

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.	IXHHI125-18-444T	Item No.		Rev. No.	[ ]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION		PERFORMANCE DATA			
Frame Size	444T	Rated Output	95 kW	125 HP	
Type	XJP	Number of Poles	4		
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	113.6 A	142.0 A
Insulation Class	F		Locked-rotor**	700 %	700 %
Temp. Rise at full load (by resistance method)		Efficiency			
at 1.0 S.F	80 deg. C		50% Load	92.4 %	
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load	94.4 %	
Altitude	Less than 1,000 meter		100% Load	95.4 %	
Relative Humidity	Less than 80 %	Power Factor(p.u)			
Ambient Temp.	40 deg. C (Max.)		50% Load	0.730	
Duty Type	Continuous ( S1 )		75% Load	0.830	
Service Factor	1.15		100% Load	0.880	
Mounting	B3	Speed at Full Load	1785 r.p.m		
Bearing	Type	Anti-Friction	Torque		
	DE/N-DE	NU318 / 6314C3	Full Load	374.9 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**	140 %	
External Thrust	Not applicable		Breakdown**	220 %	
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt	Moment of Inertia (J)			
Shaft Extension	Single		Load(Max.)	1,507.479 lb.ft2	
Terminal Box	Main	Cast Iron	Motor	52.510 lb.ft2	
	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)		
	Location	Refer to Outline Drawing		85 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, 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-U0444B3TL001	2116 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
- Temperature Code
  - T3 at 40°C Ambient / T2D at 55°C Ambient
  - T4 with Winding Temperature Detector

Date	DSND	CHKD	CHKD	APPD
2024-07-14	S.H. Lee	I.K. Kim	R.G. Kim	S.W. Kim

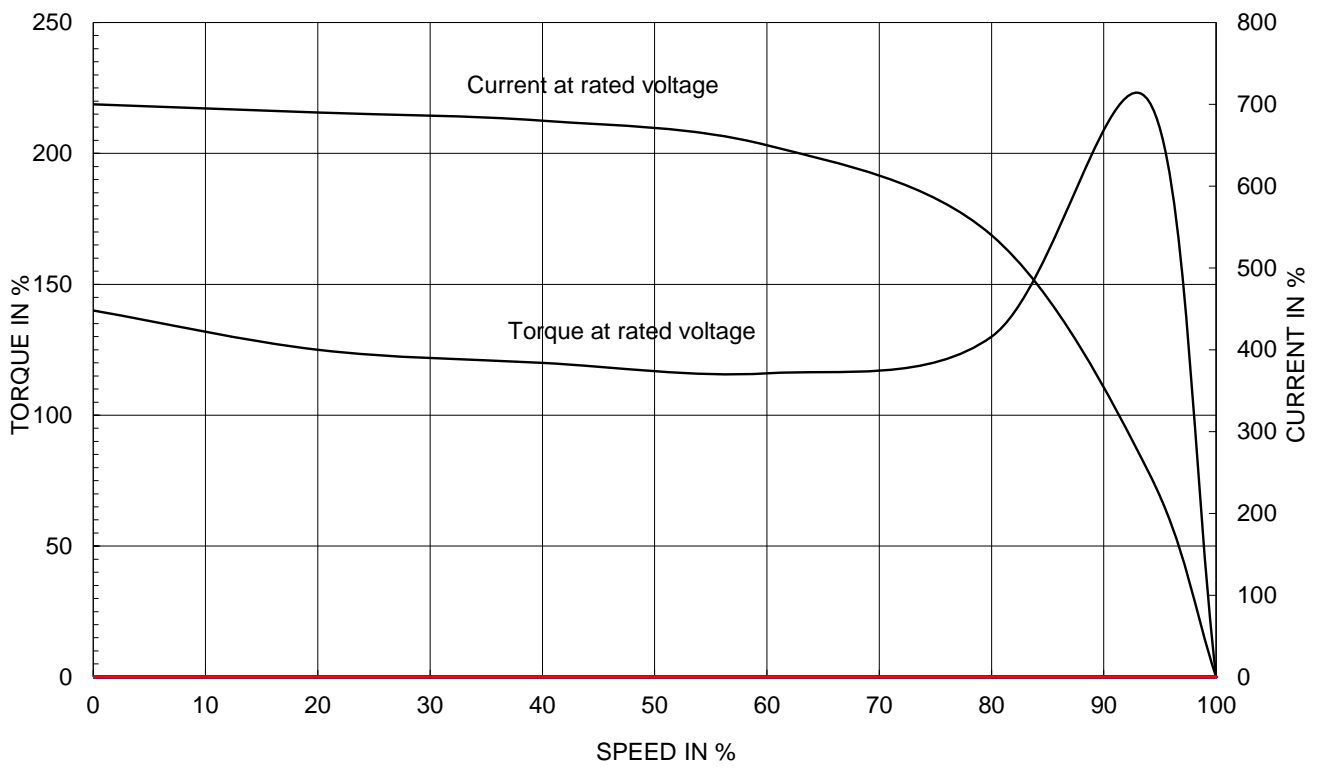
[Note] Others not mentioned in this data sheet shall be in accordance with maker standard.  
 Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.  
 Inspection and performance test shall be done according to maker standard, if not mentioned.  
 \* 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.

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D	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p><b>CROWN TRITON</b> Premium Efficiency AC 3 Phase Motor</p> </div> <div style="text-align: center;"> <p><b>Explosion Proof</b></p> </div> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> </div> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width:15%;">125HP</td> <td style="width:10%;">4P</td> <td style="width:20%;">230/460V</td> <td style="width:15%;">Cat. No.</td> <td style="width:20%;">IXHHI125-18-444T</td> <td style="width:10%;">Amps</td> <td style="width:10%;">284.1/142</td> </tr> <tr> <td>Model</td> <td>LATER</td> <td></td> <td>INS. Class</td> <td>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> <td>NEMA Norm. Eff.</td> <td>95.4%</td> </tr> <tr> <td>Frame</td> <td>444T</td> <td>Encl.</td> <td>TEFC</td> <td>S.F.</td> <td>1.15</td> <td>3/4 Eff.</td> <td>94.4%</td> </tr> <tr> <td rowspan="2">Bearing</td> <td>Drive</td> <td>NU318</td> <td>S.F.</td> <td>1.00</td> <td>on sine wave power</td> <td>NEMA Design</td> <td>B</td> </tr> <tr> <td>Opp.</td> <td>6314C3</td> <td>RPM</td> <td>1785</td> <td>on PWM or IGBT power</td> <td>Amb.</td> <td>40°C</td> </tr> <tr> <td rowspan="2">Usable at</td> <td colspan="6">50Hz 125HP 380V 168.6A 1480rpm S.F.: 1.0 Eff.: 94.7% Code: E</td> </tr> <tr> <td colspan="6">50Hz 125HP 400/415V 160.9/156.6A 1482/1484rpm S.F.: 1.0 Eff.: 95/95.2% Code: F/G</td> </tr> <tr> <td rowspan="2">UL Certified for</td> <td colspan="4">Class I, Div. 1, Group C&amp;D / Class I, Zone 1, Group IIA &amp; IIB</td> <td rowspan="2">Temp. Code</td> <td colspan="2">T3 at 40°C Amb. / T2D at 55°C Amb.</td> </tr> <tr> <td colspan="4">10:1VT(20:1 at 50% load) 4:1CT(10:1 1hour duty at lowest RPM)</td> <td colspan="2">T4 With Thermostat</td> <td style="text-align: center;"> </td> </tr> <tr> <td>No.</td> <td colspan="2">-</td> <td>Date</td> <td colspan="2">-</td> <td>Weight</td> <td>2116.438</td> </tr> </table> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div style="text-align: center;"> <p>4M-136067 (NEMA 320~444Fr.)</p> </div> <div style="text-align: center;"> <p>Made in Korea H1</p> </div> <div style="text-align: center;"> </div> </div>						125HP	4P	230/460V	Cat. No.	IXHHI125-18-444T	Amps	284.1/142	Model	LATER		INS. Class	F HD-F1	Hertz	60Hz	Type	XJP	Duty	CONT	Code	H	NEMA Norm. Eff.	95.4%	Frame	444T	Encl.	TEFC	S.F.	1.15	3/4 Eff.	94.4%	Bearing	Drive	NU318	S.F.	1.00	on sine wave power	NEMA Design	B	Opp.	6314C3	RPM	1785	on PWM or IGBT power	Amb.	40°C	Usable at	50Hz 125HP 380V 168.6A 1480rpm S.F.: 1.0 Eff.: 94.7% Code: E						50Hz 125HP 400/415V 160.9/156.6A 1482/1484rpm S.F.: 1.0 Eff.: 95/95.2% Code: F/G						UL Certified for	Class I, Div. 1, Group C&D / Class I, Zone 1, Group IIA & IIB				Temp. Code	T3 at 40°C Amb. / T2D 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	2116.438	C
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A	APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	UL Class I, Division1 (IXHHI)	DWG SIZE																																																																																	
	CHKD BY	I.K.KIM	SCALE	NONE			A4 ( 1:1 )																																																																																	
	CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	NAMEPLATE DRAWING																																																																																			
	DSND BY	S.H.LEE	DATE	2024.06.07	REF. NO	4M-136067	Sheet No. of																																																																																	
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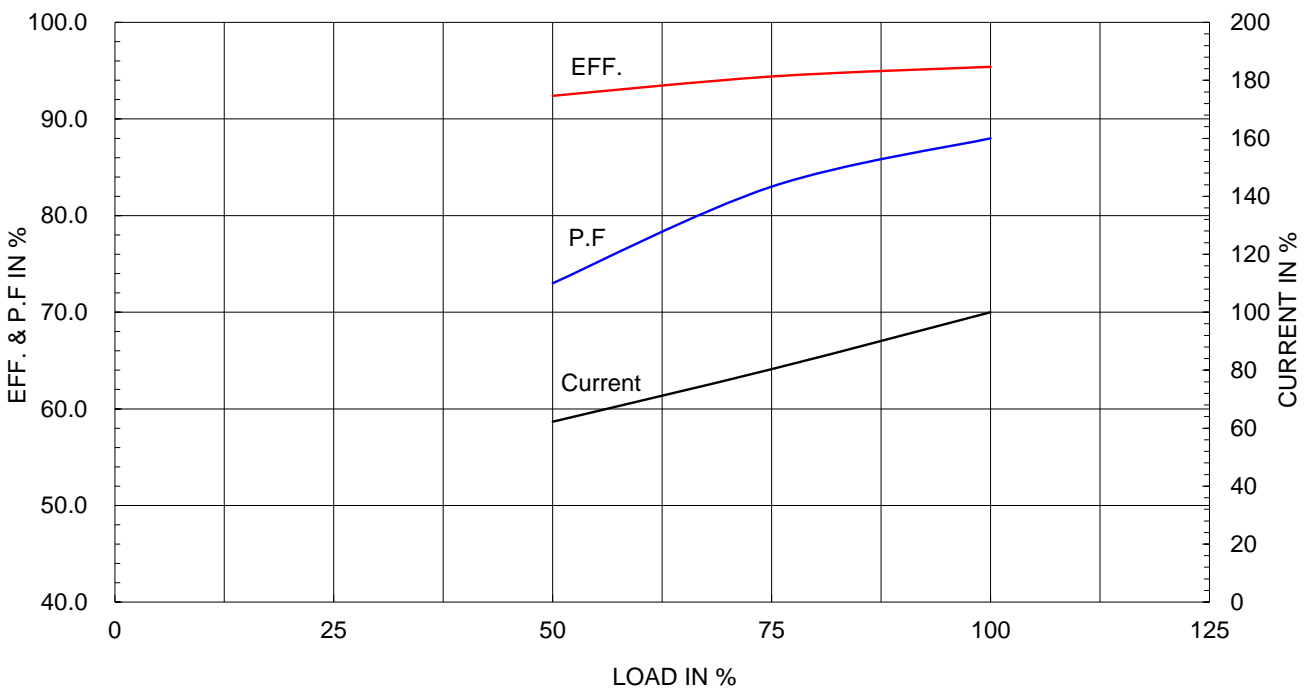
Type :	XJP	
Full Load Torque :	374.9	lb.ft
Load moment of Inertia (J) :	1507.479	lb.ft2
Motor moment of Inertia (J) :	52.510	lb.ft2

95kW	125HP	4 P	60 Hz
Speed at Full Load :			1785 RPM
Rated Voltage	575V	460V	230V
Full Load Current	113.6A	142.0A	284.1A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

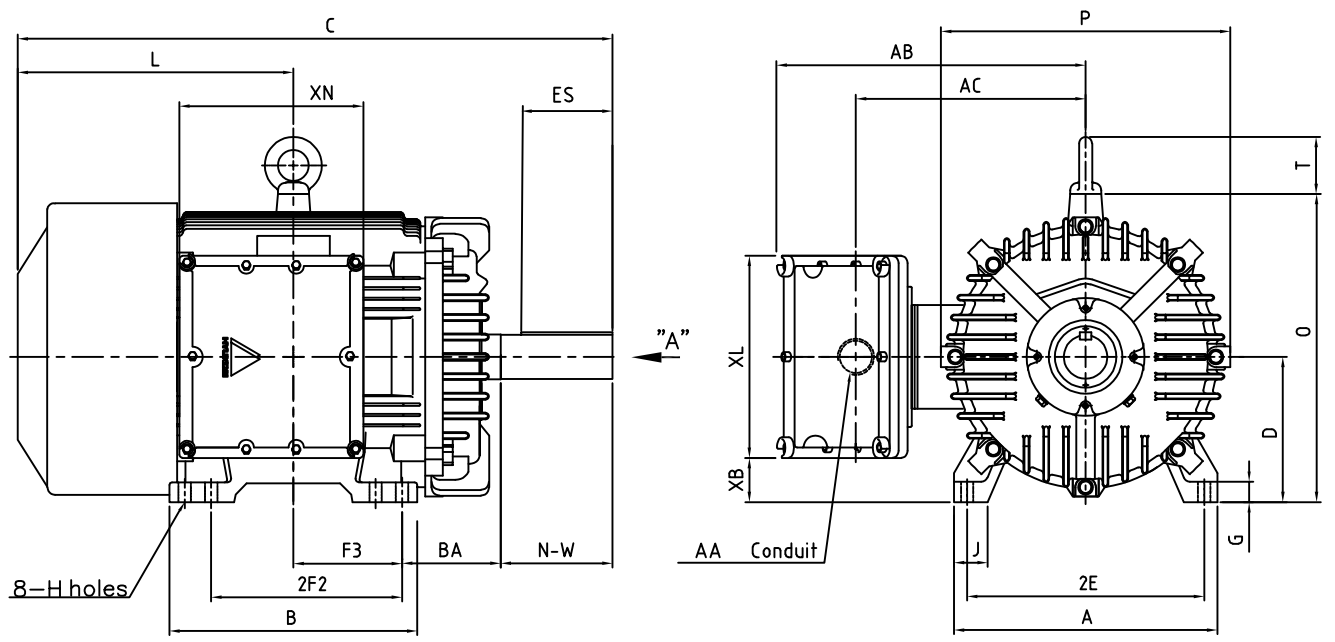


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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▽	50S	REV	DATE
▽▽	12.5S		
▽▽▽	3.2S		
▽▽▽▽	0.4S		

## Class I Division 1



### DIMENSIONS

MOUNTING									CONDUIT BOX						APPROX. WGT.(LB)
A	B	2E	2F1	2F2	F3	G	J	H	AA	AB	AC	XB	XL	XN	
20.00	18.81	18.00	-	14.50	8.248	1.53	2.56	0.81	3.00	24.01	18.30	3.34	15.35	13.97	2P: 2006 or 4P: 2116 or 6P: 2116

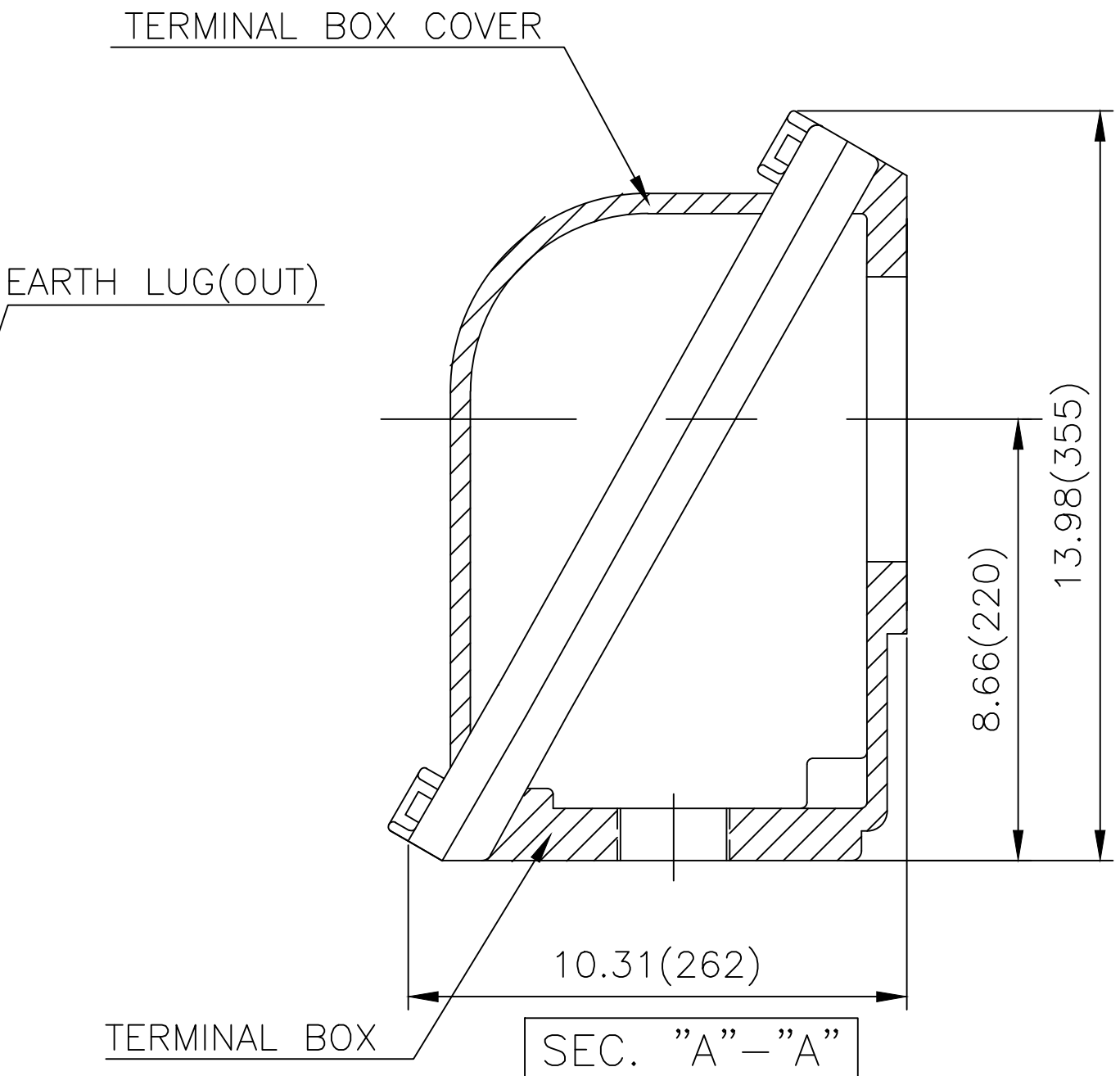
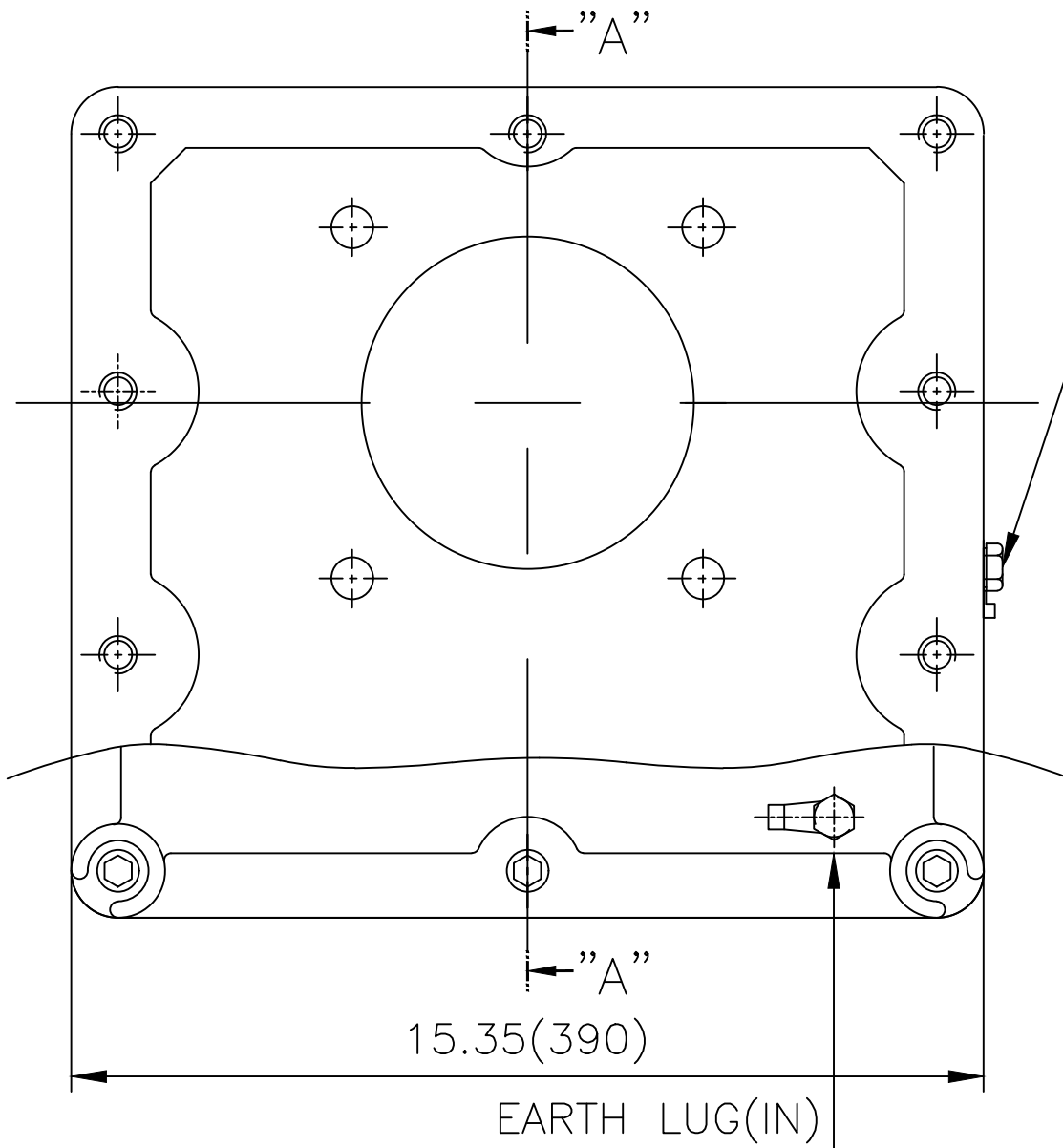
OVERALL							SHAFT					KEY	BEARING	
BA	C	D	L	O	P	T	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
									R	ES	S			
7.50	45.15	11.00	20.92	23.38	21.97	4.33	3.375	8.50	2.880	6.93	0.875	0.875	NU318 or 6318C3	6314C3

### NOTE

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

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	444T	DWG SIZE	
CHKD BY	R.G.KIM	SCALE	1/15	TITLE	OUTLINE	A4 ( 1:15 )	
CHKD BY		PROJEC'N	3rd Angle				
DSND BY	J.H.JEON	DATE	2021-04-19				
				REF. NO		Sheet No.	of
				DWG NO	LM-U0444B3TL001	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. 400~440(CAST IRON)	DWG SIZE	A3 ( 1:3 )
CHKD BY	R.G.KIM	SCALE	1/3	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY		PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	김은진	DATE	2023-11-08	DWG NO	3M-248636	Revision No.	0

