

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.	IXHHI100-12-444T	Item No.		Rev. No.	[ ]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	444T		Rated Output	75 kW		100 HP
Type	XJP		Number of Poles	6		
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	93.3 A	116.6 A
Insulation Class	F			Locked-rotor**	680 %	680 %
Temp. Rise at full load (by resistance method)			Efficiency			
at 1.0 S.F			80 deg. C			
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		50% Load		92.0 %	
Altitude	Less than 1,000 meter		75% Load		94.0 %	
Relative Humidity	Less than 80 %		100% Load		95.0 %	
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)			
Duty Type	Continuous ( S1 )		50% Load		0.700	
Service Factor	1.15		75% Load		0.800	
Mounting	B3		100% Load		0.850	
Bearing	Type	Anti-Friction	Speed at Full Load			
	DE/N-DE	NU318 / 6314C3	1185 r.p.m			
	Lubricant	Grease(Polyrex-EM)	Torque			
External Thrust	Not applicable		Full Load		445.9 lb.ft	
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Locked-rotor**		140 %	
Shaft Extension	Single		Breakdown**		220 %	
Terminal Box	Main	Cast Iron	Moment of Inertia (J)			
	Aux.	No	Load(Max.)		3,008.432 lb.ft2	
Location	Refer to Outline Drawing		Motor		73.410 lb.ft2	
			Sound Pressure Level (No-load & mean value at 1m from motor)			
Application			80 dB(A)			
Area classification	Hazardous		Vibration			
Type of Ex-Protection	Class I, Division 1		0.0 mm/sec (peak)			
Applicable Standard	NEMA MG1, CSA C390, UL674		Permissible number of consecutive starts		Cold 0 times	
			Hot		0 times	
			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.


1	2	3	4
REV	DATE	CONTENTS	REVD BY


4.72

**CROWN TRITON**  
Premium Efficiency AC 3 Phase Motor

**Explosion Proof**








100HP	6P	230/460V	Cat. No.	IXHHI100-12-444T	Amps	233.1/116	
Model	LATER		INS. Class	F HD-F1	Hertz	60Hz	
Type	XJP	Duty	CONT	Code	H	NEMA Norm. Eff.	95%
Frame	444T	Encl.	TEFC	S.F.	1.15	on sine wave power	3/4 Eff. 94%
Bearing	Drive	NU318	S.F.	1.00	on PWM or IGBT power	NEMA Design	B Torque
	Opp.	6314C3	RPM	1185		Amb.	40°C
Usable at	50Hz 75HP 380V 104.4A 985rpm S.F.: 1.0 Eff.: 94.6% Code: H						
	50Hz 75HP 400/415V 101/99.3A 986/987rpm S.F.: 1.0 Eff.: 94.8/94.9% Code: J/K						
UL Certified for	Class I, Div. 1, Group C&D / Class I, Zone 1, Group II A & II B				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

4M-136067  
(NEMA 320~444Fr.)

Made in Korea H1



2.36

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	TITLE <b>NAMEPLATE DRAWING</b>		
DSND BY	S.H.LEE	DATE	2024.06.07			

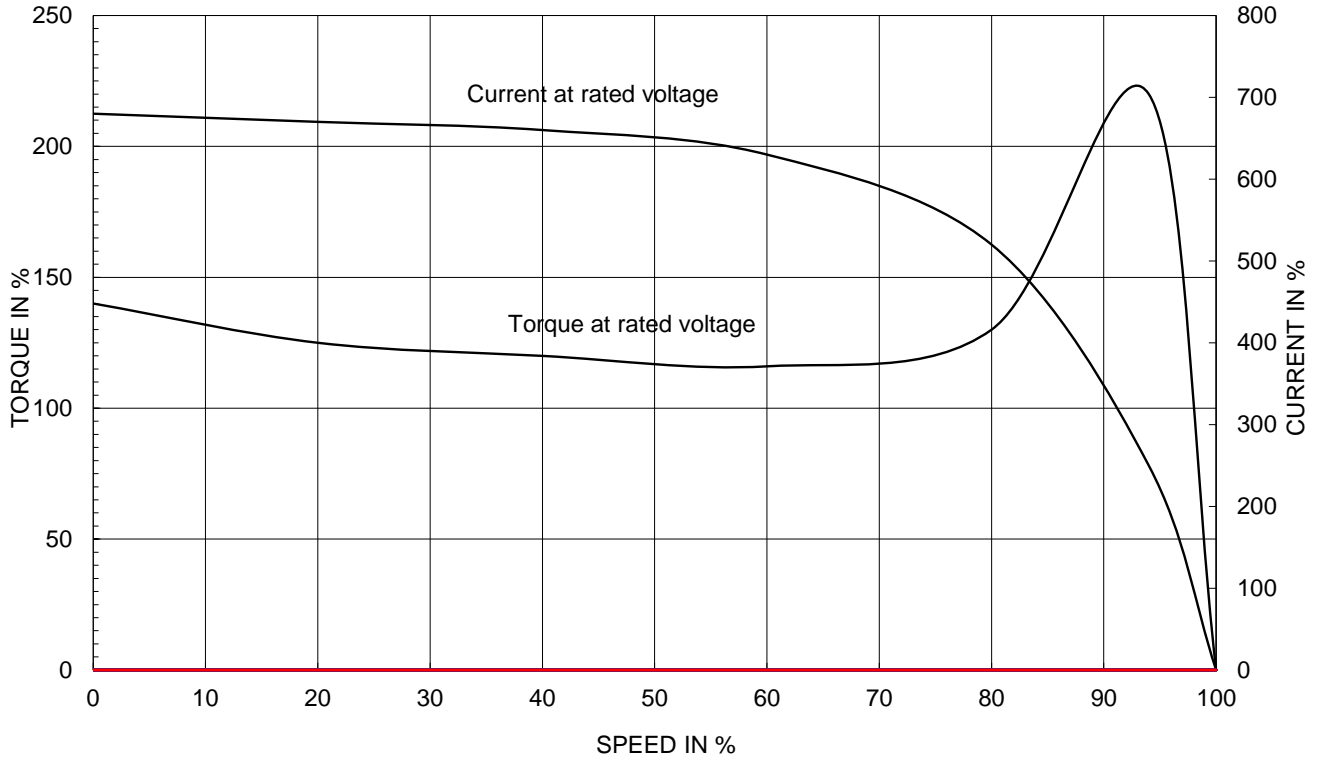


REF. NO	<b>4M-136067</b>	Sheet No.	of
DWG NO	<b>NP-IXHHI100-12-444T</b>	Revision No.	<b>0</b>

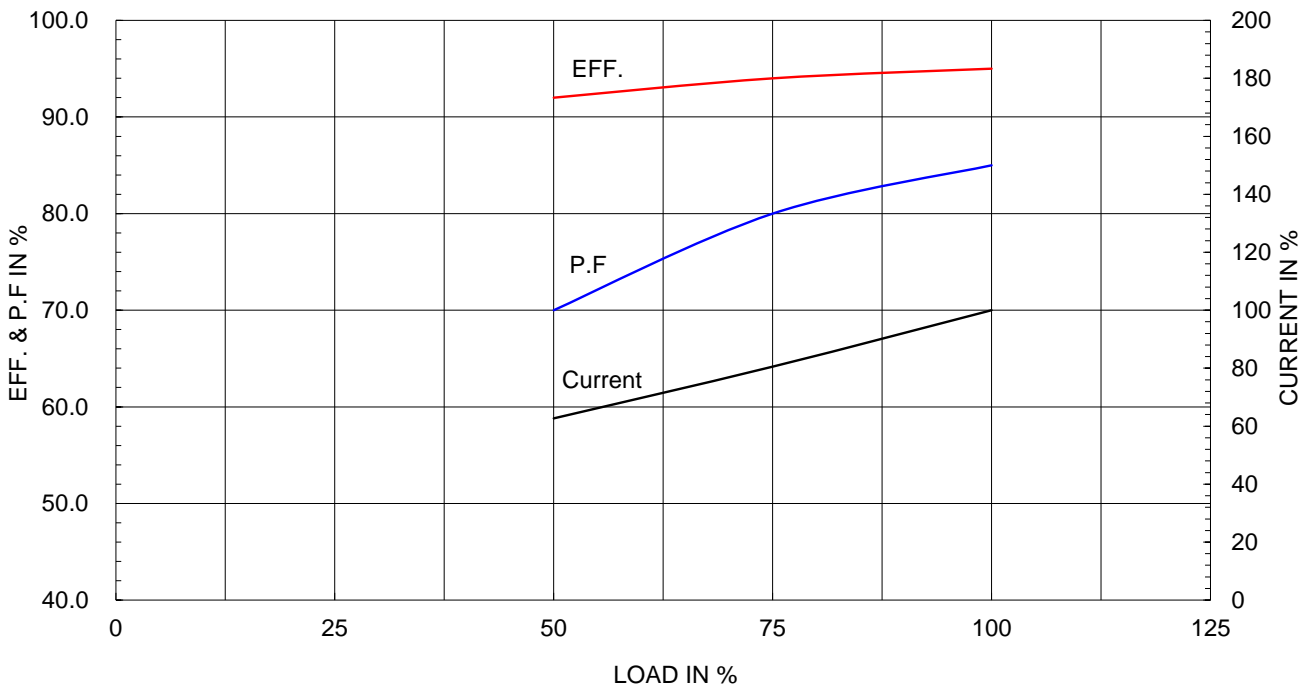
Type :	XJP	
Full Load Torque :	445.9	lb.ft
Load moment of Inertia (J) :	3008.432	lb.ft <sup>2</sup>
Motor moment of Inertia (J) :	73.410	lb.ft <sup>2</sup>

75kW	100HP	6 P	60 Hz
Speed at Full Load :			1185 RPM
Rated Voltage	575V	460V	230V
Full Load Current	93.3A	116.6A	233.1A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

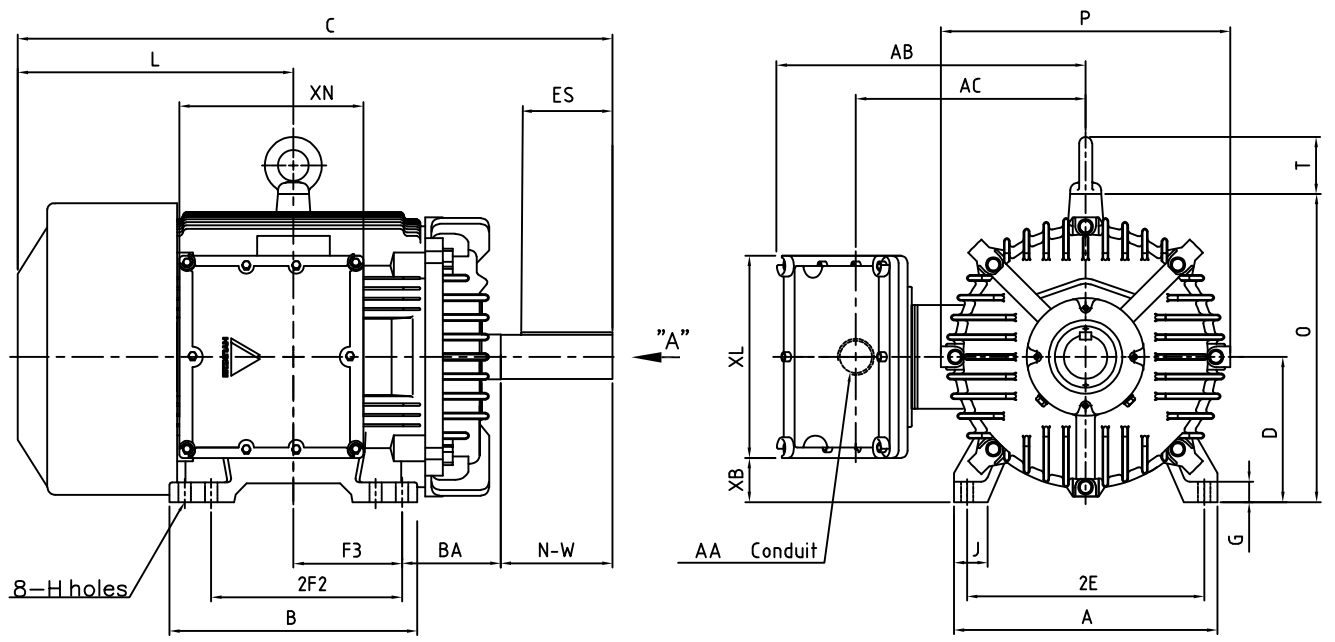


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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

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

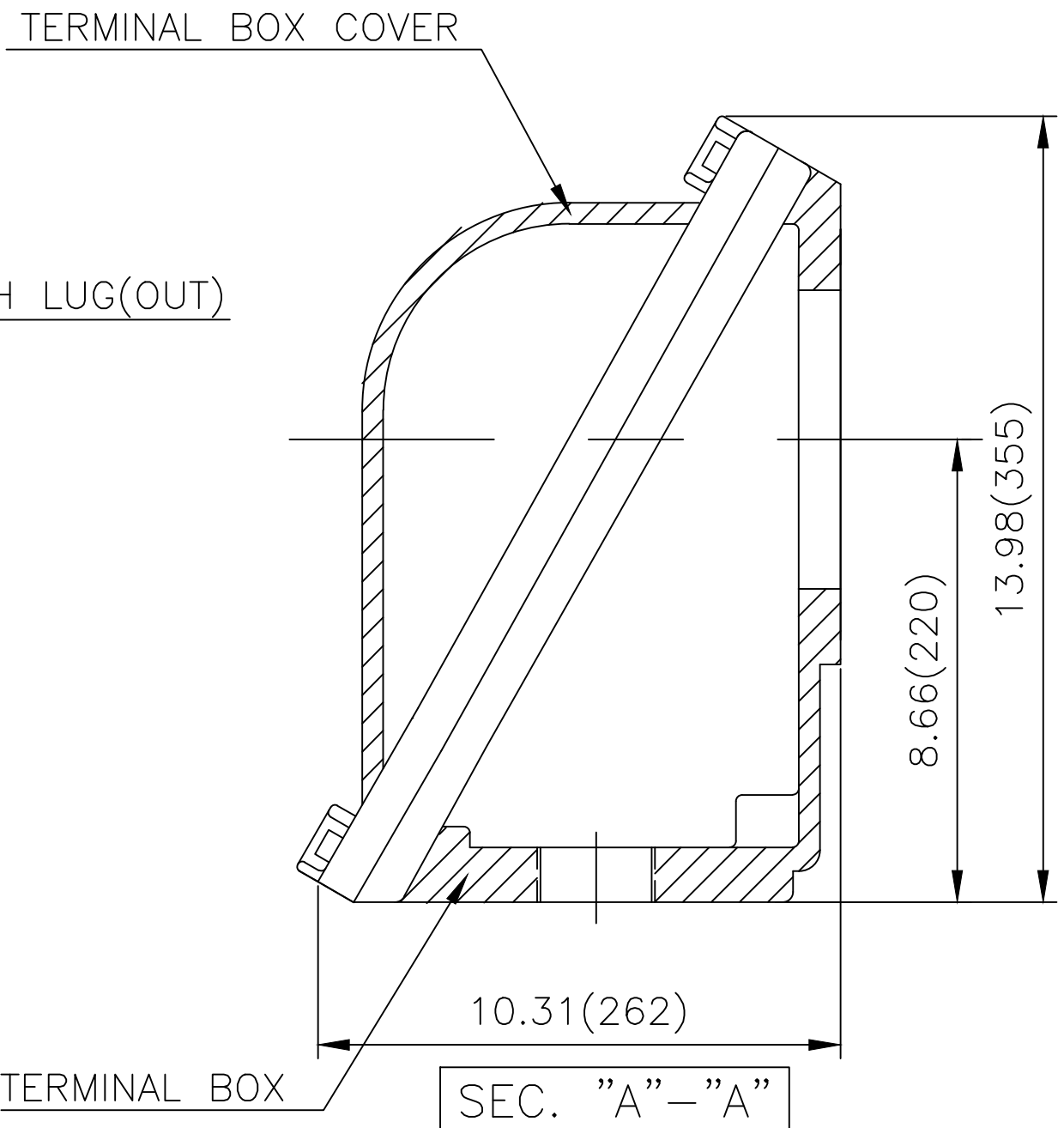
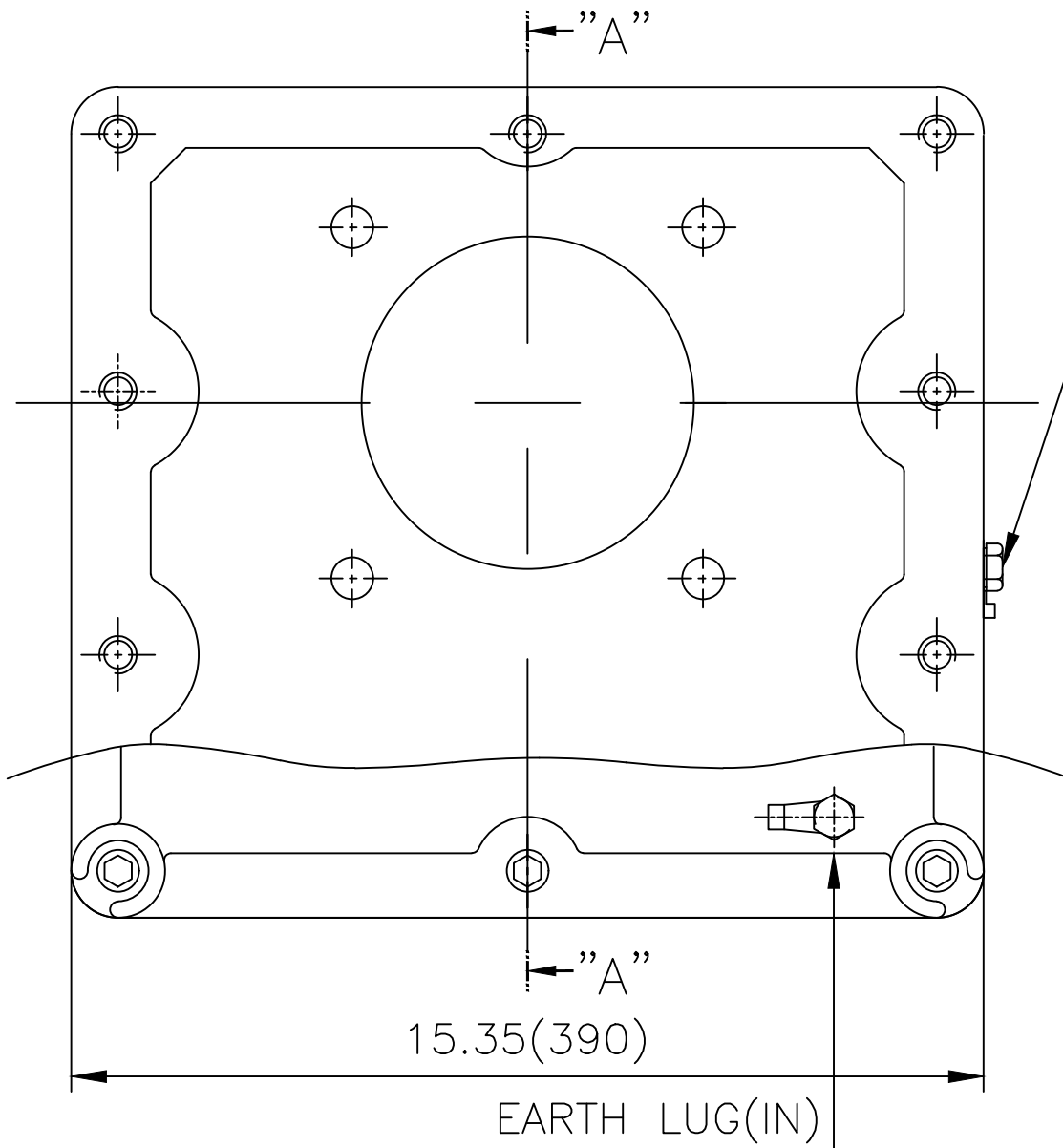
OVERALL							SHAFT						KEY	BEARING	
BA	C	D	L	O	P	T	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END	
									R	ES	S				
7.50	45.15	11.00	20.92	23.38	21.97	4.33	3.375	8.50	2.880	6.93	0.875	0.875	NU318 or 6318C3	6314C3	

### NOTE

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	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

