

Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION for INDUCTION MOTOR



0		For Bidding			
No.	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY



AC INDUCTION MOTOR DATA SHEET

Explosion Proof type

Catalog No.	IXHHI20-36-256T	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION		PERFORMANCE DATA			
Frame Size	256T	Rated Output	15 kW	20 HP	
Type	XJP	Number of Poles	2		
Enclosure(Protection)	Totally Enclosed / IP55	Rotor Type	Squirrel Cage		
Method of Cooling	IC411(FC)	Starting Method*	D.O.L		
Rated Frequency	60 Hz	Rated Voltage	575 V	460 V	230 V
Number of Phases	3	Current	Full Load	18.6 A	23.2 A
Insulation Class	F		Locked-rotor**	740 %	740 %
Temp. Rise at full load (by resistance method)		Efficiency			
at 1.0 S.F	80 deg. C		50% Load	88.0 %	
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load	90.0 %	
Altitude	Less than 1,000 meter		100% Load	91.0 %	
Relative Humidity	Less than 80 %	Power Factor(p.u)			
Ambient Temp.	40 deg. C (Max.)		50% Load	0.740	
Duty Type	Continuous (S1)		75% Load	0.840	
Service Factor	1.15		100% Load	0.890	
Mounting	B3	Speed at Full Load	3550 r.p.m		
Bearing	Type	Anti-Friction	Torque		
	DE/N-DE	6309ZC3 / 6309ZC3	Full Load	29.8 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**	150 %	
External Thrust	Not applicable		Breakdown**	250 %	
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt	Moment of Inertia (J)			
Shaft Extension	Single		Load(Max.)	21.594 lb.ft2	
Terminal Box	Main	Cast Iron	Motor	1.163 lb.ft2	
	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)		
	Location	Refer to Outline Drawing		79 dB(A)	
Application		Vibration	0.0 mm/sec (peak)		
Area classification	Hazardous	Permissible number of consecutive starts	Cold	0 times	
Type of Ex-Protection	Class I&II, Division 1		Hot	0 times	
Applicable Standard	NEMA MG1, CSA C390, UL674	Paint	Munsell No.	4.0PB5.4/5.5(VL-451)	

ACCESSORIES

*. W.T.D.(Thermostat, 145°C) : 1EA/Ph.

SPARE PARTS

SUBMITTAL DRAWING

Outline Dimension Drawing	Motor Weight(Approx.)
B3	LM-U0256B3TL001 350 lb.

REMARK

- Premium efficiency according to NEMA MG1
- Inverter Duty @ 1.0 Service Factor & Ambient max 45°C
 - 4:1 CT (10:1 CT at 1hour Duty)
 - 10:1 VT (20:1 VT at 50% load)
 - CHP up to 1.5 times base speed, NEMA MG1 Part31
- Class I, Division 1, Group C&D
 - Temp.Code(Sine wave) : T2D at 40°C Amb./T2C at 55°C Amb. T4 with Winding Temperature Detector
- Class II, Division 1, Group F&G
 - Temp.Code(Sine wave) : T3B

Date	DSND	CHKD	CHKD	APPD
2024-08-08	S.H. Lee	I.K. Kim	R.G. Kim	S.W. Kim

[Note] Others not mentioned in this data sheet shall be in accordance with maker standard.
 Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.
 Inspection and performance test shall be done according to maker standard, if not mentioned.
 * In case of Inverter-Fed Motor, performance data is based on sine wave tests. It may be different from test data of Inverter combined motor.
 ** Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

	1	2	3	4																																																																						
G	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY	G																																																																		
F								F																																																																		
E	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p style="font-size: 2em; font-weight: bold;">4.72</p> </div> <div style="text-align: center;"> <p style="font-size: 2em; font-weight: bold;">2.36</p> </div> </div> <div style="border: 1px solid black; border-radius: 10px; padding: 10px; margin: 10px auto; width: 90%;"> <div style="display: flex; justify-content: space-between; align-items: center; border-bottom: 1px solid black;"> <div style="text-align: center;"> <p style="font-size: 1.5em; font-weight: bold;">CROWN TRITON</p> <p>Premium Efficiency AC 3 Phase Motor</p> </div> <div style="text-align: center;"> <p style="font-weight: bold;">Explosion Proof</p> </div> <div style="text-align: center;"> <p style="font-size: 0.8em;">US Energy Verified Only</p> </div> <div style="text-align: center;"> <p>CC038A</p> </div> <div style="text-align: center;"> <p>US LISTED</p> </div> </div> <table border="1" style="width:100%; border-collapse: collapse; font-size: 0.8em;"> <tr> <td style="width:15%;">20HP</td> <td style="width:10%;">2P</td> <td style="width:20%;">230/460V</td> <td style="width:15%;">Cat. No. IXHHI20-36-256T</td> <td style="width:15%;">Amps</td> <td style="width:25%;">46.5/23.2</td> </tr> <tr> <td>Model</td> <td>LATER</td> <td></td> <td>INS. Class F HD-F1</td> <td>Hertz</td> <td>60Hz</td> </tr> <tr> <td>Type</td> <td>XJP</td> <td>Duty</td> <td>CONT</td> <td>Code</td> <td>H</td> </tr> <tr> <td>Frame</td> <td>256T</td> <td>Encl.</td> <td>TEFC</td> <td>S.F. 1.15</td> <td>on sine wave power</td> </tr> <tr> <td rowspan="2">Bearing</td> <td>Drive</td> <td colspan="2">6309ZC3</td> <td>S.F. 1.00</td> <td>on PWM or IGBT power</td> </tr> <tr> <td>Opp.</td> <td colspan="2">6309ZC3</td> <td>RPM</td> <td>3550</td> </tr> <tr> <td rowspan="2">Usable at</td> <td colspan="5">50Hz 15HP 380V 23.5A 2955rpm S.F.: 1.0 Eff.: 89.4% Code: J</td> </tr> <tr> <td colspan="5">50Hz 15HP 400/415V 22.7/22.4A 2960/2960rpm S.F.: 1.0 Eff.: 89.4/89.4% Code: K/L</td> </tr> <tr> <td rowspan="2">UL Certified for</td> <td colspan="3">Class I, Div. 1, Group C&D / Class I, Zone 1, Group II A & II B</td> <td rowspan="2">Temp. Code</td> <td>T2D at 40°C Amb. / T2C at 55°C Amb.</td> </tr> <tr> <td colspan="3">10:1VT(20:1 at 50% load) 4:1CT(10:1 1hour duty at lowest RPM)</td> <td>T4 With Thermostat</td> <td> </td> </tr> <tr> <td>No.</td> <td colspan="2">-</td> <td>Date</td> <td colspan="2">-</td> <td>Weight</td> <td colspan="2">350 lb</td> </tr> </table> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div style="font-size: 0.8em;"> <p>4M-136066 (NEMA 250~280Fr.)</p> </div> <div style="text-align: center;"> <p>Made in Korea H1</p> </div> <div style="text-align: right;"> </div> </div> </div>							20HP	2P	230/460V	Cat. No. IXHHI20-36-256T	Amps	46.5/23.2	Model	LATER		INS. Class F HD-F1	Hertz	60Hz	Type	XJP	Duty	CONT	Code	H	Frame	256T	Encl.	TEFC	S.F. 1.15	on sine wave power	Bearing	Drive	6309ZC3		S.F. 1.00	on PWM or IGBT power	Opp.	6309ZC3		RPM	3550	Usable at	50Hz 15HP 380V 23.5A 2955rpm S.F.: 1.0 Eff.: 89.4% Code: J					50Hz 15HP 400/415V 22.7/22.4A 2960/2960rpm S.F.: 1.0 Eff.: 89.4/89.4% Code: K/L					UL Certified for	Class I, Div. 1, Group C&D / Class I, Zone 1, Group II A & II B			Temp. Code	T2D at 40°C Amb. / T2C at 55°C Amb.	10:1VT(20:1 at 50% load) 4:1CT(10:1 1hour duty at lowest RPM)			T4 With Thermostat		No.	-		Date	-		Weight	350 lb		E
20HP	2P	230/460V	Cat. No. IXHHI20-36-256T	Amps	46.5/23.2																																																																					
Model	LATER		INS. Class F HD-F1	Hertz	60Hz																																																																					
Type	XJP	Duty	CONT	Code	H																																																																					
Frame	256T	Encl.	TEFC	S.F. 1.15	on sine wave power																																																																					
Bearing	Drive	6309ZC3		S.F. 1.00	on PWM or IGBT power																																																																					
	Opp.	6309ZC3		RPM	3550																																																																					
Usable at	50Hz 15HP 380V 23.5A 2955rpm S.F.: 1.0 Eff.: 89.4% Code: J																																																																									
	50Hz 15HP 400/415V 22.7/22.4A 2960/2960rpm S.F.: 1.0 Eff.: 89.4/89.4% Code: K/L																																																																									
UL Certified for	Class I, Div. 1, Group C&D / Class I, Zone 1, Group II A & II B			Temp. Code	T2D at 40°C Amb. / T2C at 55°C Amb.																																																																					
	10:1VT(20:1 at 50% load) 4:1CT(10:1 1hour duty at lowest RPM)				T4 With Thermostat																																																																					
No.	-		Date	-		Weight	350 lb																																																																			
D								D																																																																		
C								C																																																																		
B								B																																																																		
A	APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	UL Class I, Division1 (IXHHI)	DWG SIZE	A4 (1:1)																																																																		
	CHKD BY	I.K.KIM	SCALE	NONE	<p style="font-size: 1.5em; font-weight: bold;">NAMEPLATE DRAWING</p>																																																																					
	CHKD BY	R.G.KIM	PROJEC'N	3rd Angle																																																																						
	DSND BY	S.H.LEE	DATE	2024.06.07																																																																						
					REF. NO	4M-136066	Sheet No. of																																																																			
					DWG NO	NP-IXHHI20-36-256T	Revision No. 0																																																																			
	1	2	3	4																																																																						



PERFORMANCE CURVE

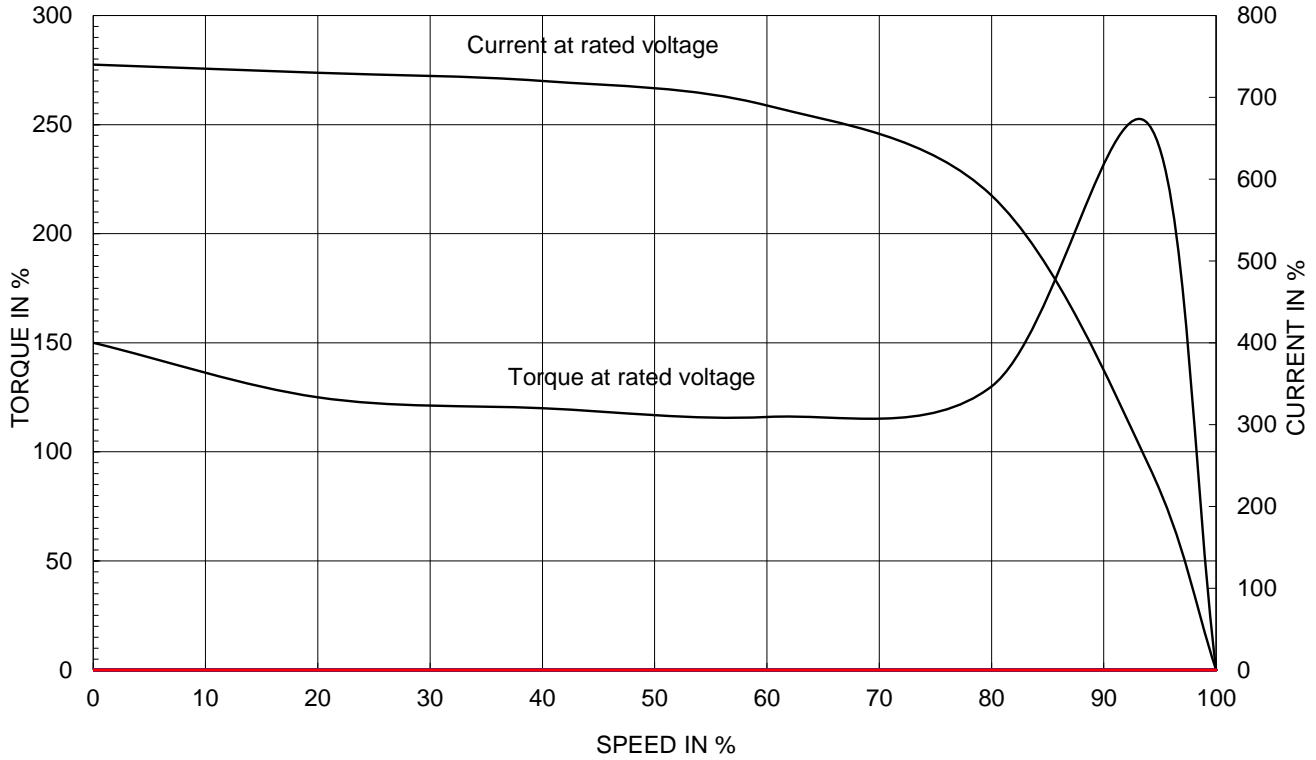
CURVE NO.

PC-IXHHI20-36-256T

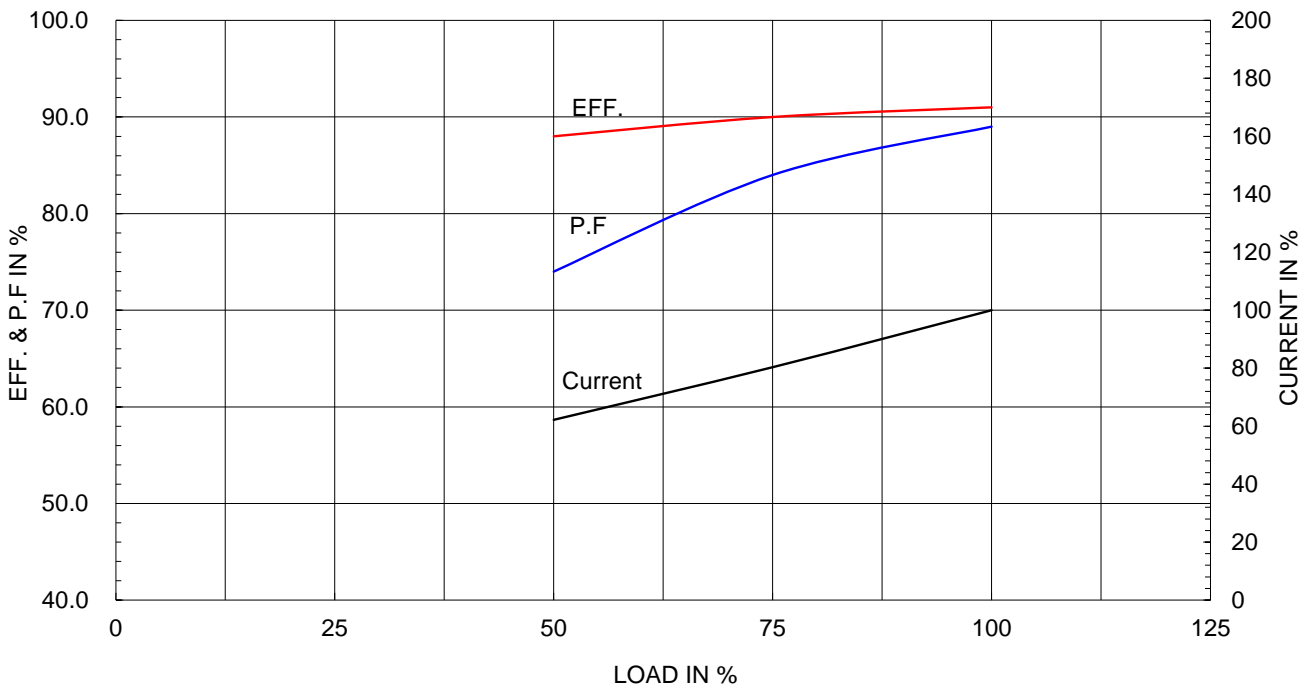
Type :	XJP
Full Load Torque :	29.8 lb.ft
Load moment of Inertia (J) :	21.594 lb.ft2
Motor moment of Inertia (J) :	1.163 lb.ft2

15kW	20HP	2 P	60 Hz
Speed at Full Load :			3550 RPM
Rated Voltage	575V	460V	230V
Full Load Current	18.6A	23.2A	46.5A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

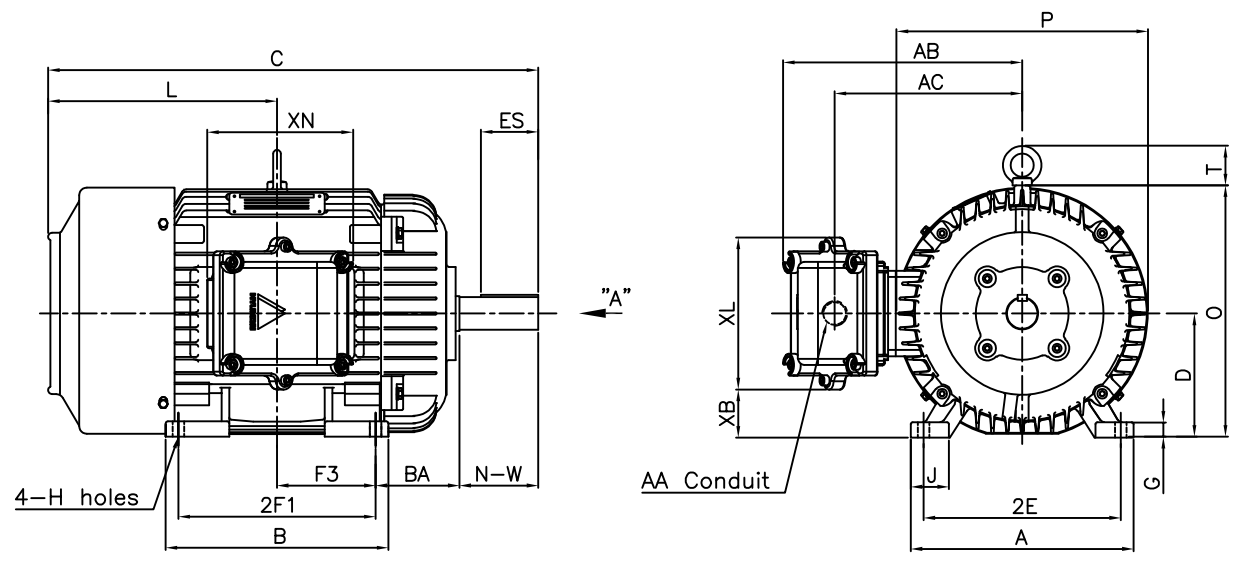


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (최급유위)

THIS DRAWING IS PROPRIETARY TO HYUNDAI ELECTRIC. NO PART OF THIS DRAWING MAYBE REPRODUCED WITHOUT THE PERMISSION OF HYUNDAI ELECTRIC.

1	2	3	4
▽	50S	REV	DATE
▽▽	12.5S		
▽▽▽	3.2S		
▽▽▽▽	0.4S		

Class I Division 1



DIMENSIONS

M O U N T I N G									C O N D U I T B O X						APPROX. WGT.(LB)
A	B	2E	2F1	2F2	F3	G	J	H	AA	AB	AC	XB	XL	XN	
11.30	11.30	10.00	10.00	-	5.00	0.72	1.93	0.53	1.25	12.01	9.51	2.39	7.72	7.32	350

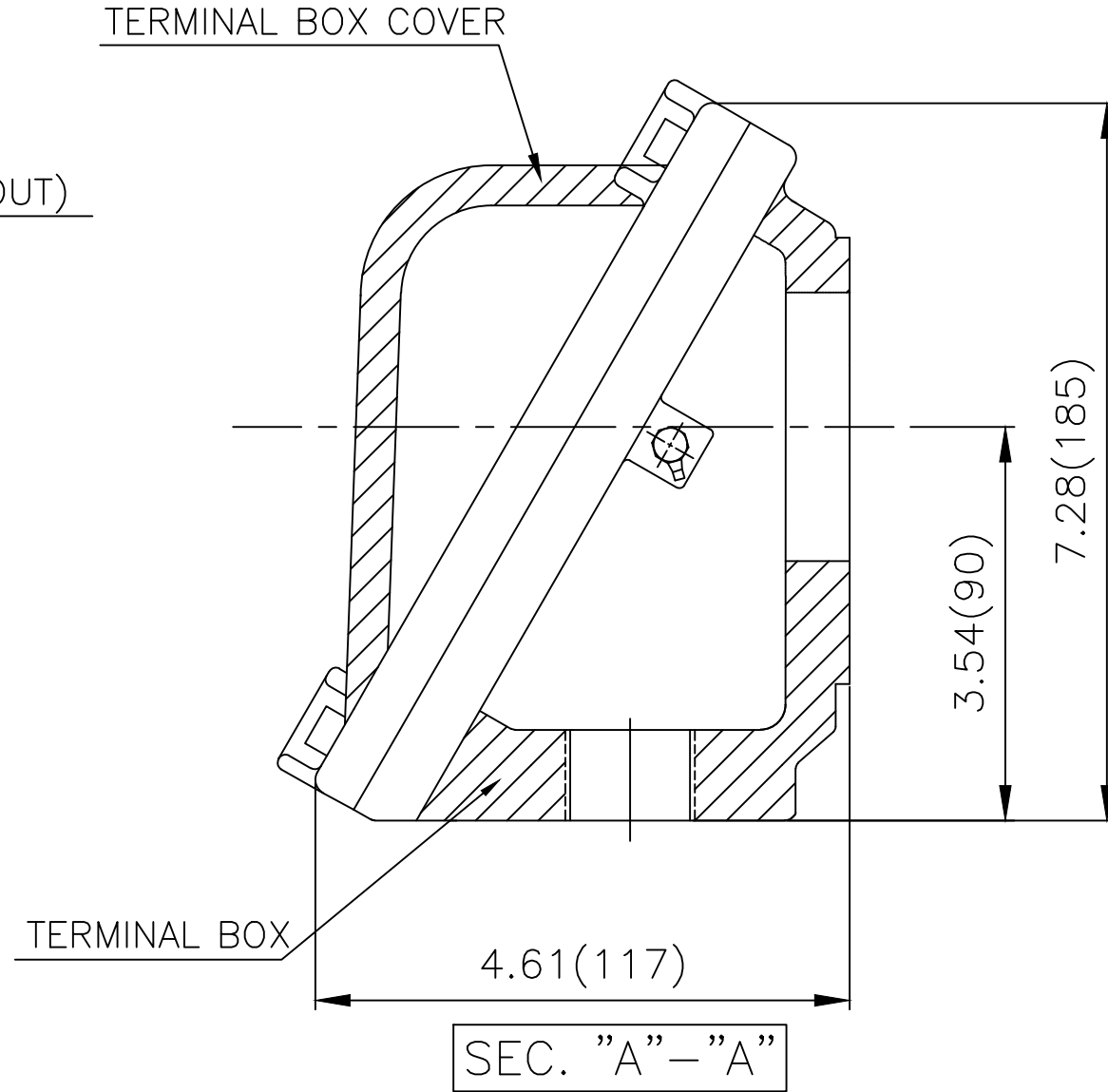
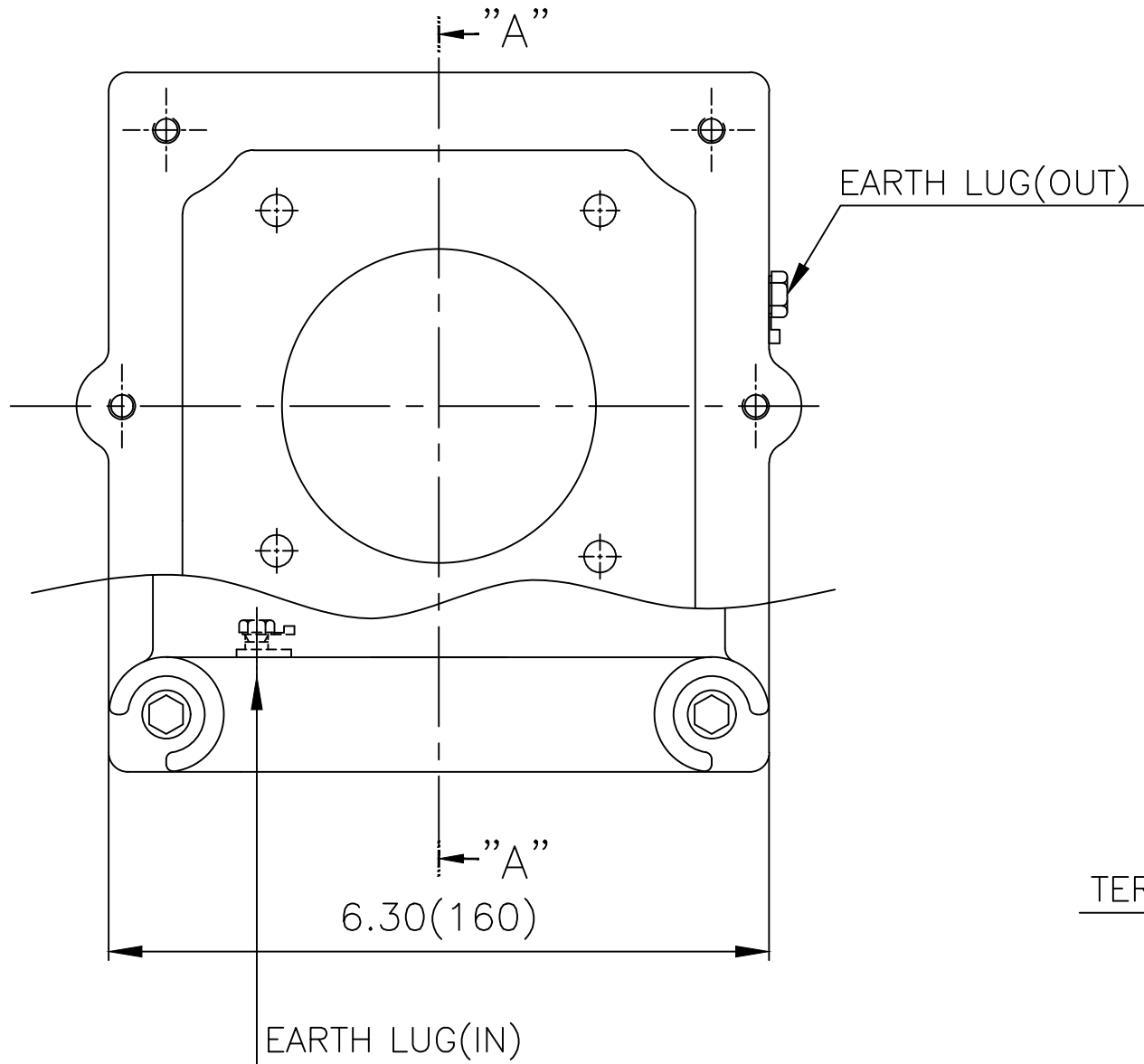
O V E R A L L							S H A F T					KEY THK.	B E A R I N G	
BA	C	D	L	O	P	T	U	N-W	KEYWAY				DRIVE END	OPP. DRIVE END
									R	ES	S			
4.25	24.86	6.25	11.61	12.75	12.76	2.01	1.625	4.00	1.416	2.91	0.375	0.375	6309ZC3	6309ZC3

NOTE

1. Dimension "D" tolerance : +0.00inch - 0.03inch (143T-365T) ; +0.000inch - 0.06inch (404T-449T)
2. Dimension "U" tolerance : +0.000inch - 0.005inch (143T-215T), +0.000inch - 0.001inch (254T-449T)
3. Dimension "R" tolerance : +0.000inch - 0.015inch

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 256T		DWG SIZE	A4 (1:10)
CHKD BY	R.G.KIM	SCALE	1/10	TITLE	OUTLINE			
CHKD BY		PROJEC'N	3rd Angle					
DSND BY	J.H.JEON	DATE	2021-04-15					
				REF. NO		Sheet No.	of	
				DWG NO	LM-U0256B3TL001	Revision No.	0	

Cls. I Div. 1



▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

일반가공공차		일반제관공차	
1-4	±0.1	6-30	±0.5
4-18	±0.2	30-120	±0.8
18-63	±0.3	120-315	±1.2
63-250	±0.5	315-1000	±2.0
250-	±0.8	1000-	±3.0

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	NEMA FR. 250~280(CAST IRON)		DWG SIZE
CHKD BY	R.G.KIM	SCALE	1/1.5	TITLE	MAIN TERMINAL BOX ASS'Y		A3 (1:1.5)
CHKD BY		PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	김은진	DATE	2023-11-08	DWG NO	3M-248637	Revision No.	0

