

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.		IXHHI3-18-182TC		Item No.		Rev. No. []			
Project Name		Project No.				Quantity sets			
GENERAL SPECIFICATION				PERFORMANCE DATA					
Frame Size		182TC		Rated Output		2.2 kW 3 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 3.12 A 3.91 A 7.81 A			
Insulation Class		F				Locked-rotor**		930 % 930 % 930 %	
Temp. Rise at full load (by resistance method)				Efficiency					
at 1.0 S.F		80 deg. C		50% Load		86.5 %			
Motor Location		<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load		88.5 %			
Altitude		Less than 1,000 meter		100% Load		89.5 %			
Relative Humidity		Less than 80 %		Power Factor(p.u)					
Ambient Temp.		40 deg. C (Max.)		50% Load		0.640			
Duty Type		Continuous (S1)		75% Load		0.740			
Service Factor		1.15		100% Load		0.790			
Mounting		B35		Speed at Full Load		1770 r.p.m			
Bearing		Type Anti-Friction		Torque					
		DE/N-DE 6206ZZC3 / 6206ZZC3		Full Load		8.8 lb.ft			
		Lubricant Grease(Polyrex-EM)		Locked-rotor**		220 %			
External Thrust		Not applicable		Breakdown**		280 %			
Coupling Method		<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)					
Shaft Extension		Single		Load(Max.)		20.204 lb.ft2			
Terminal Box		Main Cast Iron		Motor		0.190 lb.ft2			
		Aux. No		Sound Pressure Level (No-load & mean value at 1m from motor)					
Location		Refer to Outline Drawing				64 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&II, 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.)					
				B35		LM-U0182C4TL001		112 lb.	
SPARE PARTS				REMARK					
				1. Premium efficiency according to NEMA MG1					
				2. Inverter Duty @ 1.0 Service Factor & Ambient max 45°C					
				- CT 10.5Hz to 60Hz (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. Class I, Division 1, Group C&D					
				- Temp.Code(Sine wave) : T2C at 40°C Amb./T2B at 55°C Amb.					
				T4 with Winding Temperature Detector					
				4. Class II, Division 1, Group F&G					
				- Temp.Code(Sine wave) : T3B					
Date		DSND		CHKD		CHKD			
2024-08-08		S.H. Lee		I.K. Kim		R.G. Kim			
						APPD			
						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

3.94

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

3HP	4P	230/460V	Cat. No.	IXHHI3-18-182TC		Amb.	40°C
Frame	182TC	Duty	CONT	Amps	7.81/3.91	Type	XJP
RPM	1770	Hertz	60Hz	Encl.	TEFC	Model	LATER
Bearing	Drive	6206ZZC3	S.F.	1.15	on sine wave power	INS. Class	F
	Opp.	6206ZZC3	S.F.	1.00	on PWM or IGBT power	HD-F1	NEMA Design B Torque
Usable at	50Hz 2HP 380V 4.1A 1470rpm S.F.: 1.0 Eff.: 82.8% Code: L						
	50Hz 2HP 400/415V 4.2/4.4A 1475/1475rpm S.F.: 1.0 Eff.: 82.8/82.8% Code: L/L						
UL Certified for	CLASS I, Div. 1, Gr. C & D / CLASS I, Zone 1, Gr. IIA & IIB					Temp. Code	T2C at 40°C Amb. / T2B at 55°C Amb.
	10:1VT(20:1 at 50% load) CT 10.5Hz to base Hz(10:1 1hour duty at lowest RPM) CHP upto 1.5 time base speed, NEMA MG1 part 31. Amb max 45°C for inverter duty.					T4 With Thermostat	
No.	-	Date	-	Weight	112 lb		

4M-136031 (NEMA 182~215Fr.) Made in Korea H1

1.57

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 NAMEPLATE DRAWING		
DSND BY	S.H.LEE	DATE	2024.06.07			

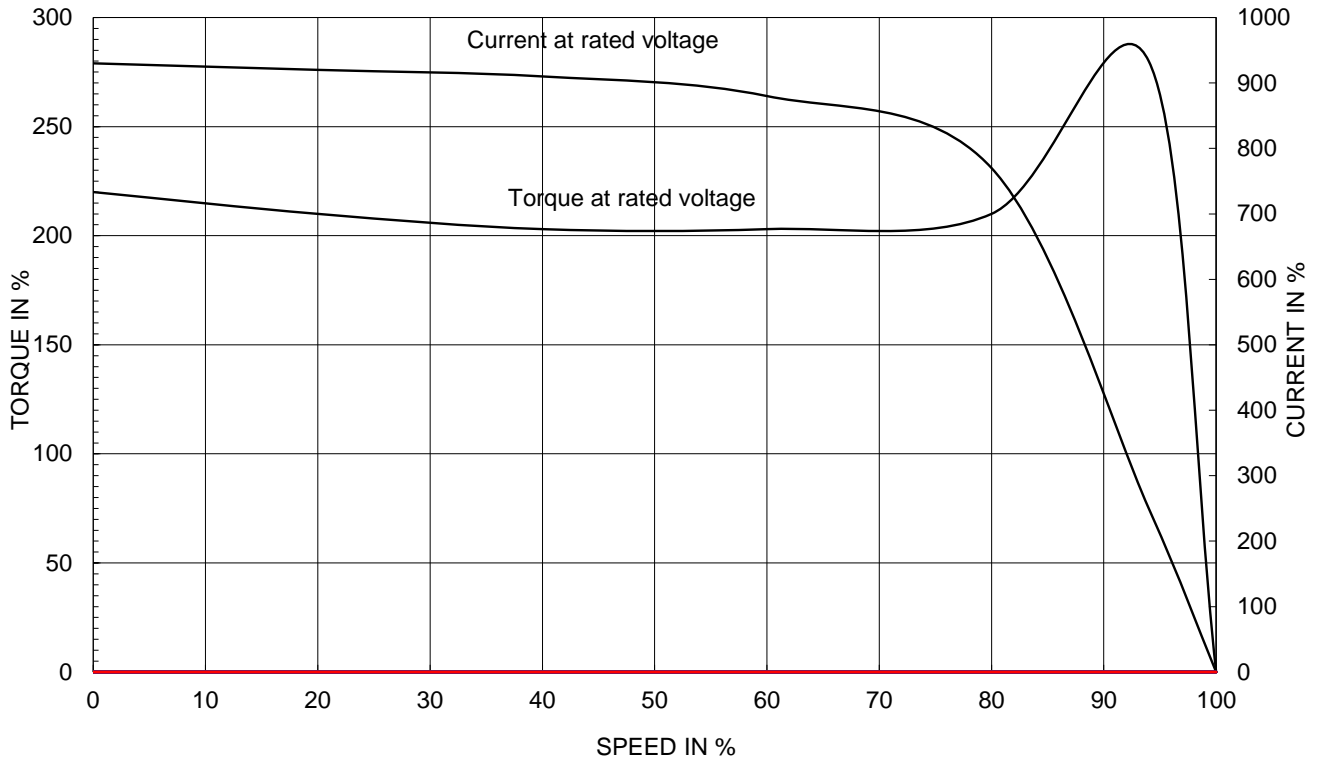


REF. NO	4M-136031	Sheet No.	of
DWG NO	NP-IXHHI3-18-182TC	Revision No.	0

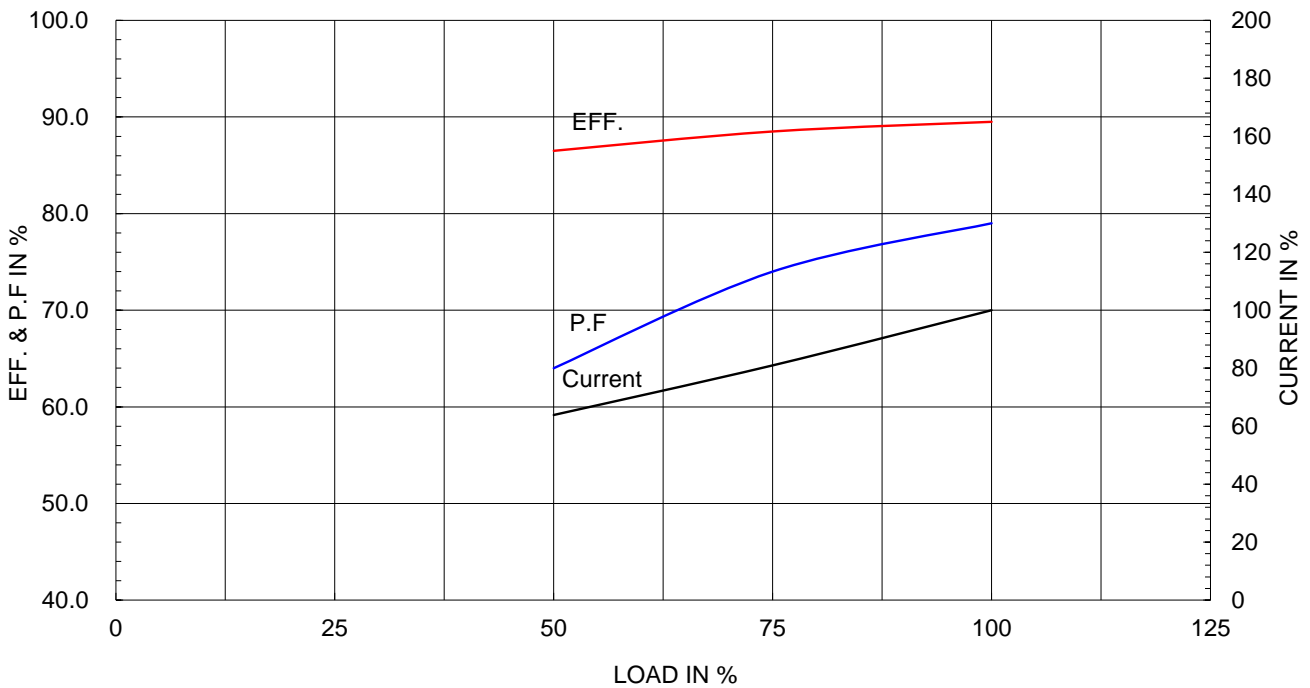
Type :	XJP
Full Load Torque :	8.8 lb.ft
Load moment of Inertia (J) :	20.204 lb.ft ²
Motor moment of Inertia (J) :	0.190 lb.ft ²

2.2kW	3HP	4 P	60 Hz
Speed at Full Load :			1770 RPM
Rated Voltage	575V	460V	230V
Full Load Current	3.1A	3.9A	7.8A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

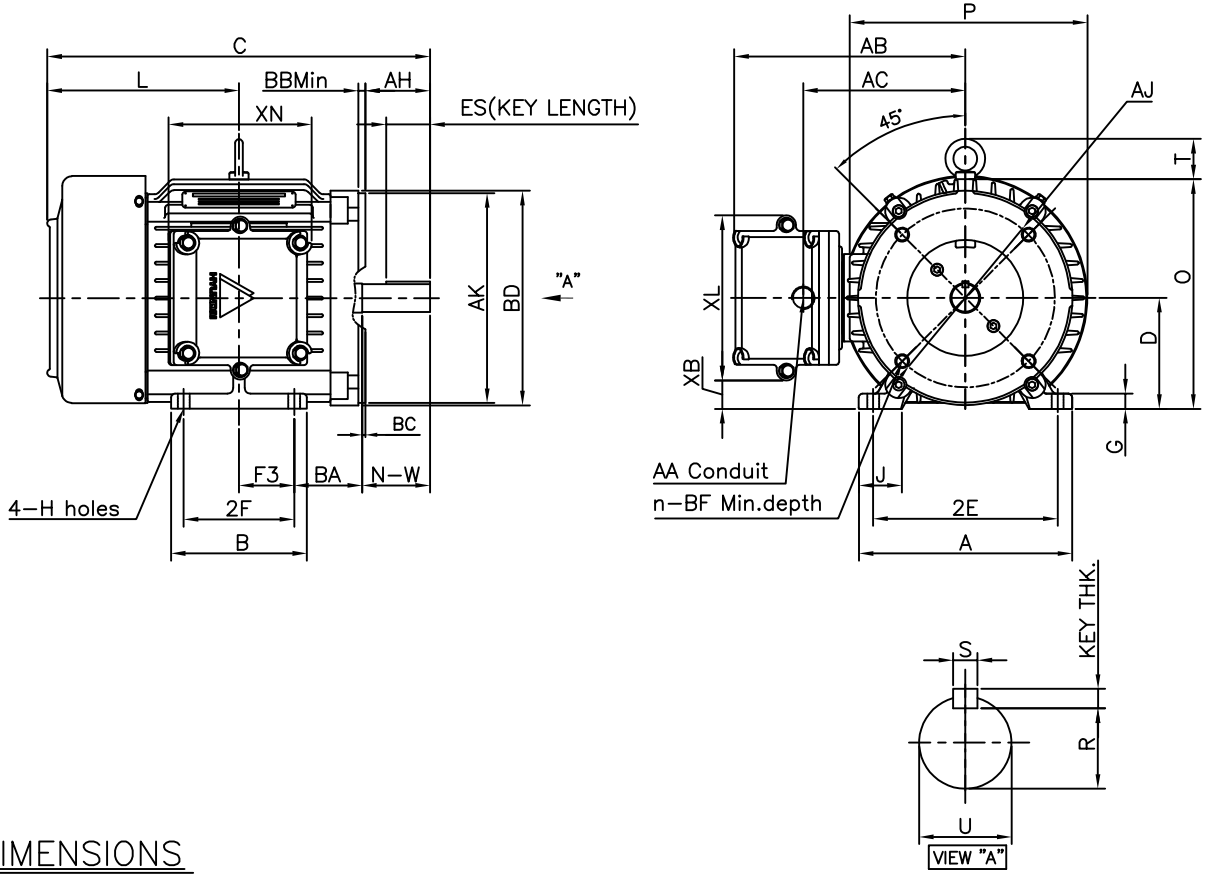


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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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	-	2F	F3	G	J	H	AA	AB	AC	XB	XL	XN	
8.66	5.52	7.50	-	4.50	2.25	0.62	1.74	0.41	0.75	9.53	6.57	1.15	6.70	5.98	112

OVERALL									SHAFT			KEY	BEARING	
BA	C	D	L	O	P	T	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
									R	ES	S			
2.75	15.52	4.50	7.78	9.32	9.64	1.63	1.125	2.75	0.986	1.78	0.250	0.250	6206ZZC3	6206ZZC3

C-FACE								
AJ	AK	BBmin	BC	BD	BF	BF Def.	n	AH
7.25	8.50	0.25	+0.12	8.70	1/2-13	0.75	4	2.62

NOTE

- 1.Dimension "D" tolerance : +0.00inch ~ -0.03inch (143TC-365TC) : +0.000inch ~ -0.06inch (404TC-449TC)
- 2.Dimension "U" tolerance : +0.000inch ~ -0.0005inch (143TC-215TC): +0.000inch ~ -0.001inch (254TC-449TC)
- 3.Dimension "R" tolerance : +0.000inch ~ - 0.015inch
- 4.Dimension "AK" tolerance : +0.000inch ~ -0.003inch (143TC-286TC): +0.000inch ~ -0.005inch (324TC-449TC)

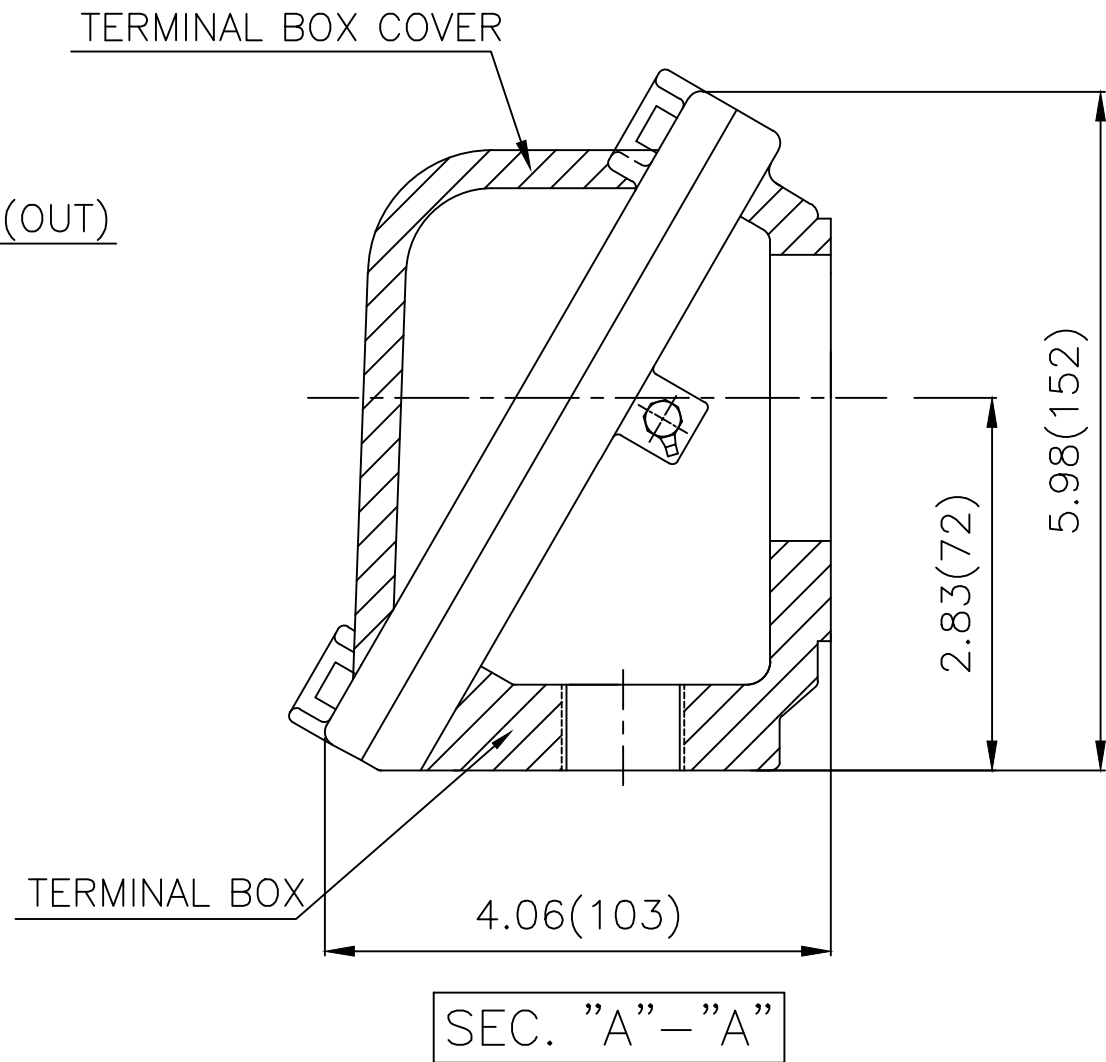
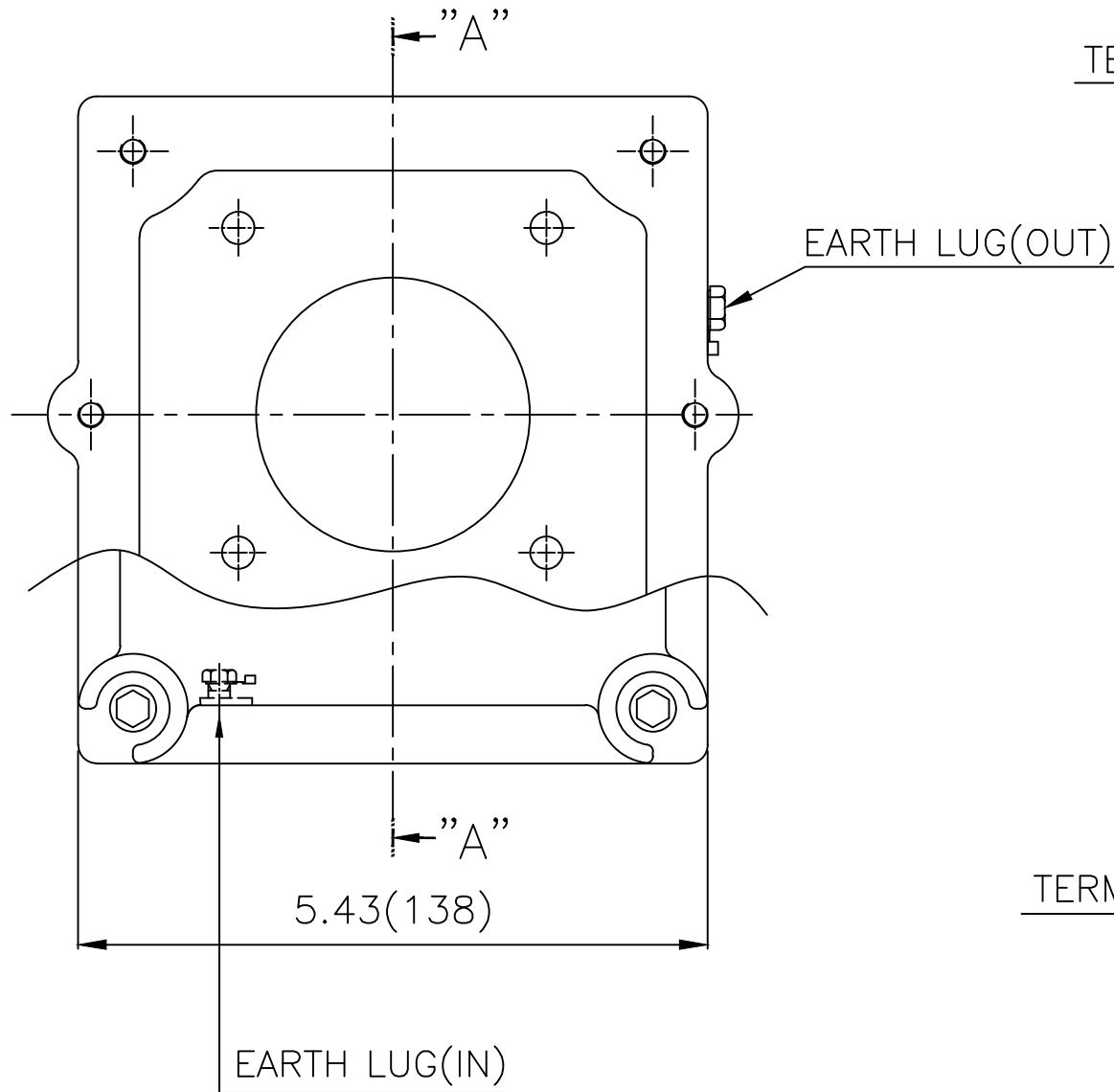
APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 182TC(KIT)	DWG SIZE
CHKD BY	R.G.KIM	SCALE	1/8	TITLE	OUTLINE	A4 (1:8)
CHKD BY		PROJEC'N	3rd Angle			
DSND BY	J.H.JEON	DATE	2021-06-08			



REF. NO		Sheet No.	of
DWG NO	LM-U0182C4TL001	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	lφφh(mm)	SUBJECT	NEMA FR. 180~210(CAST IRON)	DWG SIZE	A3 (1:1.5)
CHKD BY	R.G.KIM	SCALE	1/1.5	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY		PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	김은진	DATE	2023-10-24	DWG NO	3M-248496	Revision No.	0

