

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.	IXHHI150-12-447T	Item No.	Rev. No.	[       ]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	447T	Rated Output	110 kW		150 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	135.6 A	169.5 A	339.1 A
Insulation Class	F		Locked-rotor**	680 %	680 %	680 %
Temp. Rise at full load (by resistance method)		Efficiency				
at 1.0 S.F	80 deg. C	50% Load		92.8 %		
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		94.8 %		
Altitude	Less than 1,000 meter	100% Load		95.8 %		
Relative Humidity	Less than 80 %	Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)	50% Load		0.700		
Duty Type	Continuous ( S1 )	75% Load		0.800		
Service Factor	1.15	100% Load		0.850		
Mounting	B3	Speed at Full Load		1185 r.p.m		
Bearing	Type	Anti-Friction				
	DE/N-DE	NU320 / 6318C3				
	Lubricant	Grease(Polyrex-EM)				
External Thrust	Not applicable					
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt	Torque				
Shaft Extension	Single	Full Load		654.0 lb.ft		
Terminal Box	Main	Locked-rotor**		140 %		
	Aux.	Breakdown**		220 %		
Location	Refer to Outline Drawing	Moment of Inertia (J)				
Application		Load(Max.)		4,864.156 lb.ft2		
Area classification	Hazardous	Motor		106.310 lb.ft2		
Type of Ex-Protection	Class I, Division 1	Sound Pressure Level (No-load & mean value at 1m from motor)				
Applicable Standard	NEMA MG1, CSA C390, UL674	80 dB(A)				
<b>ACCESSORIES</b> *. W.T.D.(Thermostat, 145°C) : 1EA/Ph.		Vibration				0.0 mm/sec (peak)
		Permissible number of consecutive starts		Cold	0 times	
				Hot	0 times	
		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		
<b>SPARE PARTS</b>		<b>SUBMITTAL DRAWING</b>				
		Outline Dimension Drawing		Motor Weight(Approx.)		
		B3	LM-U0447B3TL001	2756 lb.		
		<b>REMARK</b>				
		1. Premium efficiency according to NEMA MG1				
		2. 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						
3. Temperature Code						
-. T3 at 40°C Ambient / T2D at 55°C Ambient						
-. T4 with Winding Temperature Detector @ 1.0 Service Factor						
		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**









150HP	6P	460V	Cat. No.	IXHHI150-12-447T	Amps	169.5	
Model	LATER		INS. Class	F HD-F1	Hertz	60Hz	
Type	XJP	Duty	CONT	Code	G	NEMA Nom. Eff.	95.8%
Frame	447T	Encl.	TEFC	S.F.	1.15	on sine wave power	3/4 Eff. 94.8%
Bearing	Drive	NU320	S.F.	1.00	on PWM or IGBT power	NEMA Design	B
	Opp.	6318C3	RPM	1185		Amb.	40°C
Usable at	50Hz 125HP 380V 174A 985rpm S.F.: 1.0 Eff.: 95.2% Code: G						
	50Hz 125HP 400/415V 167.1/163.2A 986/987rpm S.F.: 1.0 Eff.: 95.4/95.5% Code: H/H						
UL Certified for	Class I, Div. 1, Group C&D / Class I, Zone 1, Group II A & II B				Temp. Code (sine wave)	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) CHP upto 1.5 time base speed, NEMA MGI part 31. Amb max 45°C for inverter duty.					T4 (S.F.:1.0) With Thermostat TH01 145°C TH02	
No.	-		Date	-		Weight	2755.778

4M-136016  
(NEMA 445~449Fr.)

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-136016</b>	Sheet No. of
				DWG NO	<b>NP-IXHHI150-12-447T</b>	Revision No. <b>0</b>

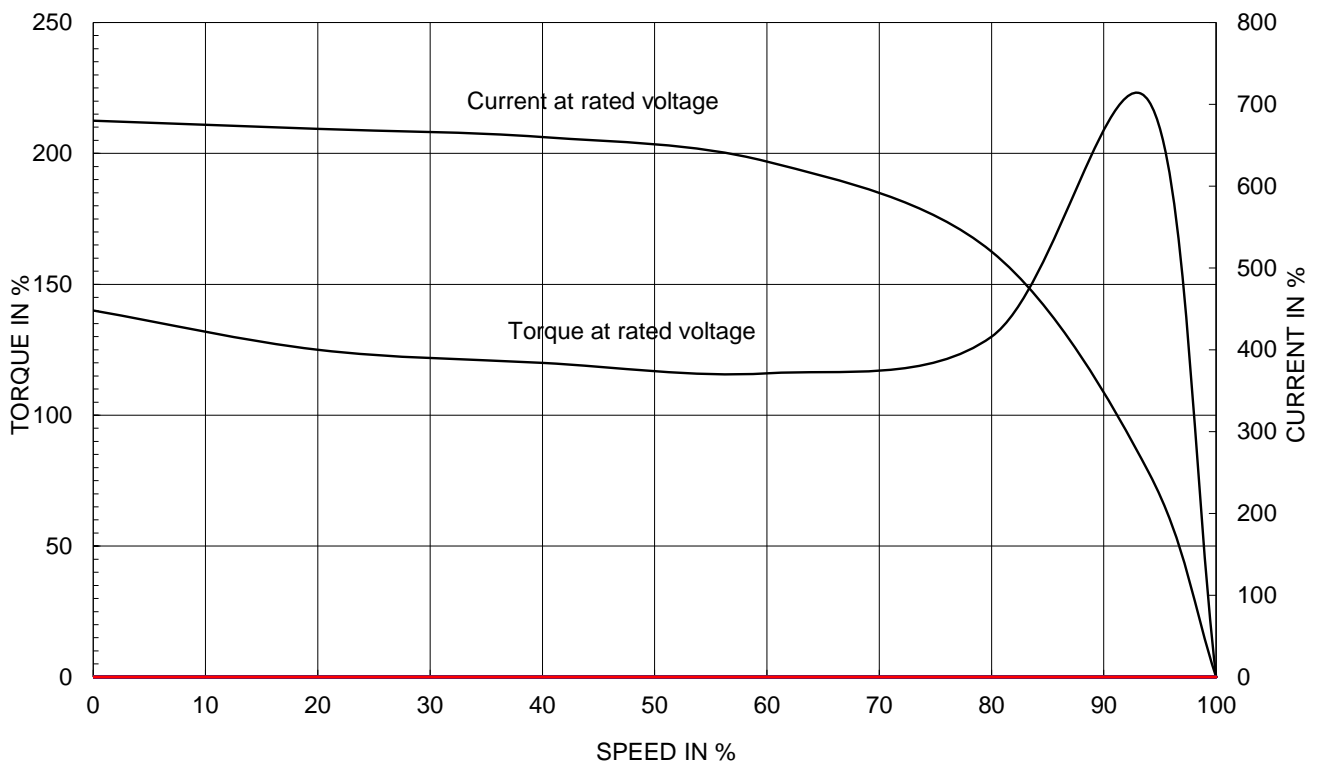


# PERFORMANCE CURVE

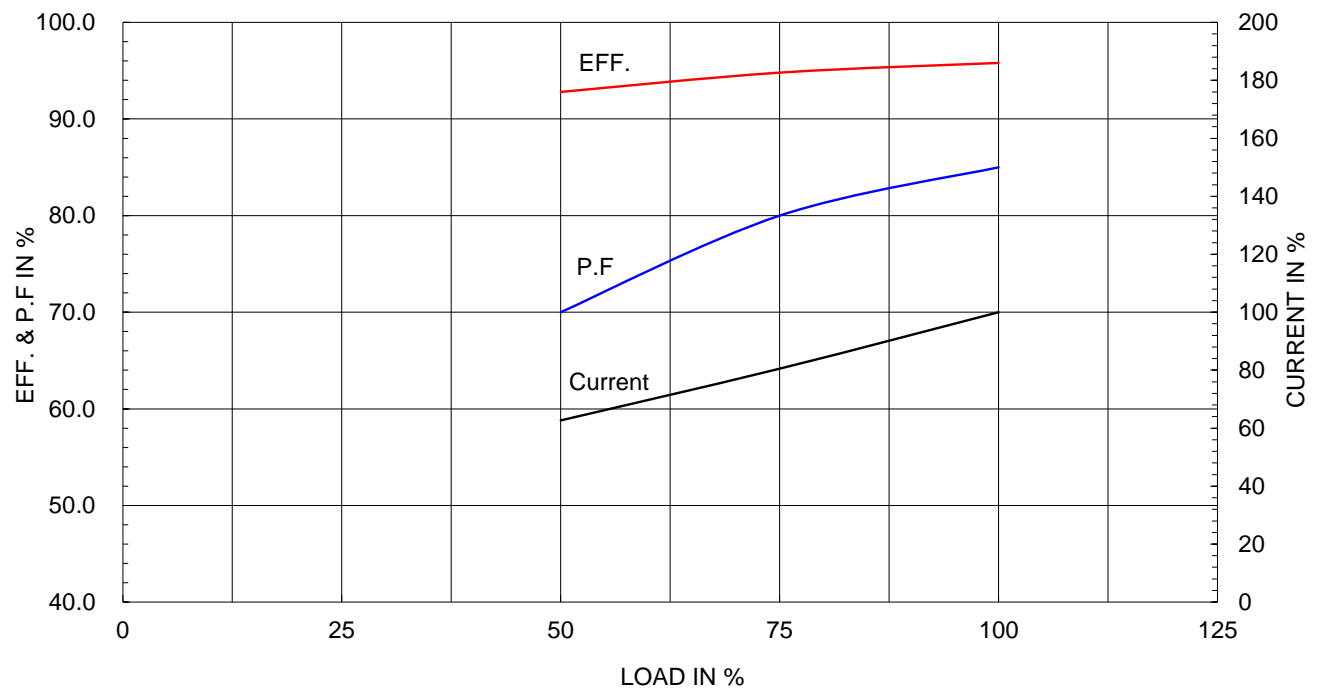
CURVE NO.  
PC-IXHHI150-12-447T

Type :	XJP	110kW 150HP	6 P	60 Hz
Full Load Torque :	654.0 lb.ft	Speed at Full Load : 1185 RPM		
Load moment of Inertia (J) :	4864.156 lb.ft2	Rated Voltage		
Motor moment of Inertia (J) :	106.310 lb.ft2	575V 460V 230V		
		Full Load Current		
		135.6A 169.5A 339.1A		

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

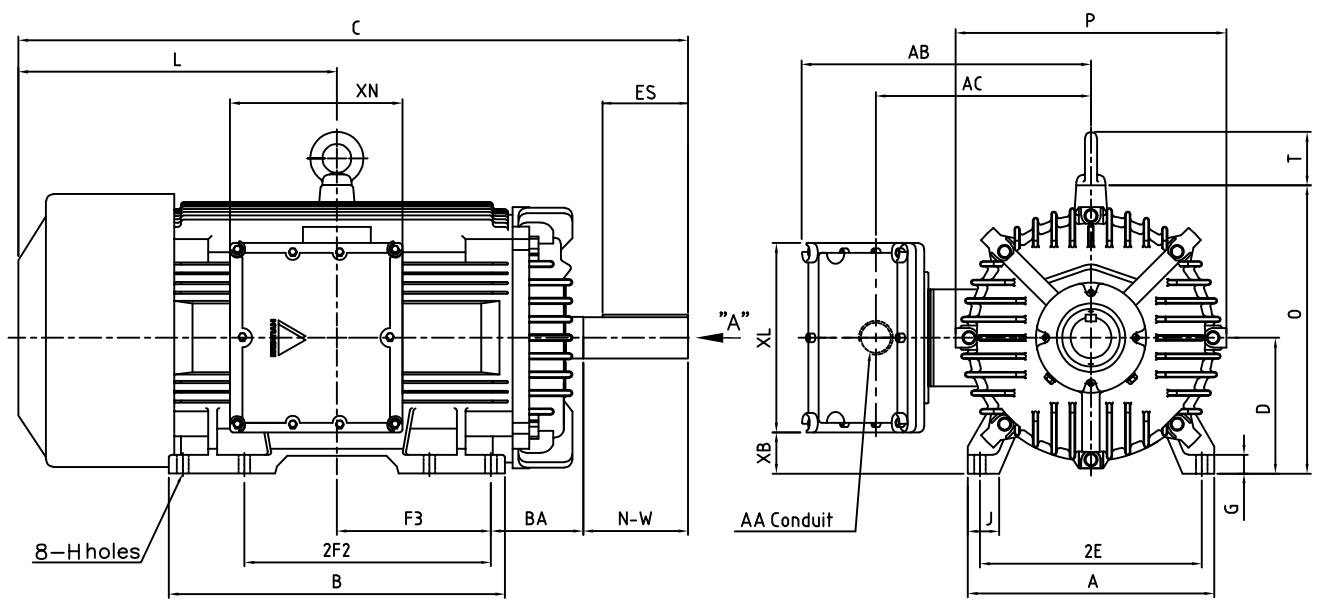


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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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	27.28	18.00	-	20.00	12.50	1.53	2.56	0.81	3.00	24.01	18.30	3.34	15.35	13.97	

2P: 2690 or 3020  
 4P: 2756 or 3086  
 6P: 2756 or 3086

OVERALL									SHAFT			KEY THK.	BEARING	
BA	C	D	L	O	P	T	U	N-W	KEYWAY		DRIVE END		OPP. DRIVE END	
									R	ES	S			
7.50	54.32	11.00	25.84	23.38	21.97	4.33	3.375	8.50	2.880	6.93	0.875	0.875	6320C3 or NU320	6318C3

### NOTE

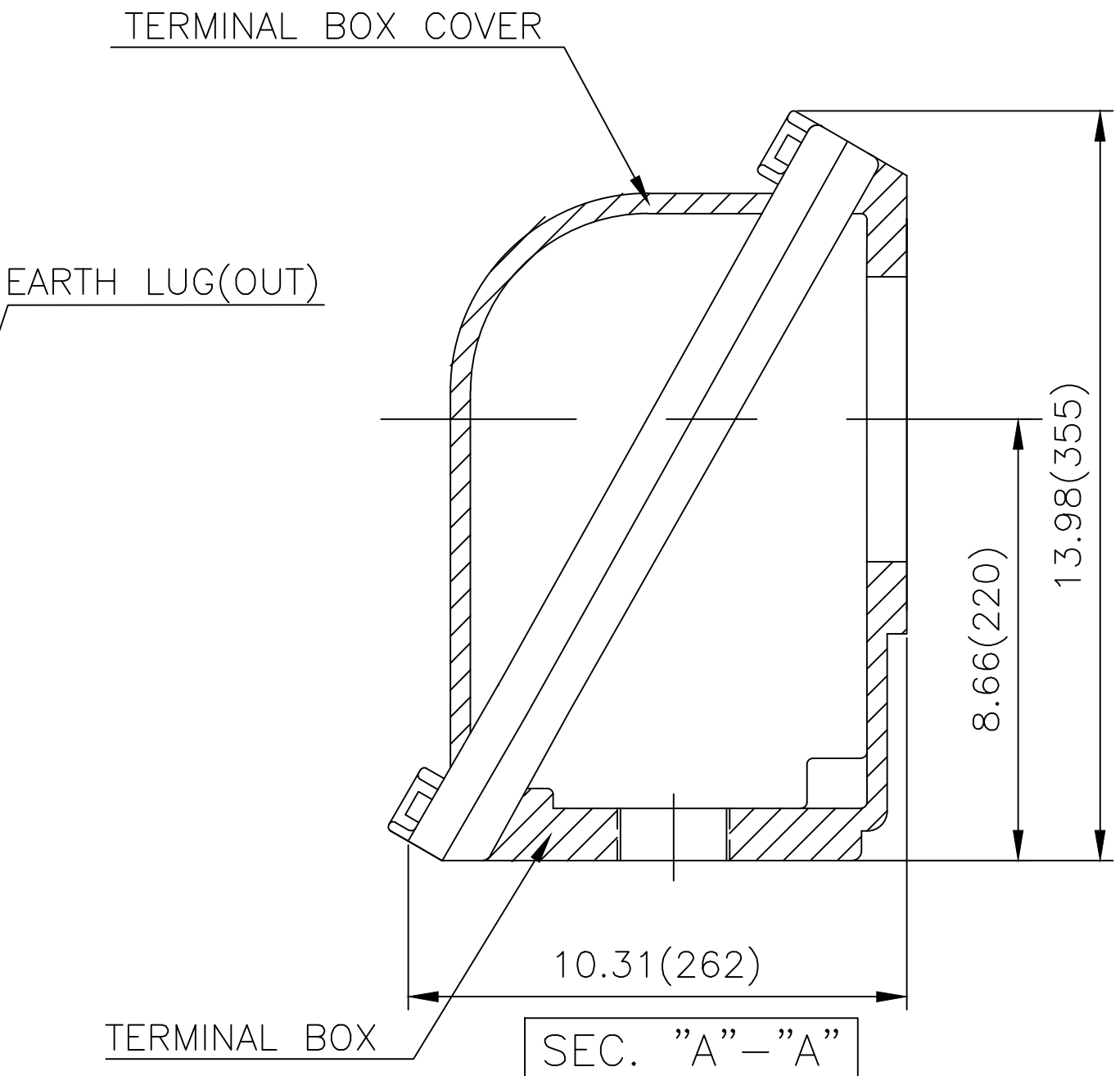
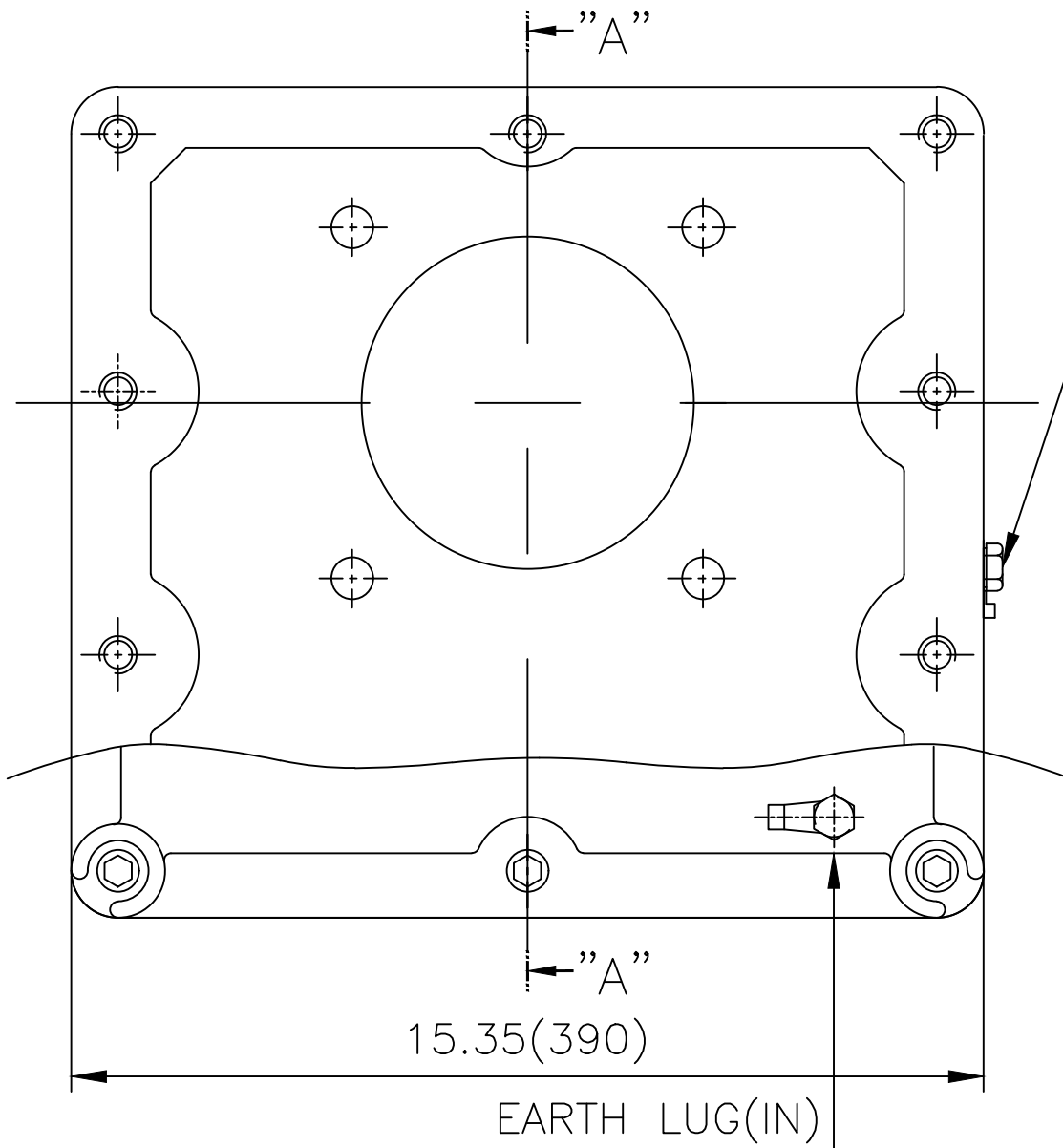
1. Dimension "D" tolerance : +0.00inch - 0.03inch (143T-365T) ; +0.000inch - 0.06inch (404T-449T)
2. Dimension "U" tolerance : +0.000inch - 0.005inch (143T-215T), +0.000inch - 0.001inch (254T-449T)
3. Dimension "R" tolerance : +0.000inch - 0.015inch

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	447T	DWG SIZE	A4 (1:16 )
CHKD BY	R.G.KIM	SCALE	1/15	TITLE	OUTLINE		
CHKD BY		PROJEC'N	3rd Angle				
DSND BY	J.H.JEON	DATE	2021-04-19				



REF. NO		Sheet No.	of
DWG NO	LM-U0447B3TL001	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

