

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.		IXHH11.5-36-143TC		Item No.		Rev. No. []							
Project Name		Project No.				Quantity sets							
GENERAL SPECIFICATION				PERFORMANCE DATA									
Frame Size		143TC		Rated Output		1.1 kW 1.5 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 1.57 A 1.96 A 3.91 A							
Insulation Class		F				Locked-rotor**		1000 % 1,000 % 1,000 %					
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		81.0 %							
Altitude		Less than 1,000 meter		75% Load		83.0 %							
Relative Humidity		Less than 80 %		100% Load		84.0 %							
Ambient Temp.		40 deg. C (Max.)		Power Factor(p.u)									
Duty Type		Continuous (S1)											
Service Factor		1.15											
Mounting		B35		Speed at Full Load		3485 r.p.m							
Bearing		Type		Anti-Friction		Torque							
		DE/N-DE		6205ZZC3 / 6204ZZC3									
		Lubricant		Grease(Polyrex-EM)									
External Thrust		Not applicable		Full Load		2.2 lb.ft							
Coupling Method		<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Locked-rotor**		185 %							
Shaft Extension		Single		Breakdown**		260 %							
Terminal Box		Main		Cast Iron		Moment of Inertia (J)							
		Aux.		No									
Location		Refer to Outline Drawing		Load(Max.)		3.790 lb.ft2							
Application				Motor		0.033 lb.ft2							
Area classification		Hazardous		Sound Pressure Level (No-load & mean value at 1m from motor)									
Type of Ex-Protection		Class I&II, Division 1											
Applicable Standard		NEMA MG1, CSA C390, UL674		73 dB(A)									
ACCESSORIES				SUBMITTAL DRAWING									
* W.T.D.(Thermostat, 145°C) : 1EA/Ph.				Outline Dimension Drawing \ Motor Weight(Approx.)									
								B35		LM-U0143C4TL001		64 lb.	
REMARK				<p>1. Premium efficiency according to NEMA MG1</p> <p>2. Inverter Duty @ 1.0 Service Factor & Ambient max 45°C</p> <p style="margin-left: 20px;">-. CT 10.5Hz to 60Hz (10:1 CT at 1hour Duty)</p> <p style="margin-left: 20px;">-. 10:1 VT (20:1 VT at 50% load)</p> <p style="margin-left: 20px;">-. CHP up to 1.5 times base speed, NEMA MG1 Part31</p> <p>3. Class I, Division 1, Group C&D</p> <p style="margin-left: 20px;">-. Temp.Code(Sine wave) : T2C at 40°C Amb./T2B at 55°C Amb.</p> <p style="margin-left: 40px;">T4 with Winding Temperature Detector</p> <p>4. Class II, Division 1, Group F&G</p> <p style="margin-left: 20px;">-. Temp.Code(Sine wave) : T3B</p>									
								SPARE PARTS				Date	
2024-08-08		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

4.02

CROWN TRITON **Explosion Proof**

Premium Efficiency AC 3 Phase Motor






1.5HP	2P	230/460V	Cat. No.	IXHHI1.5-36-143TC					
Model	LATER		INS. Class	F	HD-F1	Amps	3.91/1.96	NEMA Nom. Eff.	84%
Type	XJP	Duty	CONT	Code	L	Hertz	60Hz	3/4 Eff.	83%
Frame	143TC	Encl.	TEFC	RPM	3485	Amb.	40°C		
<input type="checkbox"/>	Drive	6205ZZC3	S.F.	1.15	on sine wave power	NEMA Design	B	<input type="checkbox"/>	
	Opp.	6204ZZC3	S.F.	1.00	on PWM or IGBT power				
Usable at	50Hz 1HP 380V 1.9A 2900rpm S.F.: 1.0 Eff.: 77.4% Code: L								
	50Hz 1HP 400/415V 1.9/1.8A 2910/2915rpm S.F.: 1.0 Eff.: 77.4/77.4% Code: L/L								
UL Certified for	Class I, Div.1, Gr. C&D / Class I, Zone1, 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)				(sine wave)				
No.	-	Date	-	Weight	64 lb				

NP249A7177VXP (NEMA 140~210Fr.) MADE IN KOREA H3 

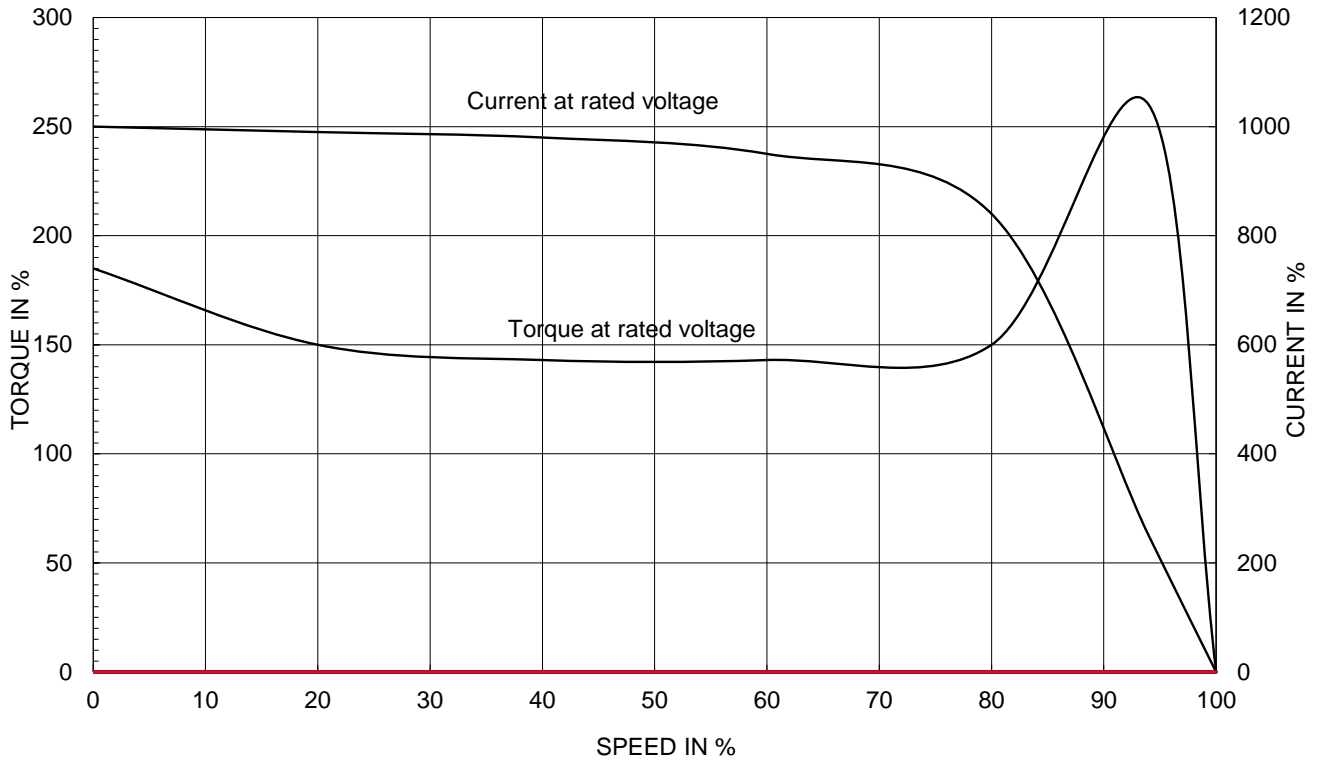
1.81

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	NAMEPLATE DRAWING		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	S.H.LEE	DATE	2024.06.07				
				REF. NO	NP249A7177V	Sheet No.	of
				DWG NO	NP-IXHHI1.5-36-143TC	Revision No.	0

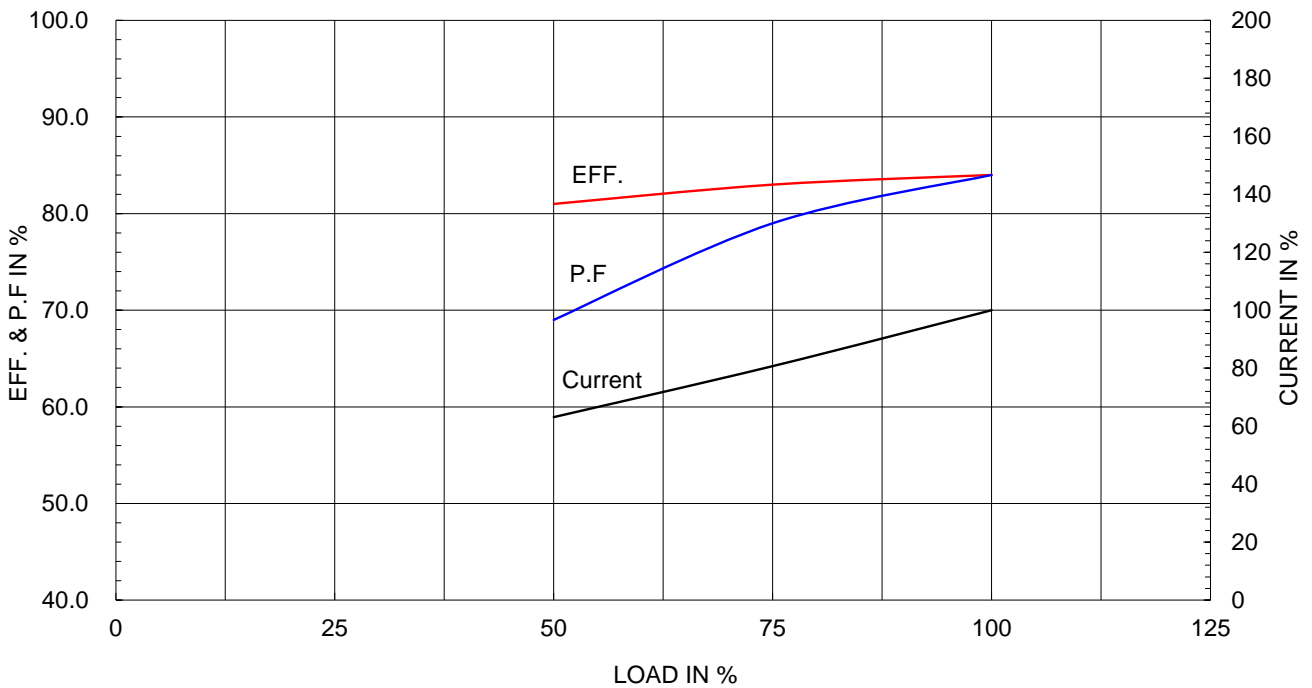
Type :	XJP
Full Load Torque :	2.2 lb.ft
Load moment of Inertia (J) :	3.790 lb.ft ²
Motor moment of Inertia (J) :	0.033 lb.ft ²

1.1kW	1.5HP	2 P	60 Hz
Speed at Full Load :			3485 RPM
Rated Voltage	575V	460V	230V
Full Load Current	1.6A	2.0A	3.9A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

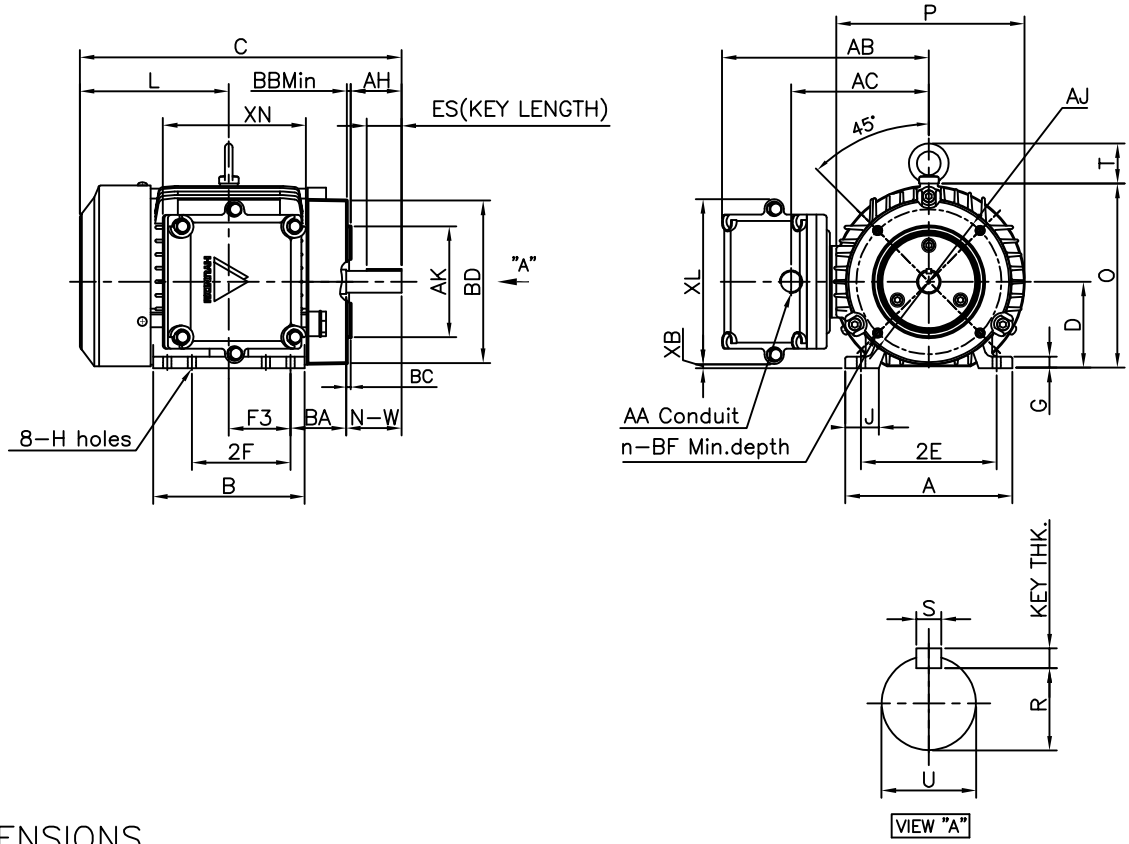


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	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	
6.78	6.15	5.50	-	4.00	2.50	0.45	1.36	0.34	0.75	8.54	5.59	0.15	6.70	5.98	64

OVERALL									SHAFT			KEY	BEARING	
BA	C	D	L	O	P	T	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
									R	ES	S			
2.25	13.05	3.50	6.05	7.46	7.64	1.63	0.875	2.25	0.771	1.41	0.188	0.188	6205ZZ	6204ZZ

C-FACE								
AJ	AK	BBmin	BC	BD	BF	BF Def.	n	AH
5.875	4.50	0.16	+0.12	6.50	3/8-16	0.56	4	2.12

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)

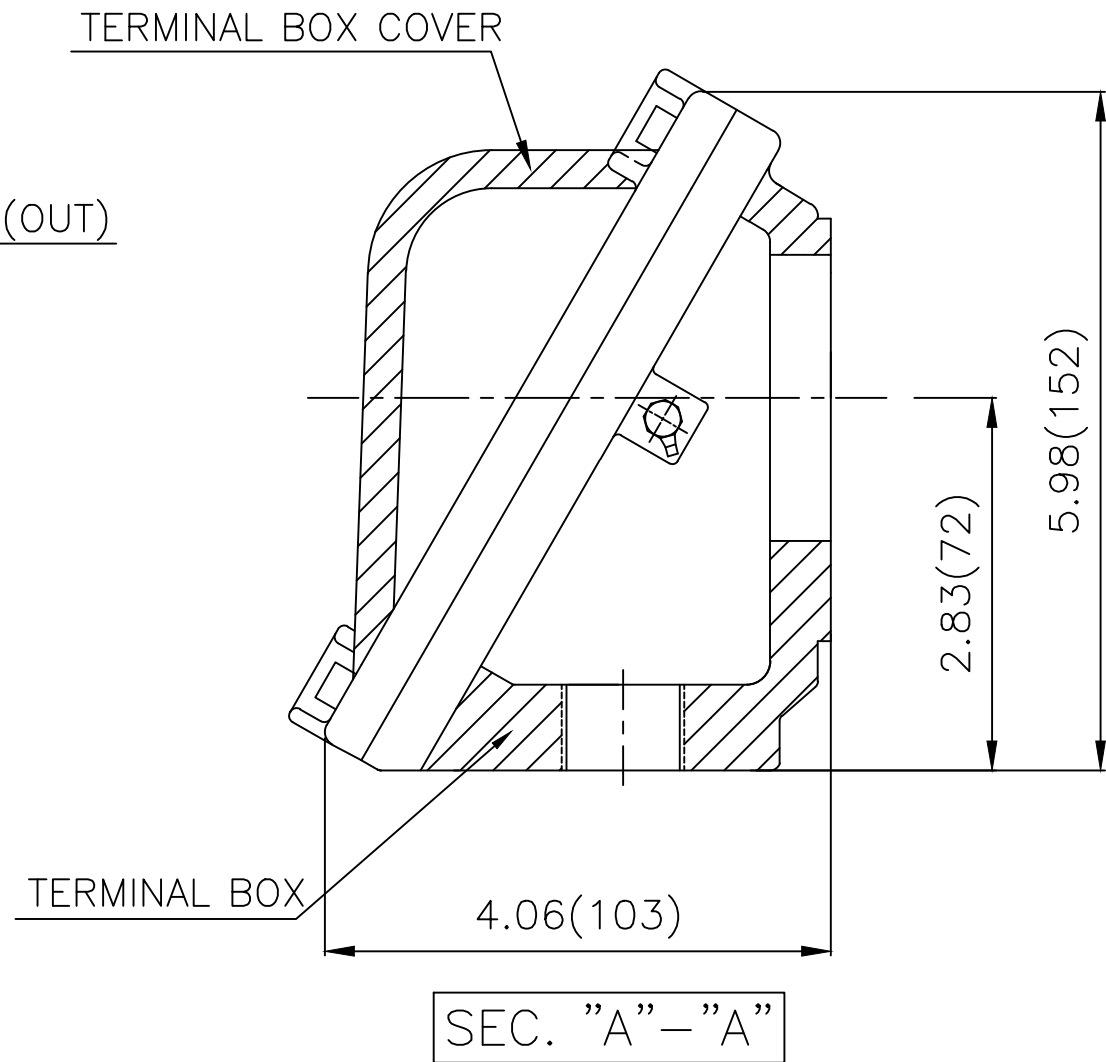
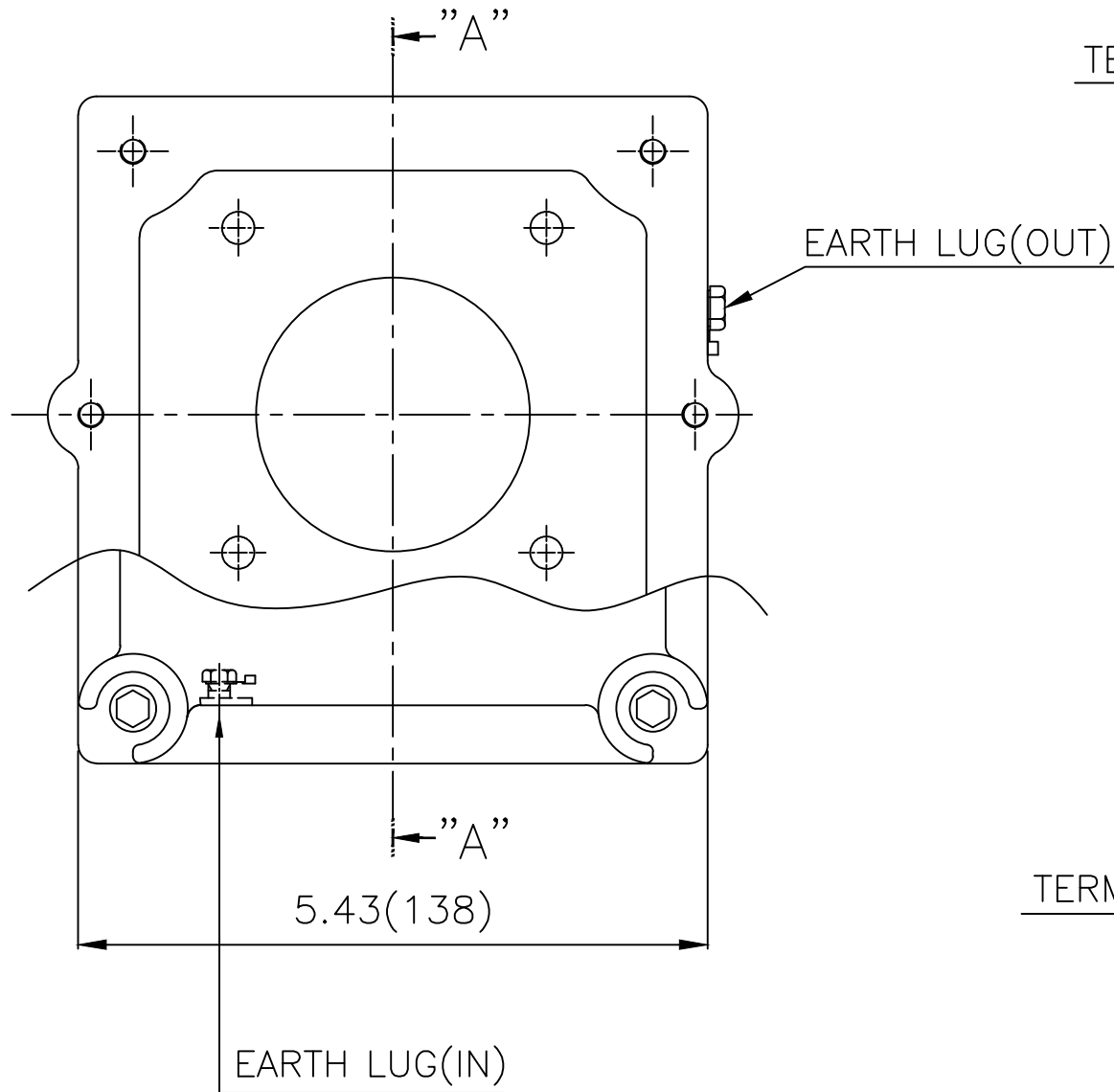
APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 143TC(KIT)	DWG SIZE	
CHKD BY	R.G.KIM	SCALE	1/8	TITLE	OUTLINE	Sheet No.	of
CHKD BY		PROJEC'N	3rd Angle				
DSND BY	J.H.JEON	DATE	2021-06-08				



REF. NO		Sheet No.	of
DWG NO	LM-U0143C4TL001	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

