

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.		IXHHI100-36-405TS		Item No.		Rev. No. [      ]					
Project Name		Project No.				Quantity                      sets					
GENERAL SPECIFICATION				PERFORMANCE DATA							
Frame Size		405TS		Rated Output		75 kW                      100 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      88.1 A      110.1 A      220.1 A					
Insulation Class		F				Locked-rotor**		700 %      700 %      700 %			
Temp. Rise at full load (by resistance method)				Efficiency							
at 1.0 S.F		80 deg. C		50% Load		91.5 %					
Motor Location		<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load		93.5 %					
Altitude		Less than 1,000 meter		100% Load		94.5 %					
Relative Humidity		Less than 80 %		Power Factor(p.u)							
Ambient Temp.		40 deg. C (Max.)		50% Load		0.755					
Duty Type		Continuous ( S1 )		75% Load		0.855					
Service Factor		1.15		100% Load		0.905					
Mounting		B3		Speed at Full Load		3570 r.p.m					
Bearing		Type      Anti-Friction		Torque							
		DE/N-DE      6313C3 / 6313C3		Full Load		148.0 lb.ft					
		Lubricant      Grease(Polyrex-EM)		Locked-rotor**		120 %					
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.)		214.761 lb.ft2					
Terminal Box		Main      Cast Iron		Motor		18.450 lb.ft2					
		Aux.      No		Sound Pressure Level (No-load & mean value at 1m from motor)							
Location		Refer to Outline Drawing				87 dB(A)					
Application				Vibration      0.0 mm/sec (peak)							
Area classification		Hazardous		Permissible number of consecutive starts		Cold      0 times Hot      0 times					
Type of Ex-Protection		Class I, Division 1		Paint		Munsell No.      4.0PB5.4/5.5(VL-451)					
Applicable Standard		NEMA MG1, CSA C390, UL674									
ACCESSORIES				SUBMITTAL DRAWING							
* . W.T.D.(Thermostat, 145°C) : 1EA/Ph.				Outline Dimension Drawing      \      Motor Weight(Approx.)							
				B3		LM-U0405B3SL001		1852 lb.			
REMARK				<p>1. Premium efficiency according to NEMA MG1</p> <p>2. Inverter Duty @ 1.0 Service Factor &amp; Ambient max 45°C</p> <ul style="list-style-type: none"> <li>- . 4:1 CT (10:1 CT at 1hour Duty)</li> <li>- . 10:1 VT (20:1 VT at 50% load)</li> <li>- . CHP up to 1.5 times base speed, NEMA MG1 Part31</li> </ul> <p>3. Temperature Code</p> <ul style="list-style-type: none"> <li>- . T3 at 40°C Ambient / T2D at 55°C Ambient</li> <li>- . T4 with Winding Temperature Detector</li> </ul>							
Date		DSND						CHKD		CHKD      APPD	
2024-07-14		S.H. Lee						I.K. Kim		R.G. Kim      S.W. Kim	
SPARE PARTS											

[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
CHKD BY	CHKD BY	CHKD BY	APPD BY

4.72

CROWN TRITON

Premium Efficiency AC 3 Phase Motor

Explosion Proof

100HP	2P	230/460V	Cat. No.	IXHHI100-36-405TS	Amps	220.1/110	
Model	LATER		INS. Class	F HD-F1	Hertz	60Hz	
Type	XJP	Duty	CONT	Code	G	NEMA Norm. Eff.	94.5%
Frame	405TS	Encl.	TEFC	S.F.	1.15	3/4 Eff.	93.5%
Bearing	Drive	6313C3	S.F.	1.00	on sine wave power	NEMA Design	B
	Opp.	6313C3	RPM	3570	on PWM or IGBT power	Amb.	40°C
Usable at	50Hz 75HP 380V 97.8A 2970rpm S.F.: 1.0 Eff.: 94.4% Code: H						
	50Hz 75HP 400/415V 93.1/90.2A 2973/2975rpm S.F.: 1.0 Eff.: 94.6/94.7% Code: J/J						
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	1851.883

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

Made in Korea H1

2.36

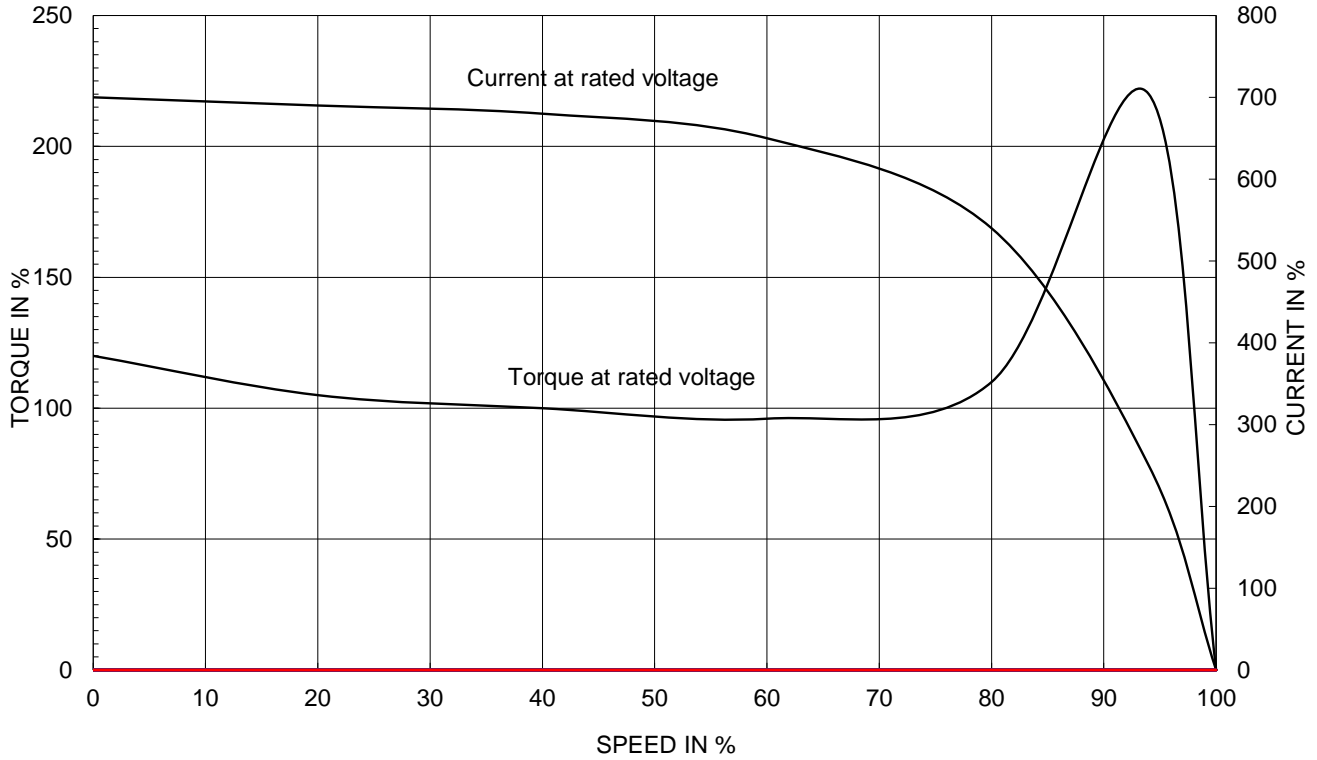
APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	UL Class I, Division1 (IXHHI)	DWG SIZE	A4 ( 1:1 )
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	<p style="font-size: 24px; font-weight: bold;">NAMEPLATE DRAWING</p>		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	S.H.LEE	DATE	2024.06.07				
				REF. NO	4M-136067	Sheet No. of	
				DWG NO	NP-IXHHI100-36-405TS	Revision No. 0	

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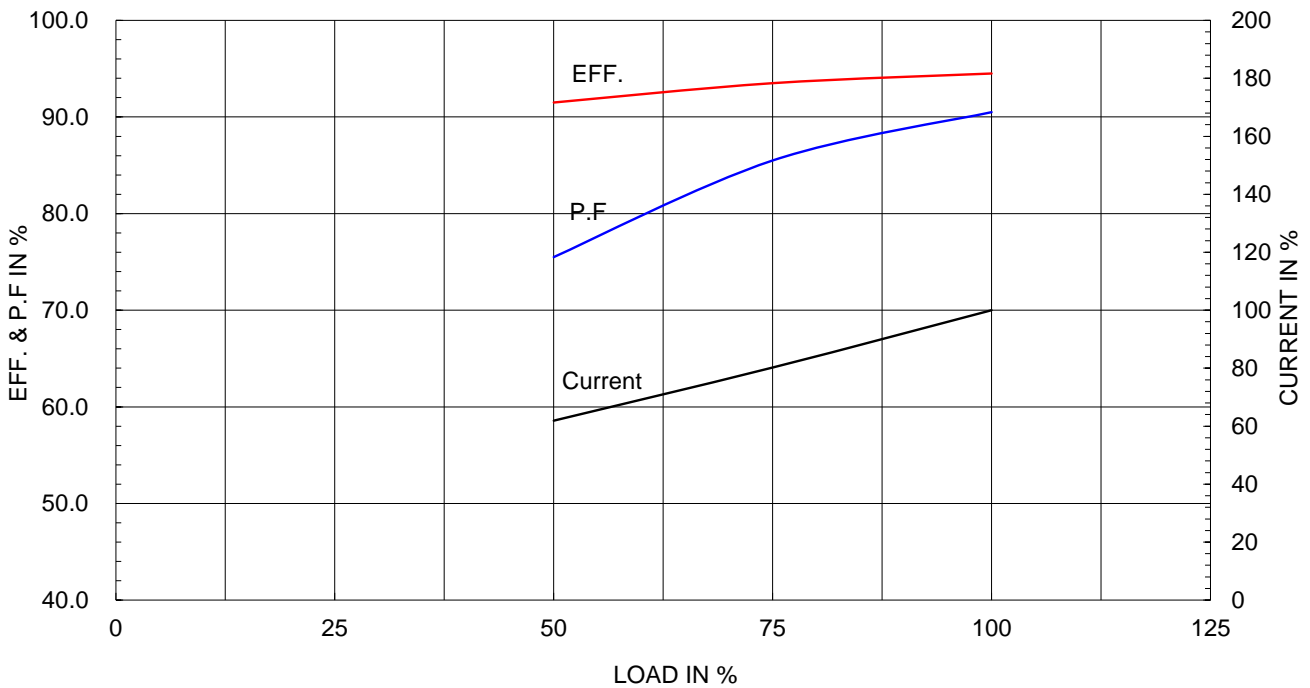
Type :	XJP
Full Load Torque :	148.0 lb.ft
Load moment of Inertia (J) :	214.761 lb.ft2
Motor moment of Inertia (J) :	18.450 lb.ft2

75kW 100HP	2 P	60 Hz
Speed at Full Load :		3570 RPM
Rated Voltage	575V	460V 230V
Full Load Current	88.1A	110.1A 220.1A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

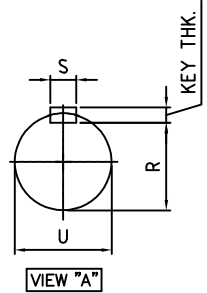
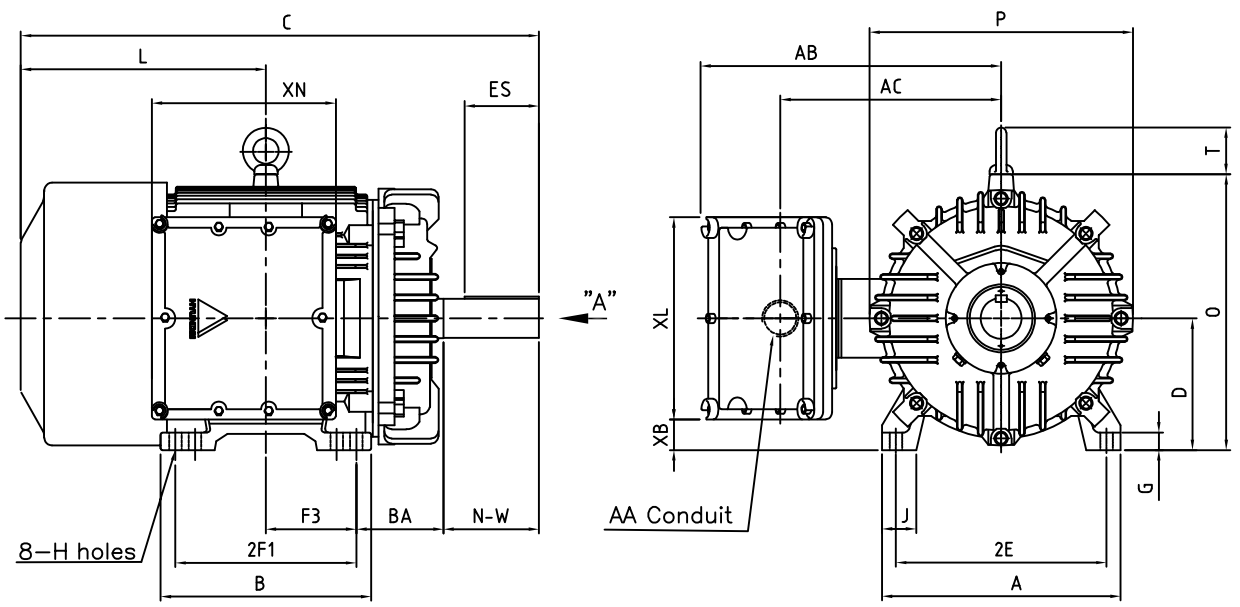


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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	
18.11	15.98	16.00	13.75	-	6.870	1.18	2.59	0.81	3.00	22.83	17.32	2.16	15.35	13.97	

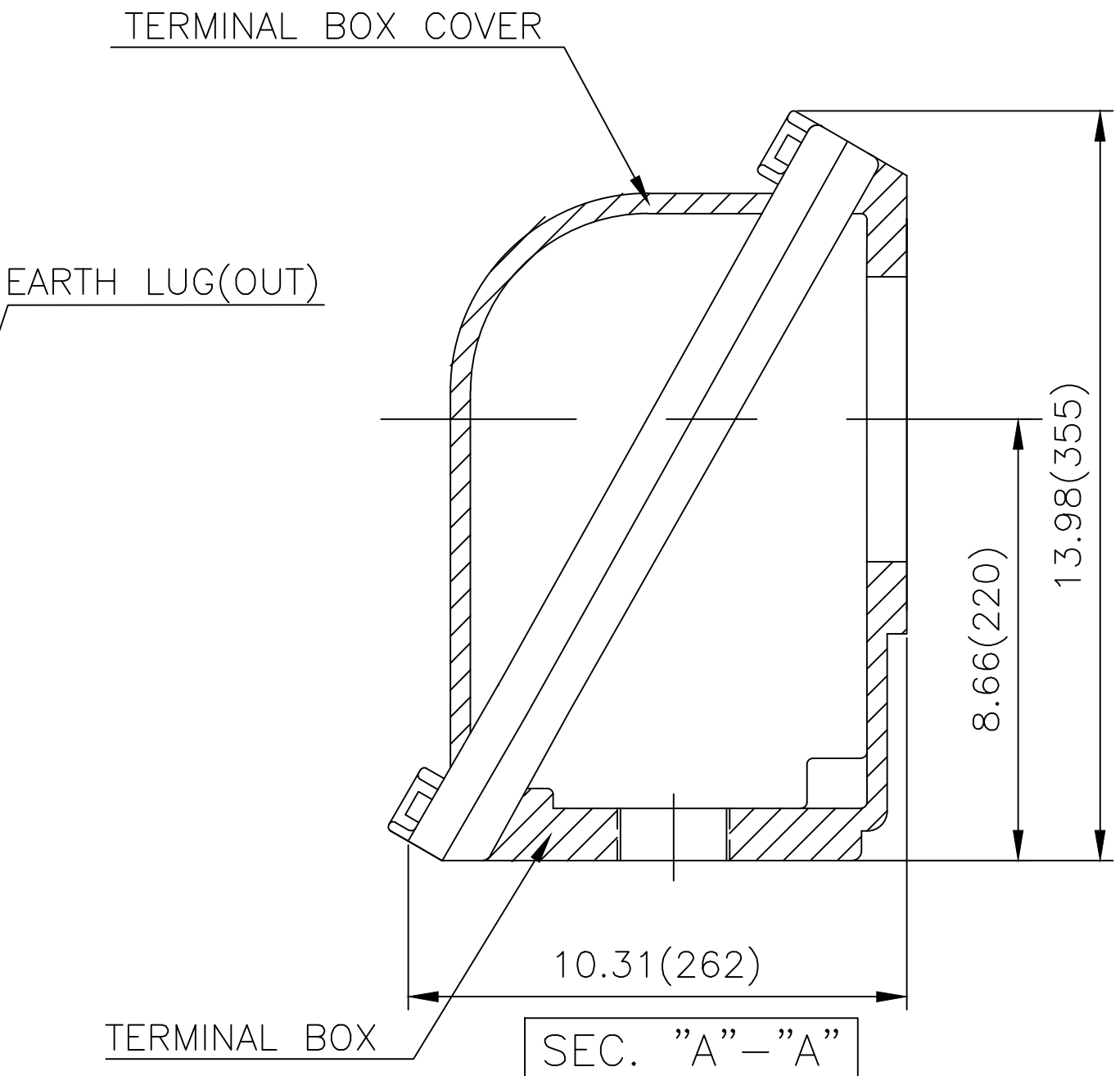
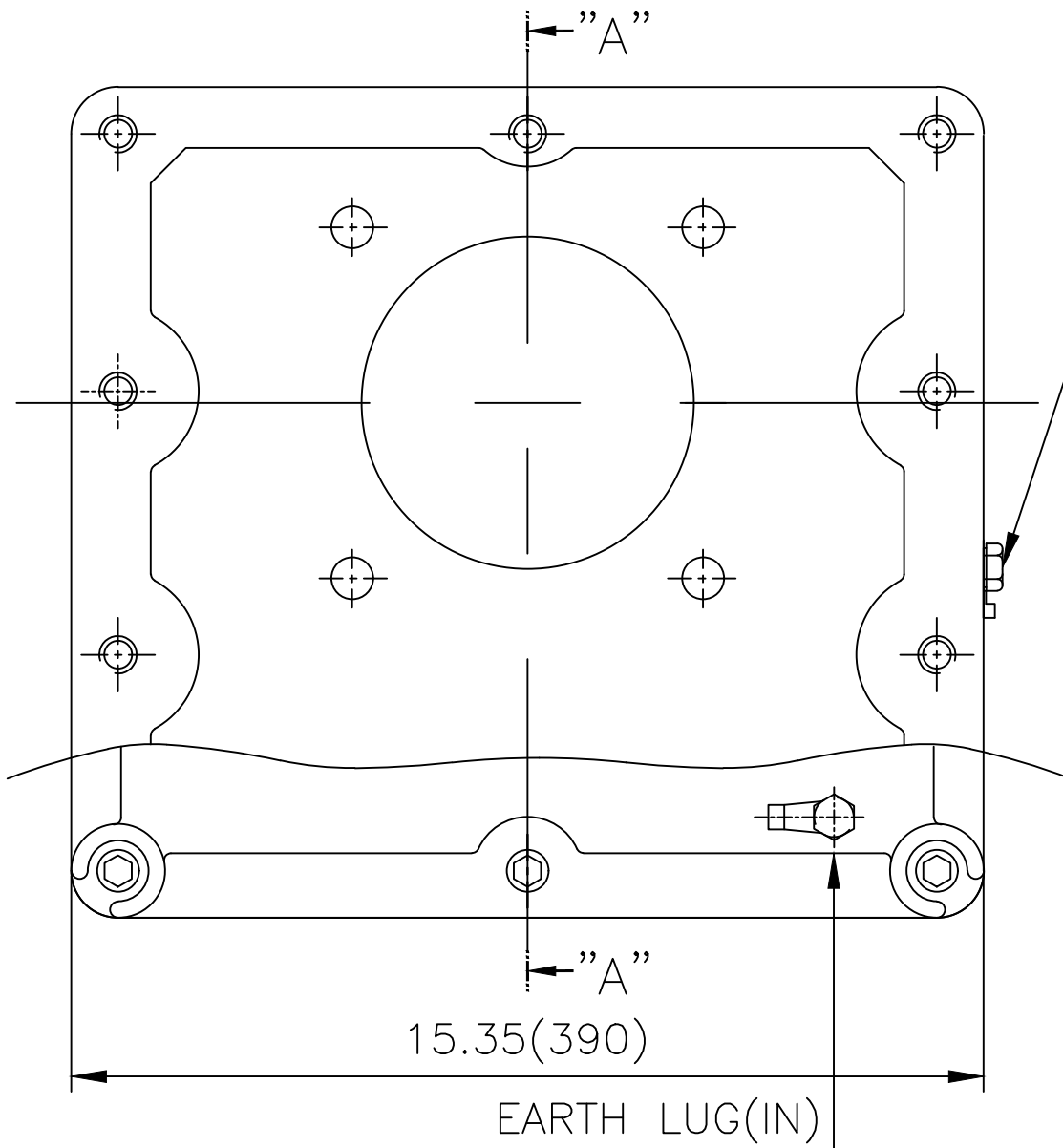
OVERALL							SHAFT					KEY	BEARING	
BA	C	D	L	O	P	T	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
									R	ES	S			
6.62	36.33	10.00	18.60	20.94	20.00	3.55	2.125	4.25	1.845	2.80	0.500	0.500	6313C3	6313C3

### 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	405TS	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-U0405B3SL001	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

