HD HYUNDAI ELECTRIC

Essential for Today
Potential for Tomorrow

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.	HES25-18-284TCRD	Item No.		Rev. No.	[ ]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION

Frame Size		284TC
Type		PJP
Enclosure(Protection)		Totally Enclosed / IP55
Method of Cooling		IC411(FC)
Rated Frequency		60 Hz
Number of Phases		3
Insulation Class		F
Temp. Rise at full load (by resistance method)		
	at 1.0 S.F	80 deg. C
Motor Location		☐ Indoor ☐ Outdoor
Altitude		Less than 1,000 meter
Relative Humidity		Less than 80 %
Ambient Temp.		40 deg. C (Max.)
Duty Type		Continuous (S1)
Service Factor		1.15
Mounting		B5
Bearing	Type	Anti-Friction
	DE/N-DE	6310ZC3 / 6310ZC3
	Lubricant	Grease(Polyrex-EM)
External Thrust		Not applicable
Coupling Method		☑ Direct ☐ V-belt
Shaft Extension		Single
Terminal Box	Main	Cast Iron
	Aux.	No
	Location	Refer to Outline Drawing
Application		
Area classification		Hazardous
Type of Ex-Protection		Class I&II, Division 2
Applicable Standard		NEMA MG1, CSA C390

PERFORMANCE DATA

Rated Output		18.5 kW		25 HP
Number of Poles		4		
Rotor Type		Squirrel Cage		
Starting Method*		D.O.L		
Rated Voltage		575 V	460 V	230 V
Current	Full Load	24.5 A	30.6 A	61.3 A
	Locked-rotor**	790 %	790 %	790 %
Efficiency				
	50% Load	90.6 %		
	75% Load	92.6 %		
	100% Load	93.6 %		
Power Factor(p.u)				
	50% Load	0.660		
	75% Load	0.760		
	100% Load	0.810		
Speed at Full Load		1775 r.p.m		
Torque				
	Full Load	73.43 lb.ft		
	Locked-rotor**	170 %		
	Breakdown**	220 %		
Moment of Inertia (J)				
	Load(Max.)	141.396 lb.ft2		
	Motor	3.940 lb.ft2		
Sound Pressure Level (No-load & mean value at 1m from motor)		72 dB(A)		
Vibration		3.8 mm/sec (peak)		
Permissible number of consecutive starts		Cold 3 times		
		Hot 2 times		
Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		

ACCESSORIES

SPARE PARTS

SUBMITTAL DRAWING

Outline Dimension Drawing	\ Motor Weight(Approx.)	
B5	LM-T2284C5PLV23	365 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 : 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.

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REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

▣ MAIN NAMEPLATE

4.72

2.36

CROWN TRITON G2
Premium Efficiency AC 3 Phase Motor

c US Energy Verified · CC038A

25HP	4P	230/460V		Cat. No.	HES25-18-284TCRD		
Model	HLS284PR235V			INS. Class	F HD-F1	Amps	61.3/30.6A
Type	HLS	Duty	CONT	Code J	Amb. 40°C	Hertz	60Hz
Frame	284TC	Encl.	TEFC	S.F. 1.15	RPM 1775	NEMA Nom. Eff.	93.6%
Bearing	Drive 6310ZC3			S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)		3/4 Eff.	92.6%
	Opp. 6310ZC3			S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		NEMA Design	B Torque
Usable at	50Hz 25HP 380V 40.2A 1470rpm S.F.: 1.15 Eff.: 92.4% Code: G						
	50Hz 25HP 400/415V 39.1/38.7A 1475/1475rpm S.F.: 1.15 Eff.: 92.4/92.4% Code: H/H						

CSA Certified for	Model LATER	Type PJP	Temp. Code (sine wave)	Frame	140~320FR	360~400FR	440FR
	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2 Gr. E, F & G		Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC	(Gr. E : Up to 320FR)		Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)

No.	-	Date	-	Weight	365 lb

4M-136024
MARINE DUTY IEEE45

Made in Vietnam H4
Designed By HYUNDAI, Korea

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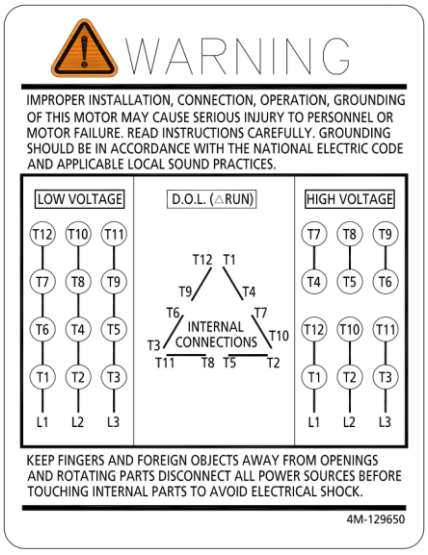
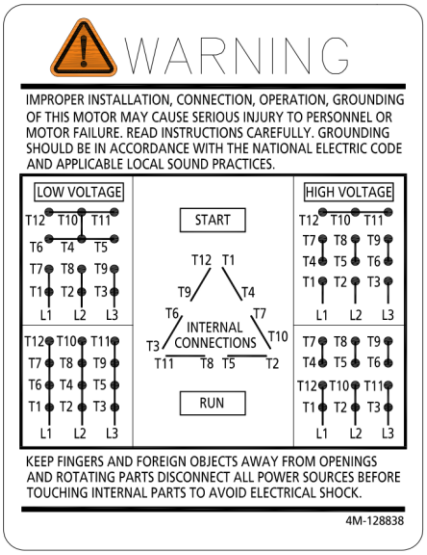
▣ WIRING DIAGRAM

D.O.L (INVERTER & SOFT STARTER)



WYE-DELTA (Y-D)



APPD BY	S.Y.KIM	UNIT	INCH
CHKD BY	I.K.KIM	SCALE	NONE
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle
DSND BY	S.H.LEE	DATE	2024.06.07

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SUBJECT	CSA Class I, Division2 Severe Duty (HES, 254-326)		DWG SIZE A4 (1:1)
TITLE	NAMEPLATE DRAWING		
REF. NO	4M-136024 / 4M-129650	Sheet No.	of
DWG NO	NP-HES25-18-284TCRD	Revision No.	0

HYUNDAI ELECTRIC

PERFORMANCE CURVE

CURVE NO.

PC-HES25-18-284TCRD

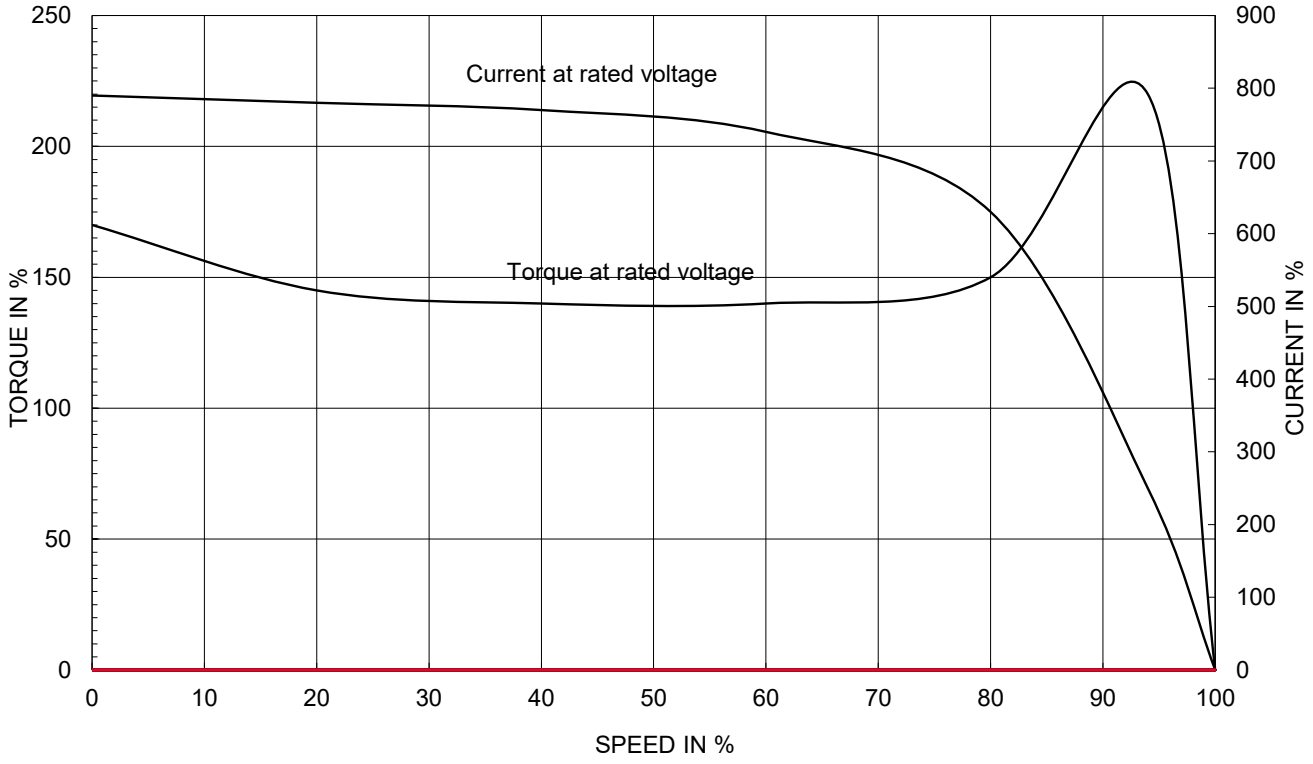
Type :	PJP	
Full Load Torque :	73.43	lb.ft
Load moment of Inertia (J) :	141.396	lb.ft2
Motor moment of Inertia (J) :	3.940	lb.ft2

18.5kW 25HP 4 P 60 Hz

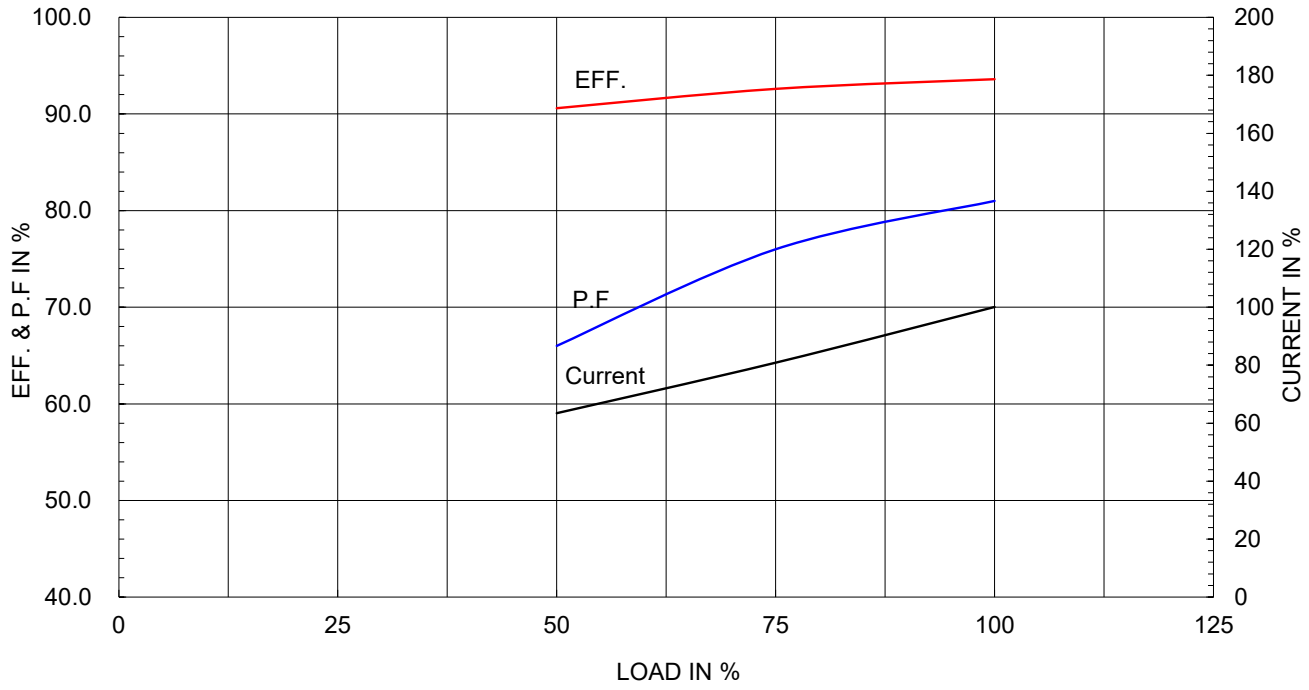
Speed at Full Load : 1775 RPM

Rated Voltage	575V	460V	230V
Full Load Current	24.5A	30.6A	61.3A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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		REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
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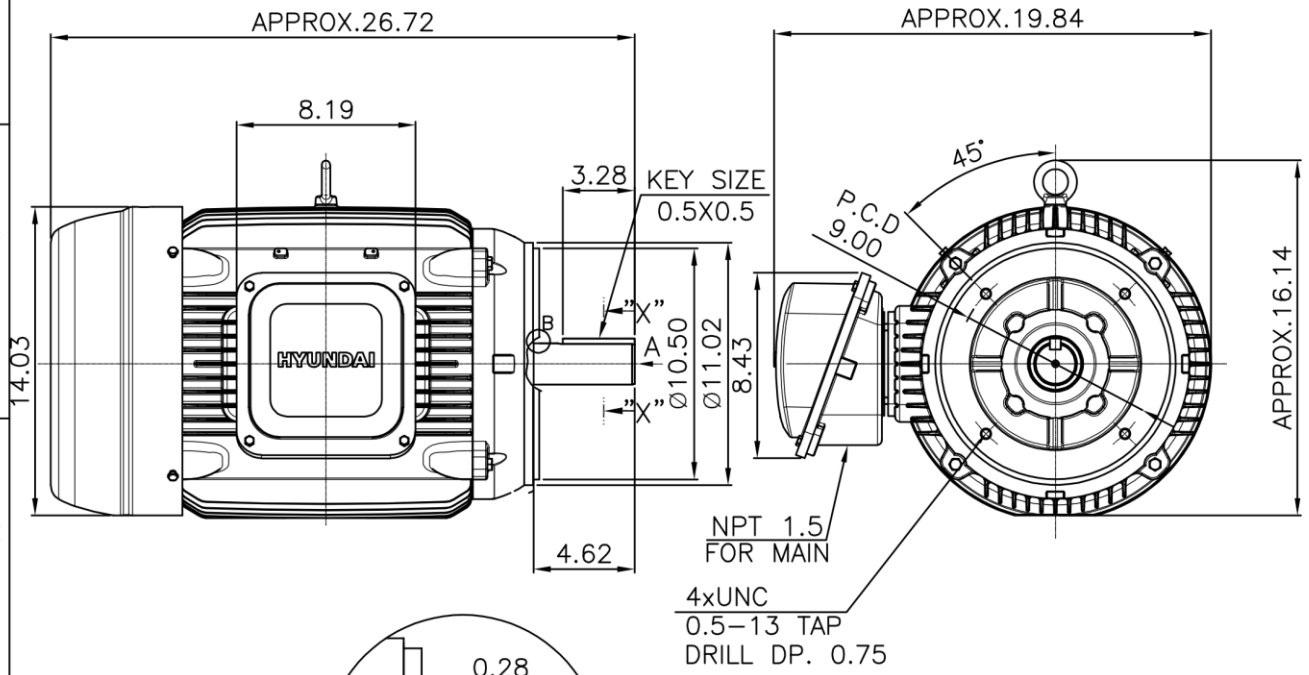
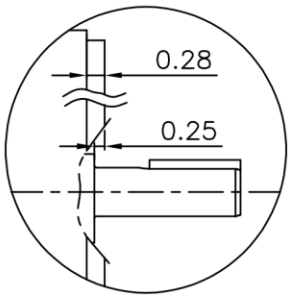
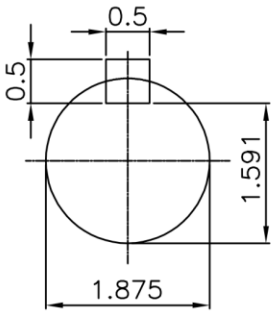
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							





DETAIL – B

VIEW "A"



SECTION "X–X"
SCALE 4/8.5

NOTE

[TOLERANCE]

1. CENTER HEIGHT : +0.00inch – 0.03inch
2. SHAFT DIAMETER : +0.000inch – 0.001inch
3. KEYWAY DEPTH : +0.000inch – 0.015inch

APPD BY	S.Y.KIM	UNIT	inch
CHKD BY	R.G.KIM	SCALE	1/8.5
CHKD BY		PROJEC'N	3rd Angle
DSND BY	주유림	DATE	2021-04-28

SUBJECT	NEMA 284TC		DWG SIZE A4 (1:8.5)
TITLE	OUTLINE		
REF. NO	.	Sheet No.	of
DWG NO	LM-T2284C5PLV23	Revision No.	0

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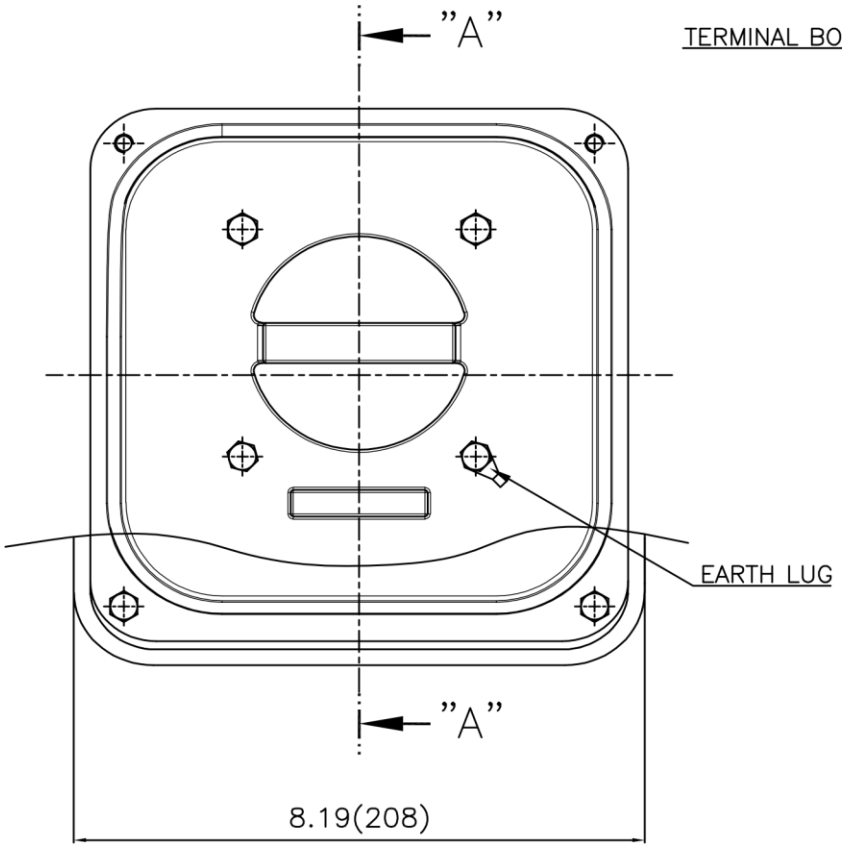
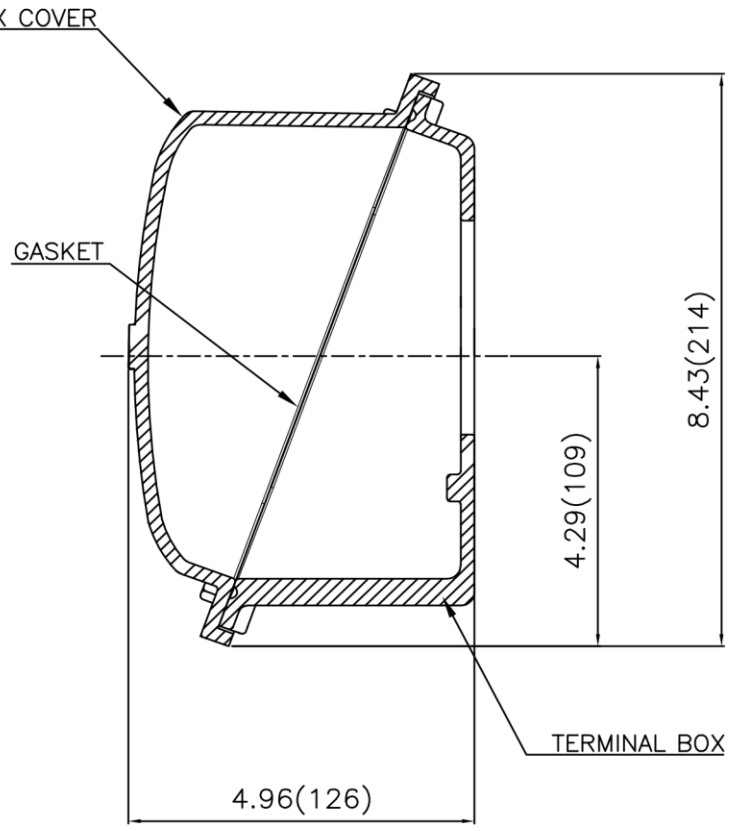
Cls. I&II, Div. 2
IEEE 841





SEC. "A"–"A"

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▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

일반가공공차		일반제관공차	
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. 250–280 (CAST IRON)
CHKD BY		SCALE	1/2		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE	TERMINAL BOX ASS'Y
DSND BY	배슬희	DATE	2023–10–19	REF. NO	
				DWG NO	3M–248458

DWG SIZE: A3 (1:2)

Sheet No. of

Revision No. 0