

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.	HHI125-12-445T		Item No.			Rev. No.	[]	
Project Name			Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA				
Frame Size	445T		Rated Output	93 kW		125 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	115.6 A	144.6 A	289.1 A	
Insulation Class	F			Locked-rotor**	675 %	675 %	675 %	
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	B3		100% Load		0.850			
Bearing	Type	Anti-Friction	Speed at Full Load		1185 r.p.m			
	DE/N-DE	NU318 / 6316C3	Torque					
	Lubricant	Grease(Polyrex-EM)	Full Load		552.90 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.)		3,090.203 lb.ft2			
Box	Aux.	No	Motor		89.860 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 consecutive starts		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-T1445B3PL001		1640 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 : 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.

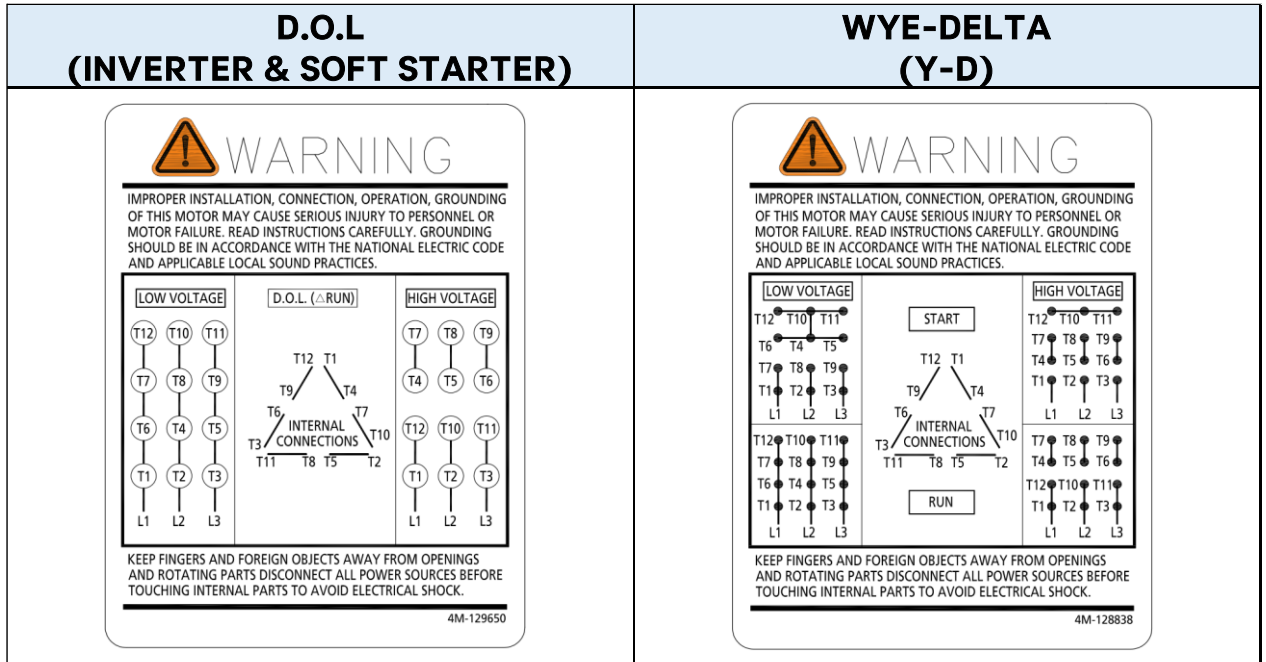
** Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

MAIN NAMEPLATE

4.72

125HP 6P 230/460V		Cat. No. HHI125-12-445T	
Model HLS445SR06U3		INS. Class F HD-F1	
Type HLS		Duty CONT	
Frame 445T		Encl. TEFC	
Bearing Drive NU318		S.F. 1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)	
Opp. 6316C3		3/4 Eff. 94.0%	
Usable at 50Hz 125HP 380V 175.8A 982rpm S.F.: 1.0 Eff.: 93.8% Code: E		NEMA Design B	
50Hz 125HP 400/415V 167.6/162.8A 984/985rpm S.F.: 1.0 Eff.: 94.2/94.4% Code: F/G			
CSA Model LATER		Type PJP	
Certified for CLASS I, Div. 2, Gr. A, B, C & D		Temp. Code (sine wave)	
CLASS II, Div. 2, Gr. E, F & G (Gr. E: Up to 320FR)		Frame 140~320FR 360~400FR 440FR	
		Amb. 40°C T3C (160°C) T3B (165°C) T3A (180°C)	
		Amb. 55°C T3A (180°C) T3A (180°C) T3 (200°C)	
No. -		Date -	
4M-135702		Weight 1640 lb	
MARINE DUTY IEEE45		Made in Korea H1	

WIRING DIAGRAM

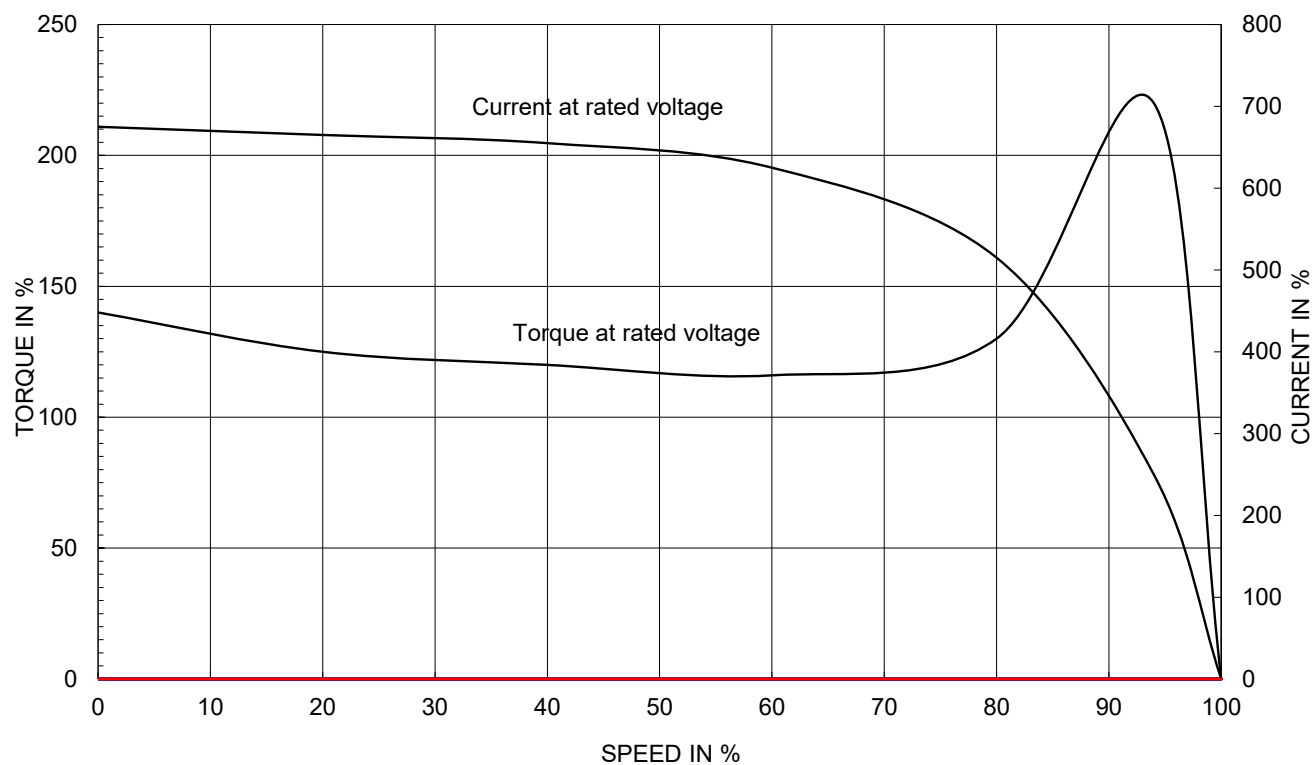


APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HHI, 364-449)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE	TITLE		A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	NAMEPLATE DRAWING		
DSND BY	S.H.LEE	DATE	2024.06.07	REF. NO	4M-135702 / 4M-129650	Sheet No. of
HD HYUNDAI ELECTRIC				DWG NO	NP-HHI125-12-445T	Revision No. 0

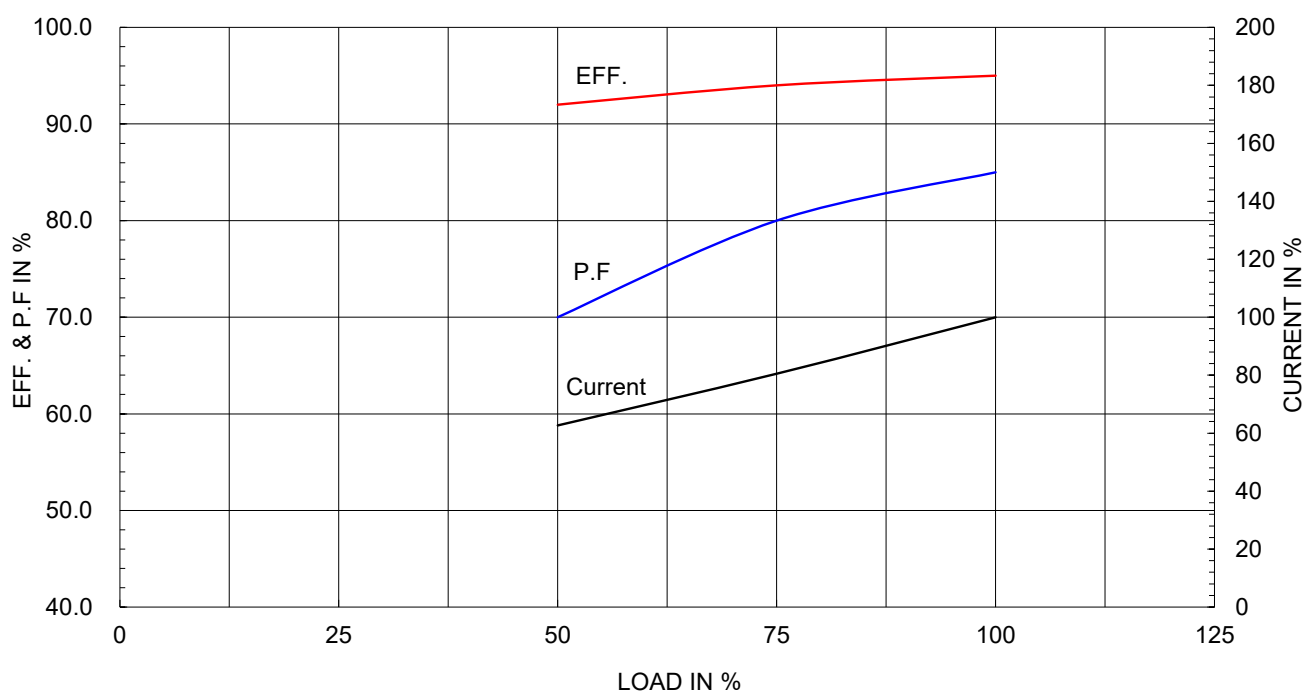
Type :	PJP	
Full Load Torque :	552.90	lb.ft
Load moment of Inertia (J) :	3090.203	lb.ft2
Motor moment of Inertia (J) :	89.860	lb.ft2

93kW	125HP	6 P	60 Hz
Speed at Full Load :		1185 RPM	
Rated Voltage	575V	460V	230V
Full Load Current	115.6A	144.6A	289.1A

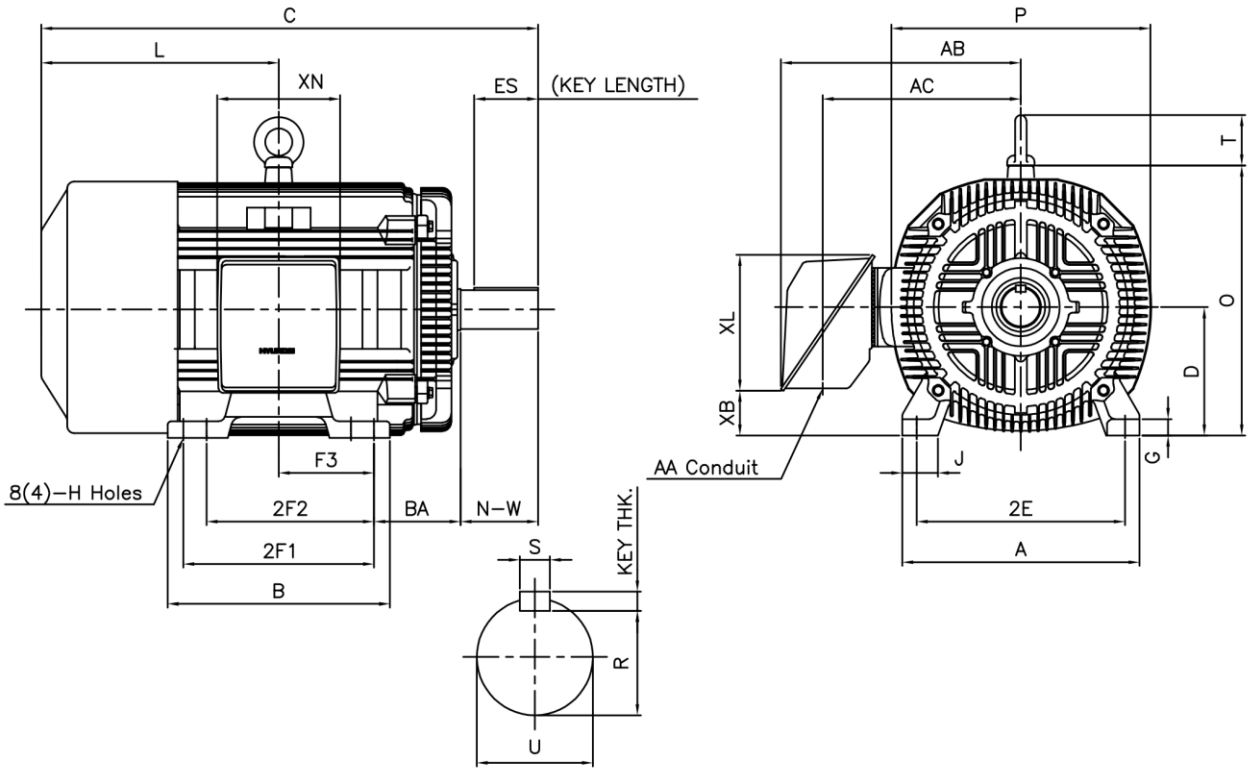
SPEED VS TORQUE & CURRENT CURVE



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	
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	1640

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			
7.50	45.21	11.00	20.96	23.19	22.40	4.33	3.375	8.50	2.880	6.93	0.875	0.875	6318C3 or NU318	6316C3

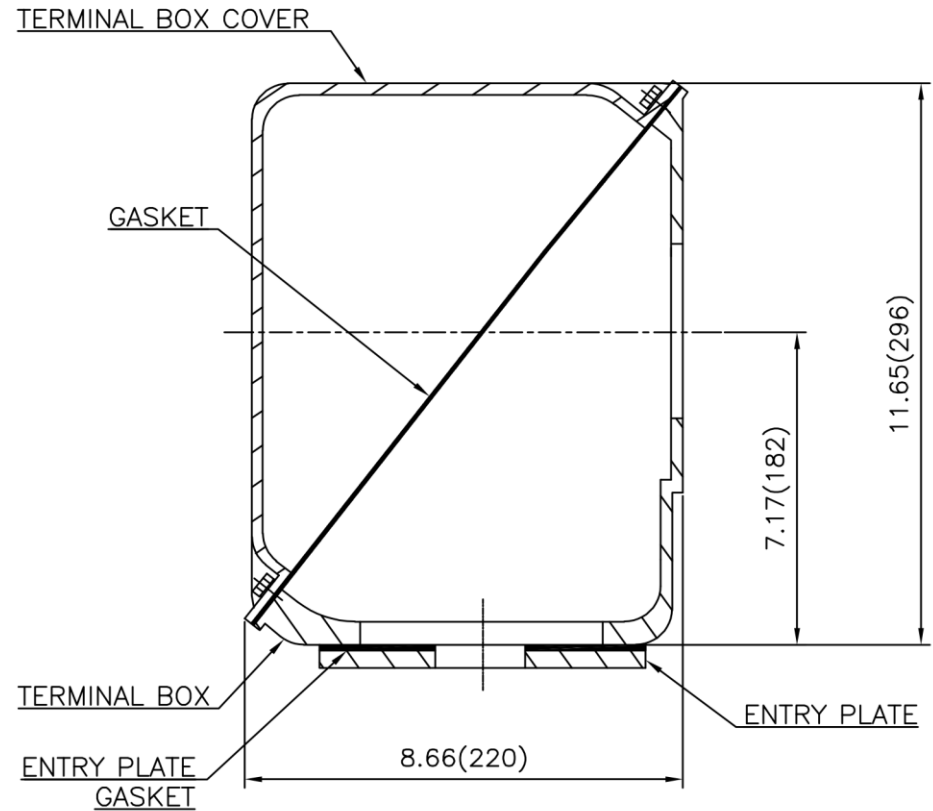
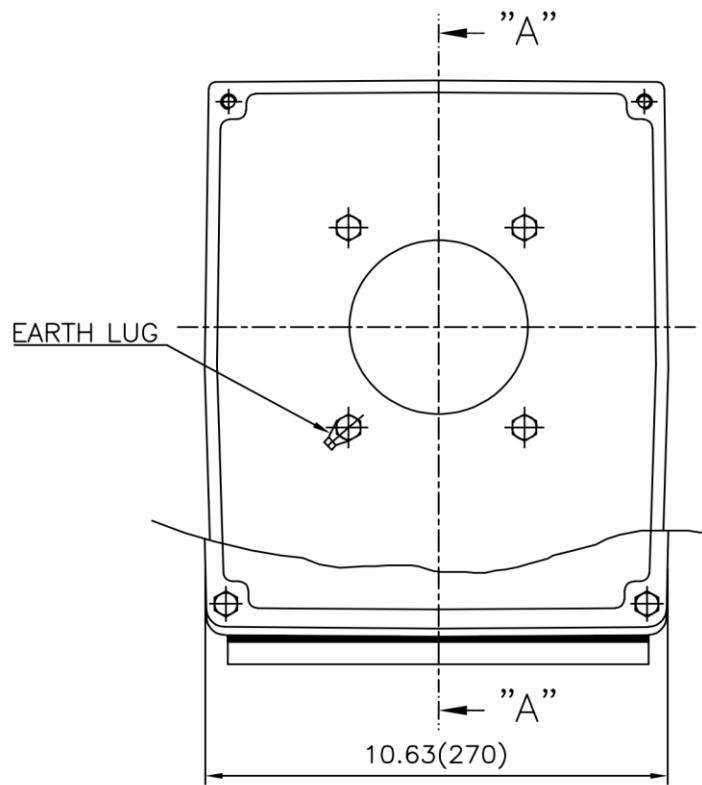
NOTE

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	445T	DWG SIZE	A4 (1:1)
Q.P CHK	I.K.KIM	SCALE	NONE	TITLE OUTLINE			
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	B.Y.KIM	DATE	2019.06.05				
				REF. NO	350A1118AA	Sheet No.	of
				DWG NO	LM-T1445B3PL001	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	1-4 ±0.1 6-30 ±0.5
							4-18 ±0.2 30-120 ±0.8	4-18 ±0.2 30-120 ±0.8
							18-63 ±0.3 120-315 ±1.2	18-63 ±0.3 120-315 ±1.2
							63-250 ±0.5 315-1000 ±2.0	63-250 ±0.5 315-1000 ±2.0
							250- ±0.8 1000- ±3.0	250- ±0.8 1000- ±3.0

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APP'D BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR. 400-440 (CAST IRON)	DWG SIZE	
CHK'D BY		SCALE	1/1.2	TITLE	MAIN TERMINAL BOX ASS'Y		
CHK'D 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

