

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.		IXHH11-12-145TC		Item No.		Rev. No. []							
Project Name		Project No.		Quantity		sets							
GENERAL SPECIFICATION				PERFORMANCE DATA									
Frame Size		145TC		Rated Output		0.75 kW 1 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 1.45 A 1.81 A 3.62 A							
Insulation Class		F				Locked-rotor**		800 % 800 % 800 %					
Temp. Rise at full load (by resistance method)				Efficiency									
at 1.0 S.F		80 deg. C		50% Load		79.5 %							
Motor Location		<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load		81.5 %							
Altitude		Less than 1,000 meter		100% Load		82.5 %							
Relative Humidity		Less than 80 %		Power Factor(p.u)									
Ambient Temp.		40 deg. C (Max.)		50% Load		0.480							
Duty Type		Continuous (S1)		75% Load		0.580							
Service Factor		1.15		100% Load		0.630							
Mounting		B35		Speed at Full Load		1155 r.p.m							
Bearing		Type Anti-Friction		Torque									
		DE/N-DE 6205ZZC3 / 6204ZZC3		Full Load		4.6 lb.ft							
		Lubricant Grease(Polyrex-EM)		Locked-rotor**		180 %							
External Thrust		Not applicable		Breakdown**		275 %							
Coupling Method		<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)									
Shaft Extension		Single		Load(Max.)		47.461 lb.ft2							
Terminal Box		Main Cast Iron		Motor		0.083 lb.ft2							
		Aux. No		Sound Pressure Level (No-load & mean value at 1m from motor)									
Location		Refer to Outline Drawing		55 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-U0145C4TL001		66 lb.					
				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									
SPARE PARTS				Date		DSND		CHKD		CHKD		APPD	
				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						
1HP	6P	230/460V	Cat. No.	IXHHI1-12-145TC		
Model	LATER		INS. Class	F	HD-F1	Amps 3.62/1.81
Type	XJP	Duty	CONT	Code	L	Hertz 60Hz
Frame	145TC	Encl.	TEFC	RPM	1155	Amb. 40°C
<input type="checkbox"/>	B R G S	Drive	6205ZZC3	S.F.	1.15	on sine wave power
		Opp.	6204ZZC3	S.F.	1.00	on PWM or IGBT power
Usable at		50Hz 0.75HP 380V 2.3A 960rpm S.F.: 1.0 Eff.: 73.1% Code: L				
		50Hz 0.75HP 400/415V 2.4/2.5A 965/965rpm S.F.: 1.0 Eff.: 73.1/73.1% 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)	T4 Thermostat TH01 145°C TH02	
	CHP upto 1.5 time base speed,NEMA MG1 part 31.Amb max 45°C for inverter duty.					
No.	-	Date	-	Weight	66 lb	
NP249A7177VXP (NEMA 140~210Fr.)		MADE IN KOREA		H3		

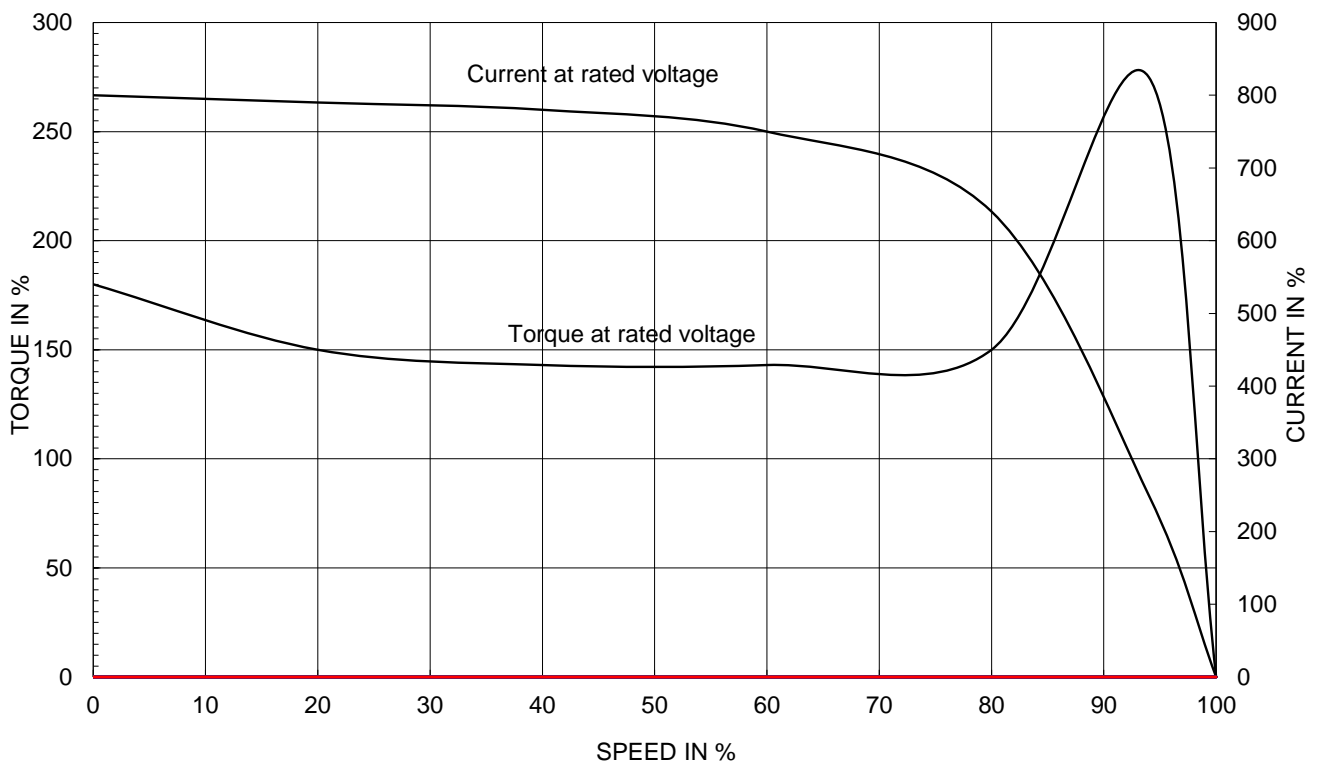
1.81

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-IXHHI1-12-145TC	Revision No.	0

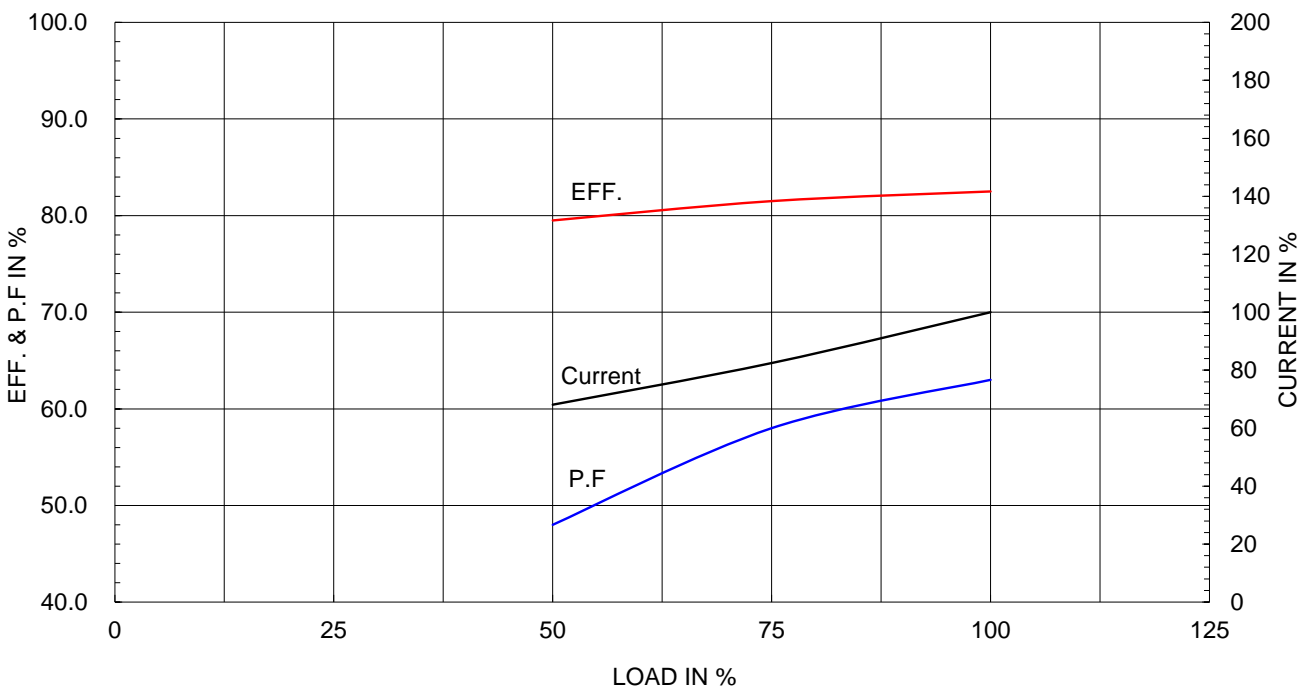
Type :	XJP
Full Load Torque :	4.6 lb.ft
Load moment of Inertia (J) :	47.461 lb.ft ²
Motor moment of Inertia (J) :	0.083 lb.ft ²

0.75kW	1HP	6 P	60 Hz
Speed at Full Load :			1155 RPM
Rated Voltage	575V	460V	230V
Full Load Current	1.4A	1.8A	3.6A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

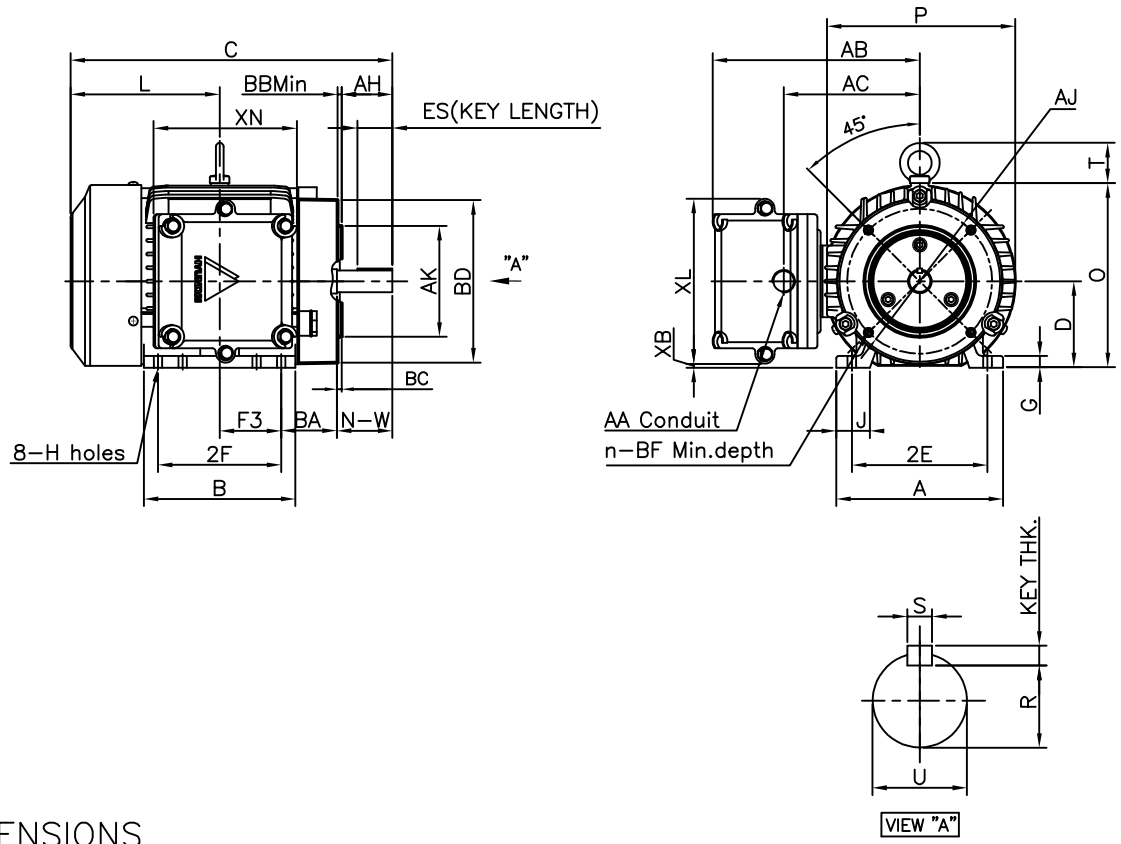


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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	-	2F	F3	G	J	H	AA	AB	AC	XB	XL	XN	
6.78	6.15	5.50	-	5.00	2.50	0.45	1.36	0.34	0.75	8.54	5.59	0.15	6.70	5.98	66

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)

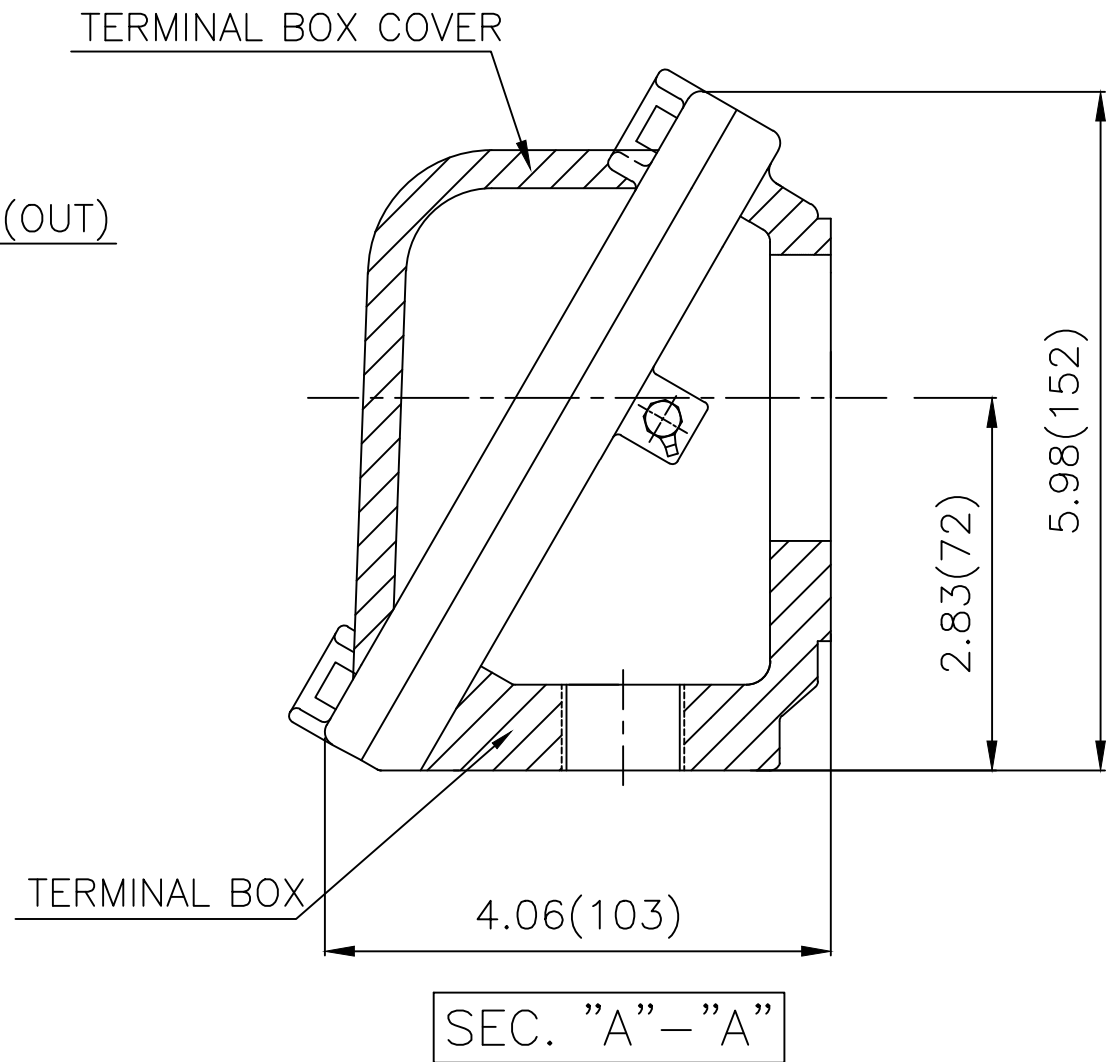
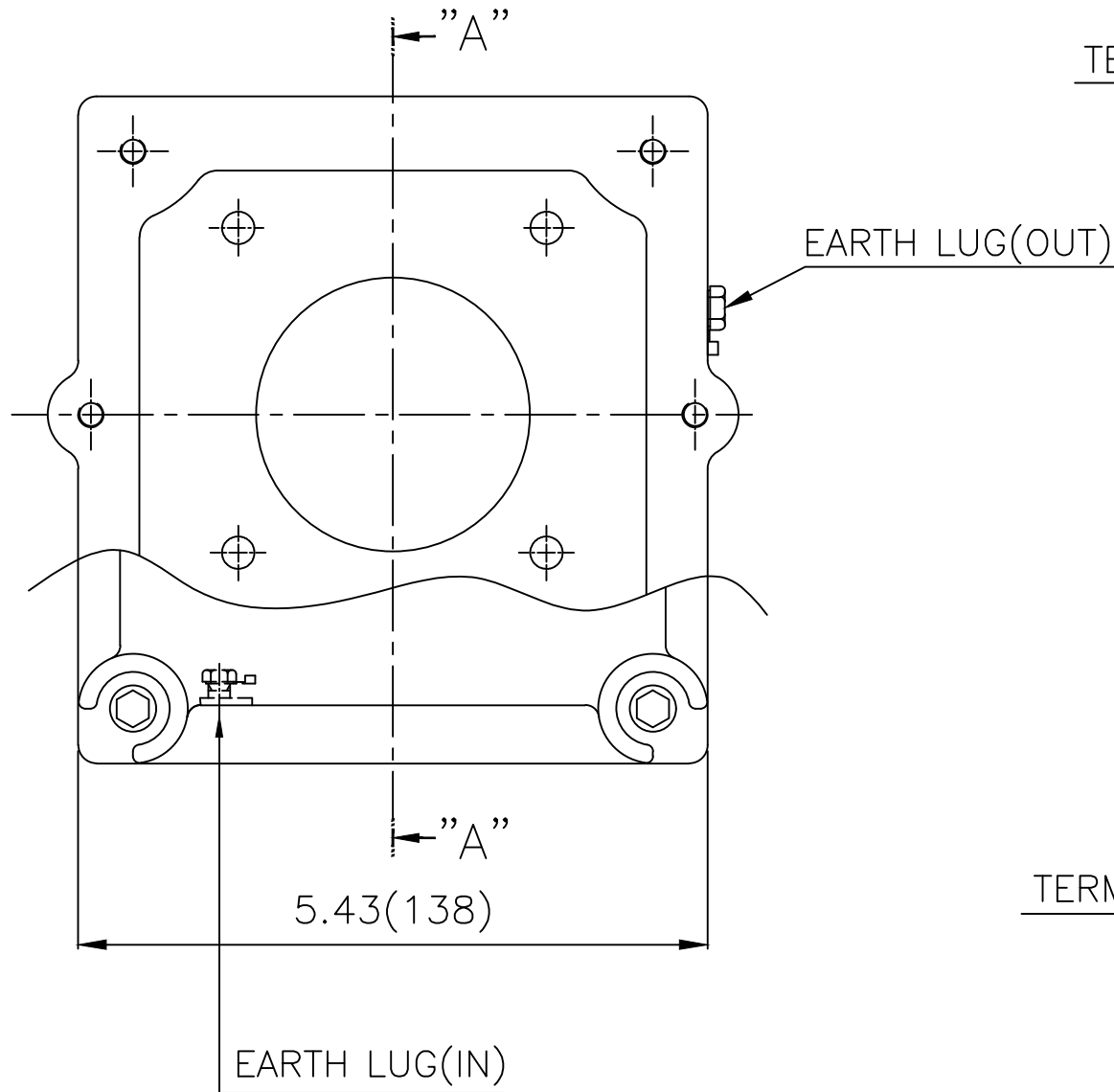
APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 145TC(KIT)	DWG SIZE			
CHKD BY	R.G.KIM	SCALE	1/8	TITLE	OUTLINE	Sheet No.	of		
CHKD BY		PROJEC'N	3rd Angle			DWG NO	LM-U0145C4TL001	Revision No.	0
DSND BY	J.H.JEON	DATE	2021-06-08			REF. NO		Sheet No.	of



REF. NO		Sheet No.	of
DWG NO	LM-U0145C4TL001	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

