

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.	IXHHI60-12-404T	Item No.	Rev. No.	[]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	404T		Rated Output	45 kW		60 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	56.9 A	71.2 A
Insulation Class	F			Locked-rotor**	670 %	670 %
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		0.690	
Duty Type	Continuous (S1)		75% Load		0.790	
Service Factor	1.15		100% Load		0.840	
Mounting	B3		Speed at Full Load	1185 r.p.m		
Bearing	Type	Anti-Friction		Torque		
	DE/N-DE	NU316 / 6313C3		Full Load	267.5 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.)		2,397.965 lb.ft2	
Terminal Box	Main	Cast Iron		Motor		46.280 lb.ft2
	Aux.	No		Sound Pressure Level (No-load & mean value at 1m from motor)		
	Location	Refer to Outline Drawing		75 dB(A)		
Application			Vibration			
Area classification	Hazardous		0.0 mm/sec (peak)			
Type of Ex-Protection	Class I, Division 1		Permissible number of consecutive starts		Cold 0 times	
Applicable Standard	NEMA MG1, CSA C390, UL674		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

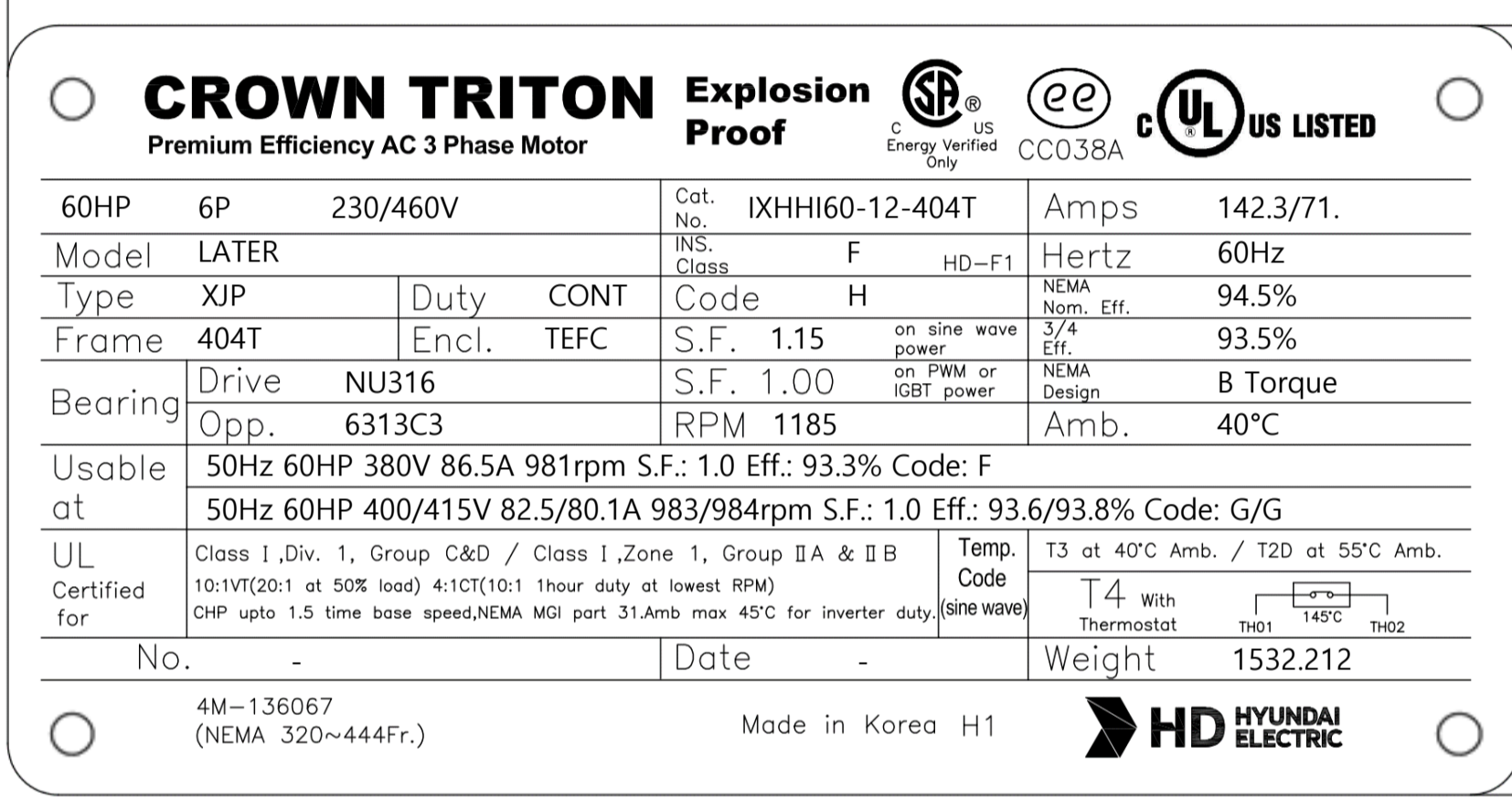
Outline Dimension Drawing		Motor Weight(Approx.)	
B3	LM-U0404B3TL001	1532 lb.	

REMARK

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

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

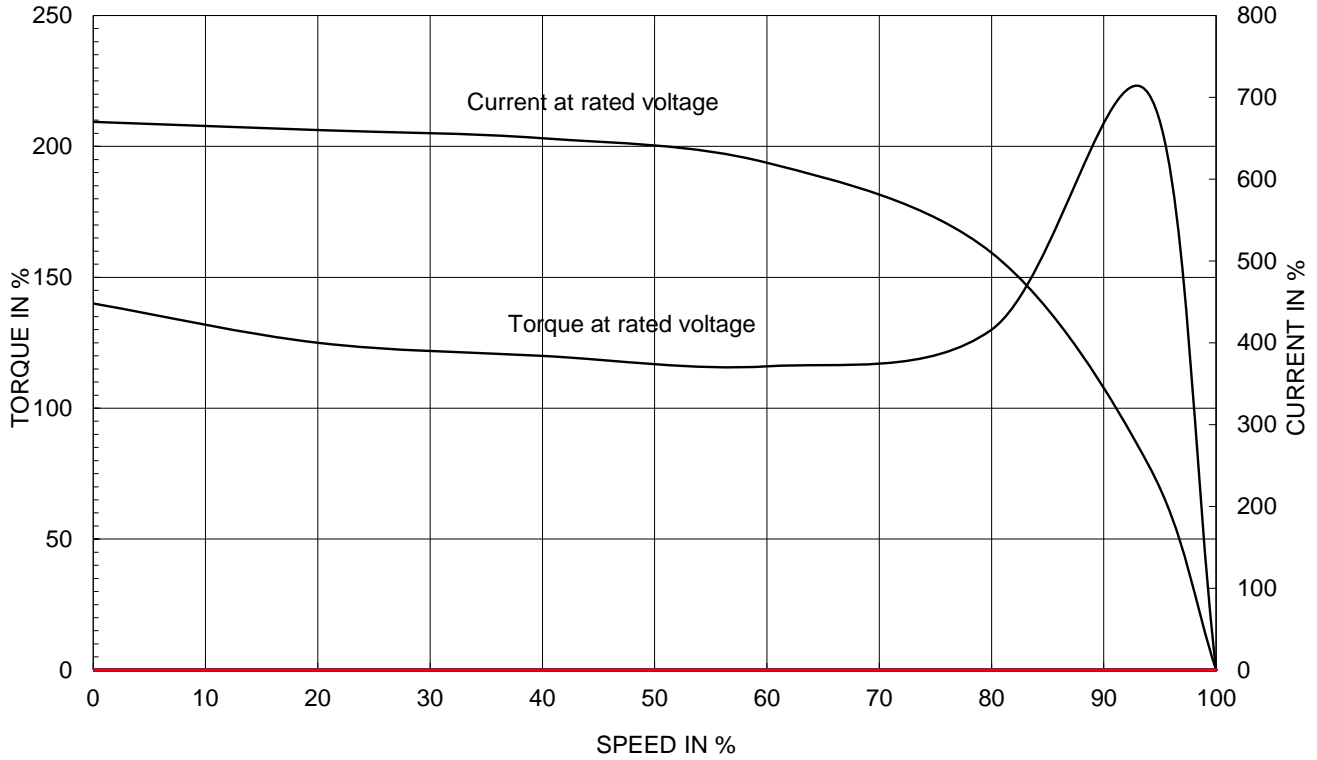
[Note] Others not mentioned in this data sheet shall be in accordance with maker standard.
 Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.
 Inspection and performance test shall be done according to maker standard, if not mentioned.
 * In case 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	CHKD BY	CHKD BY	APPD BY
<div style="display: flex; justify-content: space-between;"> 4.72 2.36 </div> <div style="text-align: center;">  <p>CROWN TRITON Explosion Proof Premium Efficiency AC 3 Phase Motor</p> <p>60HP 6P 230/460V Cat. No. IXHHI60-12-404T Amps 142.3/71. Model LATER INS. Class F HD-F1 Hertz 60Hz Type XJP Duty CONT Code H NEMA Nom. Eff. 94.5% Frame 404T Encl. TEFC S.F. 1.15 on sine wave power 3/4 Eff. 93.5% Bearing Drive NU316 S.F. 1.00 on PWM or IGBT power NEMA Design B Torque Opp. 6313C3 RPM 1185 Amb. 40°C Usable at 50Hz 60HP 380V 86.5A 981rpm S.F.: 1.0 Eff.: 93.3% Code: F 50Hz 60HP 400/415V 82.5/80.1A 983/984rpm S.F.: 1.0 Eff.: 93.6/93.8% Code: G/G UL Certified for Class I, Div. 1, Group C&D / Class I, Zone 1, Group IIA & IIB 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. Temp. Code T4 With Thermostat TH01 145°C TH02 No. - Date - Weight 1532.212 4M-136067 (NEMA 320~444Fr.) Made in Korea H1</p> </div>							

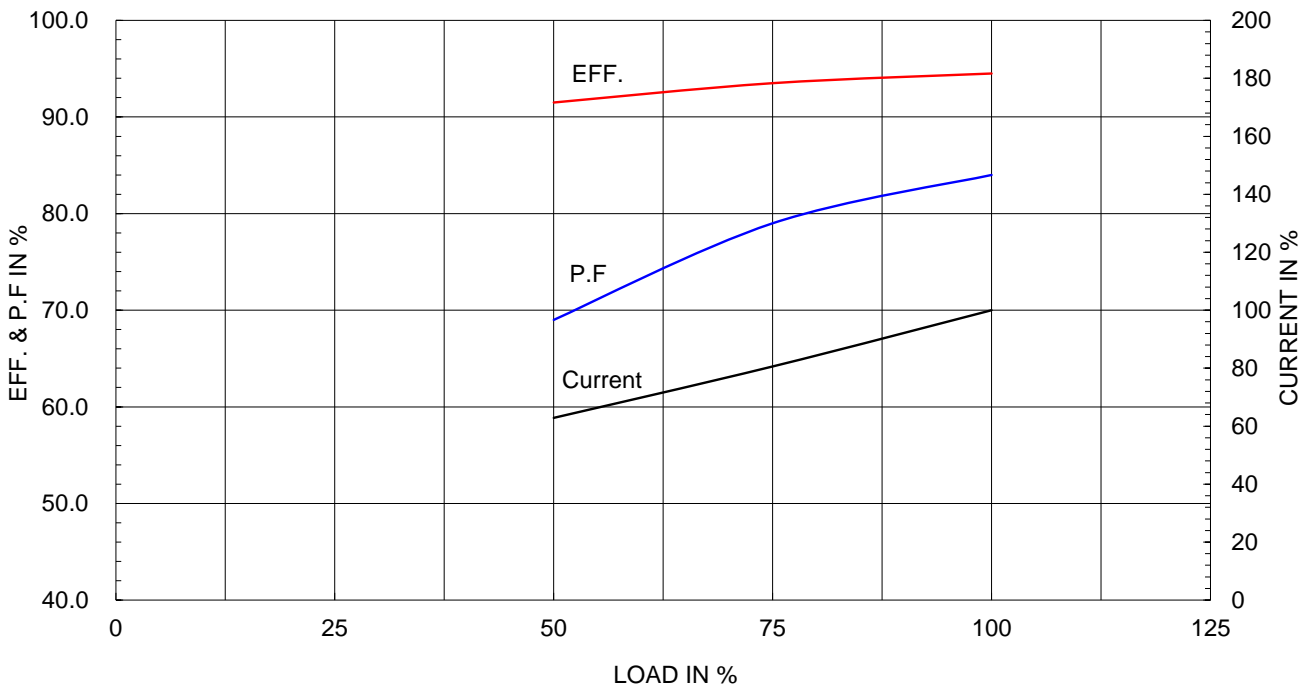
Type :	XJP	
Full Load Torque :	267.5	lb.ft
Load moment of Inertia (J) :	2397.965	lb.ft ²
Motor moment of Inertia (J) :	46.280	lb.ft ²

45kW	60HP	6 P	60 Hz
Speed at Full Load :			1185 RPM
Rated Voltage	575V	460V	230V
Full Load Current	56.9A	71.2A	142.3A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

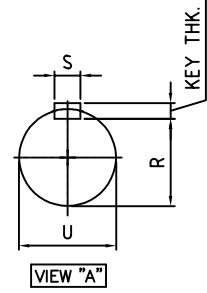
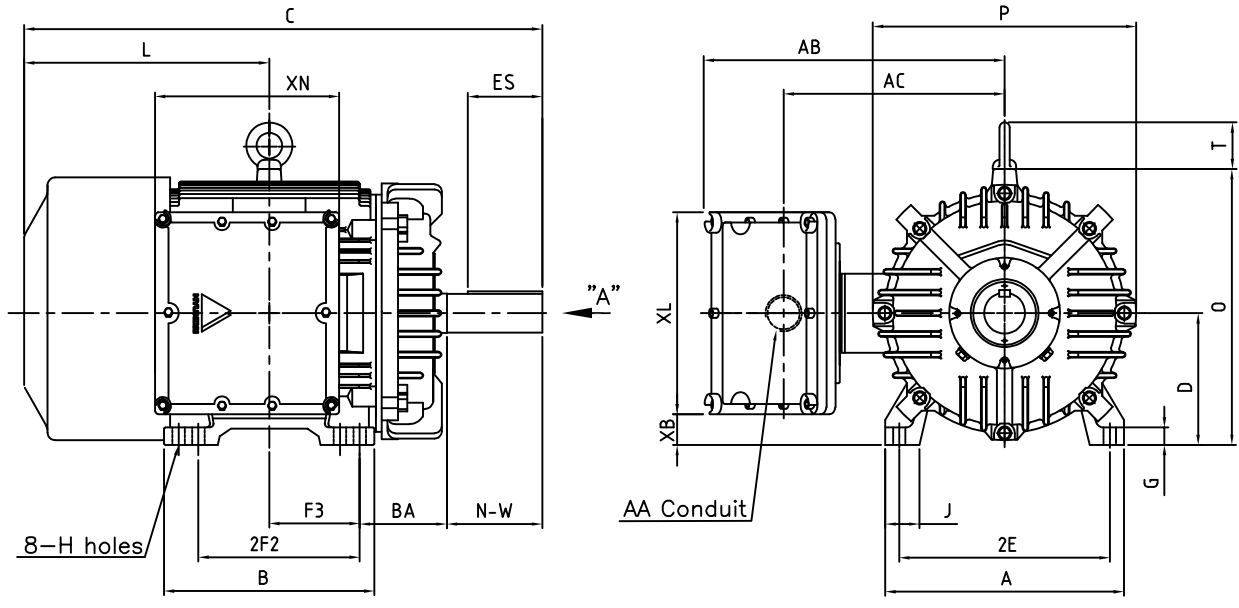


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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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	
18.11	15.98	16.00	-	12.25	6.870	1.18	2.59	0.81	3.00	22.83	17.32	2.16	15.35	13.97	1532

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	39.33	10.00	18.60	20.94	20.00	3.55	2.875	7.25	2.450	5.65	0.750	0.750	NU316 or 6316C3	6313C3

NOTE

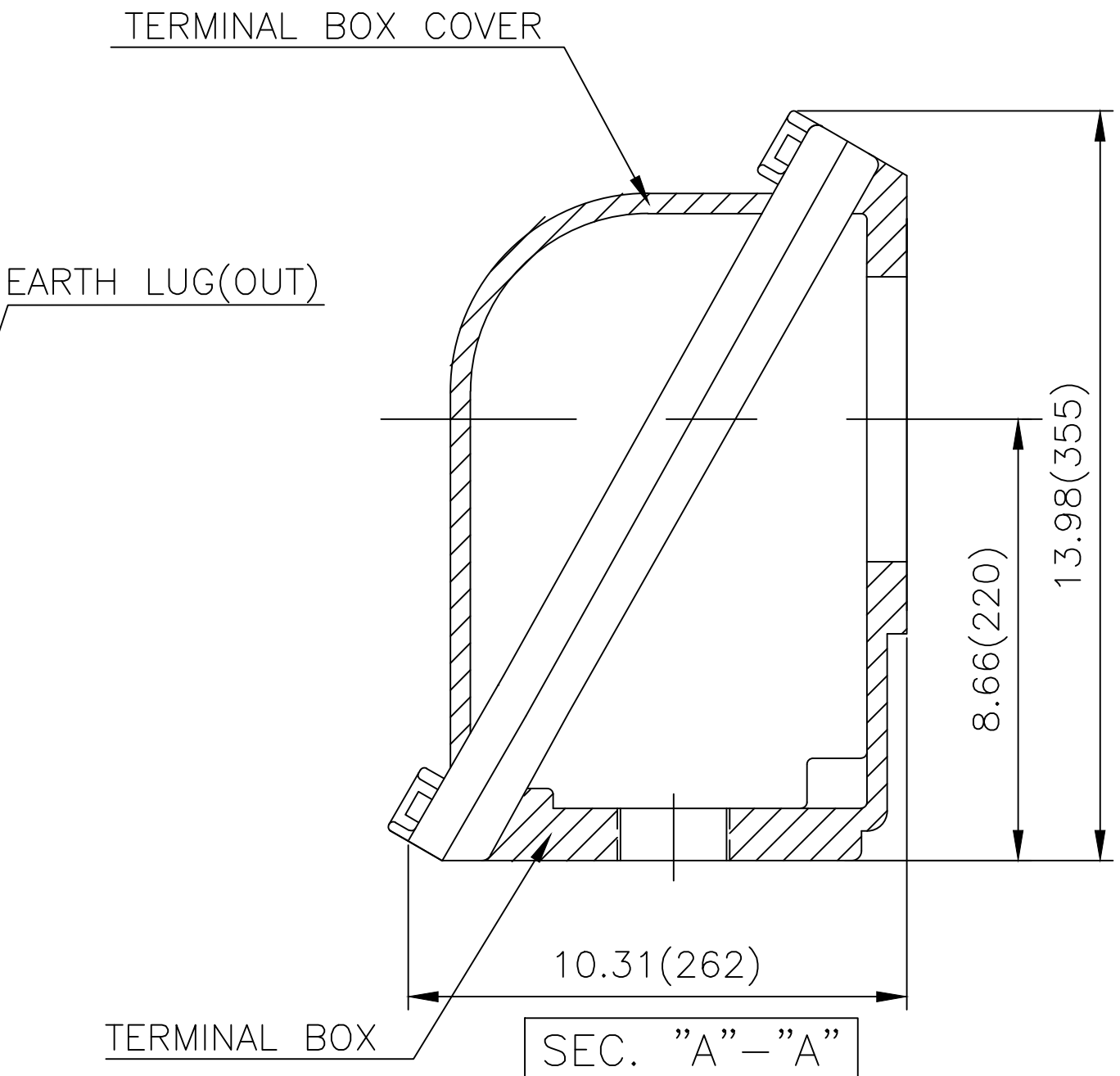
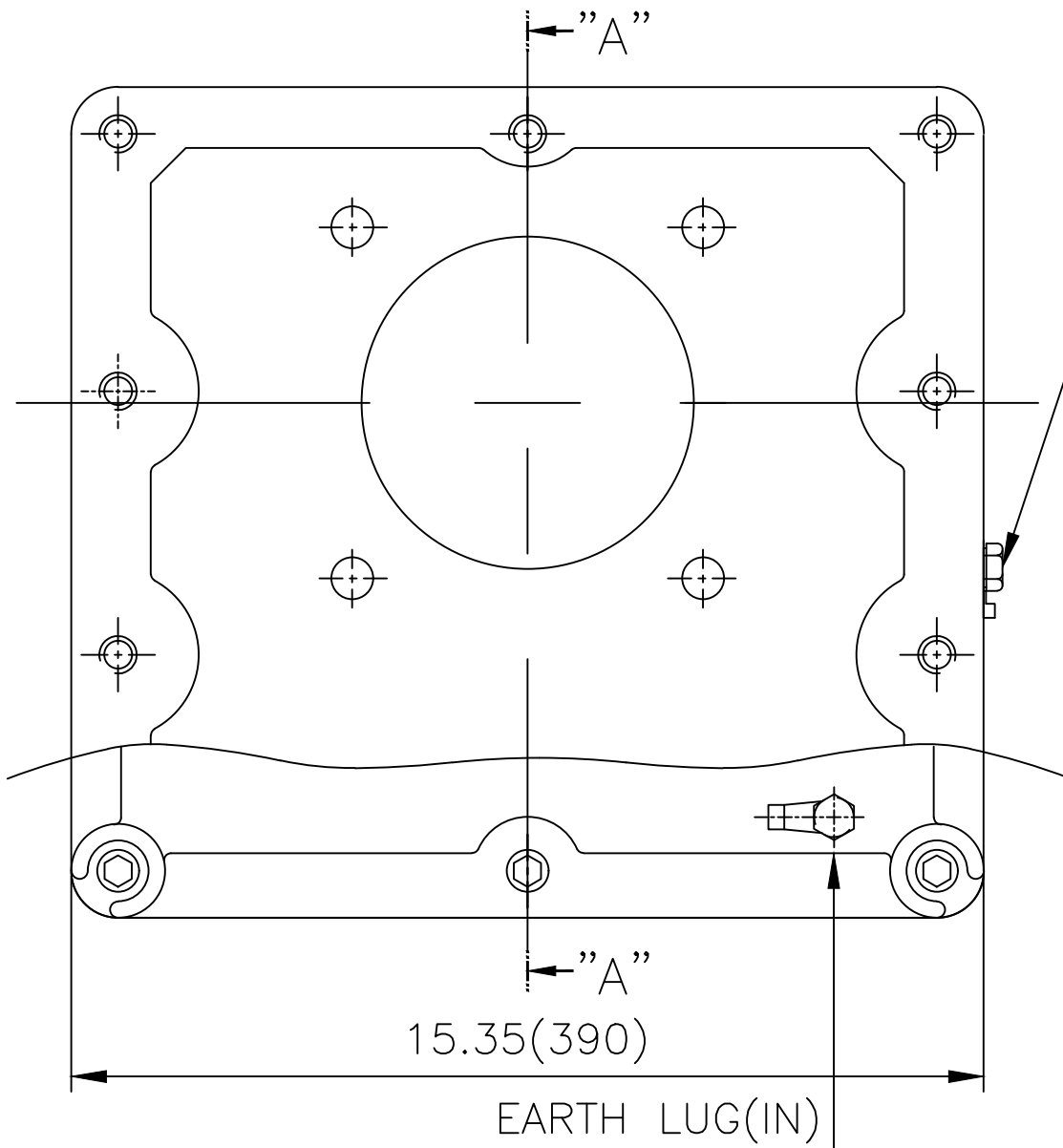
1. Dimension "D" tolerance : +0.00inch - 0.03inch (143T-365T) ; +0.000inch - 0.06inch (404T-449T)
2. Dimension "U" tolerance : +0.000inch - 0.005inch (143T-215T), +0.000inch - 0.001inch (254T-449T)
3. Dimension "R" tolerance : +0.000inch - 0.015inch

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	404T	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-U0404B3TL001	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

