

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.	IXHHI20-12-286TC	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	286TC		Rated Output	15 kW		20 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	21.3 A	26.7 A
Insulation Class	F			Locked-rotor**	650 %	650 %
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		88.7 %	
Altitude	Less than 1,000 meter		75% Load		90.7 %	
Relative Humidity	Less than 80 %		100% Load		91.7 %	
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)			
Duty Type	Continuous (S1)		50% Load		0.620	
Service Factor	1.15		75% Load		0.720	
Mounting	B35		100% Load		0.770	
Bearing	Type	Anti-Friction	Speed at Full Load			
	DE/N-DE	6310ZC3 / 6310ZC3	1175 r.p.m			
	Lubricant	Grease(Polyrex-EM)	Torque			
External Thrust	Not applicable		Full Load		89.9 lb.ft	
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Locked-rotor**		150 %	
Shaft Extension	Single		Breakdown**		230 %	
Terminal Box	Main	Cast Iron	Moment of Inertia (J)			
	Aux.	No	Load(Max.)		336.373 lb.ft2	
Location	Refer to Outline Drawing		Motor		6.100 lb.ft2	
			Sound Pressure Level (No-load & mean value at 1m from motor)			
Application			68 dB(A)			
Area classification	Hazardous		Vibration			
Type of Ex-Protection	Class I&II, Division 1		0.0 mm/sec (peak)			
Applicable Standard	NEMA MG1, CSA C390, UL674		Permissible number of consecutive starts		Cold 0 times	
			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.)	
B35	LM-U0286C4TL001	410 lb.	

REMARK

- Premium efficiency according to NEMA MG1
- 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
- Class I, Division 1, Group C&D
 - Temp.Code(Sine wave) : T2D at 40°C Amb./T2C at 55°C Amb. T4 with Winding Temperature Detector
- Class II, Division 1, Group F&G
 - Temp.Code(Sine wave) : T3B

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.


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REV	DATE	CONTENTS	REVD BY


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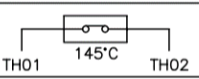
CROWN TRITON
Premium Efficiency AC 3 Phase Motor

Explosion Proof









20HP	6P	230/460V	Cat. No.	IXHHI20-12-286TC	Amps	53.3/26.7		
Model	LATER		INS. Class	F HD-F1	Hertz	60Hz		
Type	XJP	Duty	CONT	Code	H	NEMA Nom. Eff.	91.7%	
Frame	286TC	Encl.	TEFC	S.F.	1.15	on sine wave power	3/4 Eff. 90.7%	
Bearing	Drive	6310ZC3		S.F.	1.00	on PWM or IGBT power	NEMA Design	B Torque
	Opp.	6310ZC3		RPM	1175		Amb.	40°C
Usable at	50Hz 15HP 380V 26.5A 975rpm S.F.: 1.0 Eff.: 88.7% Code: J							
	50Hz 15HP 400/415V 27.1/28A 975/980rpm S.F.: 1.0 Eff.: 88.7/88.7% Code: K/K							
UL Certified for	Class I, Div. 1, Group C&D / Class I, Zone 1, Group II A & II B				Temp. Code	T2D at 40°C Amb. / T2C at 55°C Amb.		
	10:1VT(20:1 at 50% load) 4:1CT(10:1 1hour duty at lowest RPM)					T4 With Thermostat		
No.	-		Date	-		Weight	410 lb	

4M-136066
(NEMA 250~280Fr.)

Made in Korea H1



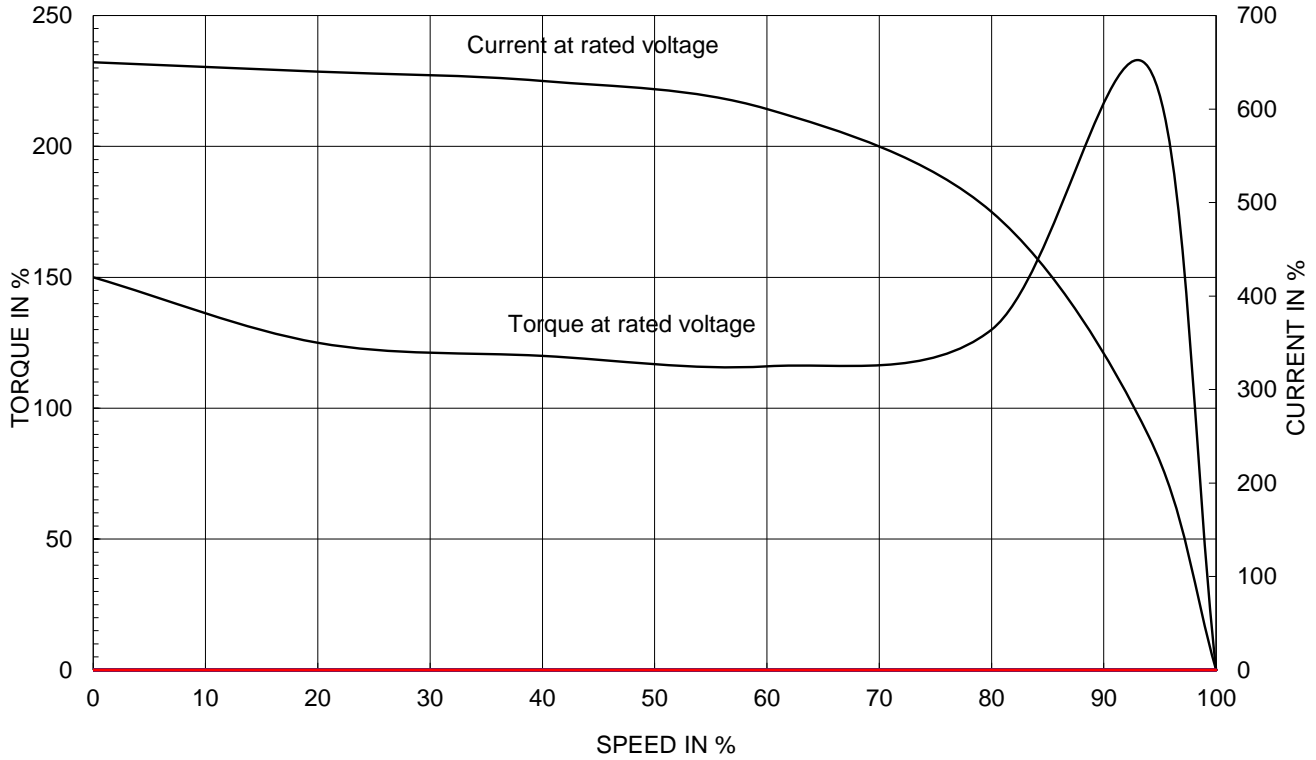
2.36

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 NAMEPLATE DRAWING		
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	4M-136066	Sheet No. of
				DWG NO	NP-IXHHI20-12-286TC	Revision No. 0

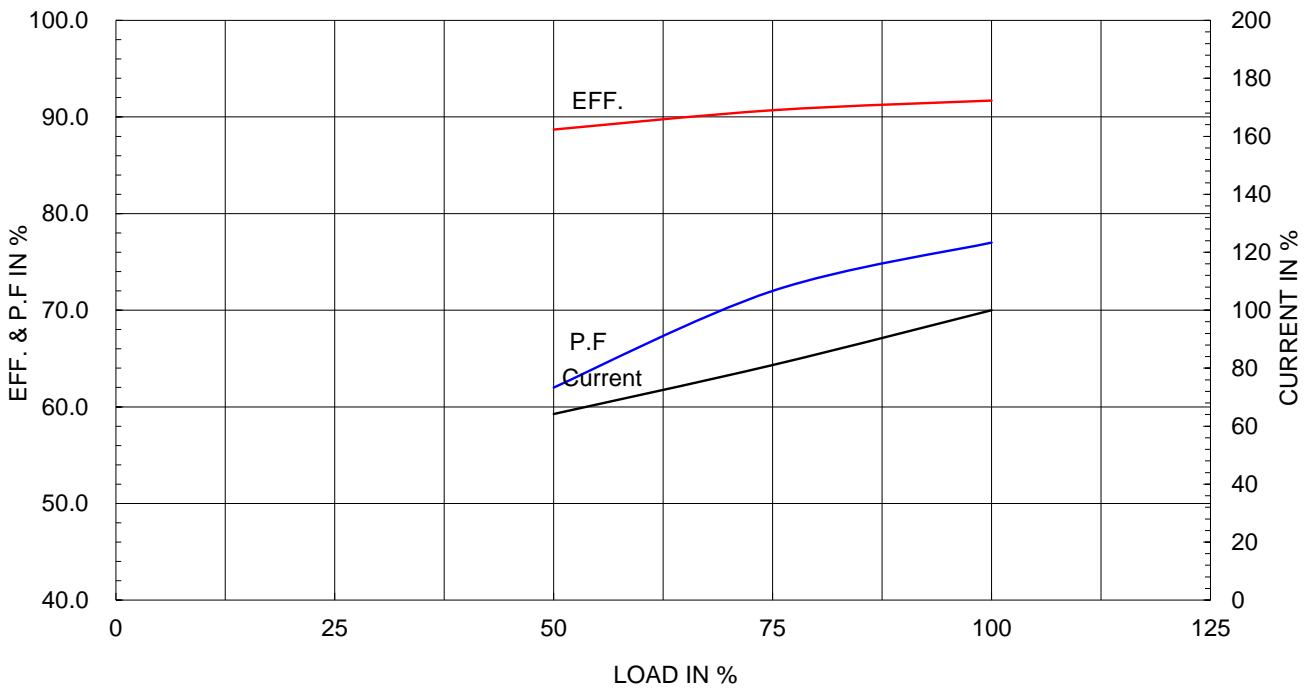
Type :	XJP
Full Load Torque :	89.9 lb.ft
Load moment of Inertia (J) :	336.373 lb.ft ²
Motor moment of Inertia (J) :	6.100 lb.ft ²

15kW	20HP	6 P	60 Hz
Speed at Full Load :			1175 RPM
Rated Voltage	575V	460V	230V
Full Load Current	21.3A	26.7A	53.3A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

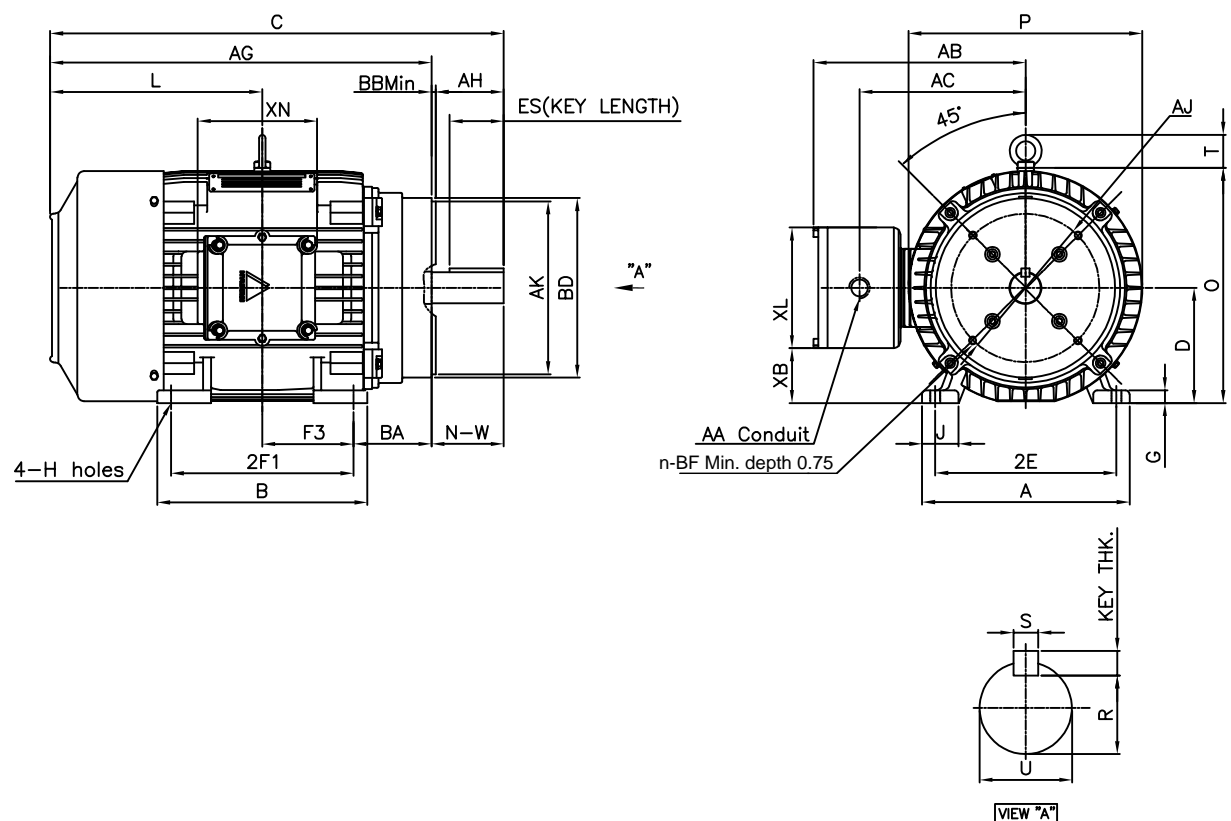


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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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	
12.60	12.68	11.00	11.00	-	5.50	0.78	2.20	0.53	1.50	12.60	10.10	3.94	6.30	7.32	410

OVERALL									SHAFT					KEY THK.	BEARING	
AG	BA	C	D	L	O	P	T	U	N-W	KEYWAY			DRIVE END		OPP. DRIVE END	
										R	ES	S				
22.90	4.75	27.52	7.00	12.87	14.28	14.19	2.01	1.875	4.62	1.591	3.28	0.500	0.500	6310ZC3	6310ZC3	

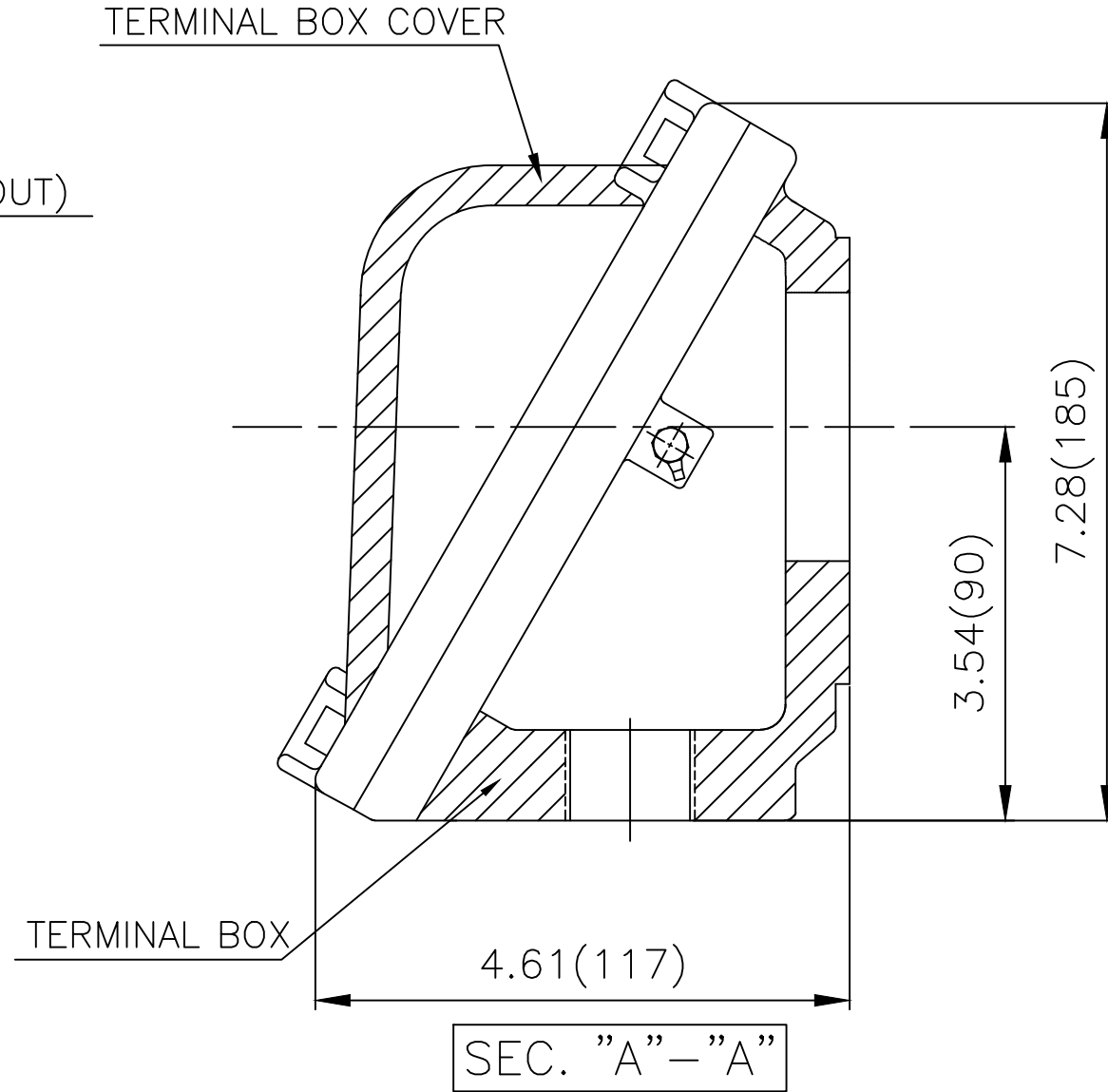
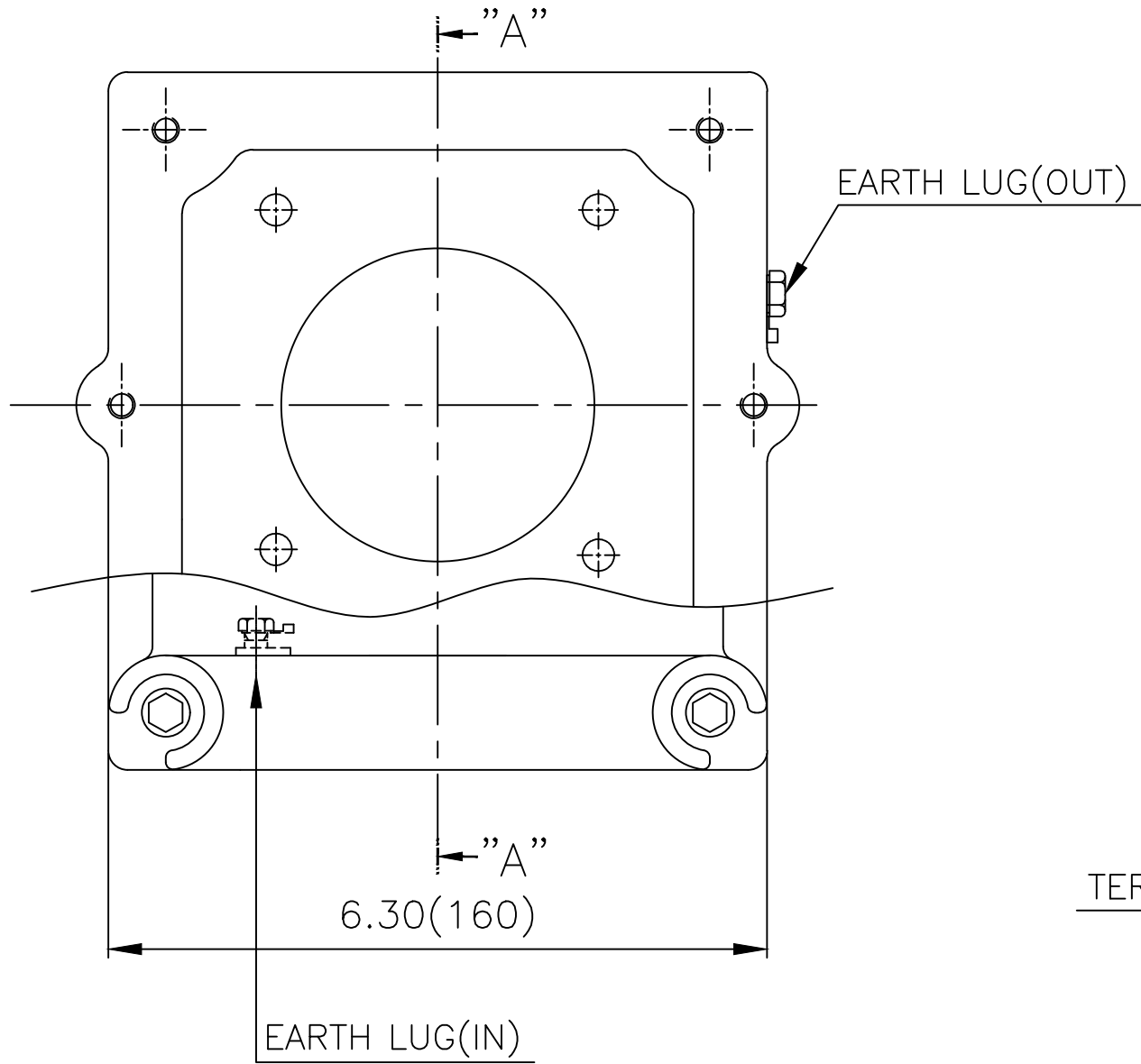
C-FACE						
AJ	AK	BD	BB	BF	n	AH
9.00	10.50	10.90	0.25	1/2-13	4	4.38

NOTE

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

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 286TC	DWG SIZE	A4 (1:12)
CHKD BY	R.G.KIM	SCALE	1/10	TITLE	OUTLINE	Sheet No.	of
CHKD BY		PROJEC'N	3rd Angle				
DSND BY	J.H.JEON	DATE	2021-04-15				
				REF. NO	.	Sheet No.	of
				DWG NO	LM-U0286C4TL001	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. 250~280(CAST IRON)		DWG SIZE
CHKD BY	R.G.KIM	SCALE	1/1.5	TITLE	MAIN TERMINAL BOX ASS'Y		A3 (1:1.5)
CHKD BY		PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	김은진	DATE	2023-11-08	DWG NO	3M-248637	Revision No.	0

