

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.	HHI60-18-364TCRD	Item No.				Rev. No.	[]		
Project Name		Project No.				Quantity	sets		
GENERAL SPECIFICATION					PERFORMANCE DATA				
Frame Size	364TC		Rated Output	45 kW		60 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	56.0 A	69.9 A	139.9 A		
Insulation Class	F			Locked-rotor**	670 %	670 %	670 %		
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	B5		100% Load		0.850				
Bearing	Type	Anti-Friction	Speed at Full Load		1780 r.p.m				
	DE/N-DE	6314C3 / 6213C3	Torque						
	Lubricant	Grease(Polyrex-EM)	Full Load		178.10 lb.ft				
External Thrust	Not applicable		Locked-rotor**		150 %				
Coupling Method	☒ Direct ☐ V-belt		Breakdown**		220 %				
Shaft Extension	Single		Moment of Inertia (J)						
Terminal	Main	Cast Iron	Load(Max.)		616.991 lb.ft2				
Box	Aux.	No	Motor		17.640 lb.ft2				
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)						
Application			82 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.)						
			B5		LM-T1364C5PL001		870 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 : T3B(165°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.

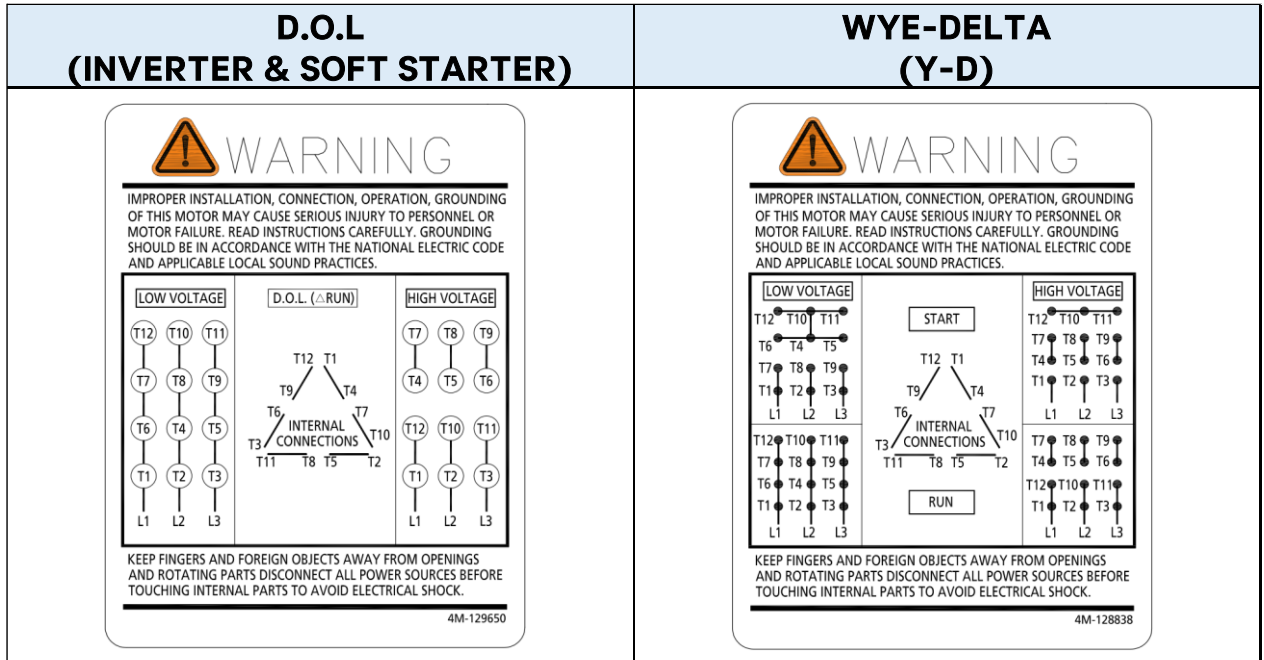
** Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

MAIN NAMEPLATE

4.72

60HP		4P	230/460V		Cat. No.	HHI60-18-364TCRD					
Model	HLS364PR04U3				INS. Class	F	HD-F1	Amps	139.9/69.9A		
Type	HLS	Duty	CONT		Code	G	Amb.	40°C	Hertz	60Hz	
Frame	364TC	Encl.	TEFC		S.F.	1.15	RPM	1780	NEMA Nom. Eff.	95.0%	
Bearing	Drive	6314C3				S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)				3/4 Eff.	94.0%
	Opp.	6213C3								NEMA Design	B
Usable at	50Hz 60HP 380V 83.4A 1475rpm S.F.: 1.0 Eff.: 94.2% Code: E										
	50Hz 60HP 400/415V 80.7/79.4A 1478/1479rpm S.F.: 1.0 Eff.: 94.4/94.5% Code: F/G										
CSA Certified for	Model	LATER	Type	PJP	Temp. Code	Frame	140~320FR	360~400FR	440FR		
	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2 Gr. E, F & G (Gr. E: Up to 320FR)			Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)			
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC				Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)			
No.	-				Date	-				Weight	870 lb
4M-135702					Made in Korea H1					HD HYUNDAI ELECTRIC	
MARINE DUTY IEEE45											

WIRING DIAGRAM



APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HHI, 364-449)	DWG SIZE	A4 (1:1)
CHKD BY	I.K.KIM	SCALE	NONE	NAMEPLATE DRAWING			
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	S.H.LEE	DATE	2024.06.07				
HD HYUNDAI ELECTRIC				REF. NO	4M-135702 / 4M-129650	Sheet No.	of
				DWG NO	NP-HHI60-18-364TCRD	Revision No.	0

Type : PJP

Full Load Torque : 178.10 lb.ft

Load moment of Inertia (J) : 616.991 lb.ft2

Motor moment of Inertia (J) : 17.640 lb.ft2

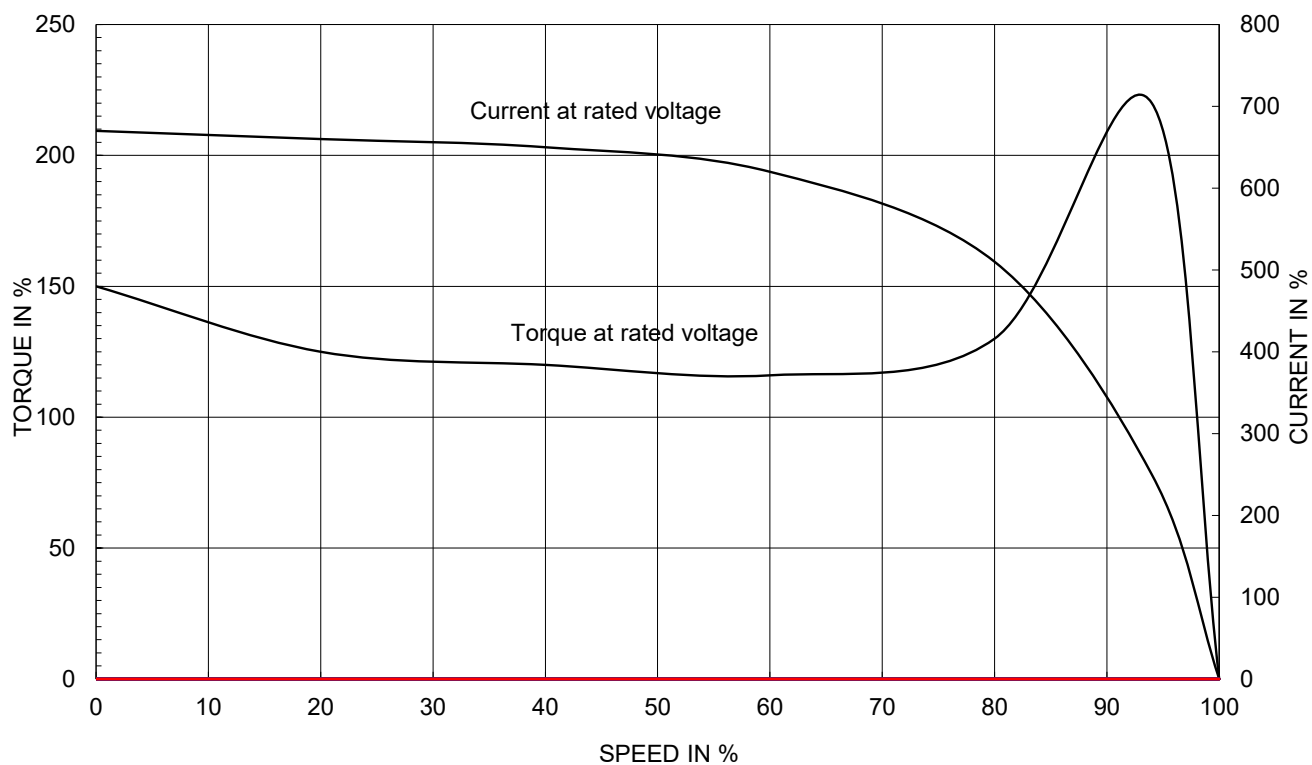
45kW 60HP 4 P 60 Hz

Speed at Full Load : 1780 RPM

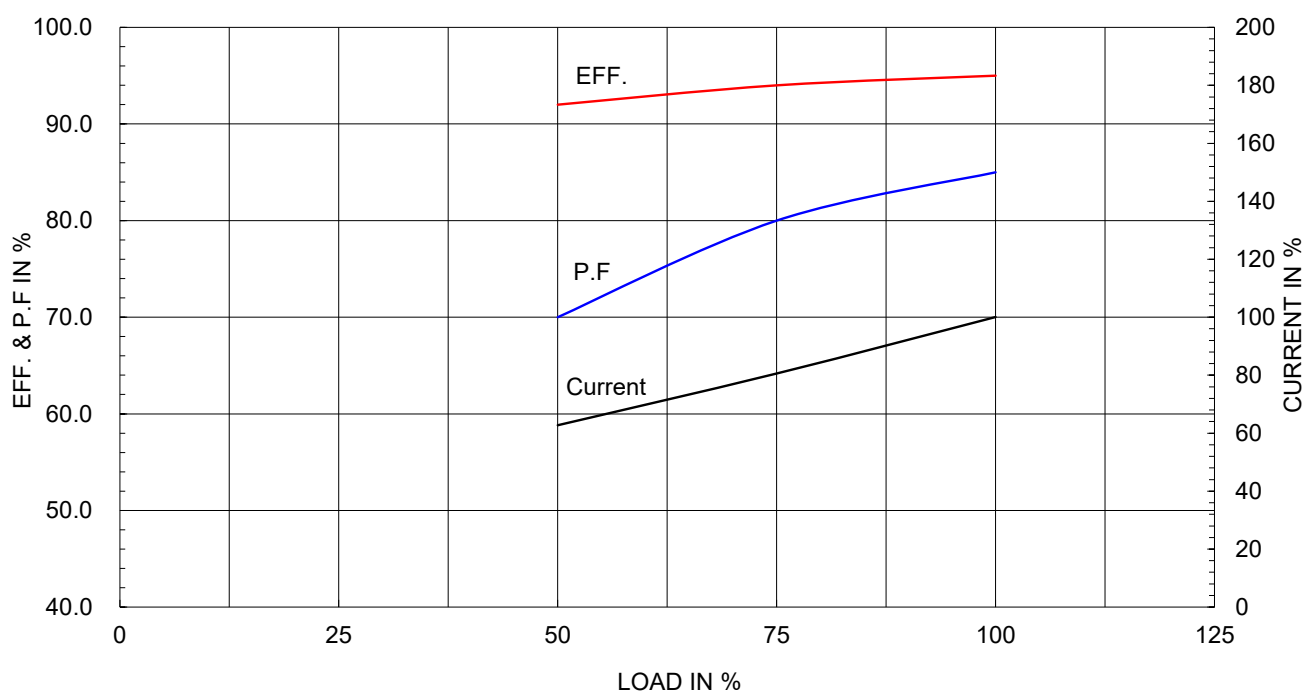
Rated Voltage	575V	460V	230V
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Full Load Current	56.0A	69.9A	139.9A
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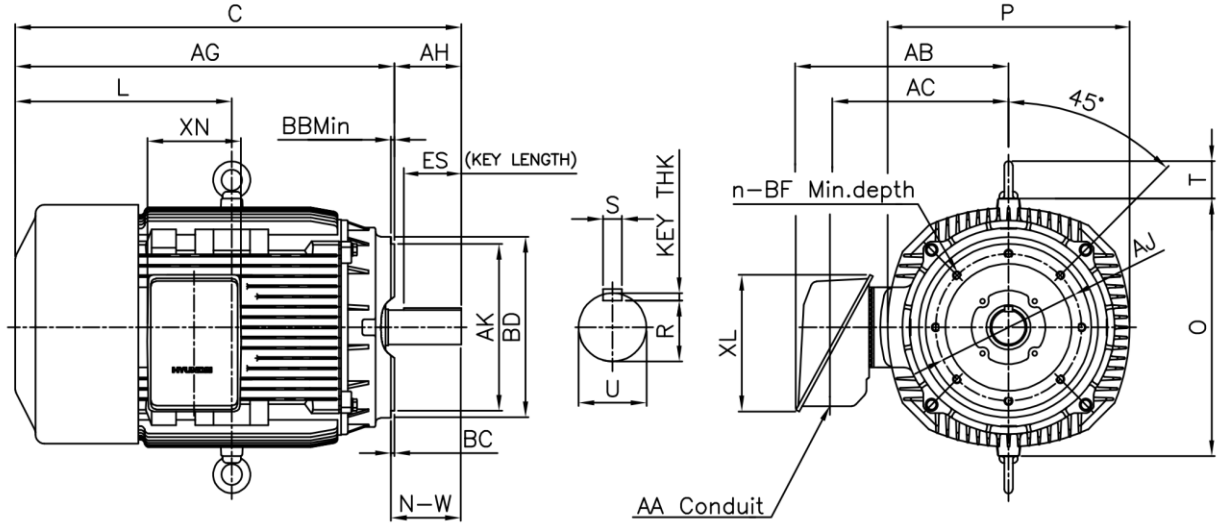
SPEED VS TORQUE & CURRENT CURVE



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

C - F A C E									CONDUIT BOX					APPROX. WGT.(LB)
AJ	AK	BB Min	BC	BD	BF	BF depth	n	AH	AA	AB	AC	XL	XN	
11.00	12.50	0.25	0.25	13.54	5/8-11	0.94	8	5.62	3.00	17.13	13.82	10.24	7.09	870

O V E R A L L						S H A F T				KEY	BEARING	
C	L	O	P	T	AG	U	N-W	KEYWAY			THK.	DRIVE END
								R	ES	S		OPP. DRIVE END
34.01	16.13	19.29	17.75	2.80	28.13	2.375	5.88	2.021	4.28	0.625	0.625	6314C3
												6213C3

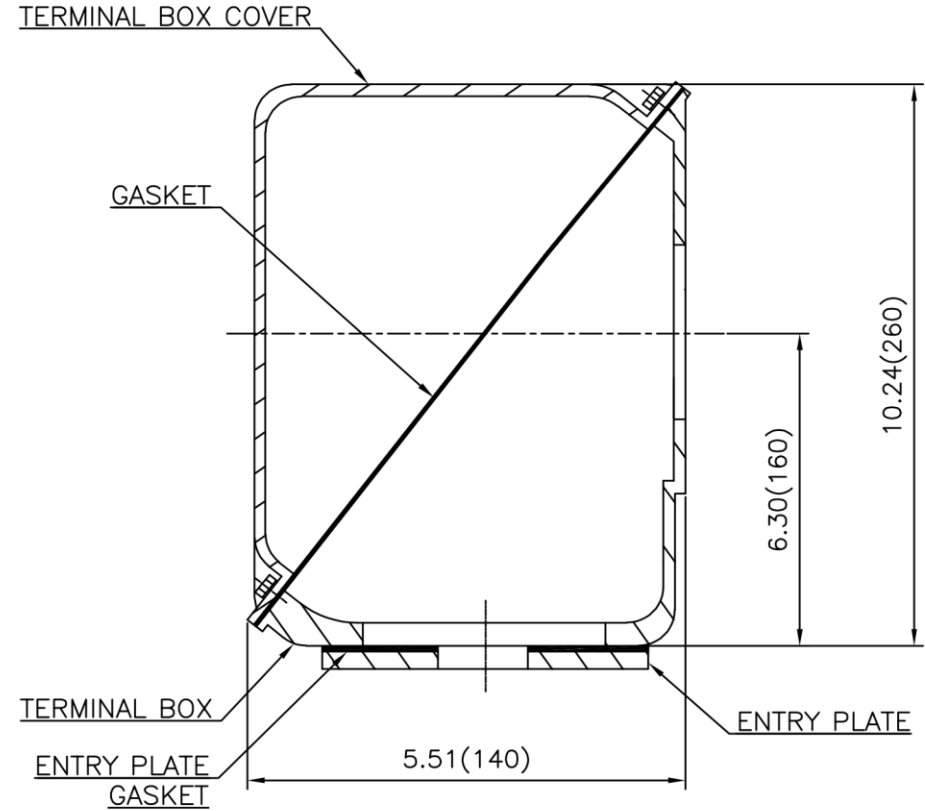
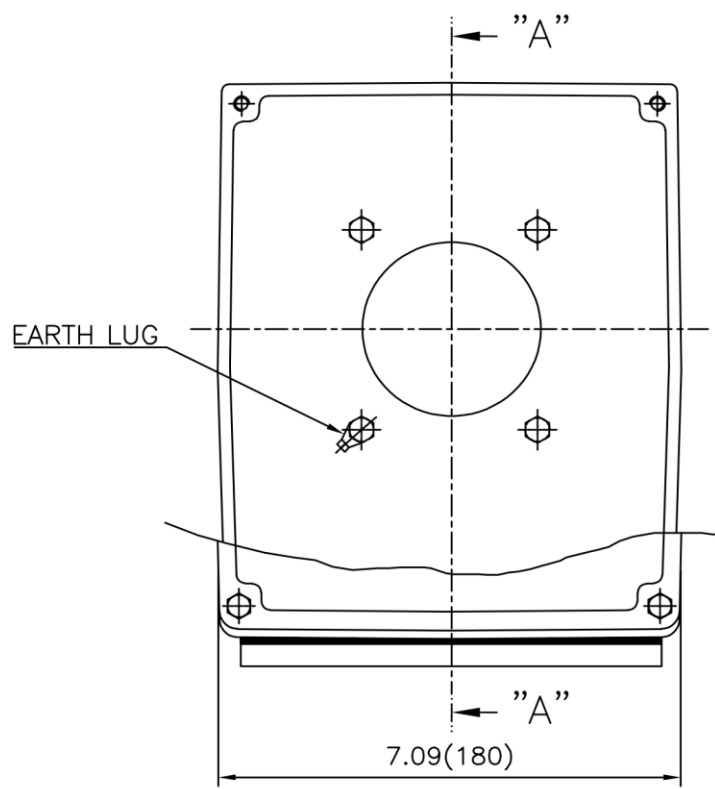
NOTE

- 1.Dimension "U" tolerance : +0.000inch ~ -0.0005inch (143TC-215TC): +0.000inch ~ -0.001inch (254TC-449TC)
- 2.Dimension "R" tolerance : +0.000inch ~ - 0.015inch
- 3.Dimension "AK" tolerance : +0.000inch ~ -0.003inch (143TC-286TC): +0.000inch ~ -0.005inch (324TC-449TC)

APPD BY	S.K.HAN	UNIT	INCH	SUBJECT	NEMA 364TC		DWG SIZE	
CHKD BY	S.Y.KIM	SCALE	NONE	TITLE OUTLINE				A4 (1:1)
CHKD BY	Y.H.BAE	PROJEC'N	3각법(3rd Angle)					
DSND BY	N.R.LEE	DATE	2019-06-03					
				REF. NO	350A1513AA	Sheet No. of		
				DWG NO	LM-T1364C5PL001	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

일반가공공차		일반계관공차	
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.360 (CAST IRON)	DWG SIZE	A3 (1:1.2)
CHKD BY		SCALE	1/1.2	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	네슬의	DATE	2023-10-19	DWG NO	3M-248450	Revision No.	0

