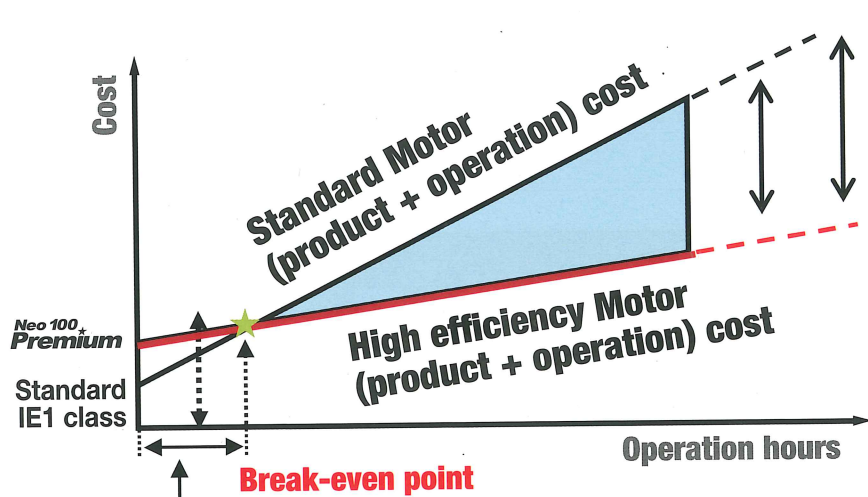
Smaller diameter for cooling fan because of reduced heating

[Stray Load Loss]

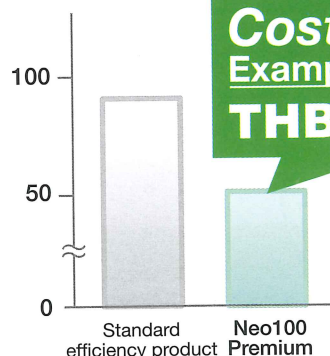
Optimized construction with dedicated design

[Copper Loss]

Adopt lowered loss copper, dedicated density on winding



Difference of motor cost can be compensated by power saving during this period



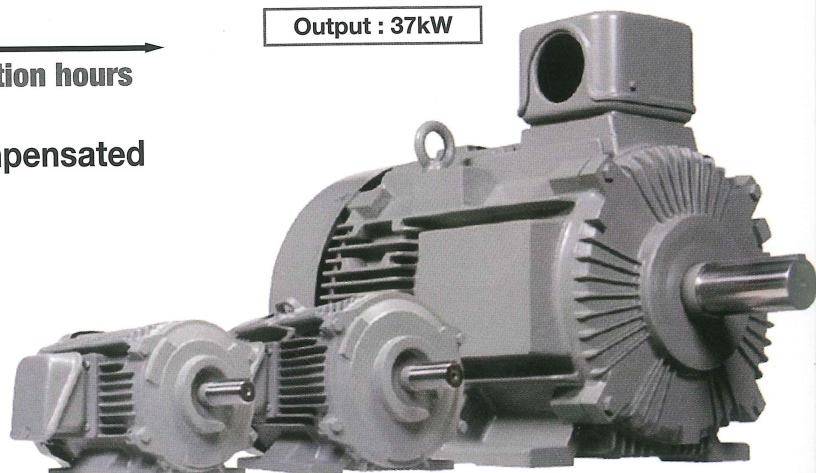
Cost reduction:
Example
THB28,400/year

Conditions :
Annual operation : 3,770 hours
13 hours/day x 290 days/year
Electricity Rate : THB3.6/ kWh

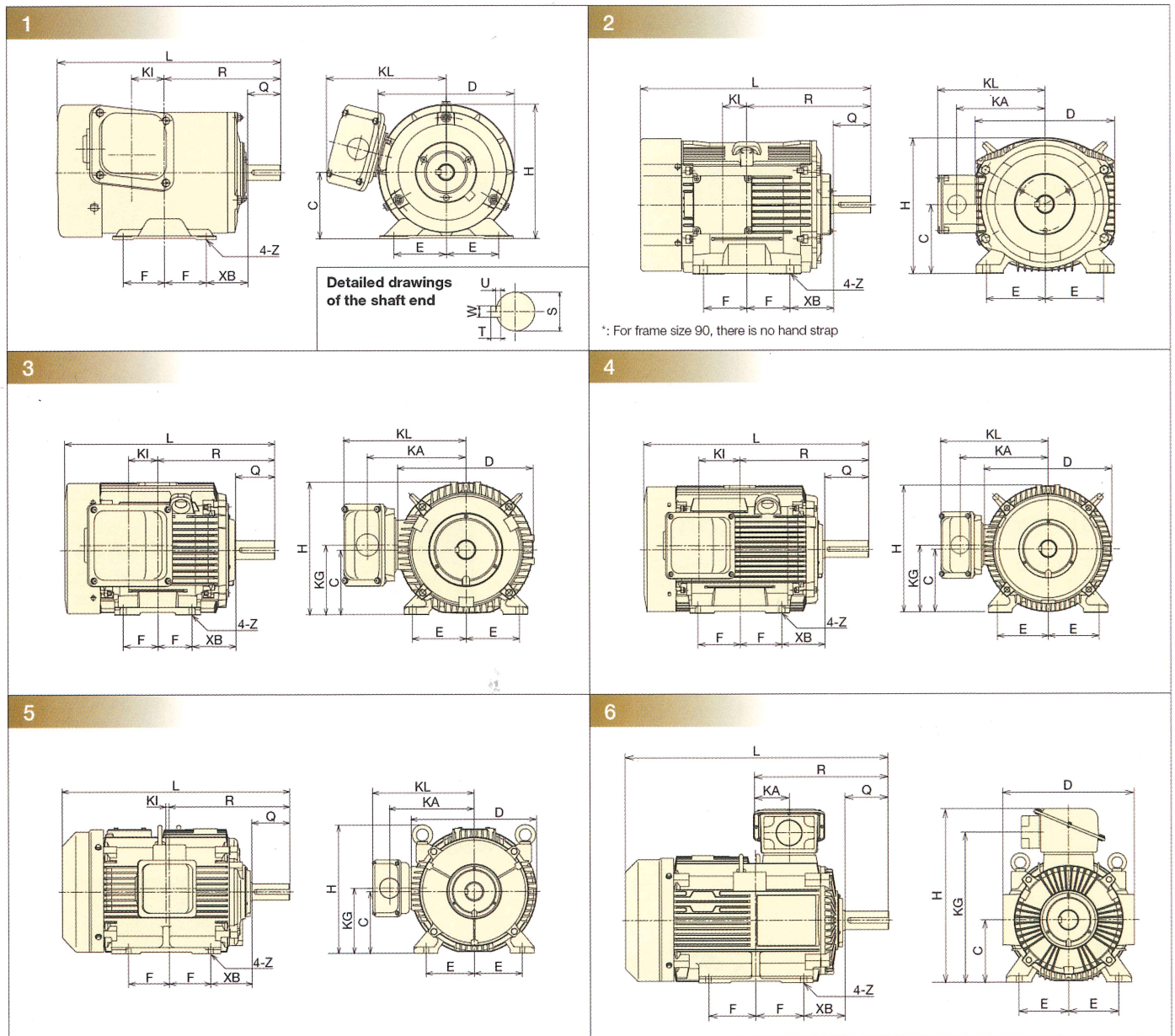


Products in Thailand

Produce at Thailand factory
Kabinburi, Prachinburi
Motor, Gear Motor, Blower,
Breaker, Th Relay, Contactor



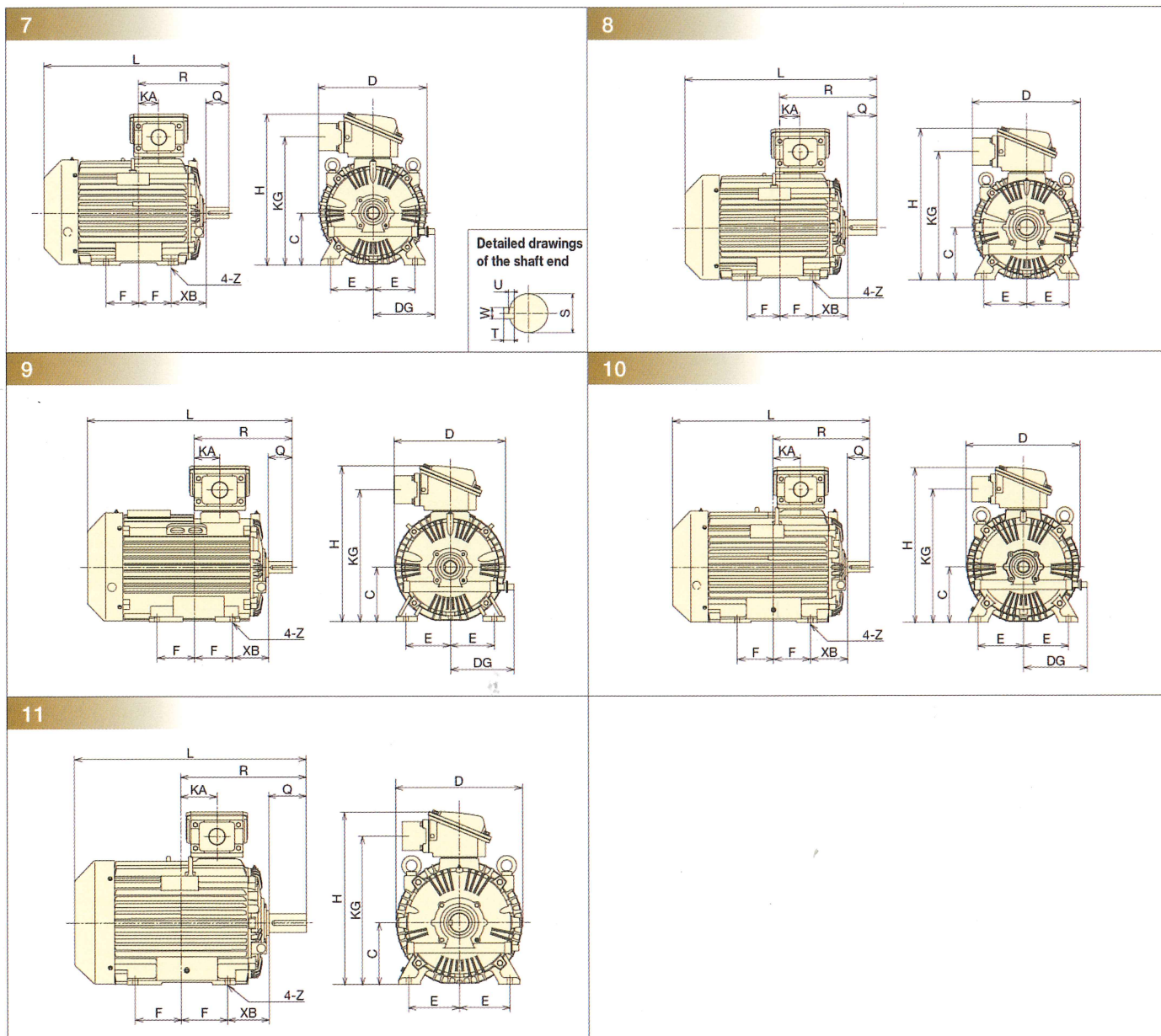
Dimensional Drawings



Frame size	Output (kW)			Fig. No.	Dimensions (mm)																	Approx. weight (kg)				
	2 Poles	4 Poles	6 Poles		L	R	D	KL	KA	KG	KI	H	C	F	E	Z	XB	S	W	U	T	Q	2 Poles	4 Poles	6 Poles	
80M	0.75	—	—	1	268.5	140	163	144	—	—	39.5	161.5	80	0 -0.5	50	62.5	10x25	50	19j6	6	3.5	6	40	12.5	—	—
	—	0.75	—		280.5	—	—	51.5	—	—	51.5		—	—	—	—	—	—	—	—	—	—	—	—	14.5	—
90L	1.5	1.5	0.75	2	31.5	168.5	182	153	123	—	20	178	90	0 -0.5	62.5	70	10	56	24j6	8	4	7	50	17.5	19.5	21
	2.2				35.6	193	198	160	130	—	32	197.5	100	0 -0.5	70	80	12	63	28j6	8	4	7	60	—	29	31.5
100L	—	2.2	1.5	3	37.2	200	225	173	143	—	39	219.5	112	0 -0.5	70	95	12	70	28j6	8	4	7	60	34.5	37.5	40.5
112M	3.7	3.7	2.2		427.5	239	276	248	199.5	142	59	270	132	0 -0.5	70	108	12x14	89	38k6	10	5	8	80	46	57	51
132S	5.5	5.5	3.7	4	465.5	258	276	248	199.5	142	78	270	132	0 -0.5	89	108	12x14	89	38k6	10	5	8	80	—	64	63
	7.5				563	563	320	270	221.5	170	170	320	160	0 -0.5	105	127	14.5x16.5	108	42k6	12	5	8	110	83	92	84
160M	11	11	7.5	5	595	345	320	270	221.5	170	112	320	160	0 -0.5	127	127	14.5x16.5	108	42k6	12	5	8	110	103	109	104
160L	15	15	11		595	345	320	270	221.5	170	112	320	160	0 -0.5	127	127	14.5x16.5	108	42k6	12	5	8	110	103	109	104
180M	22	18.5	15	6	665	351.5	365	295	246.5	190	10	375	180	0 -0.5	120.5	139.5	14.5	121	48k6	14	5.5	9	110	185	195	185
180L	30	30	18.5		738	370.5	365	—	102.5	430	—	505	180	0 -0.5	139.5	139.5	14.5	121	55m6	16	6	10	110	205	235	205
	—	—	22	814	395.5	420	—	107.5	481	—	556	200	0 -0.5	152.5	159	18.5	133	55m6	16	6	10	110	295	320	—	
200LB	37	—	—	7	844	425.5	—	—	107.5	481	—	—	200	0 -0.5	152.5	159	18.5	133	60m6	18	7	11	140	—	325	315
200L	45	37	30		821	402	470	—	108	531	—	606	225	0 -0.5	143	178	18.5	149	55m6	16	6	10	110	370	—	—
	—	45	37	851	432	—	—	108	531	—	—	—	—	—	—	—	—	65m6	18	7	11	140	—	405	415	
225SB	55	—	—	8	851	432	—	—	108	531	—	606	225	0 -0.5	143	178	18.5	149	65m6	18	7	11	140	—	405	415
225S	—	55	45		851	432	—	—	108	531	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Note : Mounting dimensions are the conventional products and compatibility.

Note : Request a dimensional drawing to us for design use because the dimensions may be subject to change.



Frame size	Output (kW)			Fig. No.	Dimensions (mm)																	Approx. weight (kg)		
	2 Poles	4 Poles	6 Poles		L	R	D	DG	KA	KG	H	C	F	E	Z	XB	S	W	U	T	Q	2 Poles	4 Poles	6 Poles
250SB	75	—	—	7	888	433.5	520	294	97.5	613	723	250 ^{0 -0.5}	155.5	203	24	168	55m6	16	6	10	110	570	—	—
250S	—	75	55	8	918	463.5	520	—	97.5	613	723	250 ^{0 -0.5}	155.5	203	24	168	75m6	20	7.5	12	140	—	560	550
250MB1	90	—	—	9	948	452.5	513	294	116.5	608	718	250 ^{0 -0.5}	174.5	203	24	168	55m6	16	6	10	110	575	—	—
250M	—	90	75	8	918	482.5	520	—	116.5	613	723	250 ^{0 -0.5}	174.5	203	24	168	75m6	20	7.5	12	140	—	585	610
280SB	110	—	—	10	993	484	575	324	138	673	783	280 ^{0 -1.5}	184	228.5	24	190	55m6	16	6	10	110	745	—	—
280S	—	110	90	8	1053	544	575	—	138	673	783	280 ^{0 -1.5}	184	228.5	24	190	85m6	22	9	14	170	—	800	815
280MB1	132	—	—	10	1031	509.5	575	324	163.5	673	783	280 ^{0 -1.5}	209.5	228.5	24	190	55m6	16	6	10	110	840	—	—
280M	—	132	—	11	1053	569.5	575	—	163.5	673	783	280 ^{0 -1.5}	209.5	228.5	24	190	85m6	22	9	14	170	—	850	—
280M1	—	—	110		1091	569.5	575	—	163.5	673	783	280 ^{0 -1.5}	209.5	228.5	24	190	85m6	22	9	14	170	—	—	905

Note : Mounting dimensions are the conventional products and compatibility.

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Specifications

**Neo 100
Premium**

Item			Specifications
Standard			JIS C 4213 (Efficiency classes : JIS C 4034-30 : 2011 Premium efficiency class (IE3))
Construction			Totally enclosed fan-cooled (Indoor and outdoor types)
Model	Foot mount	Indoor types	TFO-LK (0.75~3.7kW), TFO-LKK (5.5kW~)
		Outdoor types	TFOA-LK (0.75~3.7kW), TFOA-LKK (5.5kW~)
	Flange mount	Indoor types	VTFO-LK (0.75~3.7kW), VTFO-LKK (5.5kW~)
		Outdoor types	VTFOA-LK (0.75~3.7kW), VTFOA-LKK (5.5kW~)
Number of poles/ Output	2 Poles		0.75~132kW
	4 Poles		0.75~132kW
	6 Poles		0.75~110kW
Heat-resistant class			155 (F)※1
Rating			S1 (Continuous)
Protection			Indoor types : IP44 Outdoor types : IP55
Voltage/Frequency			220V 50/60Hz, 220/230V 60Hz
			2Poles 22kW~, 4Poles 18.5kW~, 6Poles 15kW~220V 50/60Hz, 220/230V 60Hz 400V 50/60Hz, 440/460V 60Hz
Lead wire construction			Terminal block (screwing) : 2 Poles~18.5kW, 4 Poles~15kW, 6 Poles~15kW
			Lug connection : 2 Poles 22kW~, 4 Poles 18.5kW~, 6 Poles 15kW~ ※5.5kW~Available Y – △starting
Number of lead wires			3 : (Terminal block : ~3.7kW) 6 : (5.5kW~) 12 : 2 Poles 22kW~, 4 Poles 18.5kW~, 6 Poles 15kW~
Painting color			Rigail gray (munsell 8.9Y 5.1/0.3)
Transmission system			2 Poles 11kW~: Direct coupling only 2 Poles ~7.5kW and all of 4 Poles ~: Direct or belt coupling
Rotation			Clockwise when viewed from the anti-load side
Environment	Temperature		-30~40°C
	Humidity		95%RH or less
	Altitude		1,000m or less
Atmosphere			No corrosive gas, no explosive gas, no steam, no dew condensation, and little dust

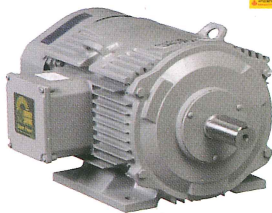
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※1 Temperature rise : Frame size 112M or less class E, Frame size 132S~180M class B

Other Series Line-up

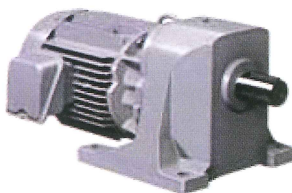
High-Efficiency Motors

Equivalent to IE2 class



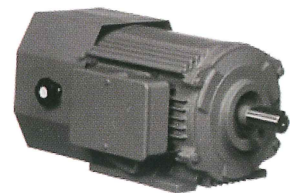
Gear Motors

GA/GP-series (For General load)
Output : 0.2 ~ 11kW 1/5 ~ 1/100



Break Motors

On Break & Off Break model
Break model : HBA, FA, NA
Output : 0.2 ~ 30kW (in case 4 pole)



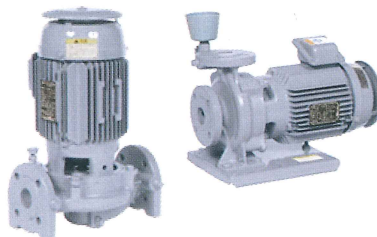
High-Pressure Blowers

Voltex Blower
E-series (Large air flow type)
G-series (High-pressure type)
DN-series (General type)



Water Pumps

JD Type : Circulation Pumps
JL Type : In-line Pumps
Output : 0.25kW ~ 11kW



Authorized Distributor