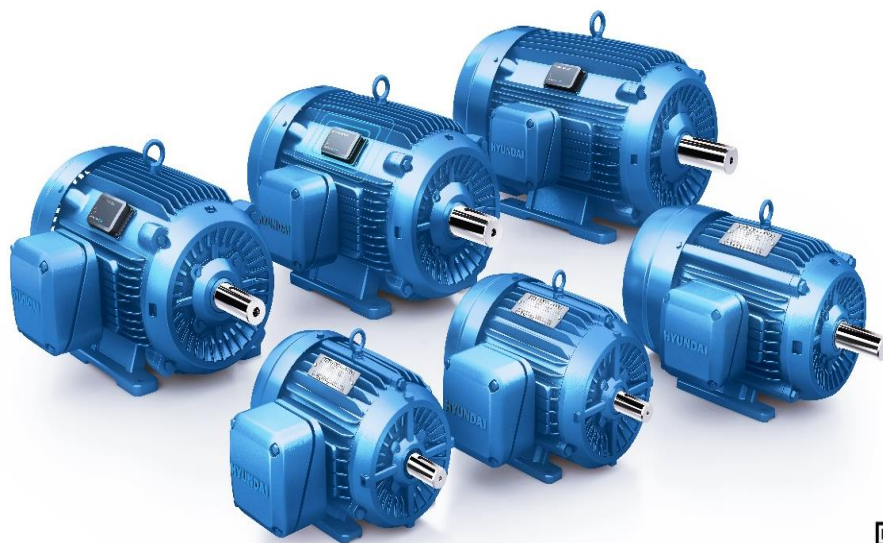


Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION for INDUCTION MOTOR



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

AC INDUCTION MOTOR DATA SHEET

Catalog No.	HHI100-18-280S/M	Item No.			Rev. No.	[]	
Project Name		Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA			
Frame Size	280M		Rated Output	75 kW		100 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		460 V		
Number of Phases	3		Current	Full Load	116.1 A		
Insulation Class	F			Locked-rotor**	700 %		
Temp. Rise at full load (by resistance method)			Efficiency				
	at 1.0 S.F	80 deg. C					
Motor Location	☐ Indoor ☐ Outdoor		50% Load 92.4 %				
Altitude	Less than 1,000 meter		75% Load 94.4 %				
Relative Humidity	Less than 80 %		100% Load 95.4 %				
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	B3		100% Load 0.850				
Bearing	Type	Anti-Friction	Speed at Full Load		1780 r.p.m		
	DE/N-DE	NU318 / 6316C3	Torque				
	Lubricant	Grease(Polyrex-EM)	Full Load		296.84 lb.ft		
External Thrust	Not applicable		Locked-rotor**		150 %		
Coupling Method	☒ Direct ☐ V-belt		Breakdown**		210 %		
Shaft Extension	Single		Moment of Inertia (J)				
Terminal	Main	Cast Iron	Load(Max.)		1,855.714 lb.ft2		
Box	Aux.	No	Motor		71.737 lb.ft2		
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)				
Application					85 dB(A)		
Area classification	Hazardous		Vibration		2.8 mm/s (r.m.s)		
Type of Ex-Protection	Class I&II, Division 2		Permissible number of consecutive starts		Cold 3 times		
Applicable Standard	IEC, CSA C390				Hot 2 times		
			Paint	PANTONE	PANTONE279C		
ACCESSORIES			SUBMITTAL DRAWING				
			Outline Dimension Drawing \ Motor Weight(Approx.)				
			B3		LM-T128MS3PT009	1525 lb.	
SPARE PARTS			REMARK				
			1. IE3 (Premium efficiency) according to IEC60034-30-1				
			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 200Fr.)				
			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
			2025-09-19	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.

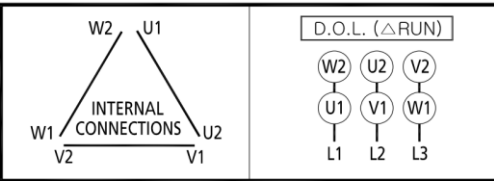
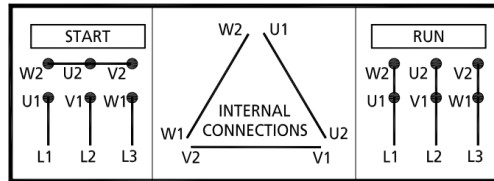
MAIN NAMEPLATE

4.72

2.36

CROWN TRITON G2 IEC    	
Premium Efficiency AC 3 Phase Motor Metric  CC038A	
75kW (100HP) 4P 460V	Encl. IP55(TEFC) Cat. No. HHI100-18-280S/M
UL Model HLS28MSR0408	S.F. 1.15 Amps 116.1A
Frame 280M Duty S1(CONT)	INS. Class F HD-F1 Hertz 60Hz
UL Type HLS	Code H NEMA Design B Torque Eff. 95.4% 3/4 Eff. 94.4%
Bearing Drive NU318	Amb. 40°C RPM 1780 P.F. 0.850
Opp. 6316C3	S.F.1.00(10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)
Usable at 50Hz 100HP 380V 139.5A 1480rpm S.F.: 1.15 Eff.: 95.0% Code: F	
50Hz 100HP 400/415V 134.1/130.8A 1480/1480rpm S.F.: 1.15 Eff.: 95.0/95.0% Code: G/G	
CSA Model - Type PJP Temp. Frame 71~200FR 225~250FR 280FR	
Certified for CLASS I, Div. 2, Gr. A, B, C & D CLASS II, Zone 2, Gr. IIA, IIB, & IIC (Gr. E : Up to 200FR)	Code Amb. 40°C T3C (160°C) T3B (165°C) T3A (180°C)
	Amb. 55°C T3A (180°C) T3A (180°C) T3 (200°C)
No. - Date -	Weight 695 kg (1525 lb)
4M-137919 IEC60034-1 IEC 60034-30-1(IE3)  HD HYUNDAI ELECTRIC	
Made in Korea H1	

WIRING DIAGRAM

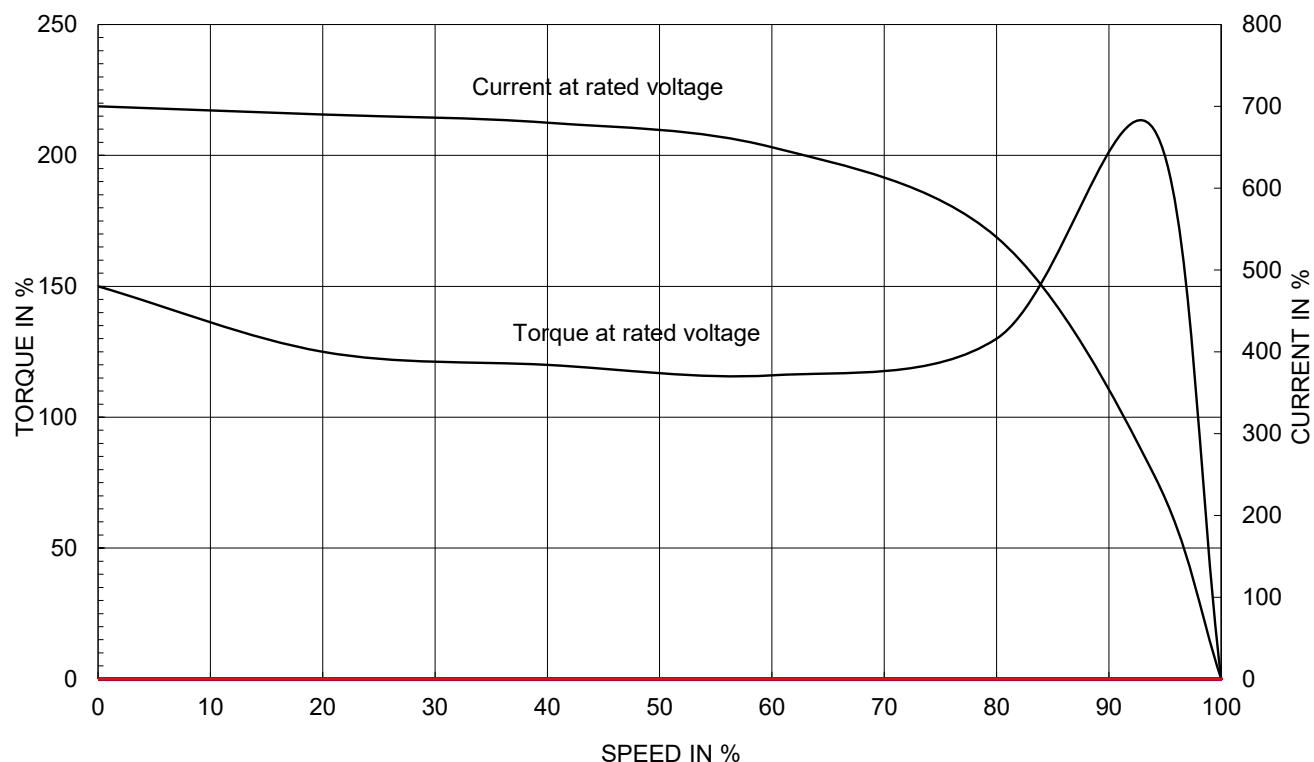
D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
 WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES.  KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-137622	 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.  KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-130346

APPD BY S.Y.KIM	UNIT INCH	SUBJECT CSA Class I, Division2 Severe Duty (IEC, 225-280)	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-137919 / 4M-137622	Sheet No. of
		DWG NO NP-HHI100-18-280S/M	Revision No. 0

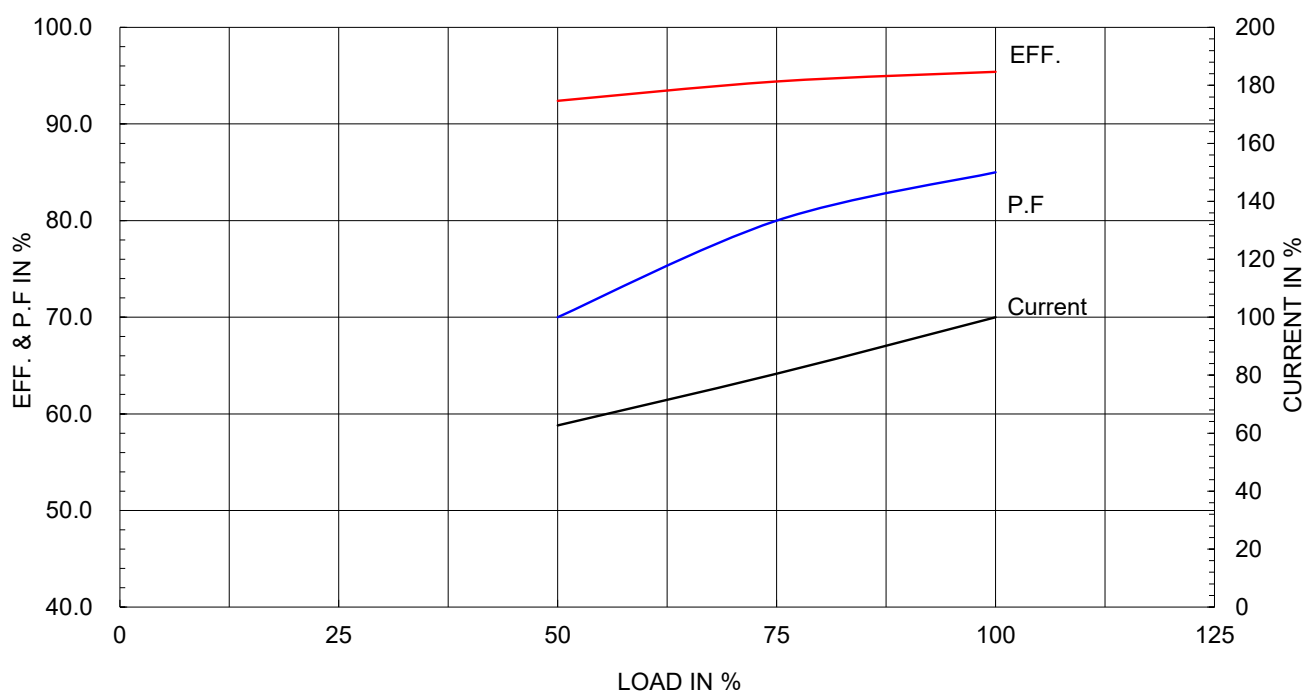
Type :	PJP	
Full Load Torque :	296.84	lb.ft
Load moment of Inertia (J) :	1855.714	lb.ft2
Motor moment of Inertia (J) :	71.737	lb.ft2

75kW	100HP	4 P	60 Hz
Speed at Full Load :			1780 RPM
Rated Voltage		460V	
Full Load Current		116.1A	

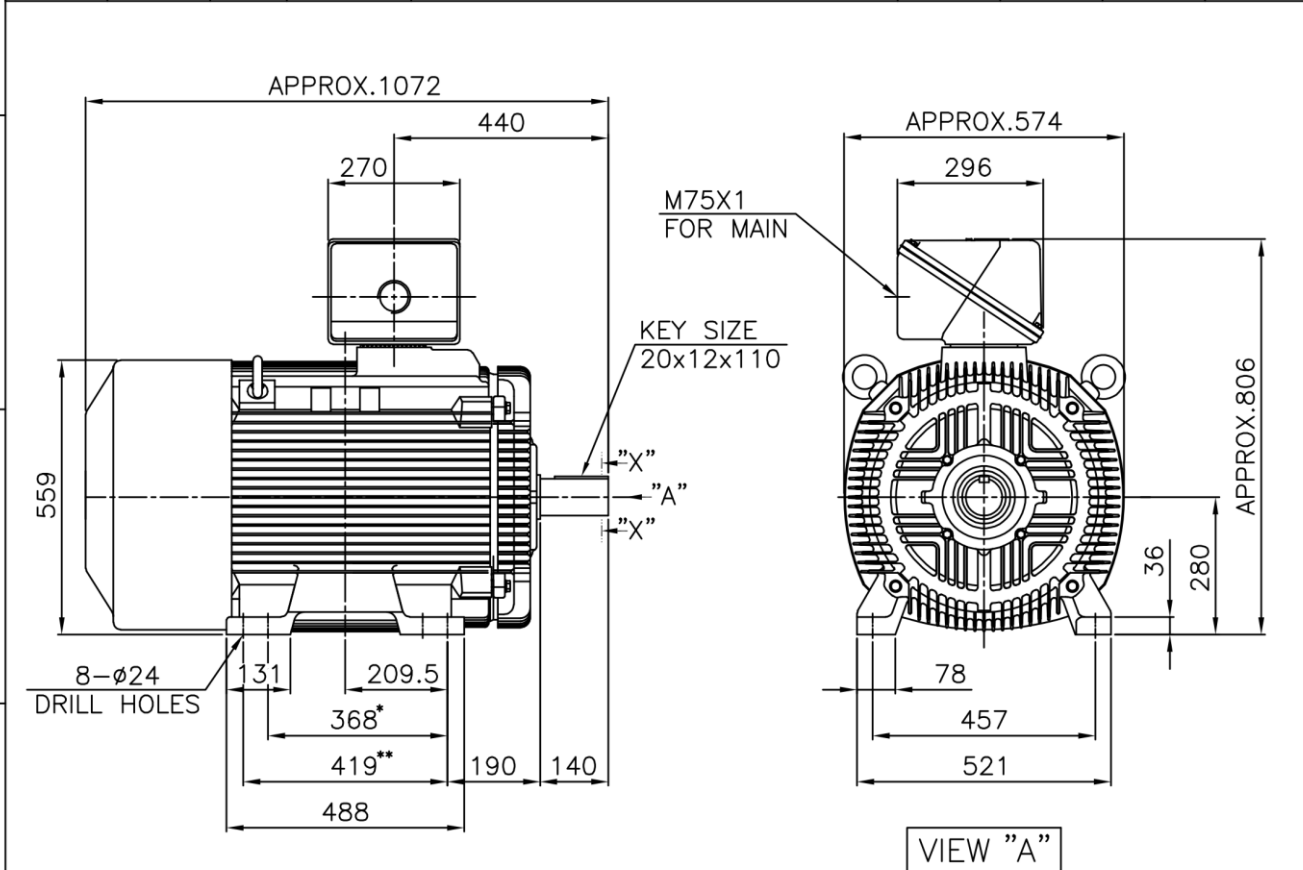
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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



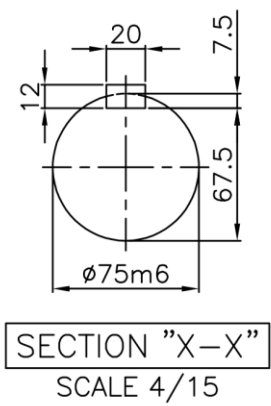
NOTE

1.TOLERANCE :

CENTER HEIGHT	280	$\begin{smallmatrix} 0 \\ -1.0 \end{smallmatrix}$
BASE HOLES	ϕ 24	$\begin{smallmatrix} +0.52 \\ 0 \end{smallmatrix}$
SHAFT DIAMETER	ϕ 75	$\begin{smallmatrix} +0.030 \\ +0.011 \end{smallmatrix}$
KEYWAY WIDTH	20	$\begin{smallmatrix} -0.022 \\ -0.074 \end{smallmatrix}$
KEYWAY DEPTH	7.5	$\begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$
KEY WIDTH	20	$\begin{smallmatrix} 0 \\ -0.052 \end{smallmatrix}$
KEY HEIGHT	12	$\begin{smallmatrix} 0 \\ -0.110 \end{smallmatrix}$

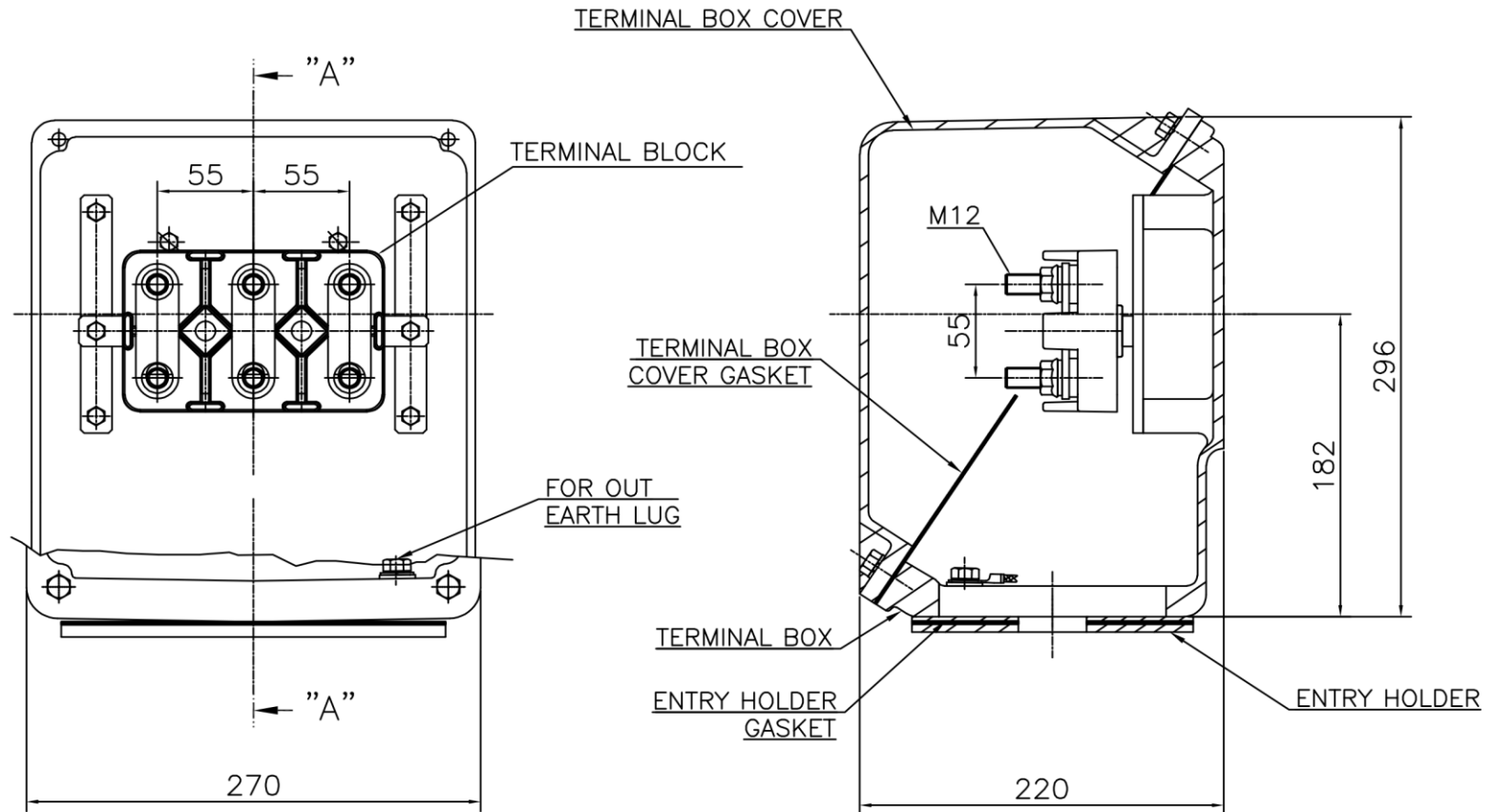
2. HOLE SIZE :

- * : FOR 280S fr.
- ** : FOR 280M fr.



APPD BY	S.K.HAN	UNIT	mm	SUBJECT	IEC 280S/M-4~20P	DWG SIZE	A4 (1:15)
CHKD BY	R.K.KIM	SCALE	1/15	TITLE	OUTLINE		
CHKD BY	C.W.PARK	PROJEC'N	3rd Angle				
DSND BY	S.R.KIM	DATE	2020-05-14				
				REF. NO		Sheet No.	of
				DWG NO	LM-T128MS3PT009	Revision No.	0





▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
1						
2						
3						
4						
5						

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	S.K.HAN	UNIT	MM	SUBJECT	IEC 250~280 (CAST IRON) (T-BLOCK)	DWG SIZE	
CHKD BY	S.Y.KIM	SCALE	1/3	TITLE	TERMINAL BOX ARRANGEMENT	A3 (1:3)	
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	S.H.LEE	DATE	2019-09-09	DWG NO	3M-248451(T)	Revision No.	0