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.	HHI250-18-449TC	Item No.		Rev. No.	[ ]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION

Frame Size		449TC
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		B35
Bearing	Type	Anti-Friction
	DE/N-DE	6318C3 / 6316C3
	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		190 kW		250 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	225.4 A	281.7 A	563.4 A
	Locked-rotor**	700 %	700 %	700 %
Efficiency				
	50% Load	93.2 %		
	75% Load	95.2 %		
	100% Load	96.2 %		
Power Factor(p.u)				
	50% Load	0.730		
	75% Load	0.830		
	100% Load	0.880		
Speed at Full Load		1785 r.p.m		
Torque				
	Full Load	749.88 lb.ft		
	Locked-rotor**	140 %		
	Breakdown**	220 %		
Moment of Inertia (J)				
	Load(Max.)	3,318.708 lb.ft2		
	Motor	105.370 lb.ft2		
Sound Pressure Level (No-load & mean value at 1m from motor)		85 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.)	
B35	LM-T1449C4PL001	2510 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 : 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.

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

▣ MAIN NAMEPLATE

4.72

2.36

CROWN TRITON
Premium Efficiency AC 3 Phase Motor

C US Energy Verified · CC038A

250HP	4P	460V		Cat. No.	HHI250-18-449TC		
Model	HLS449PR0408			INS. Class	F	HD-F1	
Type	HLS	Duty	CONT	Code	G	Amb.	40°C
Frame	449TC	Encl.	TEFC	S.F.	1.15	RPM	1785
Bearing	Drive	6318C3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)			
	Opp.	6316C3					
Usable at	50Hz 250HP 380V 340.8A 1480rpm S.F.: 1.0 Eff.: 95.6% Code: F						
	50Hz 250HP 400/415V 325.3/316.1A 1482/1484rpm S.F.: 1.0 Eff.: 95.9/96.0% Code: G/G						

Amps	281.7A						
Hertz	60Hz						
NEMA Nom. Eff.	96.2%						
3/4 Eff.	95.2%						
NEMA Design	B						

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

No.	-	Date -	Weight 2510 lb

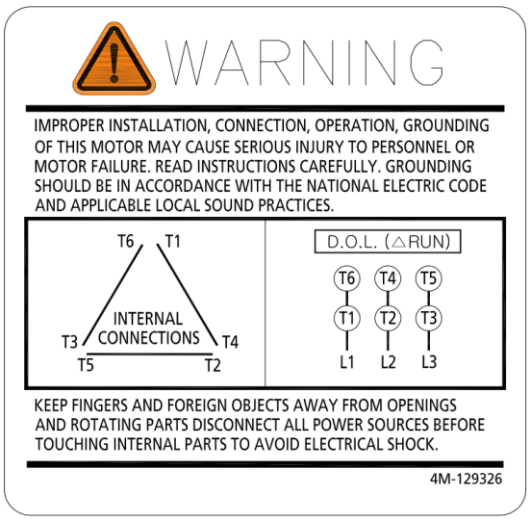
4M-135702
MARINE DUTY IEEE45

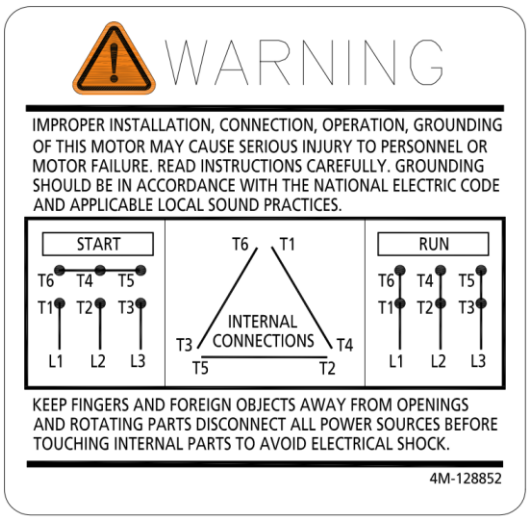
Made in Korea H1

HD HYUNDAI ELECTRIC

▣ 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

HD HYUNDAI ELECTRIC

SUBJECT	CSA Class I, Division2 Severe Duty (HHI, 364-449)		DWG SIZE A4 (1:1)
TITLE	NAMEPLATE DRAWING		
REF. NO	4M-135702 / 4M-129326	Sheet No.	of
DWG NO	NP-HHI250-18-449TC	Revision No.	0

HYUNDAI ELECTRIC

PERFORMANCE CURVE

CURVE NO.

PC-HHI250-18-449TC

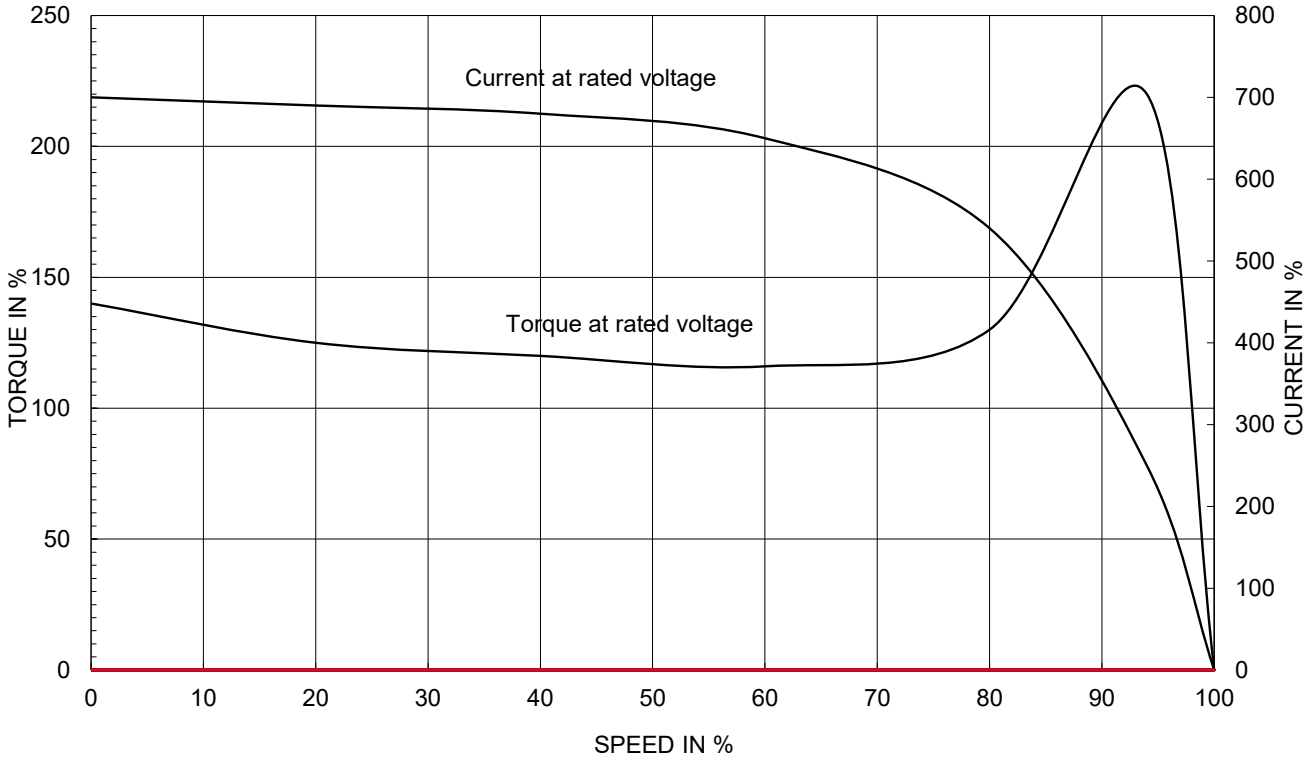
Type :	PJP	
Full Load Torque :	749.88	lb.ft
Load moment of Inertia (J) :	3318.708	lb.ft2
Motor moment of Inertia (J) :	105.370	lb.ft2

190kW 250HP 4 P 60 Hz

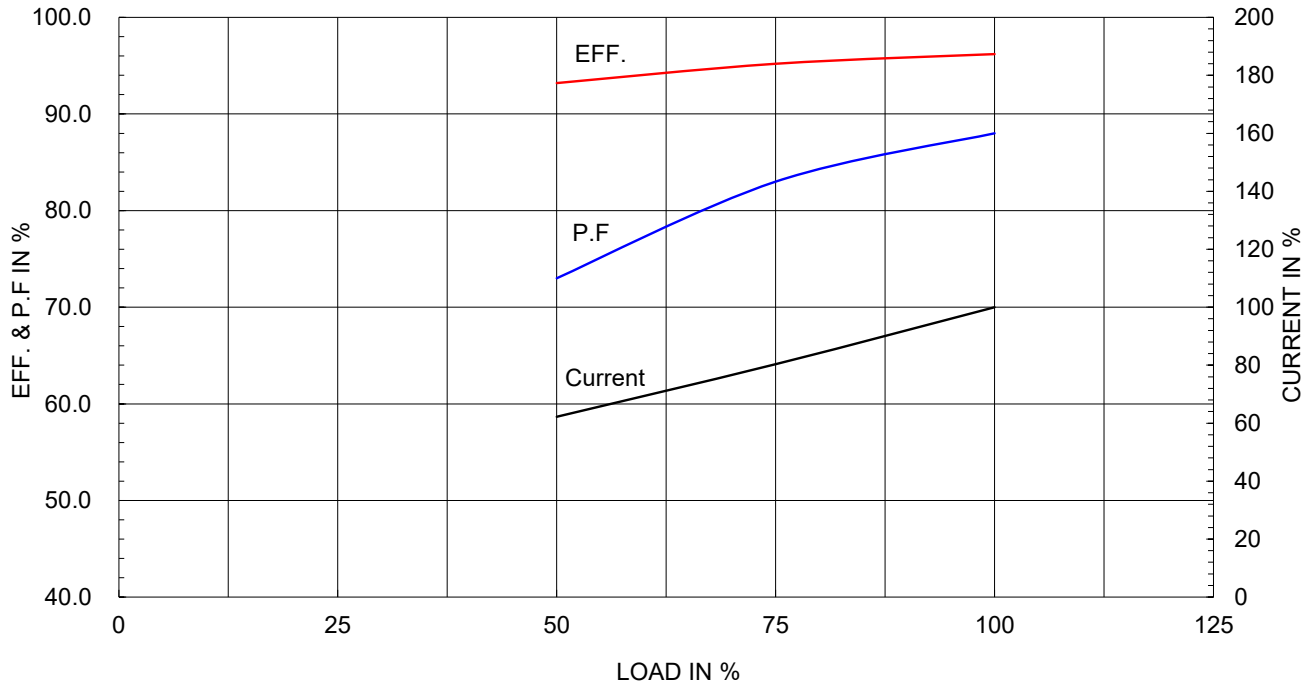
Speed at Full Load : 1785 RPM

Rated Voltage	575V	460V	230V
Full Load Current	225.4A	281.7A	563.4A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
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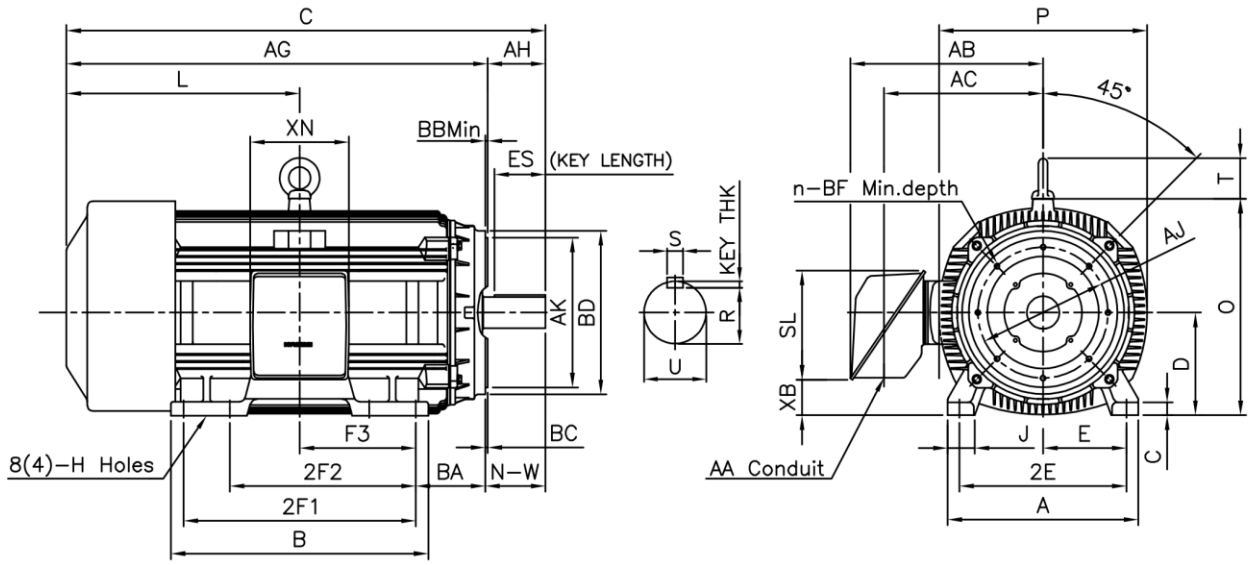
▽▽	3.2S							
▽▽▽	0.4S							
▽▽▽▽								



DIMENSIONS

Unit:inch

MOUNTING									CONDUIT BOX						APPROX. WGT.(LB)
A	B	2E	2F1	2F2	F3	G	J	H	AA	AB	AC	XB	XL	XN	
20.51	27.72	18.00	25.00	(20.00)	12.500	1.42	3.07	0.81	3.00	21.26	18.03	3.83	11.65	10.63	2510

OVERALL								SHAFT					KEY	BEARING	
BA	C	D	L	O	P	T	AG	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
										R	ES	S			
7.50	53.83	11.00	25.33	23.19	22.44	4.33	45.33	3.375	8.50	2.880	6.93	0.875	0.875	6318C3	6316C3

C-FACE								
AJ	AK	BB Min	BC	BD	BF	BF depth	n	AH
14.00	16.00	0.25	0.25	17.48	5/8-11	0.94	8	8.25

NOTE

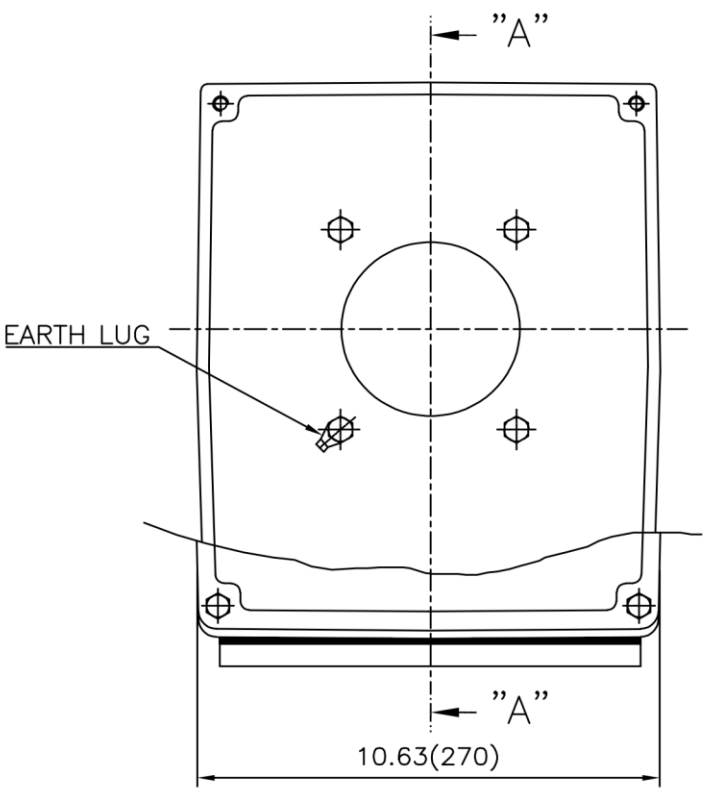
1. Dimension "D" tolerance : +0.00inch ~ −0.03inch (143TC−365TC) : +0.000inch ~ −0.06inch (404TC−449TC)
2. Dimension "U" tolerance : +0.000inch ~ −0.0005inch (143TC−215TC): +0.000inch ~ −0.001inch (254TC−449TC)
3. Dimension "R" tolerance : +0.000inch ~ − 0.015inch
4. Dimension "AK" tolerance : +0.000inch ~ −0.003inch (143TC−286TC): +0.000inch ~ −0.005inch (324TC−449TC)

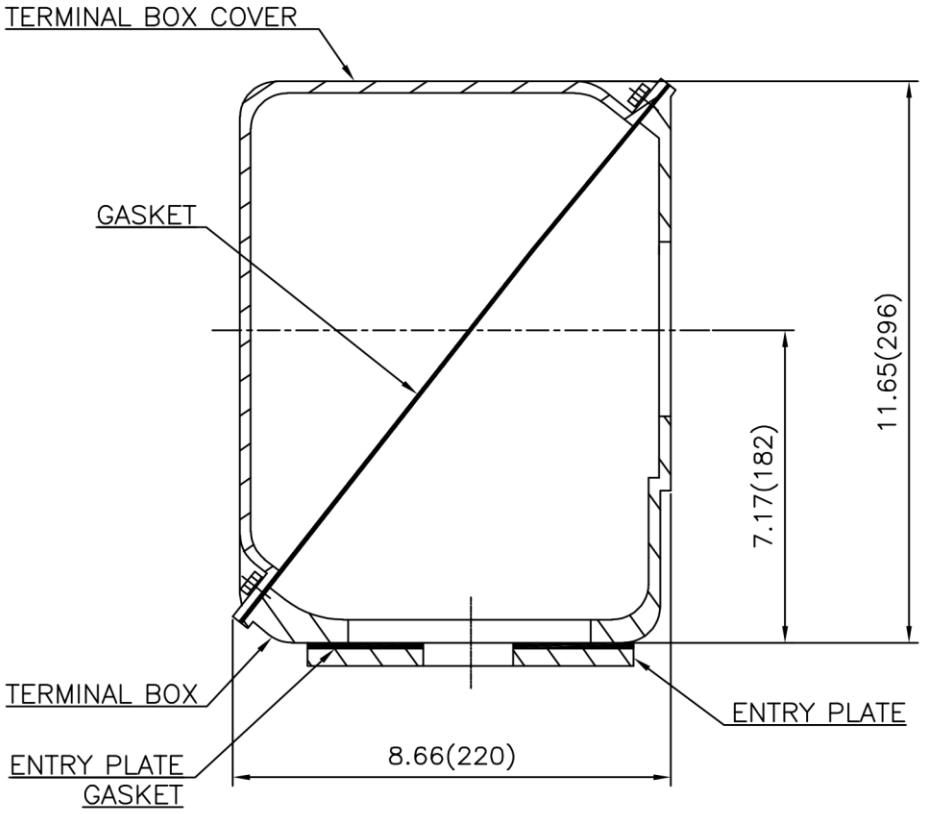
APPD BY	S.K.HAN	UNIT	inch
CHKD BY	S.Y.KIM	SCALE	None
CHKD BY	Y.H.BAE	PROJEC'N	3rd Angle
DSND BY	H.C.LIM	DATE	2019-06-05

HD HYUNDAI ELECTRIC

SUBJECT	NEMA 449TC		DWG SIZE A4 (1:1)
TITLE	OUTLINE		
REF. NO	350A1320AA	Sheet No.	of
DWG NO	LM-T1449C4PL001	Revision No.	0

Cls. I&II, Div. 2
IEEE 841





SEC. "A"–"A"

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
	.					

일반기공공차		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. 400–440 (CAST IRON)
CHKD BY		SCALE	1/1.2	DWG SIZE	A3 (1:1.2)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE	MAIN TERMINAL BOX ASS'Y
DSND BY	배승희	DATE	2023-10-19	REF. NO	
				DWG NO	3M–248451
				Sheet No.	of
				Revision No.	0

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