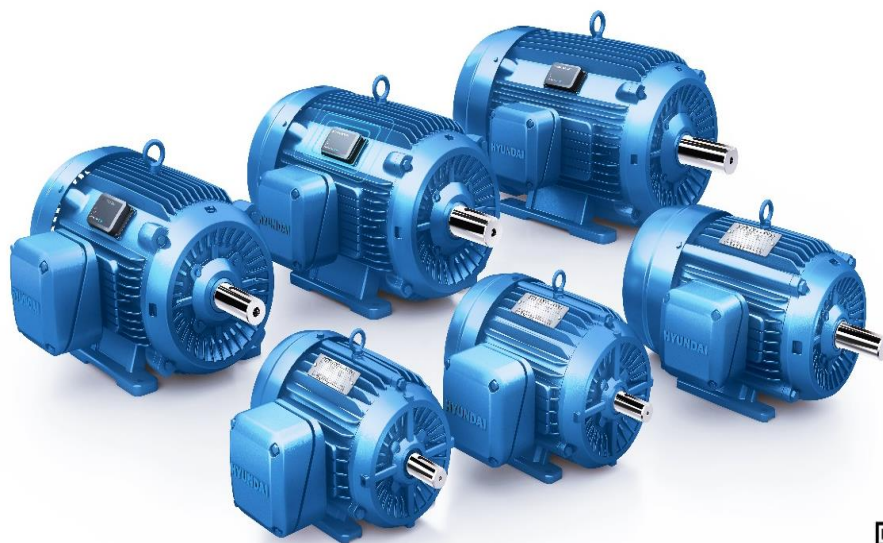


Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION for INDUCTION MOTOR



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

AC INDUCTION MOTOR DATA SHEET

Catalog No.	HHI75-12-405T	Item No.			Rev. No.	[]	
Project Name		Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA			
Frame Size	405T		Rated Output	55 kW		75 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	69.6 A	87.0 A	173.9 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	50% Load 91.5 %				
Motor Location	☐ Indoor ☐ Outdoor		75% Load 93.5 %				
Altitude	Less than 1,000 meter		100% Load 94.5 %				
Relative Humidity	Less than 80 %		Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)		50% Load 0.690				
Duty Type	Continuous (S1)		75% Load 0.790				
Service Factor	1.15		100% Load 0.840				
Mounting	B3		Speed at Full Load		1185 r.p.m		
Bearing	Type	Anti-Friction	Torque				
	DE/N-DE	NU316 / 6313C3	Full Load 326.98 lb.ft				
	Lubricant	Grease(Polyrex-EM)	Locked-rotor** 140 %				
External Thrust	Not applicable		Breakdown** 220 %				
Coupling Method	☒ Direct ☐ V-belt		Moment of Inertia (J)				
Shaft Extension	Single		Load(Max.) 2,670.866 lb.ft2				
Terminal	Main	Cast Iron	Motor 55.310 lb.ft2				
Box	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)				
	Location	Refer to Outline Drawing	75 dB(A)				
Application			Vibration 3.8 mm/sec (peak)				
Area classification	Hazardous		Permissible number of				
Type of Ex-Protection	Class I&II, Division 2		Cold 3 times				
Applicable Standard	NEMA MG1, CSA C390		Hot 2 times				
			Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		
ACCESSORIES			SUBMITTAL DRAWING				
			Outline Dimension Drawing \ Motor Weight(Approx.)				
			B3		LM-T1405B3PL001	1120 lb.	
SPARE PARTS			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 : T3B(165°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.

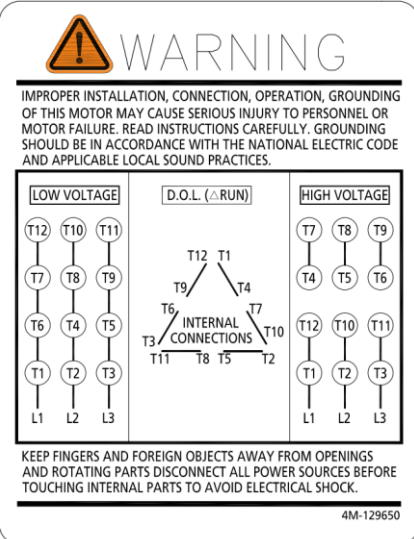
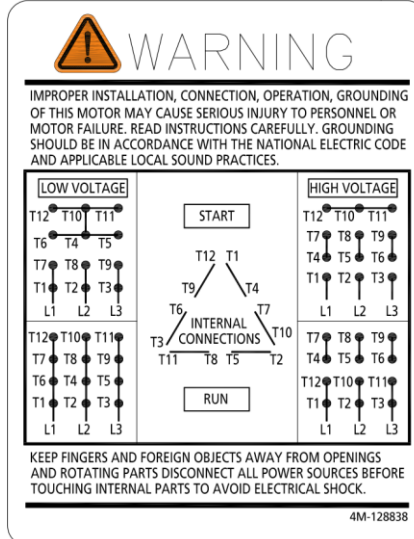
MAIN NAMEPLATE

4.72

2.36

CROWN TRITON											
Premium Efficiency AC 3 Phase Motor										C Energy Verified	
75HP 6P 230/460V				Cat. No. HHI75-12-405T							
Model HLS405SR06U3		Duty CONT		INS. Class F HD-F1		Amps 173.9/87.0A					
Type HLS		Encl. TEFC		Code G		Amb. 40°C		Hertz 60Hz			
Frame 405T		S.F. 1.15		RPM 1185		NEMA Nom. Eff. 94.5%					
Bearing		Drive NU316		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		3/4 Eff. 93.5%					
Opp. 6313C3						NEMA Design B					
Usable at		50Hz 75HP 380V 105.9A 981rpm S.F.: 1.15 Eff.: 93.3% Code: E									
		50Hz 75HP 400/415V 101.0/97.9A 983/984rpm S.F.: 1.15 Eff.: 93.6/93.8% Code: G/G									
CSA Certified for		Model LATER		Type PJP		Temp. Code (sine wave)		Frame 140~320FR		360~400FR	
		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)	
		CLASS I, Zone 2, Gr. IIA, IIB, & IIC				Amb. 55°C		T3A (180°C)		T3 (200°C)	
No. -		Date -		Weight 1120 lb							
4M-135702		MARINE DUTY IEEE45		Made in Korea H1							

WIRING DIAGRAM

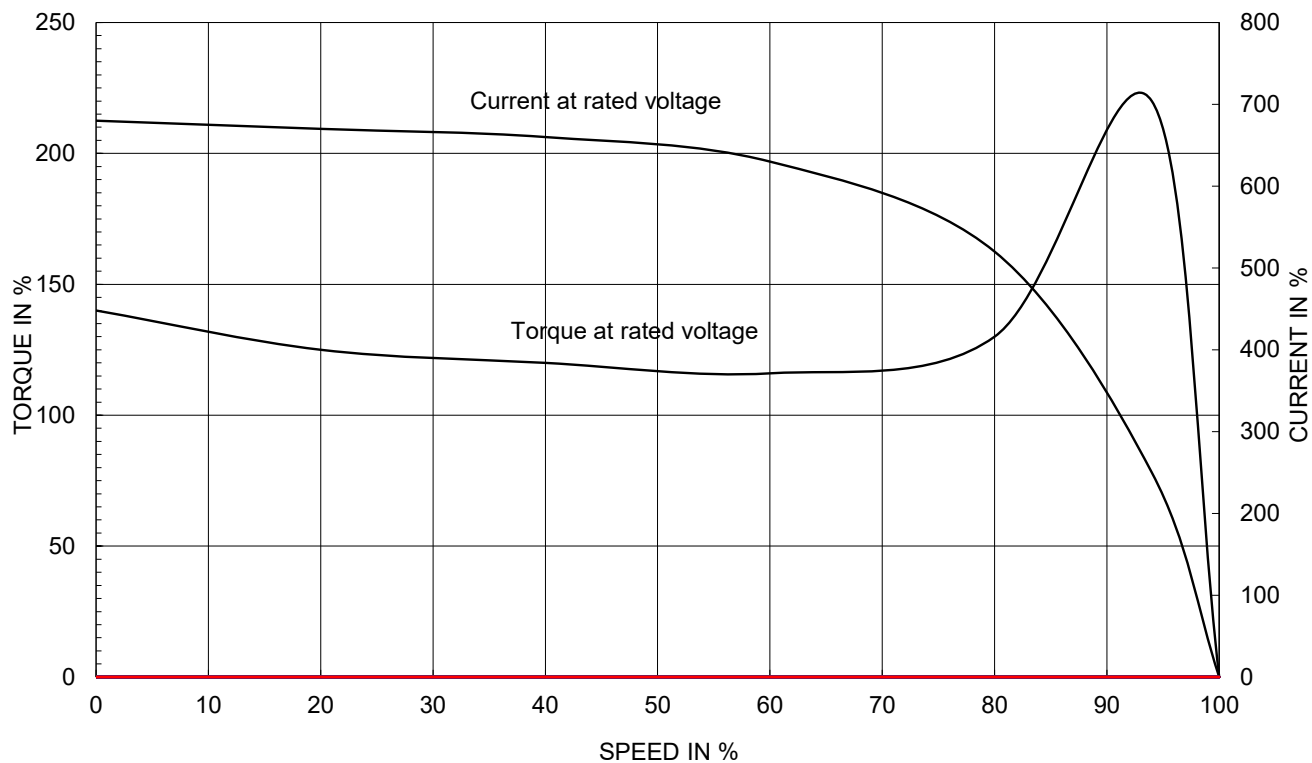
D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
	

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	TITLE NAMEPLATE DRAWING	
CHKD BY R.G.KIM	PROJEC'N 3rd Angle		
DSND BY S.H.LEE	DATE 2024.06.07		
		REF. NO 4M-135702 / 4M-129650	Sheet No. of
		DWG NO NP-HHI75-12-405T	Revision No. 0

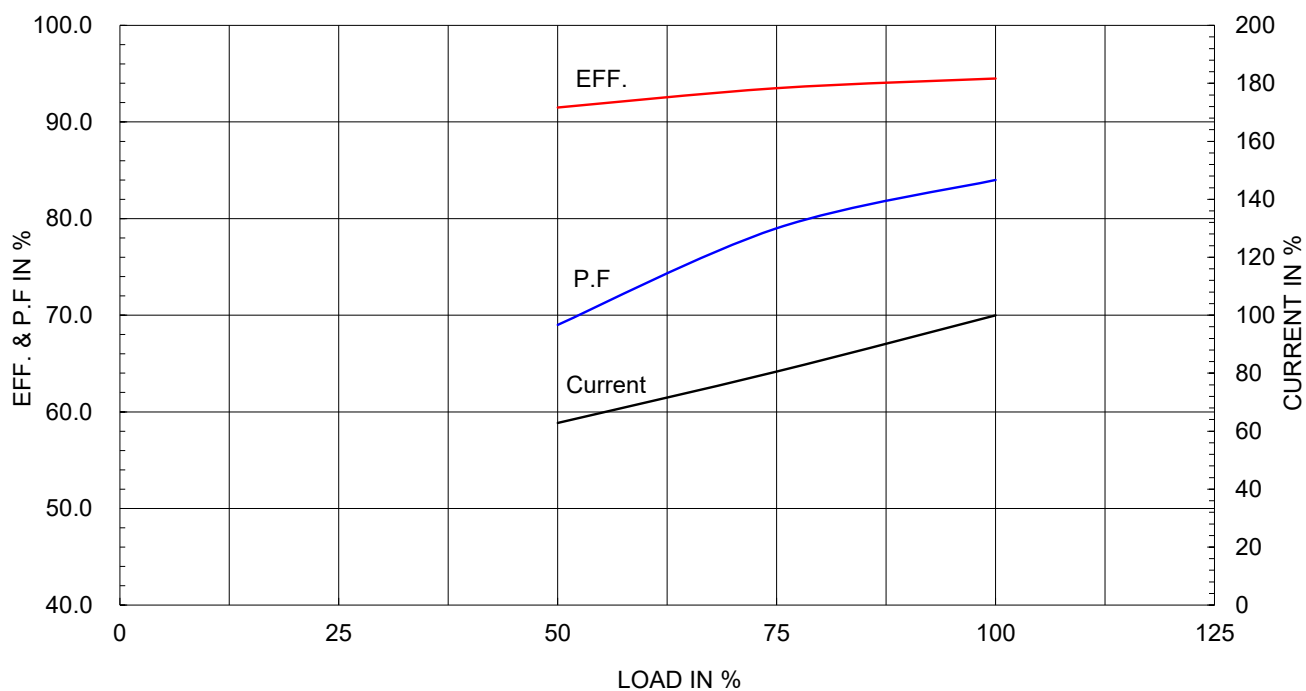
Type :	PJP	
Full Load Torque :	326.98	lb.ft
Load moment of Inertia (J) :	2670.866	lb.ft2
Motor moment of Inertia (J) :	55.310	lb.ft2

55kW	75HP	6 P	60 Hz
Speed at Full Load :			1185 RPM
Rated Voltage	575V	460V	230V
Full Load Current	69.6A	87.0A	173.9A

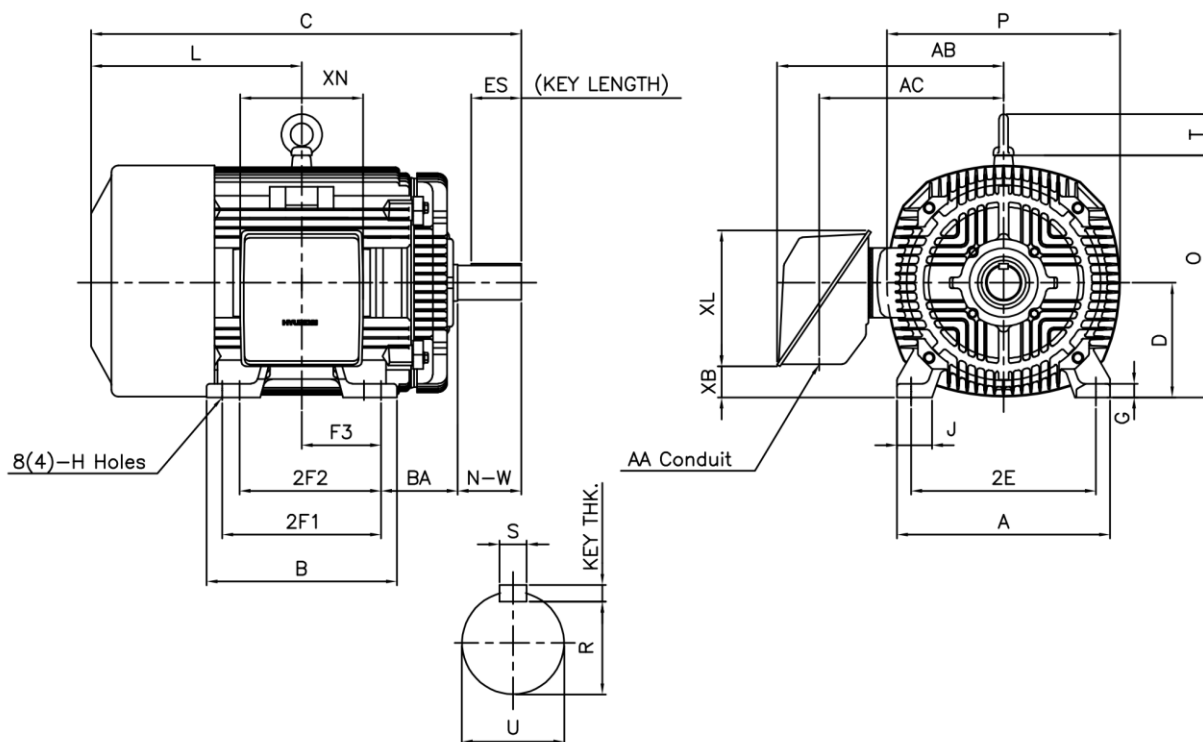
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



1			2		3		4		
▽	50S	REV	DATE	CONTENTS		REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	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	
18.43	16.46	16.00	13.75	(12.25)	6.870	1.18	3.03	0.81	3.00	20.28	14.85	2.83	11.65	10.63	1120
O V E R A L L									S H A F T				KEY	BEARING	
BA	C	D	L	O	P	T	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END	
									R	ES	S				
6.62	39.42	10.00	18.68	20.79	20.16	3.55	2.875	7.25	2.450	5.65	0.750	0.750	6316C3 or NU316	6313C3	

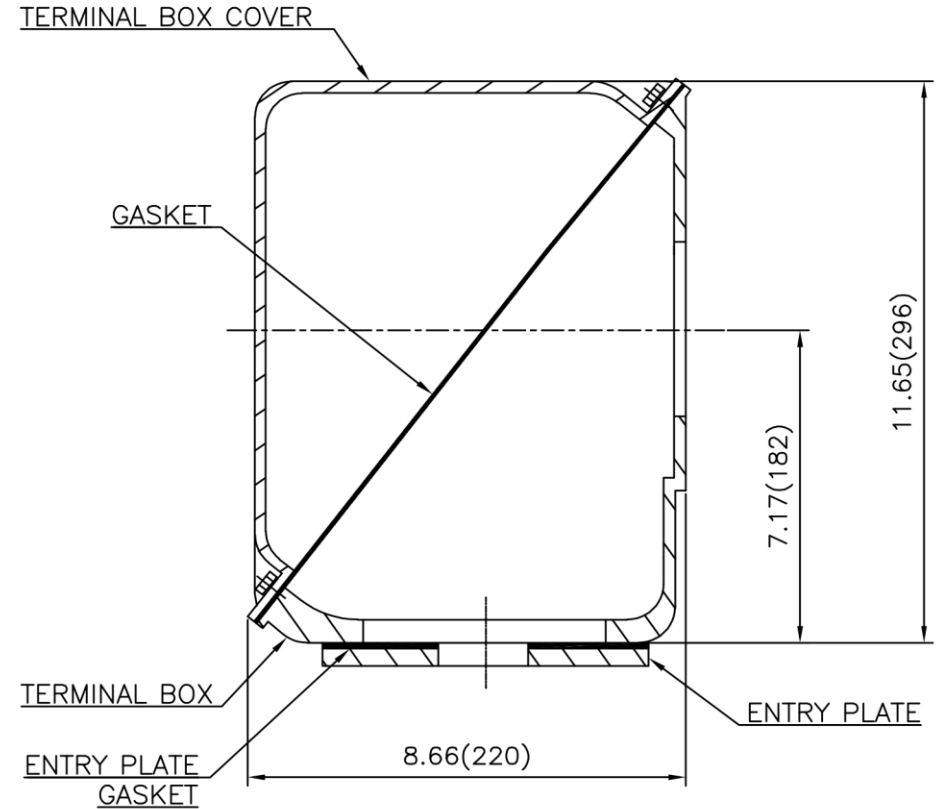
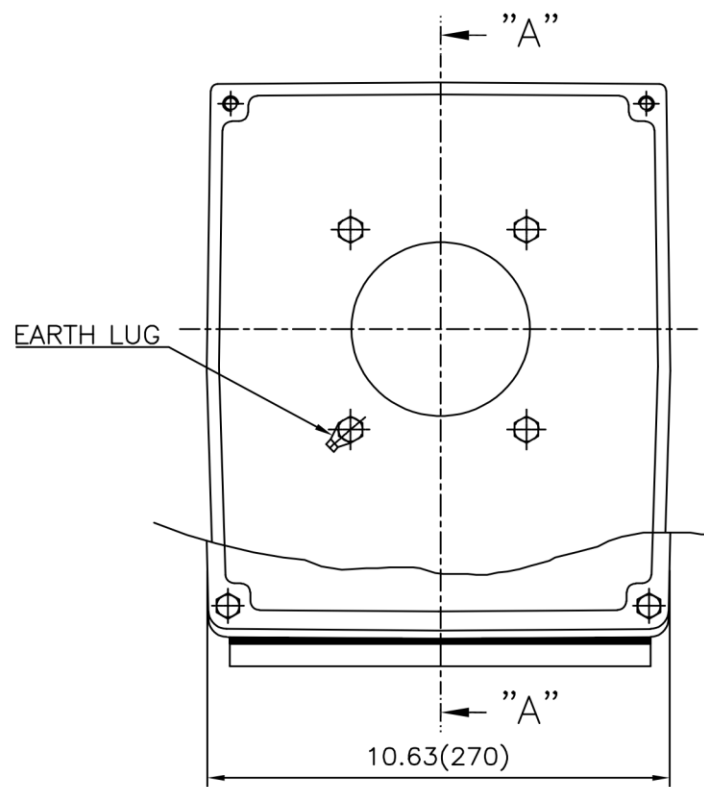
NOTE

1. Dimension "D" tolerance : +0.00inch - 0.03inch (143T-365T) ; +0.000inch - 0.06inch (404T-449T)
 2. Dimension "U" tolerance : +0.000inch - 0.005inch (143T-215T), +0.000inch - 0.001inch (254T-449T)
 3. Dimension "R" tolerance : +0.000inch - 0.015inch

APPD BY	S.K.HAN	UNIT	INCH	SUBJECT	405T	DWG SIZE
Q.P CHK	I.K.KIM	SCALE	NONE			A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE	OUTLINE	
DSND BY	B.Y.KIM	DATE	2019.06.05			
				REF. NO	350A1116AA	Sheet No. of
				DWG NO	LM-T1405B3PL001	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

일반가공공차		일반재공공차	
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	A3 (1:1.2)
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

