



HITACHI

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

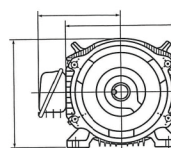
Rational design of electrical component and cooling effect by aluminum frame can lower the coil temperature apprx. from 10 to 20 %. Coil insulator lifetime is almost double compare to standard motor and bearing life is also extended.

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]

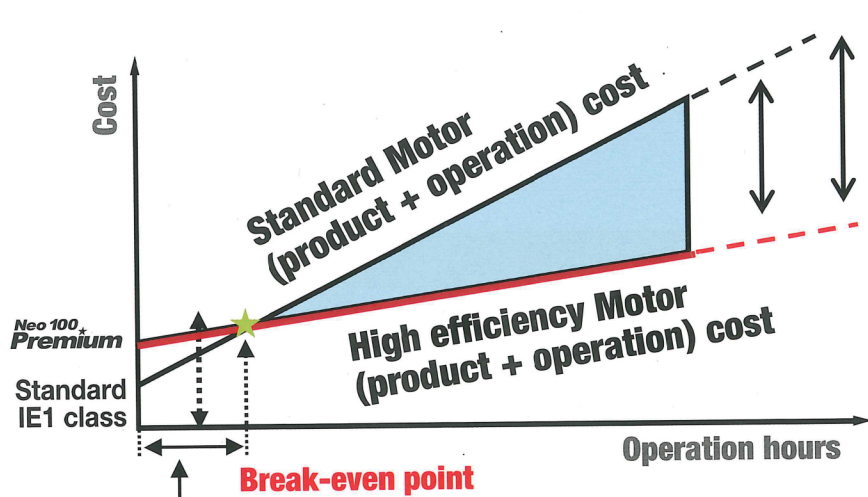
Smaller diameter for cooling fan because of reduced heating

[Stray Load Loss]

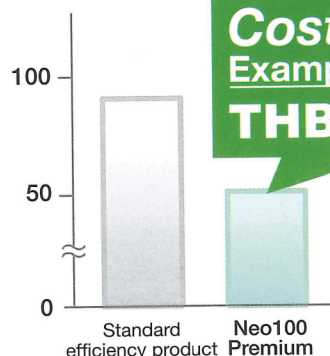
Optimized construction with dedicated design

[Copper Loss]

Adopt lowered loss copper, dedicated density on winding



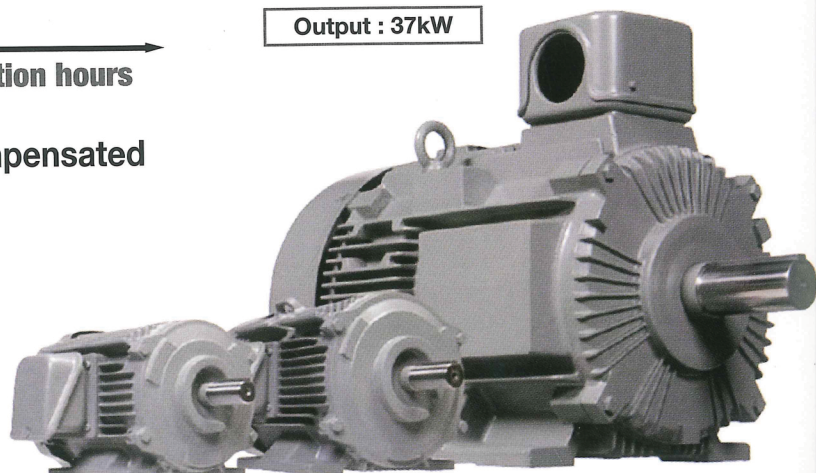
Difference of motor cost can be compensated by power saving during this period



Cost reduction:
Example
THB28,400/year

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

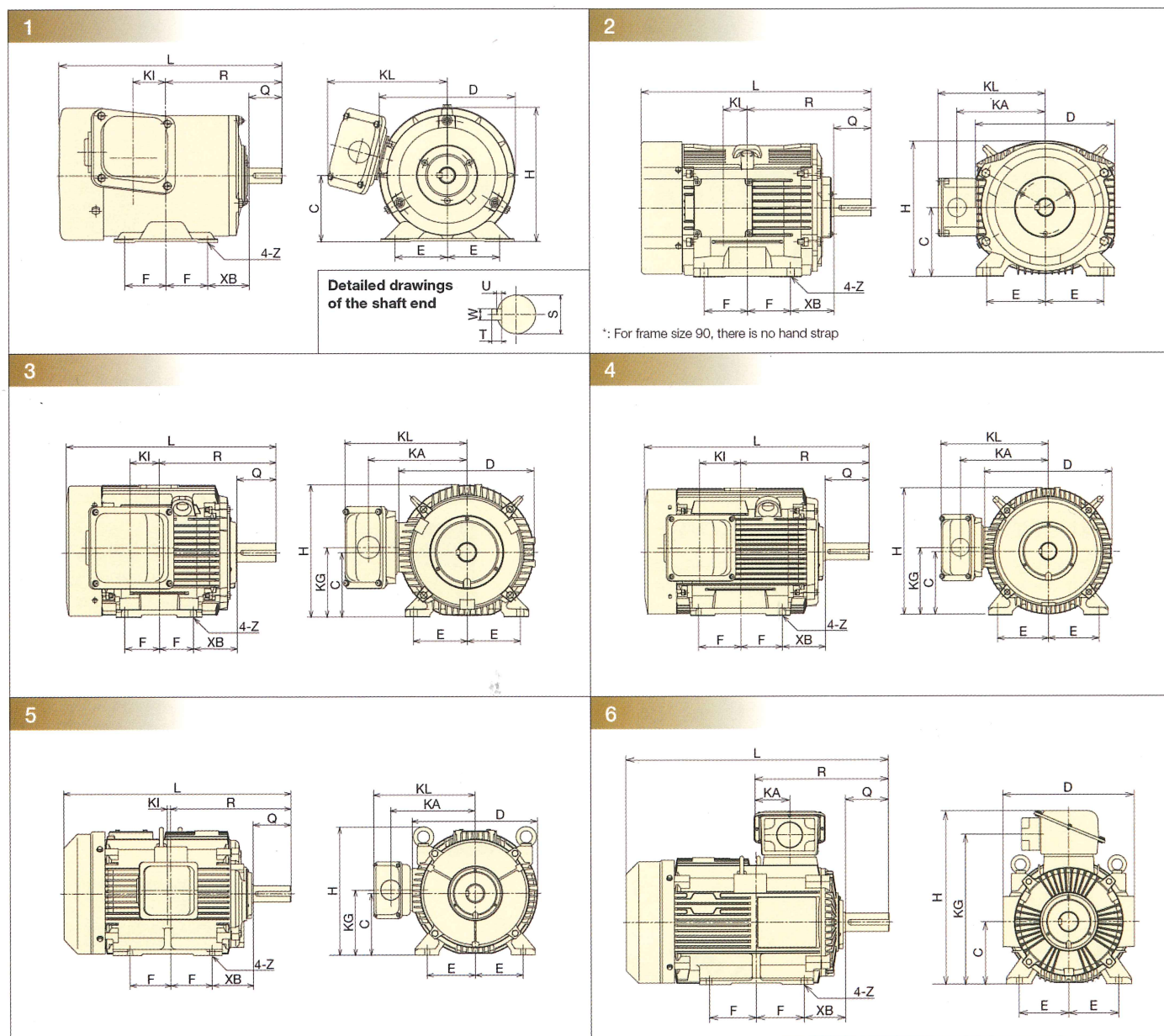
Output : 37kW



Products in Thailand

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

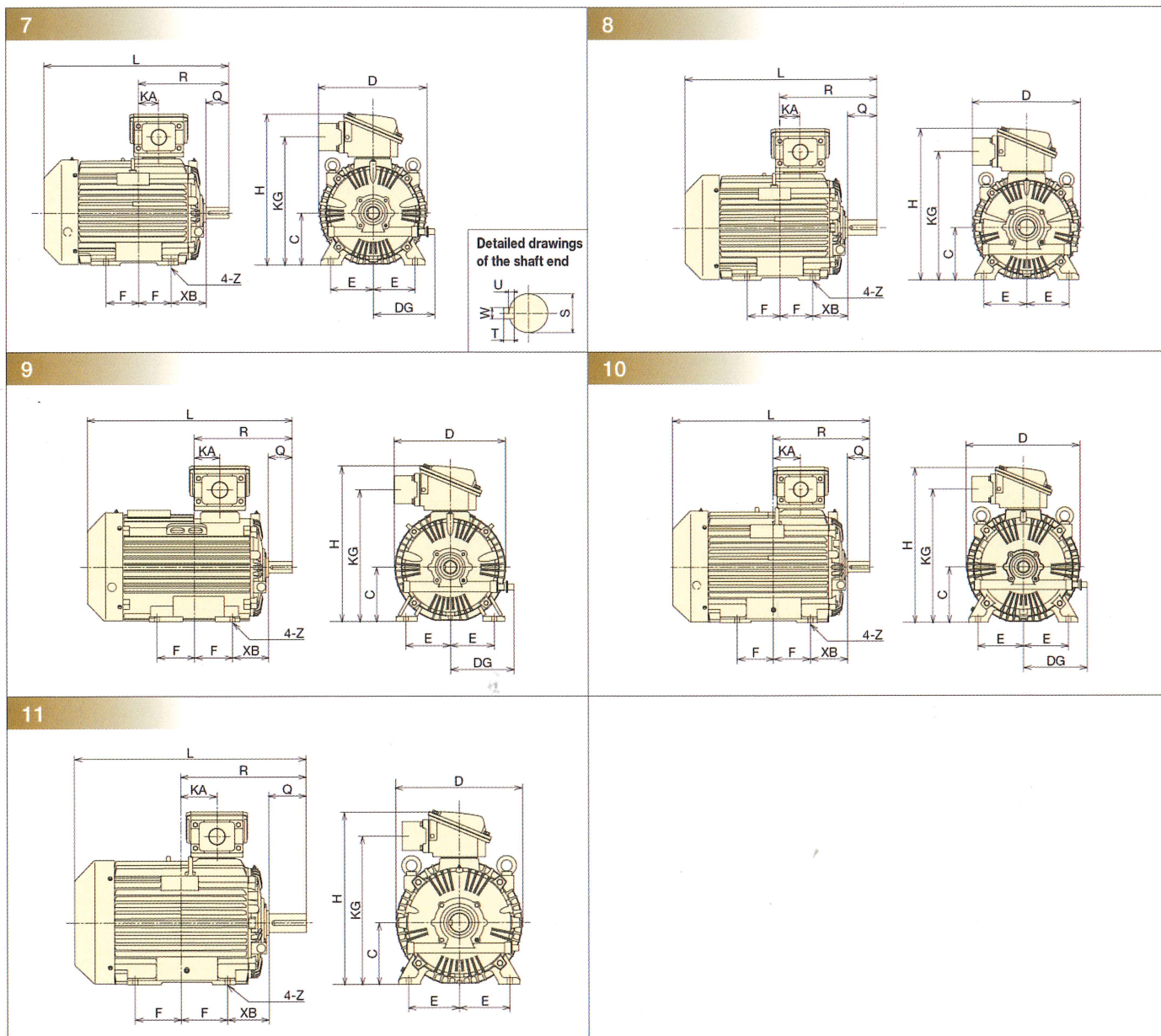
Dimensional Drawings



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	—		—				—	51.5	—		—	—												
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				—				—	21	—															
100L	—	2.2	1.5	3	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
112M	3.7	3.7	2.2		37.2				200	225	173		143	—										39		
132S	5.5	5.5	3.7	3	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
	7.5				—				—	51	—															
132M	—	7.5	5.5	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
160M	11	11	7.5		563				563	320	270		221.5	170										170		
160L	18.5	15	11	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
180M	22	18.5	15		665				351.5	365	295		246.5	190										10		
180L	30	30	18.5	6	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
200LB	37	—	22		814			395.5	—	107.5	481		—	556										200		
200L	—	37	30	6	844	425.5	420	—	107.5	481	—	—	—	—	—	—	—	—	60m6	18	7	11	140	—	325	315
225SB	55	45	37		821			402	—	108	531													—		
225S	—	55	45	6	851	432	470	—	108	531	—	—	—	—	—	—	—	—	65m6	18	7	11	140	—	405	415

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

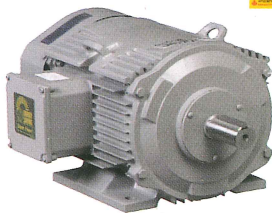
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※1 Temperature rise : Frame size 112M or less class E, Frame size 132S~180M class B

Other Series Line-up

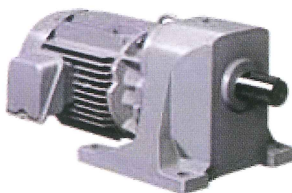
High-Efficiency Motors

Equivalent to IE2 class



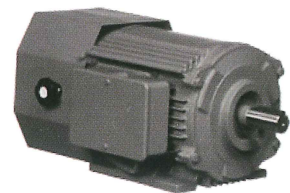
Gear Motors

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)



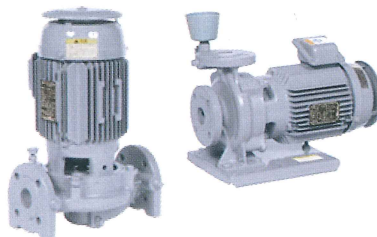
High-Pressure Blowers

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