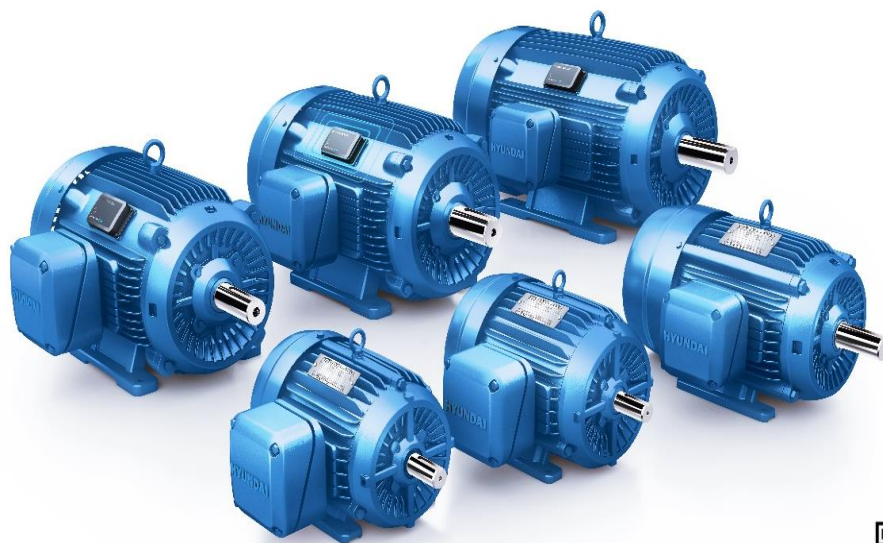


Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION for INDUCTION MOTOR



0		For Bidding			
No.	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY

AC INDUCTION MOTOR DATA SHEET

Catalog No.	HHI100-12-444TC	Item No.				Rev. No.	[]		
Project Name		Project No.				Quantity	sets		
GENERAL SPECIFICATION					PERFORMANCE DATA				
Frame Size	444TC		Rated Output	75 kW		100 HP			
Type	PJP		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	93.3 A	116.6 A	233.1 A		
Insulation Class	F			Locked-rotor**	680 %	680 %	680 %		
Temp. Rise at full load (by resistance method)			Efficiency						
at 1.0 S.F			80 deg. C						
Motor Location	☐ Indoor ☐ Outdoor		50% Load		92.0 %				
Altitude	Less than 1,000 meter		75% Load		94.0 %				
Relative Humidity	Less than 80 %		100% Load		95.0 %				
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)						
Duty Type	Continuous (S1)		50% Load		0.700				
Service Factor	1.15		75% Load		0.800				
Mounting	B35		100% Load		0.850				
Bearing	Type	Anti-Friction	Speed at Full Load		1185 r.p.m				
	DE/N-DE	6318C3 / 6316C3	Torque						
	Lubricant	Grease(Polyrex-EM)	Full Load		445.88 lb.ft				
External Thrust	Not applicable		Locked-rotor**		140 %				
Coupling Method	☒ Direct ☐ V-belt		Breakdown**		220 %				
Shaft Extension	Single		Moment of Inertia (J)						
Terminal	Main	Cast Iron	Load(Max.)		3,008.432 lb.ft2				
Box	Aux.	No	Motor		73.410 lb.ft2				
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)						
Application			80 dB(A)						
Area classification	Hazardous		Vibration		3.8 mm/sec (peak)				
Type of Ex-Protection	Class I&II, Division 2		Permissible number of		Cold		3 times		
Applicable Standard	NEMA MG1, CSA C390		consecutive starts		Hot		2 times		
			Paint	Munsell No.	4.0PB5.4/5.5(VL-451)				
ACCESSORIES			SUBMITTAL DRAWING						
			Outline Dimension Drawing \ Motor Weight(Approx.)						
			B35		LM-T1444C4PL001		1610 lb.		
			REMARK						
			1. Premium efficiency according to NEMA MG1						
			2. Inverter Duty @ 1.0 Service Factor & F Temperature rise						
			-. 10:1 VT (20:1 VT at 50% load)						
			-. 10:1 CT (1 hour duty, 4:1 continuous)						
			-. CHP up to 1.5 times base speed, NEMA MG1 Part31						
			3. CSA Certification						
			-. Class I, Division 2, Group A, B, C & D						
			-. Class II, Division 2 Group E, F & G (Group E : up to 320Fr.)						
			4. Service Factor 1.15 and Temperature rise B are applicable under the condition of sine wave power.						
			5. Service Factor 1.25 is applicable to motors of 100HP or less with temperature rise F & Non-Hazardous.						
			6. Temp. code : T3A(180°C) at sine wave						
			Date	DSND	CHKD	CHKD	APPD		
			2025-07-22	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.

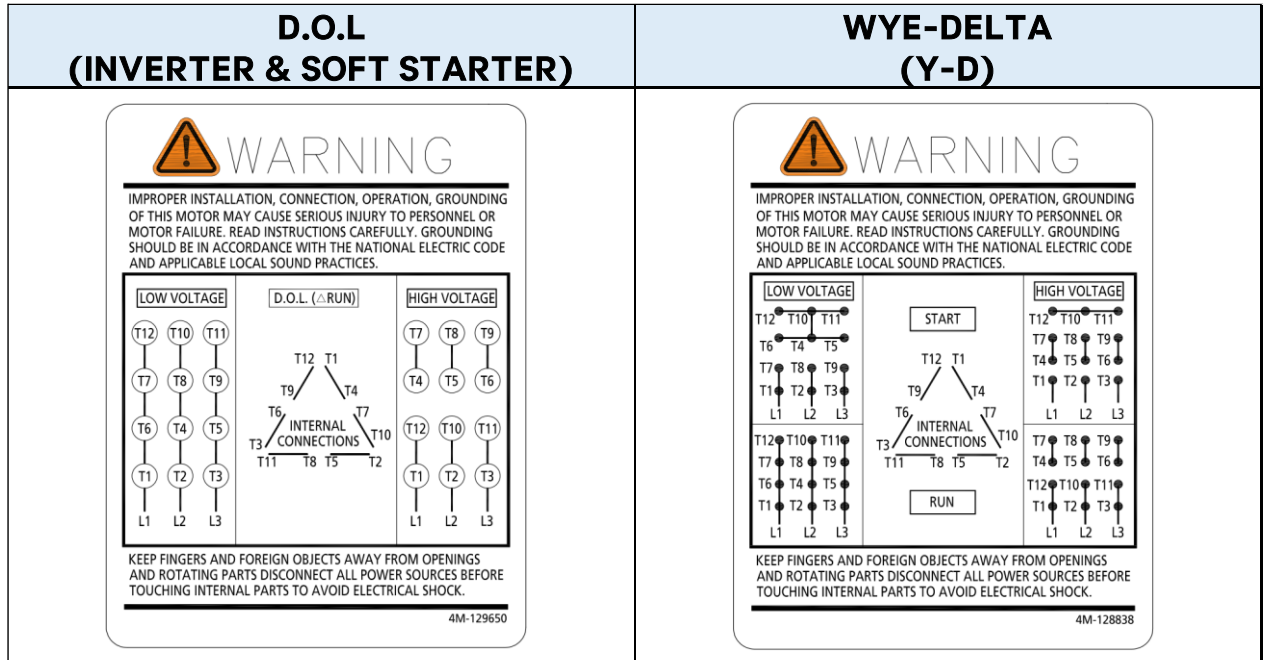
** Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

MAIN NAMEPLATE

4.72

100HP		6P	230/460V	Cat. No.	HHI100-12-444TC				
Model	HLS444PR06U3			INS. Class	F	HD-F1	Amps	233.1/116.6A	
Type	HLS	Duty	CONT	Code	H	Amb.	40°C	Hertz	60Hz
Frame	444TC	Encl.	TEFC	S.F.	1.15	RPM	1185	NEMA Nom. Eff.	95.0%
Bearing	Drive	6318C3	S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)			3/4 Eff.	94.0%		
	Opp.	6316C3				NEMA Design	B Torque		
Usable at	50Hz 100HP 380V 141.8A 982rpm S.F.: 1.0 Eff.: 93.8% Code: F								
	50Hz 100HP 400/415V 135.2/131.3A 984/985rpm S.F.: 1.0 Eff.: 94.2/94.4% Code: G/G								
CSA Certified for	Model	LATER	Type	PJP	Temp. Code	Frame	140~320FR	360~400FR	440FR
	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2 Gr. E, F & G	(Gr. E: Up to 320FR)			Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC				Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)	
No.	-	Date	-	Weight	1610 lb				
4M-135702				Made in Korea H1				HD HYUNDAI ELECTRIC	
MARINE DUTY IEEE45									

WIRING DIAGRAM

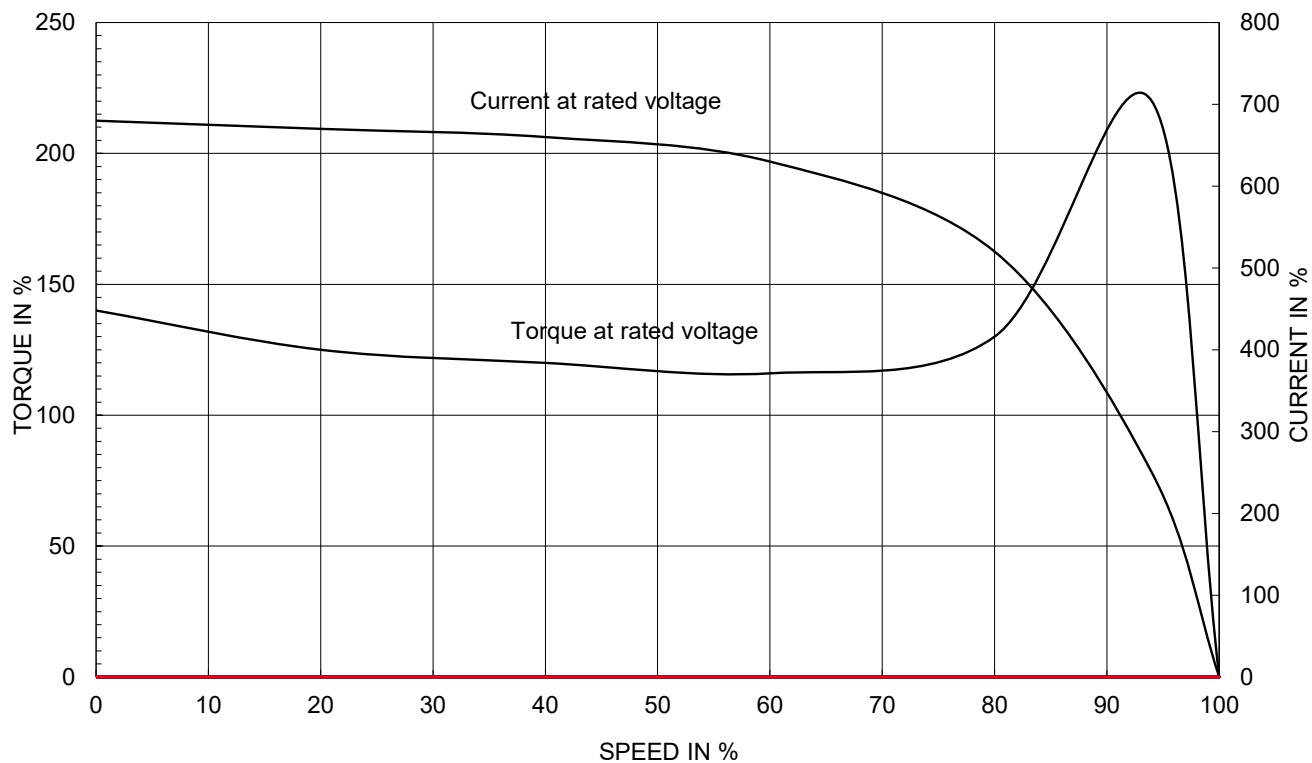


APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HHI, 364-449)	DWG SIZE	A4 (1:1)
CHKD BY	I.K.KIM	SCALE	NONE	NAMEPLATE DRAWING			
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	S.H.LEE	DATE	2024.06.07				
HD HYUNDAI ELECTRIC				REF. NO	4M-135702 / 4M-129650	Sheet No.	of
				DWG NO	NP-HHI100-12-444TC	Revision No.	0

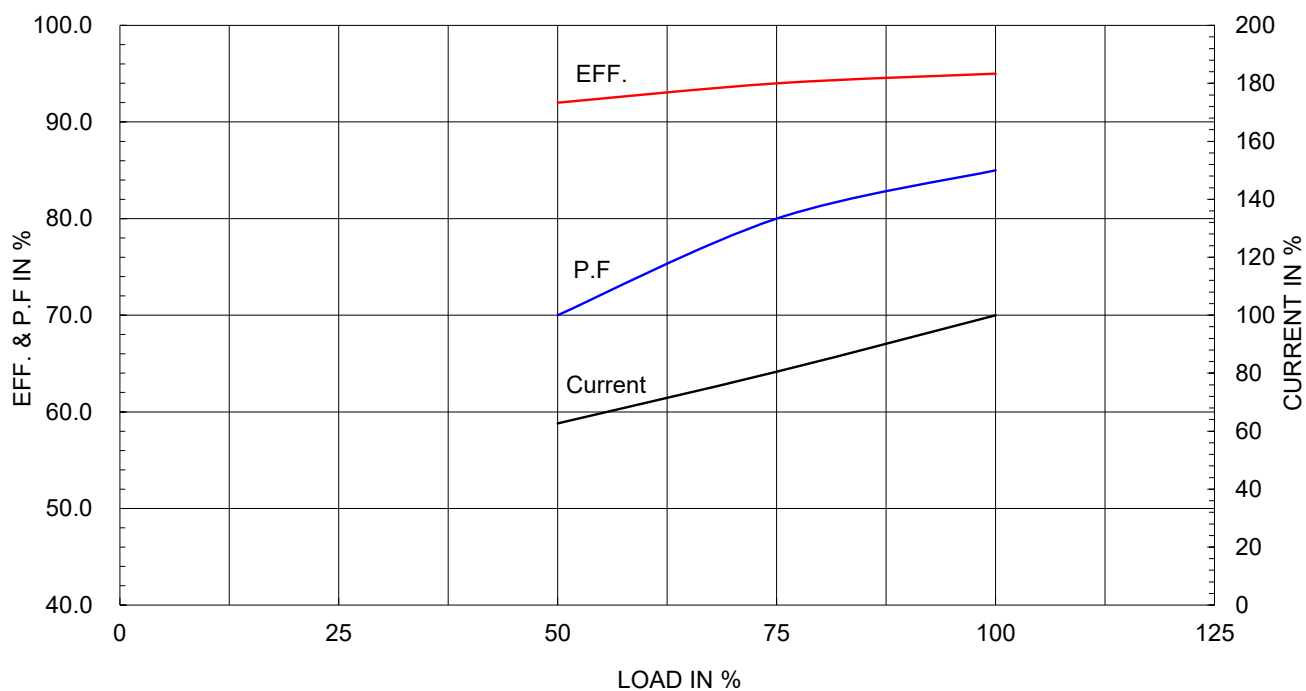
Type :	PJP	
Full Load Torque :	445.88	lb.ft
Load moment of Inertia (J) :	3008.432	lb.ft2
Motor moment of Inertia (J) :	73.410	lb.ft2

75kW	100HP	6 P	60 Hz
Speed at Full Load :			1185 RPM
Rated Voltage	575V	460V	230V
Full Load Current	93.3A	116.6A	233.1A

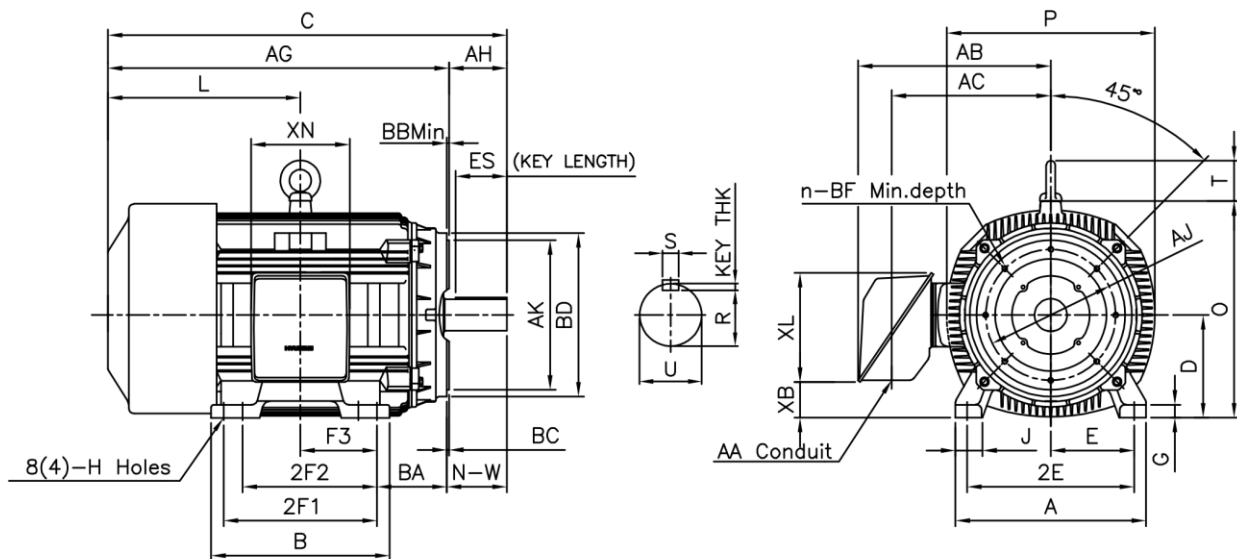
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



1	2	3	4
▽	50S	REV	DATE
▽▽	12.5S		
▽▽▽	3.2S		
▽▽▽▽	0.4S		



DIMENSIONS

Unit:inch

M O U N T I N G									CONDUIT BOX						APPROX. WGT.(LB)
A	B	2E	2F1	2F2	F3	G	J	H	AA	AB	AC	XB	XL	XN	
20.51	19.21	18.00	(16.50)	14.50	8.248	1.42	3.07	0.81	3.00	21.26	18.03	3.83	11.65	10.63	1610

O V E R A L L								S H A F T					KEY	BEARING	
BA	C	D	L	O	P	T	AG	U	N—W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
										R	ES	S			
7.50	45.21	11.00	20.96	23.19	22.44	4.33	36.71	3.375	8.50	2.880	6.93	0.875	0.875	6318C3	6316C3

C - F A C E								
AJ	AK	BB Min	BC	BD	BF	BF depth	n	AH
14.00	16.00	0.25	0.25	17.48	5/8-11	0.94	8	8.25

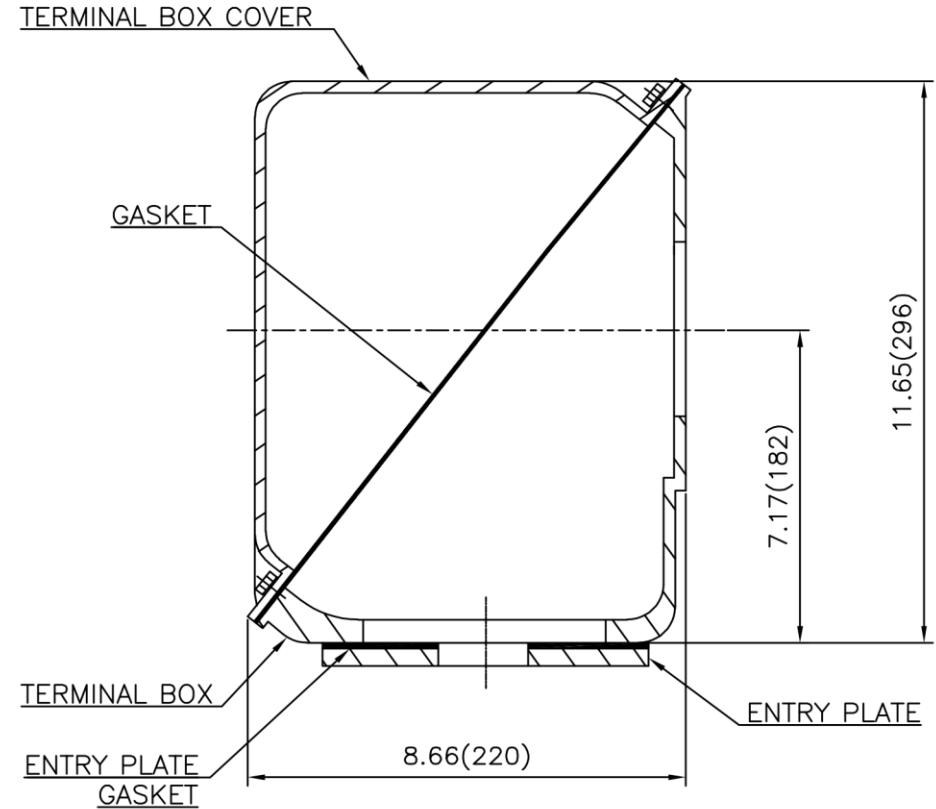
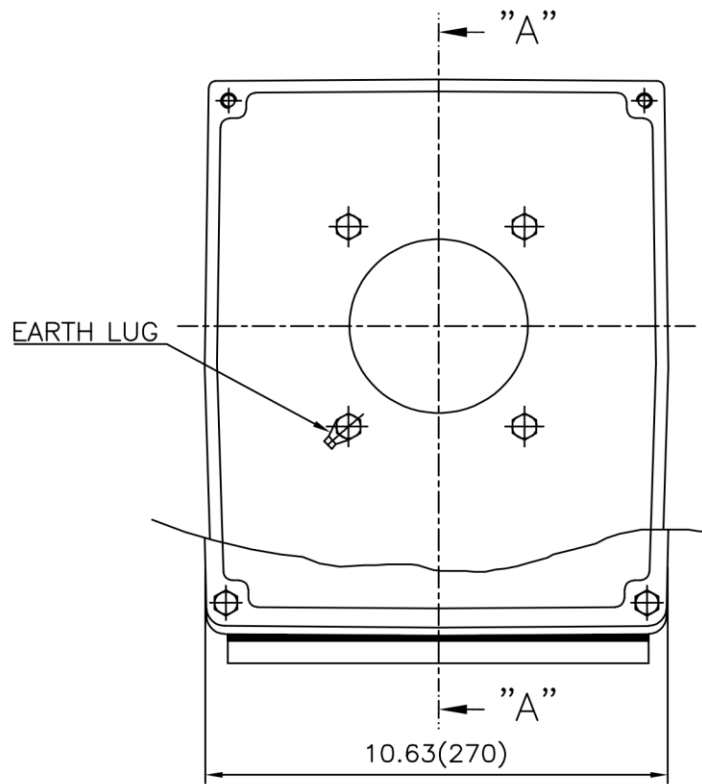
NOTE

- 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.K.HAN	UNIT	inch	SUBJECT	NEMA 444TC	DWG SIZE	A4 < 1:1 >
CHKD BY	S.Y.KIM	SCALE	None	TITLE OUTLINE			
CHKD BY	Y.H.BAE	PROJEC'N	3rd Angle				
DSND BY	H.C.LIM	DATE	2019-06-05				
				REF. NO	350A1317AA	Sheet No.	of
				DWG NO	LM-T1444C4PL001	Revision No.	0

Cls. I&II, Div. 2

IEEE 841



SEC. "A" - "A"

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REV'D BY	CHK'D BY	CHK'D BY	APP'D BY	일반기공표	일반계관표
1							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	FR. 400-440 (CAST IRON)	DWG SIZE	
CHKD BY		SCALE	1/1.2	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	네슬피	DATE	2023-10-19	DWG NO	3M-248451	Revision No.	0

