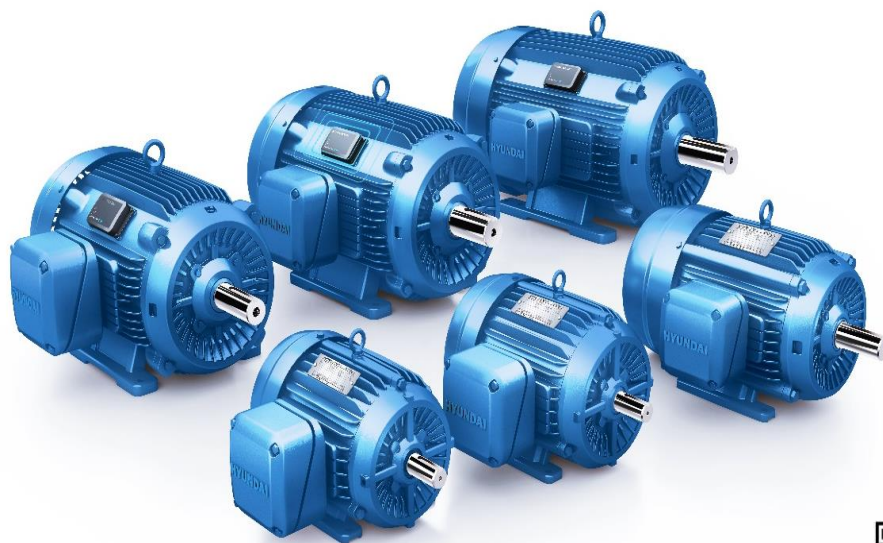


Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION for INDUCTION MOTOR



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

AC INDUCTION MOTOR DATA SHEET

Catalog No.	HES2-18-145TC	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA					
Frame Size		145TC		Rated Output		1.5 kW 2 HP		
Type		PJP		Number of Poles		4		
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	2.39 A	2.98 A	5.96 A
Insulation Class		F			Locked-rotor**	830 %	830 %	830 %
Temp. Rise at full load (by resistance method)			Efficiency					
at 1.0 S.F		80 deg. C		50% Load		83.5 %		
Motor Location		☐ Indoor ☐ Outdoor		75% Load		85.5 %		
Altitude		Less than 1,000 meter		100% Load		86.5 %		
Relative Humidity		Less than 80 %		Power Factor(p.u)				
Ambient Temp.		40 deg. C (Max.)		50% Load		0.580		
Duty Type		Continuous (S1)		75% Load		0.680		
Service Factor		1.15		100% Load		0.730		
Mounting		B35		Speed at Full Load		1745 r.p.m		
Bearing	Type	Anti-Friction		Torque				
	DE/N-DE	6205ZZC3 / 6204ZZC3		Full Load		6.06 lb.ft		
	Lubricant	Grease(Polyrex-EM)		Locked-rotor**		245 %		
External Thrust		Not applicable		Breakdown**		280 %		
Coupling Method		☒ Direct ☐ V-belt		Moment of Inertia (J)				
Shaft Extension		Single		Load(Max.)		15.365 lb.ft2		
Terminal Box	Main	Cast Iron		Motor		0.078 lb.ft2		
	Aux.	No		Sound Pressure Level (No-load & mean value at 1m from motor)				
	Location	Refer to Outline Drawing				56 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.)		
		B35	LM-T2145C4PLV23	65 lb.		
		REMARK				
SPARE PARTS		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				
		- 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 : T3C(160°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.

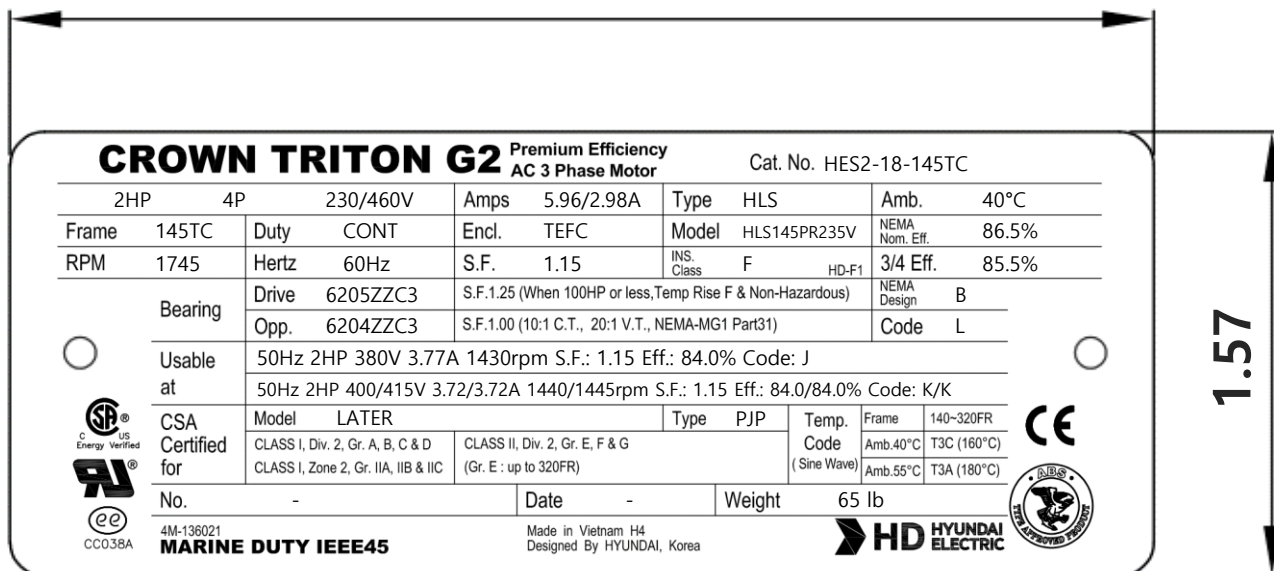
* In case of Inverter-Fed Motor, performance data is based on sine wave tests. It may be different from test data of Inverter combined motor.

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

		2	3	4		
REV	DATE	CONTENTS		REVD BY	CHKD BY	CHKD BY

■ MAIN NAMEPLATE

3.94



■ WIRING DIAGRAM

**D.O.L
(INVERTER & SOFT STARTER)**

**WYE-DELTA
(Y-D)**

WARNING

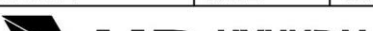
IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES.

LOW VOLTAGE	INTERNAL CONNECTIONS	HIGH VOLTAGE

KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK.

4M-128845

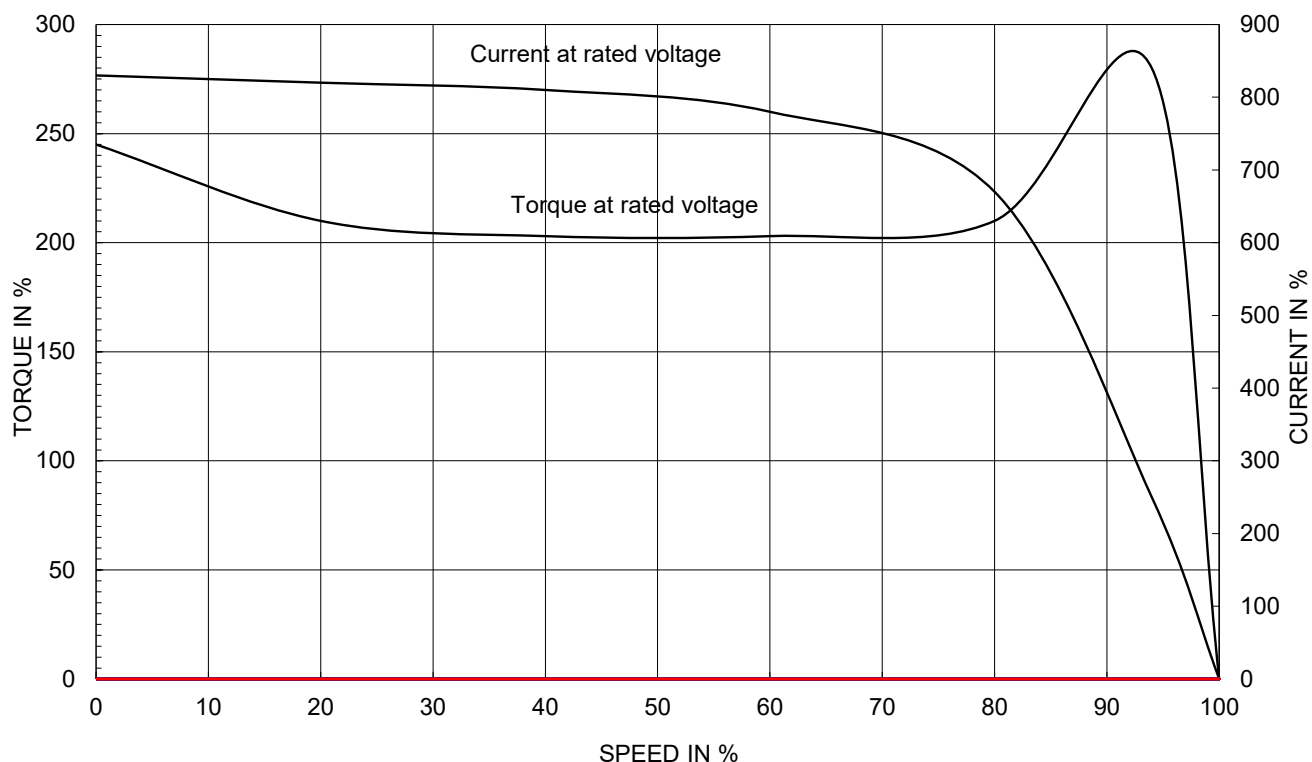
N/A

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HES, 143-215)	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-136021 / 4M-128845	Sheet No. of
				DWG NO	NP-HES2-18-145TC	Revision No. 0

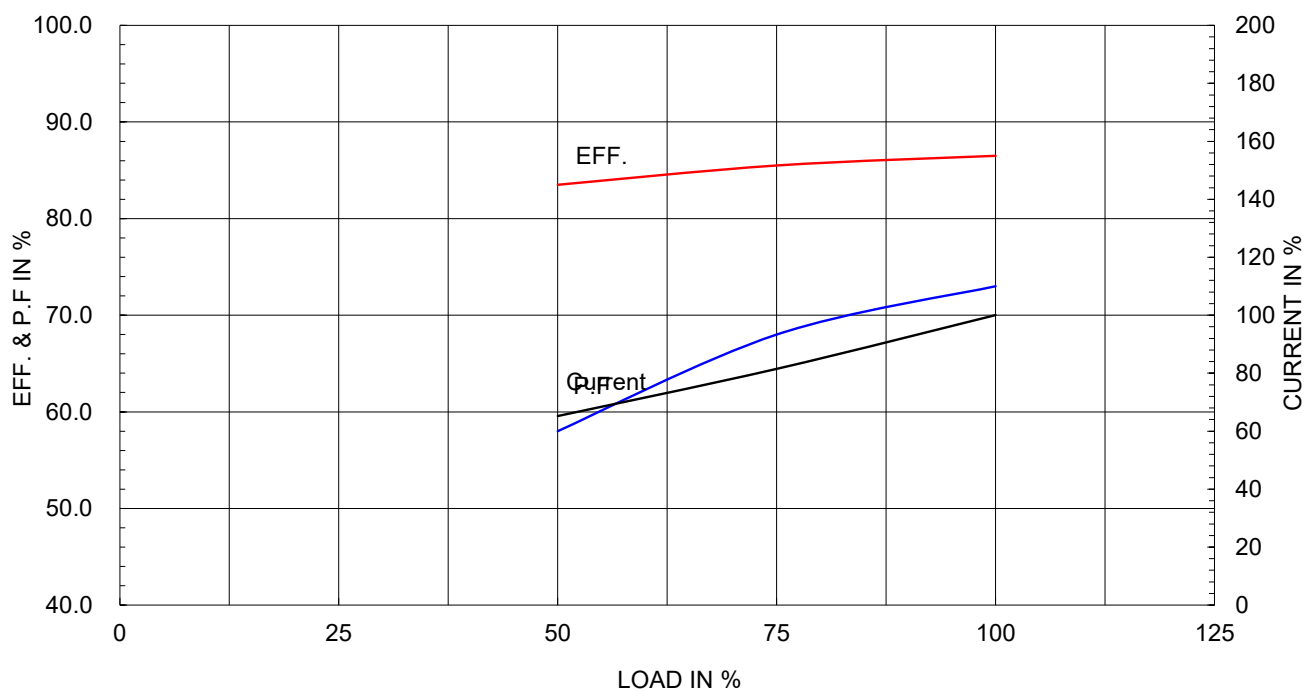
Type :	PJP	
Full Load Torque :	6.06	lb.ft
Load moment of Inertia (J) :	15.365	lb.ft2
Motor moment of Inertia (J) :	0.078	lb.ft2

1.5kW	2HP	4 P	60 Hz
Speed at Full Load :			1745 RPM
Rated Voltage	575V	460V	230V
Full Load Current	2.39A	2.98A	5.96A

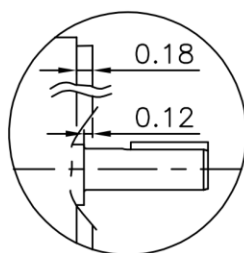
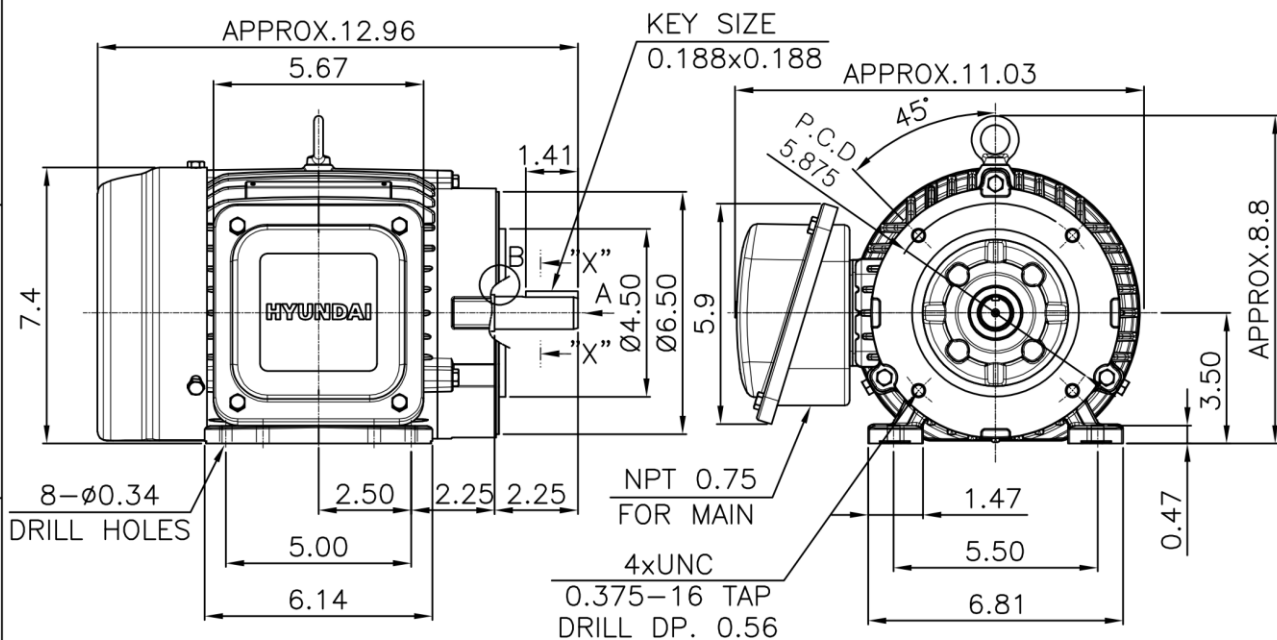
SPEED VS TORQUE & CURRENT CURVE



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								

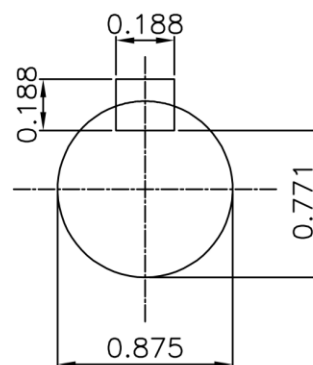


DETAIL - B

NOTE

[TOLERANCE]

- | |
|---|
| 1. CENTER HEIGHT : +0.00inch - 0.03inch |
| 2. SHAFT DIAMETER : +0.000inch - 0.0005inch |
| 3. KEYWAY DEPTH : +0.000inch - 0.015inch |

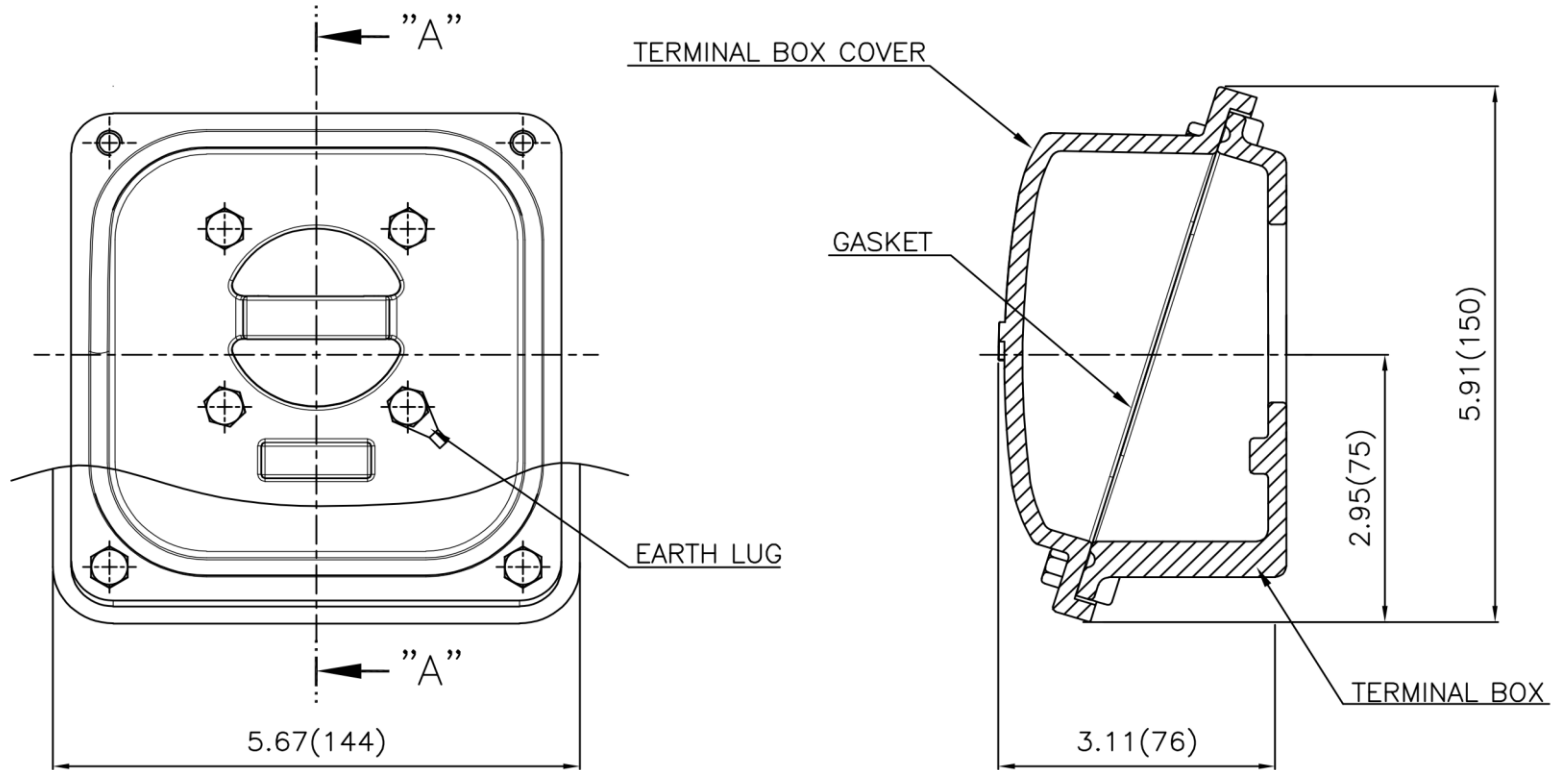


SECTION "X-X"

SCALE 5/6

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 145TC	DWG SIZE
CHKD BY	R.G.KIM	SCALE	1/5			A4 (1:5)
CHKD BY		PROJEC'N	3rd Angle	TITLE	OUTLINE	
DSND BY	주유림	DATE	2021-04-29			
 HD HYUNDAI ELECTRIC				REF. NO	.	Sheet No. of
				DWG NO	LM-T2145C4PLV23	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	일반계공표
1							1-4 ±0.1	6-30 ±0.5
2							4-18 ±0.2	30-120 ±0.8
3							18-63 ±0.3	120-315 ±1.2
4							63-250 ±0.5	315-1000 ±2.0
5							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. 140-180 (CAST IRON)	DWG SIZE	
CHKD BY		SCALE	1/1.5	TITLE	TERMINAL BOX ASS'Y	A3 (1:1.5)	
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	네슬피	DATE	2023-10-19	DWG NO	3M-248456	Revision No.	0

