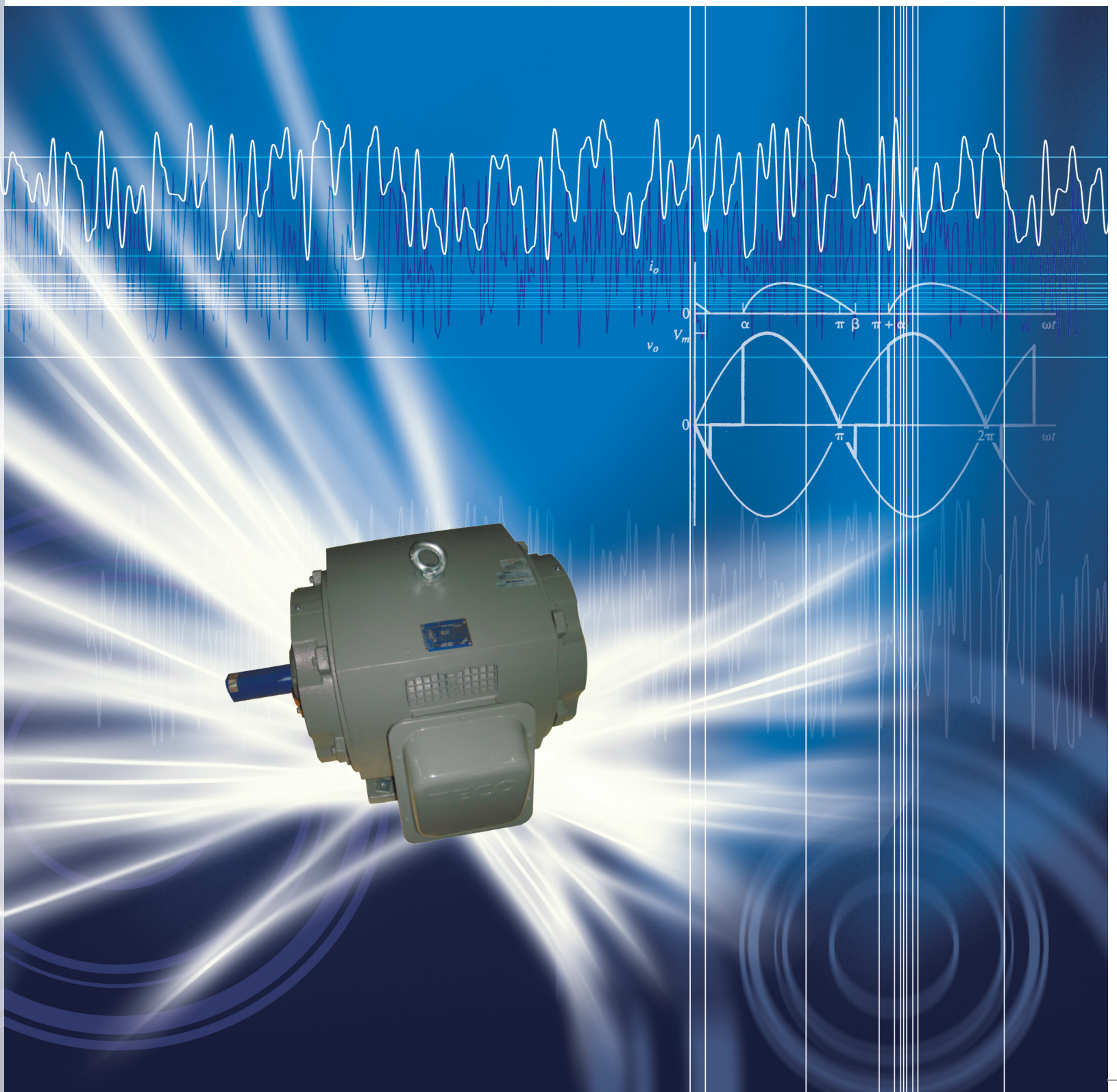




ASHB & ASFB

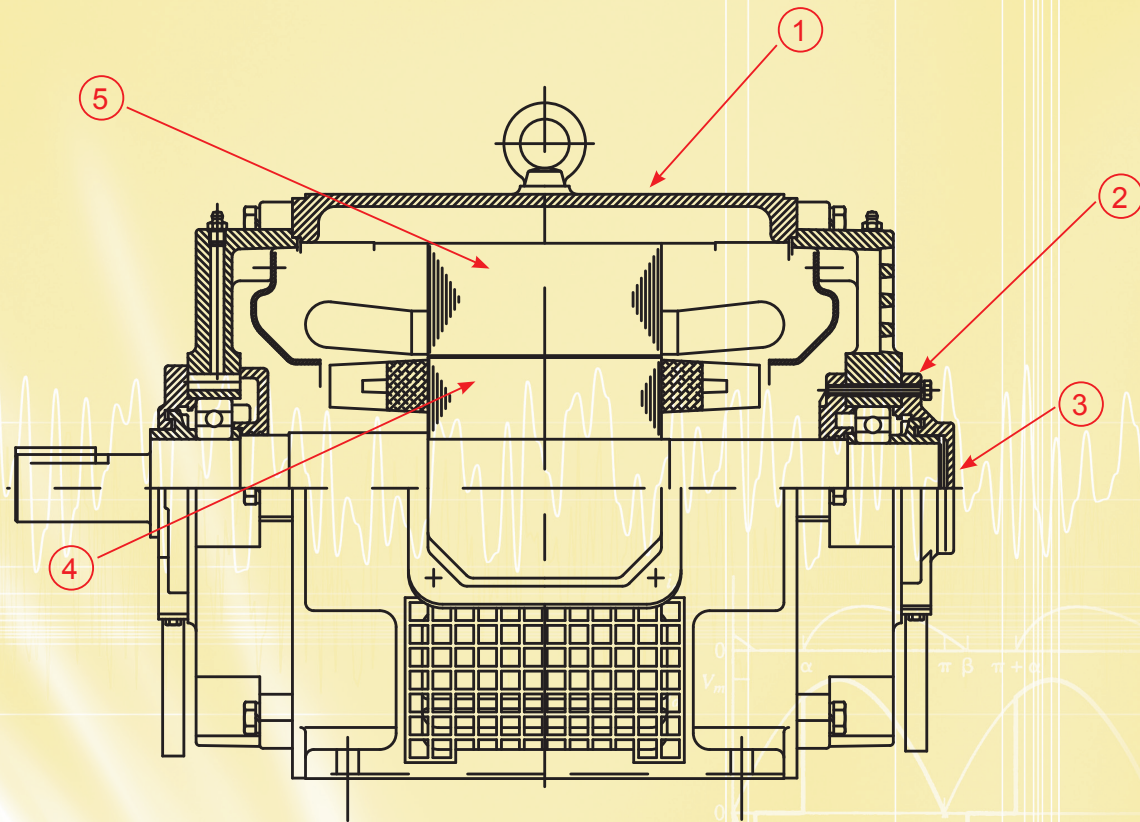
Quality with Real Economy

**British and Australian Standards 415/440 volt 3 phase 50Hz
Frame 160 To 315 Open Dripproof Enclosure**



TECO open drip proof squirrel-cage induction motors are designed, manufactured and tested to meet or exceed latest BS/AS and other international standards, suitable for all general applications, where the use of open machines acceptable. TECO's unique design and versatile engineering background makes TECO motor longer running and less costly.

Open Protected Drip-Proof Type. Squirrel-cage Rotor.



- 1. Frame:** High grade cast-iron frame and end brackets-Distortion free and rigid alignment.
- 2. BEARING:** Grease Pre-Packed or vacuum de-gassed steel bearings- Allow extra overhung load capacities and longer bearing life.
- 3. BEARING CAP (BEARING COVER-OUTER):** Unique designed flinger and bearing cap-to protect bearing against dust and moisture.
- 4. ROTOR:** Dynamically balanced, pressure cast aluminum rotor assembly with integrally cast fans.
- 5. STATOR:** Polyester Film/DMD non-hydroscopic insulation system, meeting or exceeding NEMA and IEEE standards. Maximum protection against heat, corrosion, abrasion and moisture.

● SPECIFICATION TABLE,

Type: ASHB、ASFB

	ITEM	STANDARD SPECIFICATION
R A T I N G	KIND OF MOTOR	SQUIRREL-CAGE INDUCTION MOTOR (SCIM)
	DESIGN STANDARD	IEC 60034, BS 4999 BS 5000, AS 1359, AS 1360
	VOLTAGE	380V, 400V, 415V, 440V
	FREQUENCY	50Hz
	OUTPUT RANGE	ASHB - F#160M~250MC : 7.5kW~110kW F#280SA~315MC : 75~250KW ASFB - F#160M~250MC : 7.5kW~110kW F#280SA ~ 315MC : 55~250kW
	R.P.M. (SYN.)	ASHB : 3000 ~ 1000R.P.M. (2 ~ 6 POLE) ASFB : 3000 ~ 750R.P.M. (2 ~ 8 POLE)
	TIME DUTY	CONTINUOUS, S1 (S.F. 1.0)
	FRAME SIZE (SS)	160M ~ 315MC
	PROTECTION ENCLOSURE	DRIP PROOF (IP 22)
	COOLING METHOD	SELF VENTILATED, INTERIOR COOLING (IC 01)
	MOUNTING	F#160M~250MC : HORIZONTAL FOOT MOUNTING B3 (IM 1001), B35 (IM2001) INTERCHANGEABLE F#280SA~315MC : HORIZONTAL FOOT MOUNTING F-1 (IM 1001), F-1, F-2
A P P L I C A T I O N	POWER CONDITIONS	VOLTAGE : F#160M~250MC : $\pm 10\%$, F#280SA~315MC : $\pm 5\%$ FREQUENCY : $\pm 5\%$, AND $\pm 10\%$ OF COMBINED VOLTAGE AND FREQUENCY, BUT FREQUENCY VARIATION DOES NOT EXCEED $\pm 5\%$.
	ENVIRONMENT CONDITIONS	PLACE : INDOOR, NON-HAZARDOUS AMBIENT TEMPERATURE : $-20 \sim 40^{\circ}\text{C}$ RELATIVE HUMIDITY : LESS THAN 80% RH (NON-CONDENSATION) ALTITUDE : LESS THAN 1000 METERS
	DIRECTION OF ROTATION	CLOCKWISE WHEN FACING THE DRIVE END SIDE AND THE ALPHABETICAL SEQUENCE OF THE TERMINAL LETTERS OF A PHASE GROUP CORRESPONDS WITH THE TIME SEQUENCE OF THE TERMINAL VOLTAGES
	METHOD OF STARTING	FULL VOLTAGE DIRECT-ON-LINE OR Y - Δ STARTING
	FRAME	HIGH GRADE CAST IRON
C O N S T R U C T I O N	END BRACKET	HIGH GRADE CAST IRON
	INTERNAL FAN	INTEGRALLY CAST ALUMINUM BLADES
	SHAFT	CARBON STEEL, CYLINDRICAL SINGLE EXTENSION WITH KEYWAY AND KEY
	BEARING	F#160M~250MC : BRACKET MOUNTING, VACUUM DE-GASSED HIGH QUALITY OPEN BEARINGS
		F#280SA~315MC : BRACKET MOUNTING, VACUUM DE-GASSED HIGH QUALITY ROLLING BEARINGS WITH REGREASE PROVISIONS
	LUBRICANT	MINERAL OIL, LI-BASE GREASE - F#160M~250MC : MULTEMP SRL F#280SA~315MC : SHELL ALVANIA R3
	SHAFT FLINGER	METAL FLINGERS ON BOTH ENDS

● SPECIFICATION TABLE,

Type: ASHB 、 ASFB

	ITEM	STANDARD SPECIFICATION
C O N S T R U C T I O N	TERMINAL HOUSING	STEEL PLATE, LARGER SIZE, CAN BE ROTATED EACH 90° STEP, AT
		RIGHT HAND SIDE FACING THE DRIVE END IS STANDARD, WHICH CAN
		CHANGE TO LEFT HAND SIDE
	LEAD TERMINAL	6 LEADS, WITH SOLDERLESS LUG TERMINALS
	IRON CORE	HIGH GRADE, INSULATED, COLD-ROLLED ELECTRO-MAGNETIC STEEL
		PLATE
	STATOR WINDING	RANDOM WOUND WITH HEAVY BUILT, HEAT RESISTANT POLYESTER,
		ENAMELED COPPER WIRE
	STATOR INSULATION	CLASS F INSULATION SYSTEM
	VARNISH TREATMENT	SPECIAL HEAT RESISTANT PHENOL ALKYD VARNISH
	ROTOR WINDING	SQUIRREL-CAGE, COPPER ALLOY BAR BRAZED OR ALUMINUM
		CONDUCTOR WITH END-RING AND WAFER BLADES INTEGRALLY CAST
PAINTING	ASHB : PHENOLIC RUST PROOF BASE PLUS LACQUER SURFACE FINISHED PAINTING IN LIGHT-GRAY COLOR (MUNSELL N5)	
	ASFB : PHENOLIC RUST PROOF BASE PLUS LACQUER SURFACE FINISHED PAINTING IN BLUE-GRAY COLOR (MUNSELL 7.5BG 4/2)	
NAMEPLATE	STAINLESS STEEL PLATE	
HARDWARE	ISO METRIC SYSTEM	
GROUNDING TERMINAL	BE SET INSIDE THE TERMINAL BOX	
P E R F O R M A N C E	TEST PROCEDURE	BS 4999, AS 1359 AND FULL VOLTAGE MEASURING STARTING PERFORMANCE.
	TEMPERATURE RISE	NOT TO EXCEED 80°C RISE BY RESISTANCE METHOD
		80°C RISE AT S.F. 1.0
OVER TORQUE	160% RATED TORQUE FOR 15 SEC	

● DIMENSIONS Type: ASHB, ASFB

Drip-Proof Type. Squirrel-Cage Rotor.

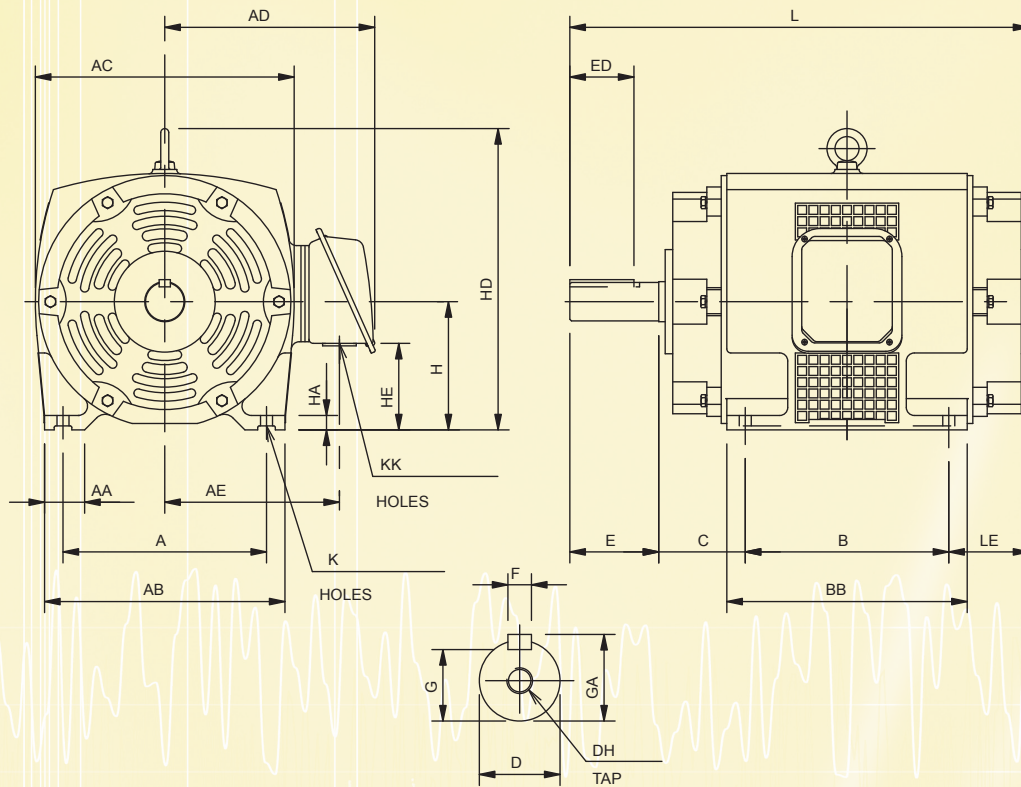


FIG.1

Dimension in mm

Output (kW)				FRAME SIZE	FIG. NO.	A	AA	AB	AC	AD	AE	B	BB	C	H	HA	HD	HE
2P	4P	6P	7.5			160M	1	254	50	300	323	263	219	210	250	108	160	18
11	15	11	7.5	160M	1	254	50	300	323	263	219	210	250	108	160	18	375	108
18.5	22	15	18.5	160L	1	254	50	300	323	263	219	254	300	108	160	18	375	108
FRAME SIZE	K	KK	L	LE	SHAFT EXTENSION						BEARING							
					D	E	ED	F	G	GA	DH	DRIVE END	OPPOSITE DRIVE END					
160M	14.5	35	528.0	100.0	48	110	80	14	42.5	51.5	M16 × 32	6310ZZ	6309ZZ					
160L	14.5	35	572.0	100.0	48	110	80	14	42.5	51.5	M16 × 32	6310ZZ	6309ZZ					

Note: 1. Tolerance of shaft end diameter D : Under $\phi 48 : k6$, Above $\phi 55 : m6$.
 2. Tolerance of shaft center height H : $+0, -0.5$.



● DIMENSIONS Type: ASHB, ASFB

Drip-Proof Type. Squirrel-Cage Rotor.

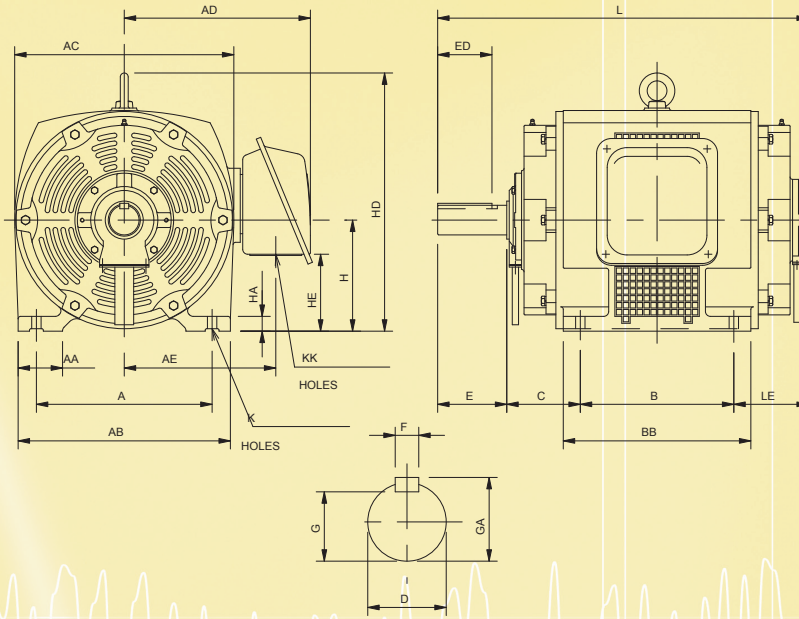


FIG.2

Dimension in mm

Output (kW)			FRAME SIZE	FIG. NO.	A	AA	AB	AC	AD	AE	B	BB	C	H	HA	HD	HE
2P	4P	6P															
30	—	—	180MA	2	279	75	355	369	305	250	241	293	121	180	20	425	119
—	22	15	180MC		279	75	355	369	305	250	241	293	121	180	20	425	119
37	—	—	180LA		279	75	355	369	305	250	279	331	121	180	20	425	119
—	30	18.5	180LC		279	75	355	369	305	250	279	331	121	180	20	425	119
45	—	—	200MA		318	80	400	409	342	279	267	325	133	200	25	464	129
—	37	22	200MC		318	80	400	409	342	279	267	325	133	200	25	464	129
55	—	—	200LA		318	80	400	409	342	279	305	365	133	200	25	464	129
—	45	30	200LC		318	80	400	409	342	279	305	365	133	200	25	464	129
75	—	—	225MA		356	90	430	444	381	312	311	380	149	225	30	522	153
—	55	37	225MC		356	90	430	444	381	312	311	380	149	225	30	522	153
90	—	—	250SA		406	95	500	500	479	364	311	398	168	250	32	593	139
—	75	45	250SC		406	95	500	500	479	364	311	398	168	250	32	593	139
110	—	—	250MA		406	95	500	500	479	364	349	436	168	250	32	593	139
—	90	55	250MC		406	95	500	500	479	364	349	436	168	250	32	593	139
FRAME SIZE	K	KK	L		LE	SHAFT EXTENSION						BEARING					
						D	E	ED	F	G	GA	DH	DRIVE END	OPPOSITE DRIVE END			
180MA	14.5	52	602.0	130.0	55	110	80	16	49.0	59.0	M20 × 40	6212C3	6211C3				
180MC	14.5	52	602.0	130.0	55	110	80	16	49.0	59.0	M20 × 40	NU213	6211				
180LA	14.5	52	640.0	130.0	55	110	80	16	49.0	59.0	M20 × 40	6212C3	6211C3				
180LC	14.5	52	640.0	130.0	55	110	80	16	49.0	59.0	M20 × 40	NU213	6211				
200MA	18.5	65	682.0	142.0	60	140	110	18	53.0	64.0	M20 × 40	6213C3	6213C3				
200MC	18.5	65	682.0	142.0	60	140	110	18	53.0	64.0	M20 × 40	NU213	6213				
200LA	18.5	65	720.0	142.0	60	140	110	18	53.0	64.0	M20 × 40	6213C3	6213C3				
200LC	18.5	65	720.0	142.0	60	140	110	18	53.0	64.0	M20 × 40	NU213	6213				
225MA	18.5	92	751.0	151.0	60	140	110	18	53.0	64.0	M20 × 40	6313C3	6213C3				
225MC	18.5	92	751.0	151.0	65	140	110	18	58.0	69.0	M20 × 40	6314	6213				
250SA	24.0	92	781.5	162.5	65	140	110	18	58.0	69.0	M20 × 40	6214C3	6214C3				
250SC	24.0	92	781.5	162.5	75	140	110	20	67.5	79.5	M20 × 40	NU217	6214				
250MA	24.0	92	819.5	162.5	65	140	110	18	58.0	69.0	M20 × 40	6214C3	6214C3				
250MC	24.0	92	819.5	162.5	75	140	110	20	67.5	79.5	M20 × 40	NU217	6214				

Note: 1. Tolerance of shaft end diameter D : Under $\phi 48$: k6 , Above $\phi 55$: m6.
2. Tolerance of shaft center height H : +0 , -0.5.

DIMENSIONS Type: ASHB, ASFB

Drip-Proof Type. Squirrel-Cage Rotor.

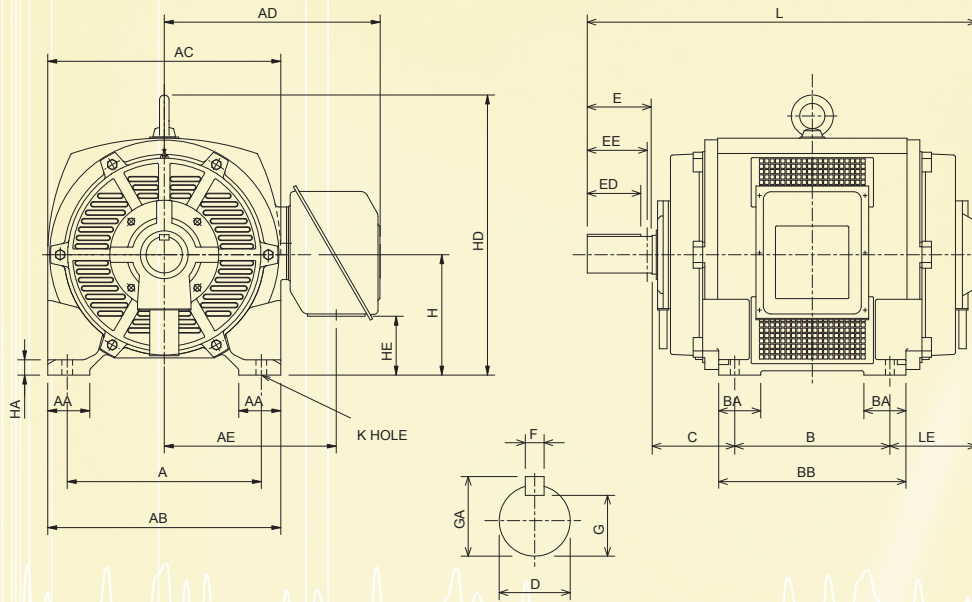


FIG.3

Dimension in mm

Output (kW)			FRAME SIZE	FIG. NO.	A	AA	AB	AC	AD	AE	B	BA	BB	C	D	E	ED
2P	4P	6P															
*132, 150	—	—	280SA	3	457	100	560	560	540	425	368	95	450	190	65	140	110
—	110	75	280SC		457	100	560	560	540	425	368	95	450	190	85	170	140
*185	—	—	280MA		457	100	560	560	540	425	419	95	500	190	65	140	110
—	132, 150	90	280MC		457	100	560	560	540	425	419	95	500	190	85	170	140
*220	—	—	315SA		508	110	610	610	565	450	406	110	490	216	70	140	110
—	*185	—	315SB		508	110	610	610	565	450	406	110	490	216	90	170	140
—	—	110	315SC		508	110	610	610	565	450	406	110	490	216	90	170	140
*250	—	—	315MA		508	110	610	610	565	450	457	110	540	216	70	140	110
—	*220	—	315MB		508	110	610	610	565	450	457	110	540	216	90	170	140
—	—	132, 150	315MC		508	110	610	610	565	450	457	110	540	216	90	170	140
FRAME SIZE		EE	F	G	GA	H	HA	HD	HE	K	L	LE	BEARING				
													DRIVE END	OPPOSITE DRIVE END			
280SA		134	18	58	69	280	36	653	116	24	891	193	6314C3	6314C3			
280SC		157	22	76	90	280	36	653	116	24	926	198	NU318C3	6316			
280MA		134	18	58	69	280	36	653	116	24	942	193	6314C3	6314C3			
280MC		157	22	76	90	280	36	653	116	24	977	198	NU318C3	6316			
315SA		134	20	62.5	74.5	315	40	733	151	28	989	227	6315C3	6315C3			
315SB		157	25	81	95	315	40	733	151	28	1019	227	NU320C3	6318			
315SC		157	25	81	95	315	40	733	151	28	1019	227	NU320C3	6318			
315MA		134	20	62.5	74.5	315	40	733	151	28	1040	227	6315C3	6315C3			
315MB		157	25	81	95	315	40	733	151	28	1070	227	NU320C3	6318			
315MC		157	25	81	95	315	40	733	151	28	1070	227	NU320C3	6318			

- Note:**
1. Tolerance of shaft end diameter D : m6.
 2. Tolerance of shaft center height H : +0 , -1.
 3. Usable shaft length : EE
 4. *For direct flexible coupling

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