

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.	HHI100-36-405TS	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA					
Frame Size		405TS		Rated Output		75 kW 100 HP		
Type		PJP		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	88.1 A	110.1 A	220.1 A
Insulation Class		F			Locked-rotor**	700 %	700 %	700 %
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	0.755		
Duty Type		Continuous (S1)			75% Load	0.855		
Service Factor		1.15			100% Load	0.905		
Mounting		B3		Speed at Full Load		3570 r.p.m		
Bearing	Type	Anti-Friction		Torque				
	DE/N-DE	6313C3 / 6313C3			Full Load	148.00 lb.ft		
	Lubricant	Grease(Polyrex-EM)			Locked-rotor**	120 %		
External Thrust		Not applicable			Breakdown**	220 %		
Coupling Method		☒ Direct ☐ V-belt		Moment of Inertia (J)				
Shaft Extension		Single			Load(Max.)	214.761 lb.ft2		
Terminal Box	Main	Cast Iron			Motor	18.450 lb.ft2		
	Aux.	No		Sound Pressure Level (No-load & mean value at 1m from motor)				
	Location	Refer to Outline Drawing				87 dB(A)		
Application				Vibration		3.8 mm/sec (peak)		
Area classification		Hazardous		Permissible number of consecutive starts		Cold	3 times	
Type of Ex-Protection		Class I&II, Division 2				Hot	2 times	
Applicable Standard		NEMA MG1, CSA C390		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		

ACCESSORIES	SUBMITTAL DRAWING
	Outline Dimension Drawing \ Motor Weight(Approx.)
	B3 LM-T1405B3CL001 1120 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 : 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.

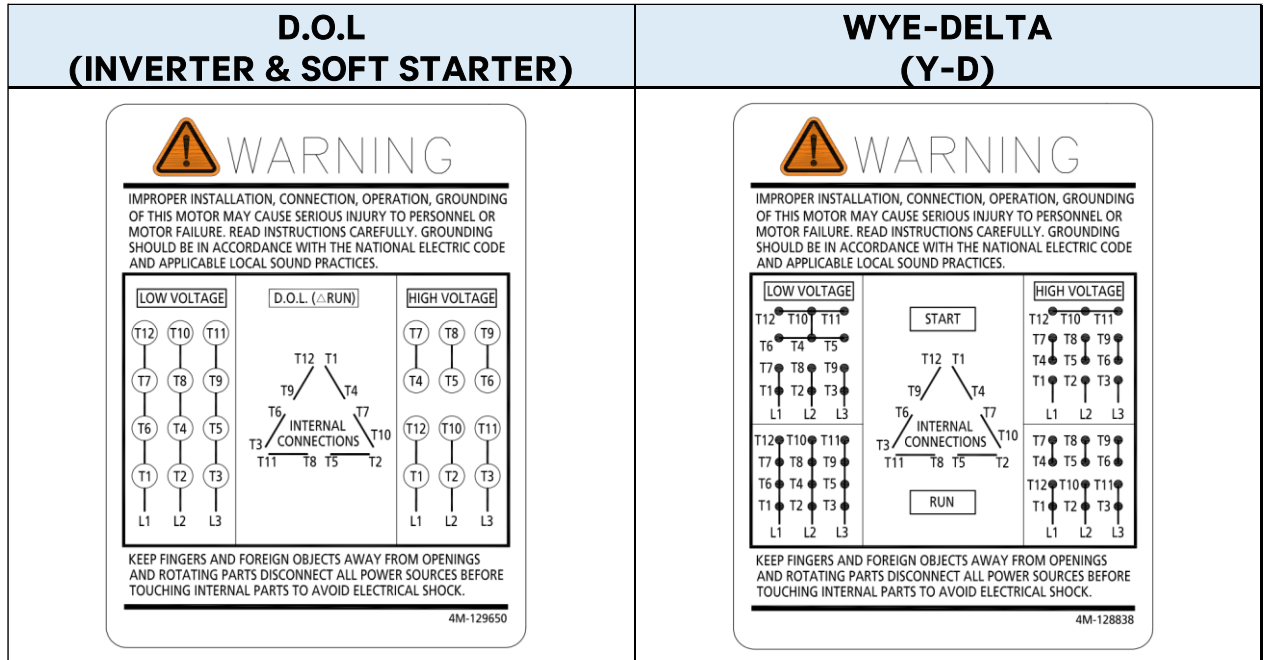
MAIN NAMEPLATE

4.72

100HP		2P	230/460V	Cat. No.	HHI100-36-405TS				
Model	HLS405SR02U3			INS. Class	F	HD-F1	Amps	220.1/110.1A	
Type	HLS	Duty	CONT	Code	G	Amb.	40°C	Hertz	60Hz
Frame	405TS	Encl.	TEFC	S.F.	1.15	RPM	3570	NEMA Nom. Eff.	94.5%
Bearing	Drive	6313C3	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 100HP 380V 134.2A 2962rpm S.F.: 1.0 Eff.: 94.0% Code: E								
	50Hz 100HP 400/415V 127.1/122.4A 2966/2969rpm S.F.: 1.0 Eff.: 94.3/94.5% Code: F/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	1120 lb				
4M-135702				Made in Korea H1				HD HYUNDAI ELECTRIC	
MARINE DUTY IEEE45									

2.36

WIRING DIAGRAM

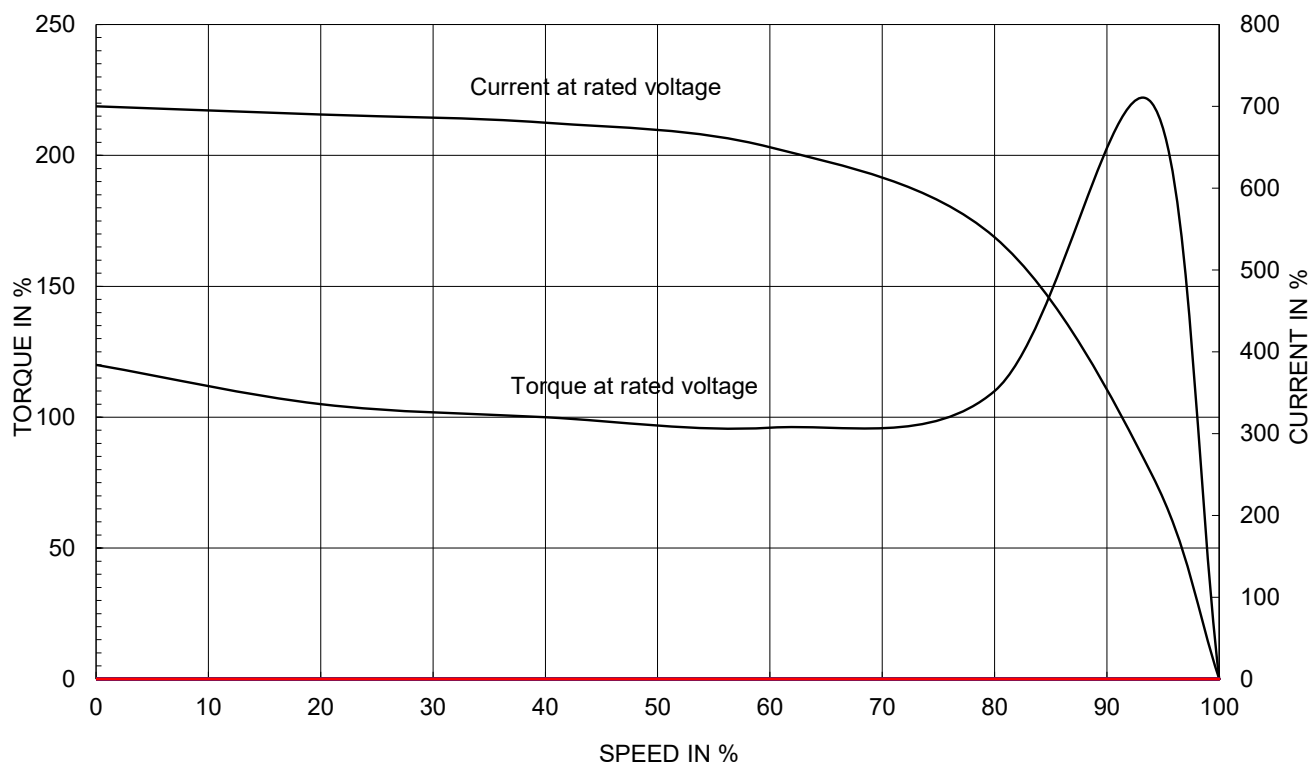


APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HHI, 364-449)	DWG SIZE	A4 (1:1)
CHKD BY	I.K.KIM	SCALE	NONE	NAMEPLATE DRAWING			
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	S.H.LEE	DATE	2024.06.07				
HD HYUNDAI ELECTRIC				REF. NO	4M-135702 / 4M-129650	Sheet No.	of
				DWG NO	NP-HHI100-36-405TS	Revision No.	0

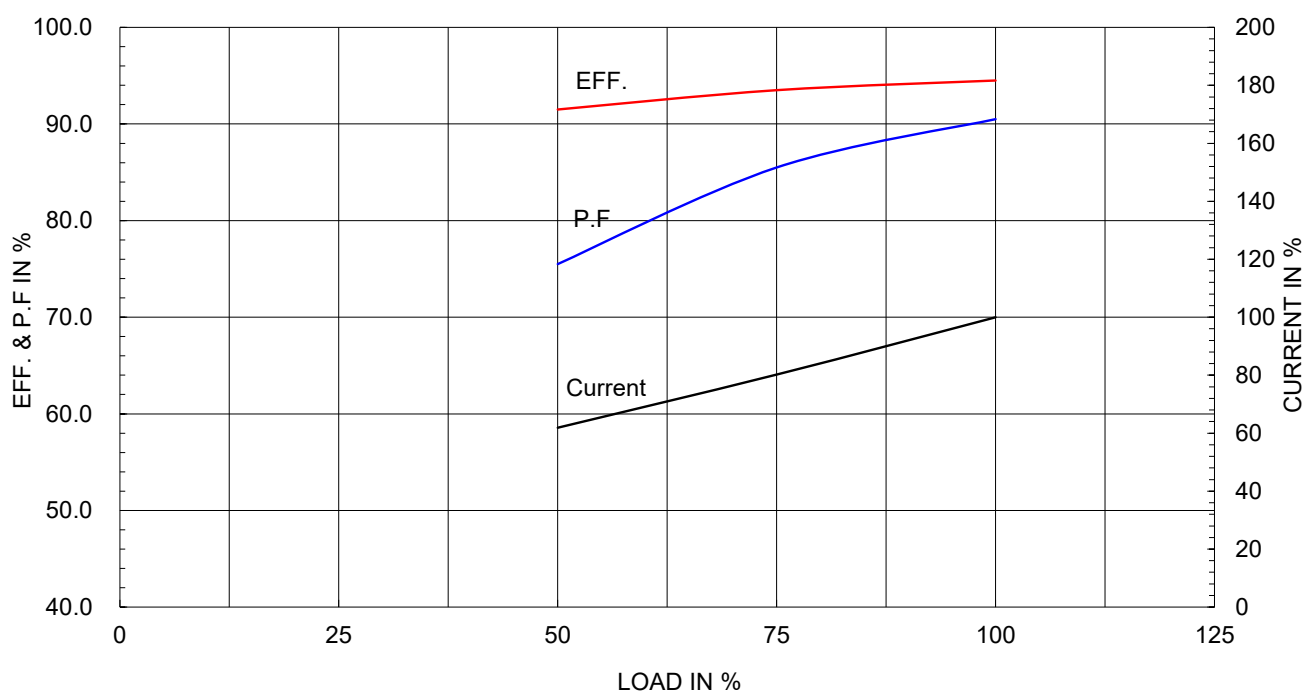
Type :	PJP	
Full Load Torque :	148.00	lb.ft
Load moment of Inertia (J) :	214.761	lb.ft2
Motor moment of Inertia (J) :	18.450	lb.ft2

75kW	100HP	2 P	60 Hz
Speed at Full Load :		3570 RPM	
Rated Voltage	575V	460V	230V
Full Load Current	88.1A	110.1A	220.1A

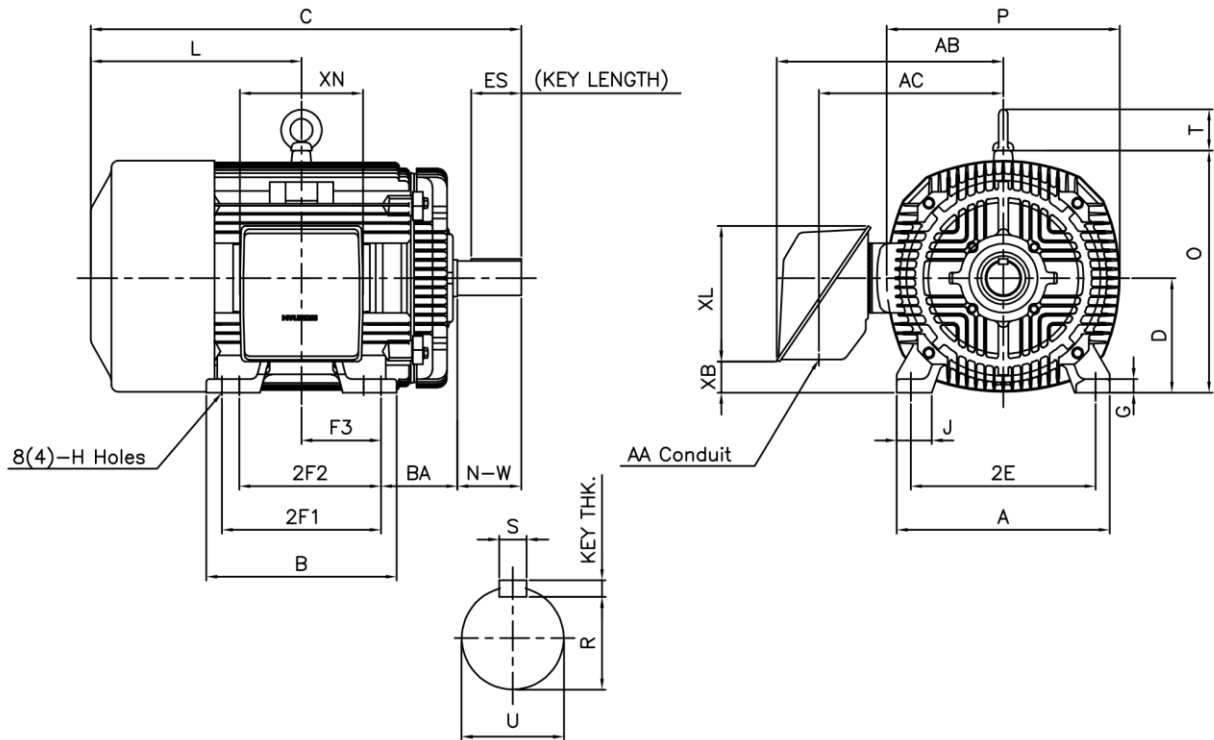
SPEED VS TORQUE & CURRENT CURVE



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									C O N D U I T B O X						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	B E A R I N G	
BA	C	D	L	O	P	T	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
									R	ES	S			
6.62	36.42	10.00	18.68	20.79	20.16	3.55	2.125	4.25	1.845	2.80	0.500	0.500	6313C3	6313C3

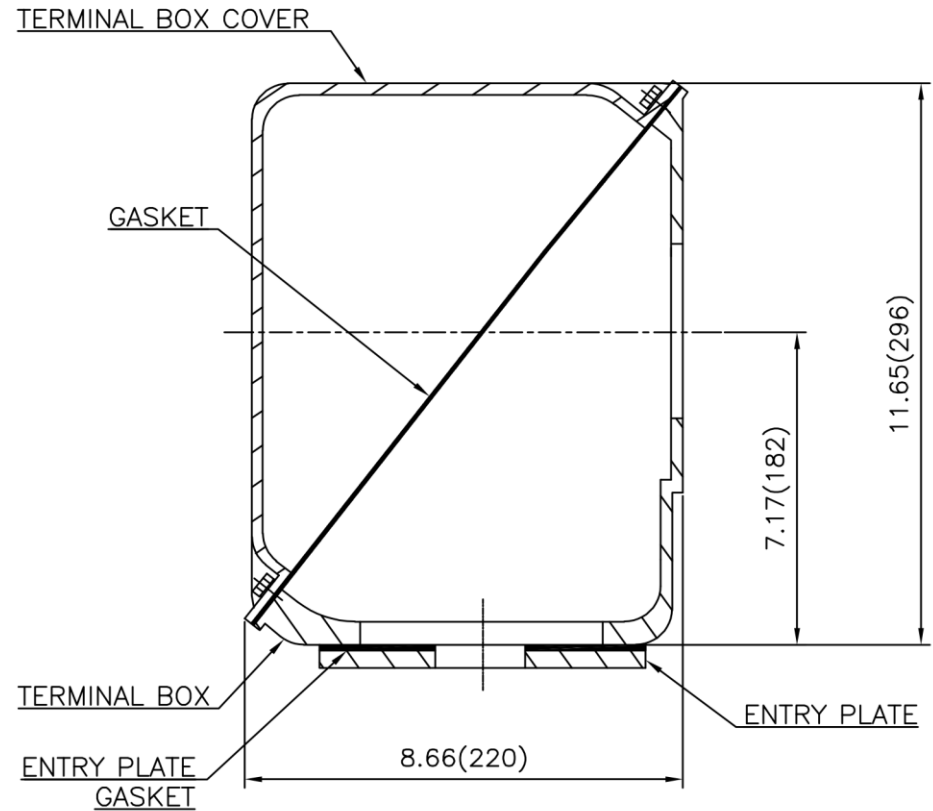
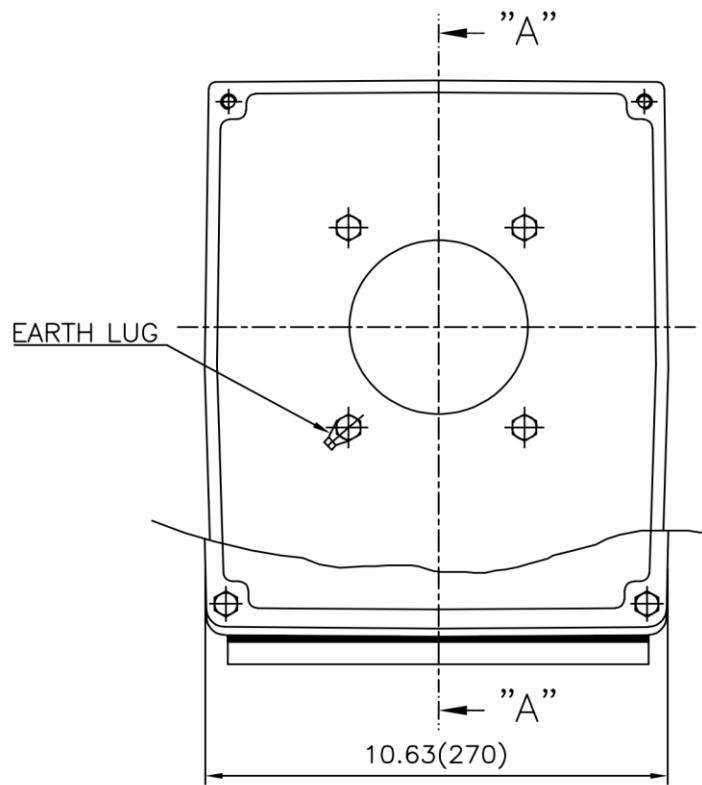
NOTE

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	405TS	DWG SIZE
Q.P CHK	I.K.KIM	SCALE	NONE	TITLE		A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	B.Y.KIM	DATE	2019.06.05			
				REF. NO	350A1116BA	Sheet No. of
				DWG NO	LM-T1405B3CL001	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

