

# PRODUCT NOTE CHANGE NOTICE

DWG .NO. **3X057D043E**

TECO'S MODEL : **ETEFD & ETVFDA**

Revision Date	VOL.	Revised or New Material
JUN. 23.' 03	01	Revised Pages: <b>1,2,3,4</b>

STEM	1
TM	1
外	3
設	3
生	1
握	3
握	1
重	2

APPD.	MINGCHAO	JUL. 02.' 03
CHKD.	TENG-YUN.WU	JUL. 01.' 03
DWN.	CLIVE	JUN. 23.' 03

**東元電機股份有限公司**  
**TECO ELECTRIC & MACHINERY CO., LTD.**  
**TAIWAN**

DWG NO.  
**3X057D043E**  
 REV **01** 1/2



EFFECTIVE : DEC. 24.' 96

REVISION : JUN. 23.' 03

# MODEL : ETEFDA & ETVFDA

## BRAKE MOTOR

(SPRING - LOADED, FAIL SAFETY , DIRECT CURRENT BRAKE)

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STEM	1
Ⓜ	1
外	3
設	3
生	1
握	3
握	1
重	2

APPD.	廖福奔	12.24.'96	<b>東元電機股份有限公司</b> TECO ELECTRIC & MACHINERY CO., LTD. TAIWAN	DWG NO.	<b>3X057D043E</b> REV 01
CHKD.	蔡文火	12.24.'96			
DWN.	黃建中	12.24.'96			
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ISSUED		<b>SPECIFICATION TABLE</b>		MODEL	
DEC. 24.' 96				ETEFDA & ETVFDA	
REVISED				PAGE	
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ITEM			STANDARD SPECIFICATION		
GENERAL	MODEL	ETEFDA: (IM1001: HORIZONTAL FOOT MOUNTING) ETVFDA: (IM3011: VERTICAL FLANGE MOUNTING)			
	DESIGN STANDARDS	IEC , TECO			
	SCOPE	FRAME NO: 63 ~ 132M ( 0.25 ~ 10 HP) NO. OF POLES : 4P , 6P			
	TIME RATING	CONTINUOUS RATING			
	ENVIRONMENT	NON-HAZARDOUS INDOOR USE			
		AMBIENT TEMPERATURE : -15°C~40°C			
		ALTITUDE : UNDER 1000 METERS ABOVE SEA LEVEL			
	OUTLINE DIMENSIONS	3X049D188E			
PAINTING	MUNSELL 7.5BG 4/2				
MOTOR	TYPE	3 PHASE INDUCTION MOTOR			
	VOLTAGE	3 PHASE 208V~460V			
	FREQUENCY	50/60Hz			
	VARIATION	VOLTAGE: ±10%			
		FREQUENCY: ±5%			
		COMBINED: ±10% BUT FREQUENCY VARIATION DOES NOT EXCEED ±5%			
	COOLING	IC 411 : SELF EXTERNAL FAN , SURFACE COOLING			
	ENCLOSURE & PROTECTION	IP54 : TOTALLY ENCLOSED			
	FRAME	CAST IRON			
	BRACKET	CAST IRON			
	SHAFT END	SINGLE CYLINDRIAL SHAFT EXTENSION, CARBON STEEL			
	BEARING	BRACKET MOUNTING , GREASE PRE-PACKED SHIELDED ROLLING BEARING			
	ROTATION	C.W. & C.C.W. VIEWED FROM DRIVE END			
	METHOD OF COUPLING	COUPLING , GEARS , CHAIN SPROCKET OR BELT			
INSULATION CLASS	E CLASS				
TEMPERATURE RISE	NOT EXCEED 75°C BY RESISTANCE METHOD				
BRAKE	POWER SOURCE	220Vac ±10% INPUT , RECTIFY TO 95Vdc ±10% BY BUILT-IN RECTIFIER			
	ENCLOSURE	IP22 : OPEN PROTECTED DRIP-PROOF			
	BRAKING TORQUE	TORQUE OF BRAKE SHALL BE 150% OF THE RATED TORQUE OF THE MOTOR			
	BRAKING TYPE	SPRING-LOADED , SAFETY TYPE			
	LINING MATERIAL	NON-ASBESTOS MATERIAL			
	INSULATION CLASS	E CLASS			
	TEMPERATURE RISE	NOT EXCEED 75°C BY RESISTANCE METHOD			
	PERMISSIBLE STARTING FREQUENCY	SEE PERFORMANCE DATA : 3X057D043E3			
WHEN $GD_M^2 = GD_L^2$					
WHERE $GD_M^2$ : TOTAL $GD^2$ OF MOTOR $GD_L^2$ : TOTAL $GD^2$ OF LOAD					
OPTION			THE HAND RELEASE CAN BE INCREASED		
APPD.	廖福奔	12.24.'96	<b>東元電機股份有限公司</b> <b>TECO ELECTRIC &amp; MACHINERY CO., LTD.</b> <b>TAIWAN</b>		DWG NO.
CHKD.	蔡文火	12.24.'96			<b>3X057D044E</b>
DWN.	黃建中	12.24.'96			REV. 01
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ITEM		220/3 $\phi$ /60Hz								220V/3 $\phi$ /50Hz								
<b>MOTOR</b>	HP	0.25	0.5	1	2	3	5	7.5	10	0.25	0.5	1	2	3	5	7.5	10	
	FRAM NO.	63	71	80	90L	100L	112M	132S	132M	63	71	80	90L	100L	112M	132S	132M	
	<b>FULL LOAD</b>	CURRENT A	1.1	1.9	3.4	6.1	8.7	13.5	20.1	25.1	1.2	2.1	3.7	6.6	9.0	13.9	20.7	26.2
		EFF. %	66	70	76	79	82	85	87	88.5	60.5	65.5	72	75.5	80	84.5	86	87.5
		P.F. %	70	75	76.5	81	82.5	85	84	88	69.5	70	74	78.5	82	83.5	82.5	85.5
		R.P.M.	1650	1680	1710	1715	1735	1745	1750	1760	1345	1370	1395	1400	1435	1445	1445	1450
		TORQUE KG-M	.110	.216	0.424	0.846	1.26	2.08	3.11	4.15	0.135	0.265	0.52	1.04	1.52	2.51	3.77	5.01
	START CURRENT A		6	12	19	40	68	110	160	200	6	12	19	40	68	110	160	200
	START TORQUE %		280	200	250	220	210	220	230	280	270	200	250	220	210	220	220	220
	MAX. TORQUE %		250	250	280	280	260	300	220	250	270	230	280	280	260	290	280	250
ROTOR GD <sup>2</sup> KG-M <sup>2</sup>		0.002	0.005	.009	.017	.033	.059	.104	.143	.002	.005	.009	.017	.330	.059	.104	.143	
<b>BRAKE</b>	STATIC BRAKE TORQUE KG-M		0.2	0.4	0.75	1.5	2.2	3.7	7.5	7.5	0.2	0.4	0.75	1.5	2.2	3.7	7.5	7.5
	EXCITING VOLTAGE V		90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
	EXCITING CURRENT A		0.22	0.29	0.44	0.53	0.58	0.82	0.82	0.82	0.22	0.29	0.44	0.53	0.58	0.82	0.82	0.82
	GAP mm		0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5
	PERMISSIBLE STARTING FREQUENCY TIMES/MIN.		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

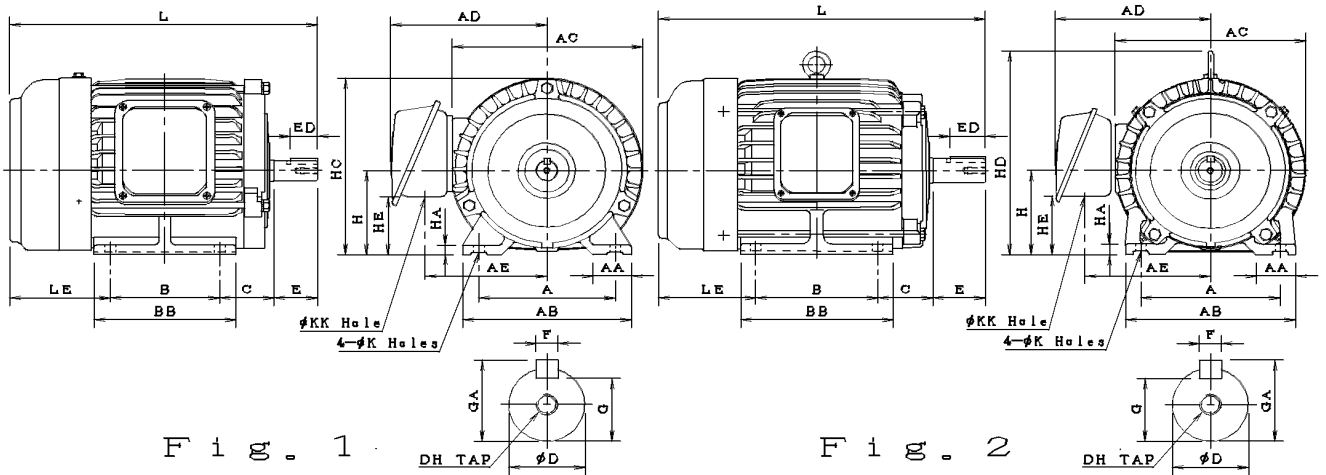
ISSUED  
DEC. 24.' 96  
REVISED  
JUN. 23.' 03

# OUTLINE DIMENSIONS

MODEL  
**ETEFD**

FRAME NO. : 63 ~ 132M

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Dimensions in mm

OUTPUT(HP)		FRAME NO.	Fig. No.	A	AA	AB	AC	AD	AE	B	BB	C	H	HA	HD	HE	K	KK
4P	6P																	
0.25	—	63	1	100	28	120	144	122.5	93	80	100	40	63	8	135	29	7	22
0.5	0.25	71		112	35.5	140	160	132.5	103	90	115	45	71	8	152	54	7	22
1	0.5	80		125	35.5	155	177	144	112	100	130	50	80	9	168	55	10	22
2	1	90L		140	35.5	170	200	157	125	125	150	56	90	10	190	65	10	22
3	2	100L	2	160	45	195	219	179.5	144.5	140	175	63	100	12.5	243	71	12	28
5	3	112M		190	45	224	238	189	154	140	175	70	112	14	264	83	12	28
7.5	5	132S		216	45	250	273	224.5	179.5	140	175	89	132	16	310	83	12	35
10	7.5	132M		216	45	250	273	224.5	179.5	178	212	89	132	16	310	83	12	35

FRAME NO.	L	LE	SHAFT EXTENSION							BEARING	
			D	E	ED	F	G	GA	DH	DRIVE END	OPP DRIVE END
63	236	93	11	23	18	4	8.5	12.5	M4X8	6201ZZ	6201ZZ
71	261.5	96.5	14	30	24	5	11	16	M5X10	6202ZZ	6202ZZ
80	295.5	105.5	19	40	25	6	15.5	21.5	M6X12	6204ZZ	6204ZZ
90L	354	123	24	50	32	8	20	27	M8X16	6205ZZ	6205ZZ
100L	393	130	28	60	40	8	24	31	M10X20	6206ZZ	6305ZZ
112M	413.5	143.5	28	60	40	8	24	31	M10X20	6306ZZ	6306ZZ
132S	476	167	38	80	64	10	33	41	M12X24	6308ZZ	6306ZZ
132M	514	167	38	80	64	10	33	41	M12X24	6308ZZ	6306ZZ

- NOTE : 1. TOLERANCE OF SHAFT END DIAMETER D : Under  $\phi 28$  : j6  
Above  $\phi 38$  : k6.  
2. TOLERANCE OF CENTER HEIGHT H : +0, -0.5.  
3. DIMENSIONS IN MM  
4. TOTALLY ENCLOSED FAN COOLED WITH DISC BRAKE

APPD.	廖福奔	03.26.'96
CHKD.	蔡文火	03.26.'96
DWN.	黄建中	03.26.'96

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DWG NO.  
**3X049D188E**  
REV. 01 1/2

ISSUED  
DEC. 24.' 96

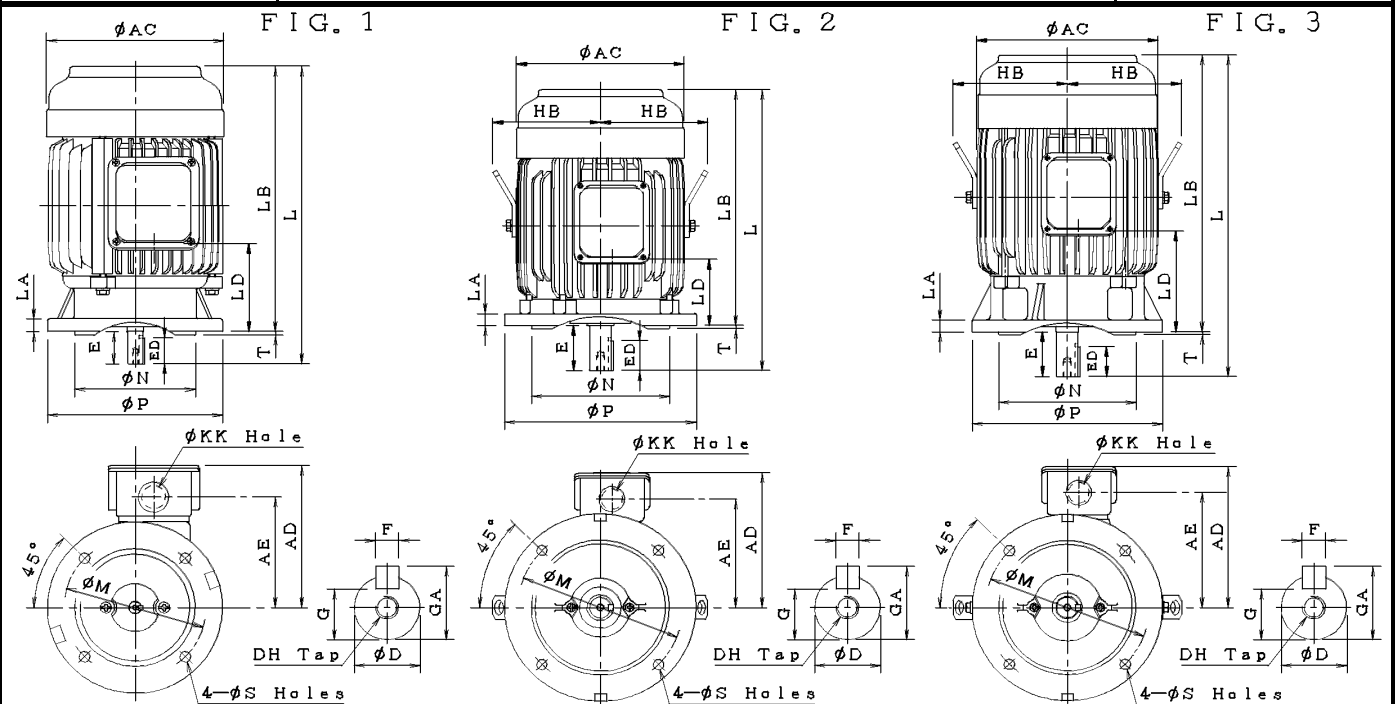
# OUTLINE DIMENSIONS

MODEL  
**ETVFDA**

REVISED  
JUN. 23.' 03

FRAME NO. : 63 ~ 132M

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Dimensions in mm

OUTPUT (HP)	FRAME NO.	Fig. No.	AC	AD	AE	KK	L	LA	LB	SHAFT EXTENSION						
										D	E	ED	F	G	GA	DH
0.25	—	63	144	122.5	93	22	265	12	242	11	23	18	4	8.5	12.5	M4X8
0.5	0.25	71	161.5	132.5	103	22	288.5	12	258.5	14	30	24	5	11	16	M5X10
1	0.5	80	176.5	144	112	22	295.5	12	255.5	19	40	25	6	15.5	21.5	M6X12
2	1	90L	200	157	125	22	393	12	343	24	50	32	8	20	27	M8X16
3	2	100L	280	179.5	144.5	28	393	16	333	28	60	40	8	24	31	M10X20
5	3	112M	299	189	154	28	453.5	16	393.5	28	60	40	8	24	31	M10X20
7.5	5	132S	337	225	179.5	35	476	20	369	38	80	64	10	33	41	M12X24
10	7.5	132M	337	225	179.5	35	514	20	434	38	80	64	10	33	41	M12X24

FRAME NO.	M	N	P	S	T	BEARING	
						DRIVE END	OPP DRIVE END
63	130	110	160	10	3.5	6201ZZ	6201ZZ
71	130	110	160	10	3.5	6202ZZ	6202ZZ
80	165	130	200	12	3.5	6204ZZ	6204ZZ
90L	165	130	200	12	3.5	6205ZZ	6205ZZ
100L	215	180	250	14.5	4	6206ZZ	6305ZZ
112M	215	180	250	14.5	4	6306ZZ	6306ZZ
132S	265	230	300	14.5	4	6308ZZ	6306ZZ
132M	265	230	300	14.5	4	6308ZZ	6306ZZ

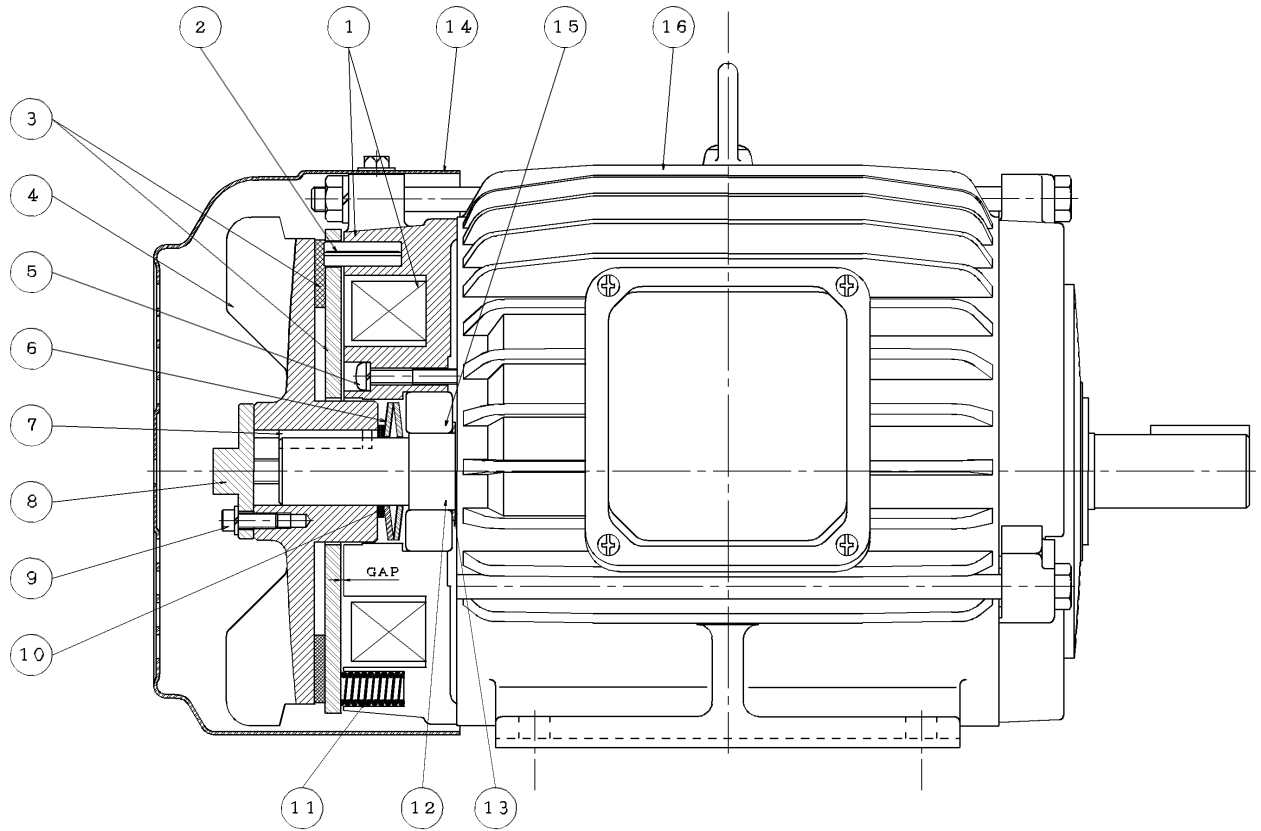
- NOTE:
- TOLERANCE OF SHAFT END DIAMETER D :  
Under  $\phi 28$  : j6  
Above  $\phi 38$  : k6 .
  - TOLERANCE OF N : h7 .
  - DIMENSIONS IN MM
  - TOLALLY ENCLOSED FAN COOLED WITH DISC BRAKE

APPD.	廖福奔	03.26.'96
CHKD.	蔡文火	03.26.'96
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DWG NO.  
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REV. 01 2/2



項次 ITEM	零件名稱 NAME OF PARTS	項次 ITEM	零件名稱 NAME OF PARTS
1	托架及激磁繞組 BRACKET & EXCITING COIL	9	六角穴螺絲 HEX SK SCREW
2	彈簧銷 SPRING PIN	10	調整墊片 FILLER
3	剎車來令及剎車板 LINING & PLATE	11	剎車彈簧 SPRING
4	外扇 FAN	12	軸 SHAFT
5	軸承擋圈固定螺絲 SCREW OF STOP RING OF BEARING	13	軸承擋圈 STOP RING OF BEARING
6	皿型彈簧 DISK SPRING	14	風罩 FAN COVER
7	鍵 KEY	15	軸承 BEARING
8	氣隙調整螺栓 ADJUSTABLE BOLT OF GAP	16	馬達 MOTOR

APPD.	廖福奔	03.26.'96	<b>東元電機股份有限公司</b> TECO ELECTRIC & MACHINERY CO., LTD. <b>TAIWAN</b>	DWG NO.	<b>3X049D189E</b>
CHKD.	蔡文火	03.26.'96		REV. 00	1/1
DWN.	黃建中	03.26.'96			