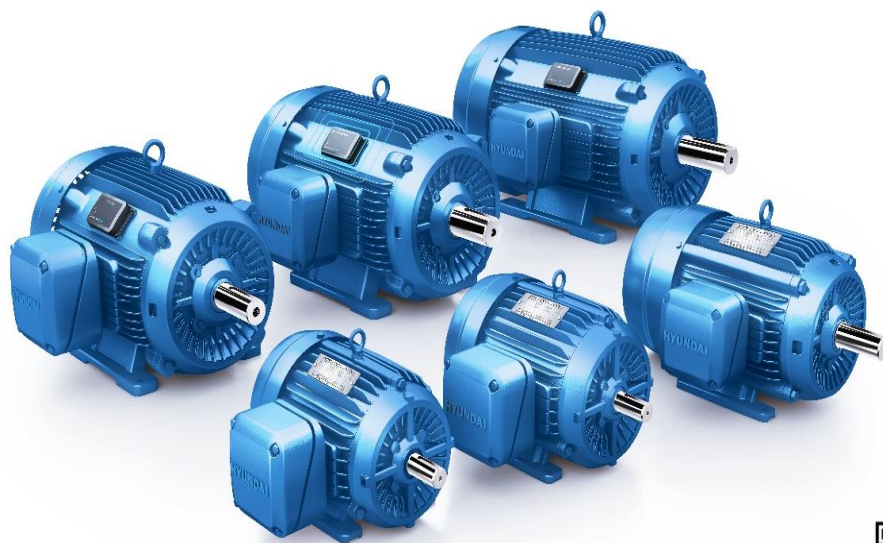


Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION for INDUCTION MOTOR



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

AC INDUCTION MOTOR DATA SHEET

Catalog No.	HES1.5-36-143TC	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets
GENERAL SPECIFICATION			PERFORMANCE DATA		
Frame Size	143TC	Rated Output	1.1 kW 1.5 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	1.57 A	1.96 A 3.91 A
Insulation Class	F		Locked-rotor**	1000 %	1,000 % 1,000 %
Temp. Rise at full load (by resistance method)		Efficiency			
at 1.0 S.F	80 deg. C	50% Load 81.0 %			
Motor Location	☐ Indoor ☐ Outdoor	75% Load 83.0 %			
Altitude	Less than 1,000 meter	100% Load 84.0 %			
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	B35	Speed at Full Load	3485 r.p.m		
Bearing	Type	Anti-Friction	Torque		
	DE/N-DE	6205ZZC3 / 6204ZZC3	Full Load 2.22 lb.ft		
	Lubricant	Grease(Polyrex-EM)	Locked-rotor** 185 %		
External Thrust	Not applicable	Breakdown** 260 %			
Coupling Method	☒ Direct ☐ V-belt	Moment of Inertia (J)			
Shaft Extension	Single	Load(Max.) 2.119 lb.ft2			
Terminal	Main	Cast Iron	Motor 0.033 lb.ft2		
Box	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)		
	Location	Refer to Outline Drawing	69 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	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-T2143C4PLV23	65 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			
		- 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.

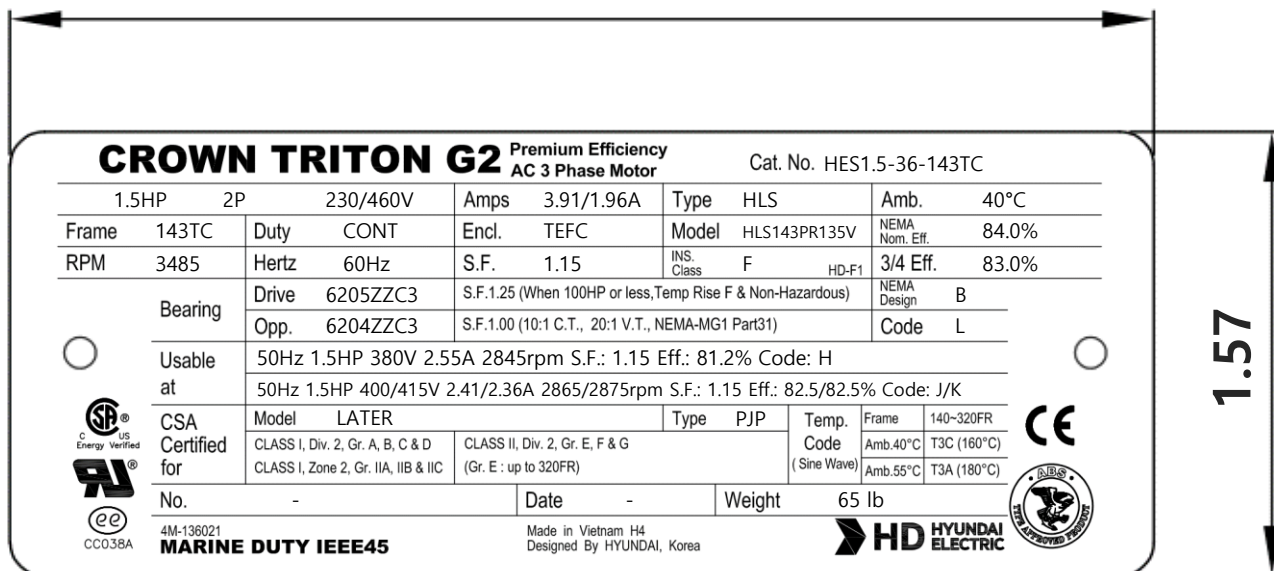
* In case of Inverter-Fed Motor, performance data is based on sine wave tests. It may be different from test data of Inverter combined motor.

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

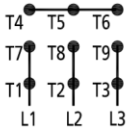
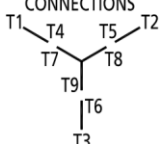
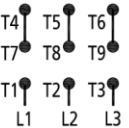
REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

MAIN NAMEPLATE

3.94



■ WIRING DIAGRAM

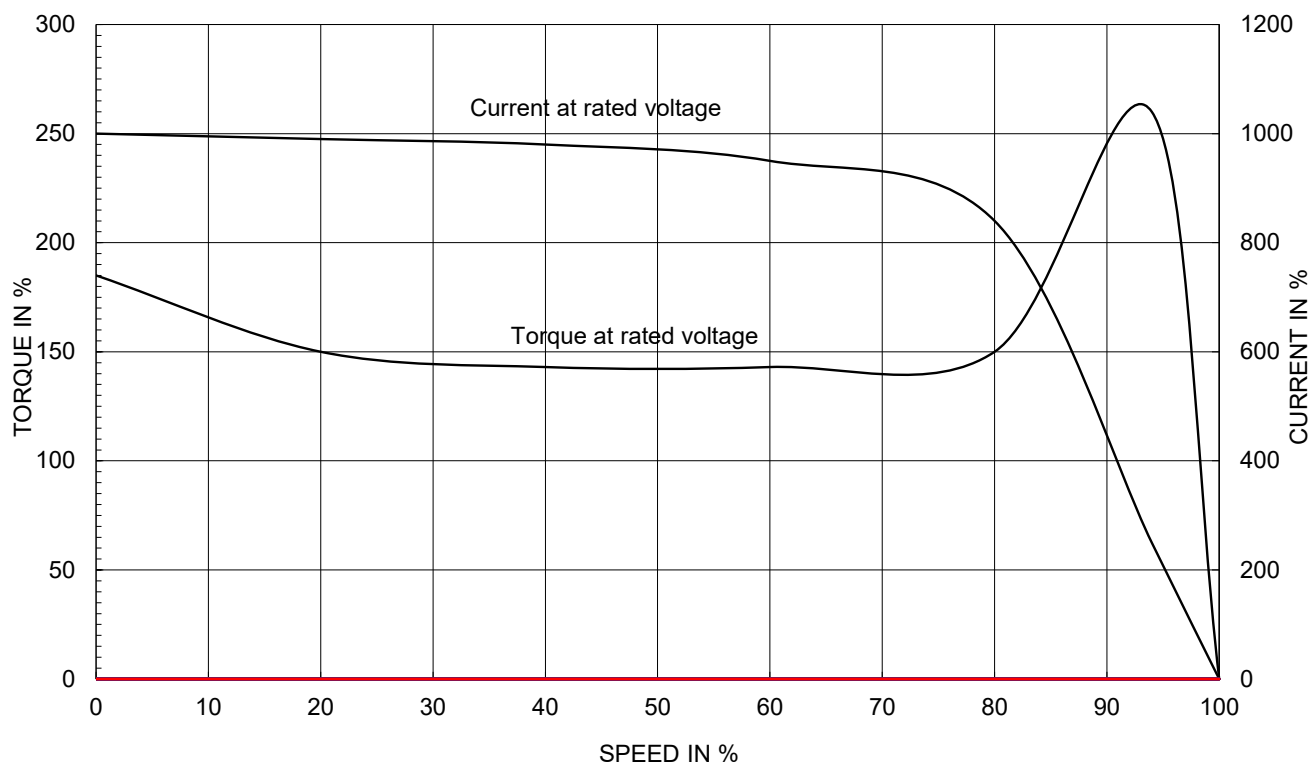
D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
 WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND 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			
DSND BY	S.H.LEE	DATE	2024.06.07			
 HD HYUNDAI ELECTRIC				TITLE		
				NAMEPLATE DRAWING		
				REF. NO	4M-136021 / 4M-128845	Sheet No. of
				DWG NO	NP-HES1.5-36-143TC	Revision No. 0

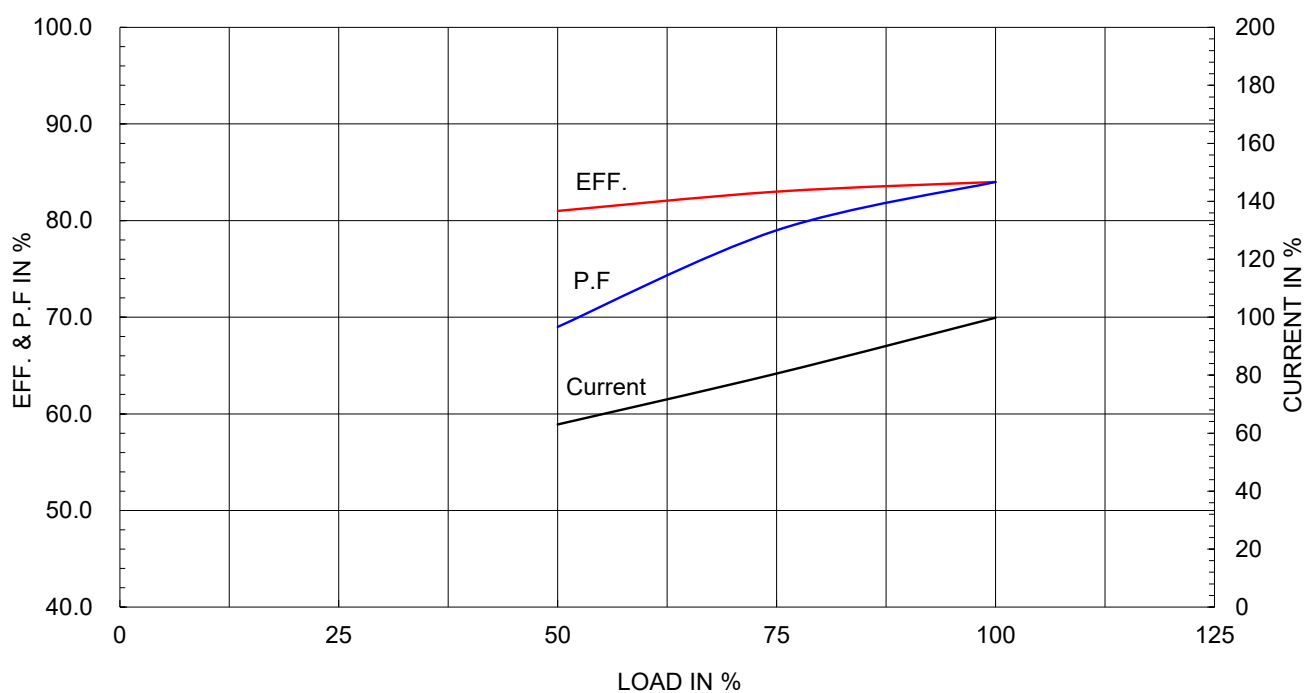
Type :	PJP	
Full Load Torque :	2.22	lb.ft
Load moment of Inertia (J) :	2.119	lb.ft2
Motor moment of Inertia (J) :	0.033	lb.ft2

1.1kW	1.5HP	2 P	60 Hz
Speed at Full Load :		3485 RPM	
Rated Voltage	575V	460V	230V
Full Load Current	1.57A	1.96A	3.91A

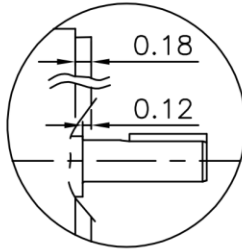
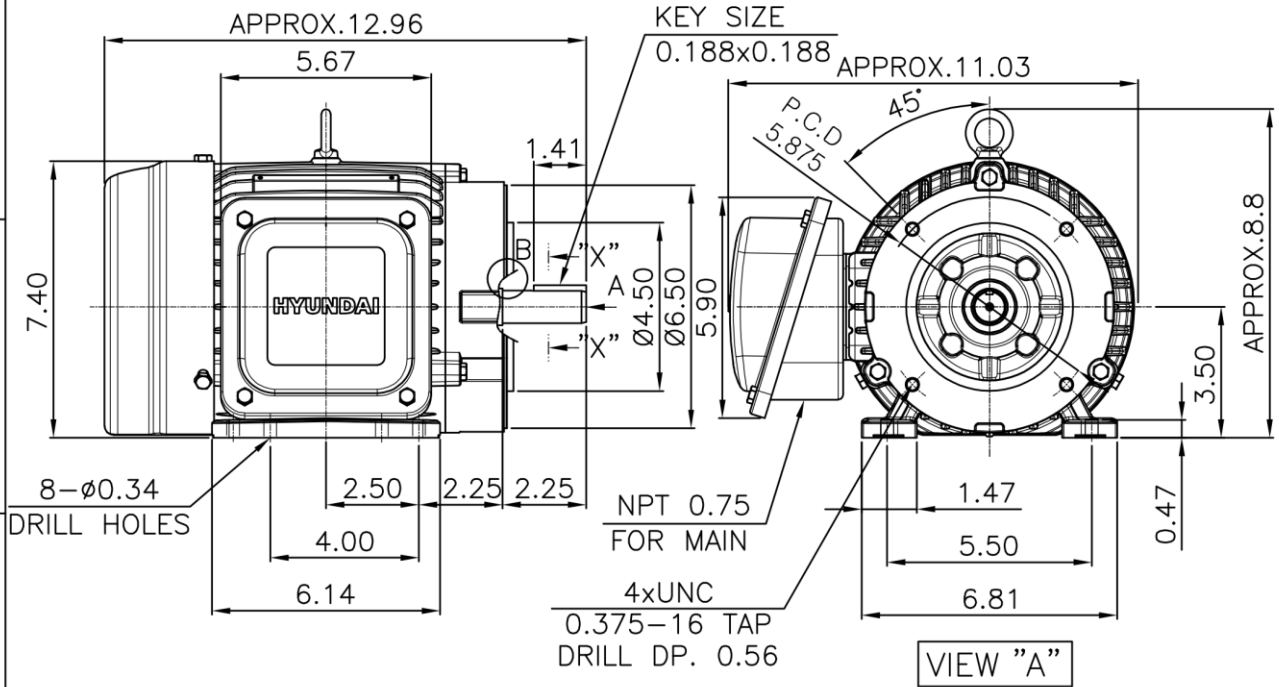
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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

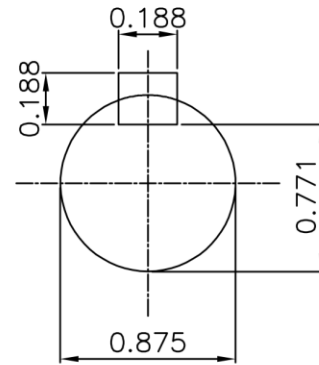


DETAIL - B

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"

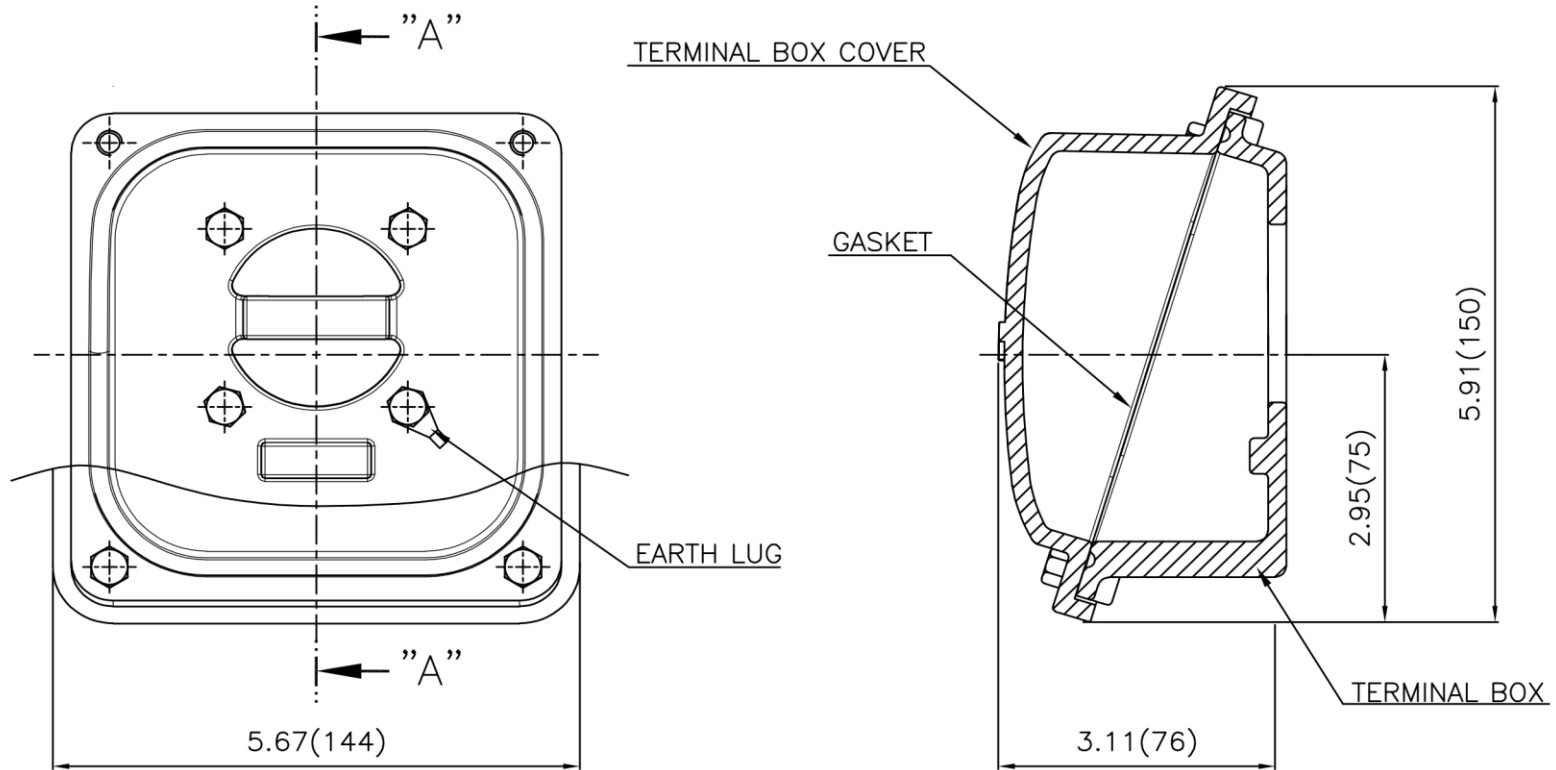
SCALE 5/6

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 143TC	DWG SIZE
CHKD BY	R.G.KIM	SCALE	1/5			A4 (15)
CHKD BY		PROJEC'N	3rd Angle	TITLE	OUTLINE	
DSND BY	주유림	DATE	2021-04-29	REF. NO		Sheet No. of
				DWG NO	LM-T2143C4PLV23	Revision No. 0



HD HYUNDAI
ELECTRIC

Cls. I&II, Div. 2 IEEE 841



▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REV'D BY	CHK'D BY	CHK'D BY	APP'D BY
1						

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. 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	네슬희	DATE	2023-10-19	DWG NO	3M-248456	Revision No.	0

