

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

## Explosion Proof type

Catalog No.		IXHHI100-18-405T		Item No.		Rev. No.		[      ]	
Project Name				Project No.		Quantity		sets	
<b>GENERAL SPECIFICATION</b>					<b>PERFORMANCE DATA</b>				
Frame Size		405T		Rated Output		75 kW		100 HP	
Type		XJP		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		91.3 A	114.1 A
Insulation Class		F				Locked-rotor**		650 %	650 %
Temp. Rise at full load (by resistance method)				Efficiency					
at 1.0 S.F		80 deg. C							
Motor Location		<input type="checkbox"/> Indoor <input type="checkbox"/> 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 )							
Service Factor		1.15							
Mounting		B3		Speed at Full Load		1780 r.p.m			
Bearing		Type		Anti-Friction		Torque			
		DE/N-DE		NU316 / 6313C3					
		Lubricant		Grease(Polyrex-EM)					
External Thrust		Not applicable		Full Load		296.8 lb.ft			
Coupling Method		<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Locked-rotor**		140 %			
Shaft Extension		Single		Breakdown**		220 %			
Terminal Box		Main		Cast Iron		Moment of Inertia (J)			
		Aux.		No					
Location		Refer to Outline Drawing		Load(Max.)		1,337.213 lb.ft2			
Application				Motor		35.910 lb.ft2			
Area classification		Hazardous		Sound Pressure Level (No-load & mean value at 1m from motor)					
Type of Ex-Protection		Class I, Division 1							
Applicable Standard		NEMA MG1, CSA C390, UL674		Vibration		0.0 mm/sec (peak)			
<b>ACCESSORIES</b>					<b>SUBMITTAL DRAWING</b>				
* . W.T.D.(Thermostat, 145°C) : 1EA/Ph.					Outline Dimension Drawing \ Motor Weight(Approx.)				
					B3		LM-U0405B3TL001		1830 lb.
<b>REMARK</b>					1. Premium efficiency according to NEMA MG1				
					2. Inverter Duty @ 1.0 Service Factor & Ambient max 45°C				
<b>SPARE PARTS</b>					- . 4:1 CT (10:1 CT at 1hour Duty)				
					- . 10:1 VT (20:1 VT at 50% load)				
					- . CHP up to 1.5 times base speed, NEMA MG1 Part31				
					3. Temperature Code				
					- . T3 at 40°C Ambient / T2D at 55°C Ambient				
					- . T4 with Winding Temperature Detector				
Date		DSND		CHKD		CHKD		APPD	
2024-07-14		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.


1	2	3	4
REV	DATE	CONTENTS	REVD BY


4.72

**CROWN TRITON**  
Premium Efficiency AC 3 Phase Motor

**Explosion Proof**








100HP	4P	230/460V	Cat. No.	IXHHI100-18-405T	Amps	228.1/114	
Model	LATER		INS. Class	F HD-F1	Hertz	60Hz	
Type	XJP	Duty	CONT	Code	G	NEMA Norm. Eff.	95.4%
Frame	405T	Encl.	TEFC	S.F.	1.15	on sine wave power	3/4 Eff. 94.4%
Bearing	Drive	NU316	S.F.	1.00	on PWM or IGBT power	NEMA Design	B
	Opp.	6313C3	RPM	1780		Amb.	40°C
Usable at	50Hz 100HP 380V 137.5A 1475rpm S.F.: 1.0 Eff.: 94.5% Code: E						
	50Hz 100HP 400/415V 132.6/130.6A 1478/1479rpm S.F.: 1.0 Eff.: 94.8/94.9% Code: F/G						
UL Certified for	Class I, Div. 1, Group C&D / Class I, Zone 1, Group IIA & IIB				Temp. Code	T3 at 40°C Amb. / T2D at 55°C Amb.	
	10:1VT(20:1 at 50% load) 4:1CT(10:1 1hour duty at lowest RPM)					T4 With Thermostat	
No.	-		Date	-		Weight	1829.837

4M-136067  
(NEMA 320~444Fr.)

Made in Korea H1



2.36

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	UL Class I, Division1 (IXHHI)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE			A4 ( 1:1 )
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE <b>NAMEPLATE DRAWING</b>		
DSND BY	S.H.LEE	DATE	2024.06.07			

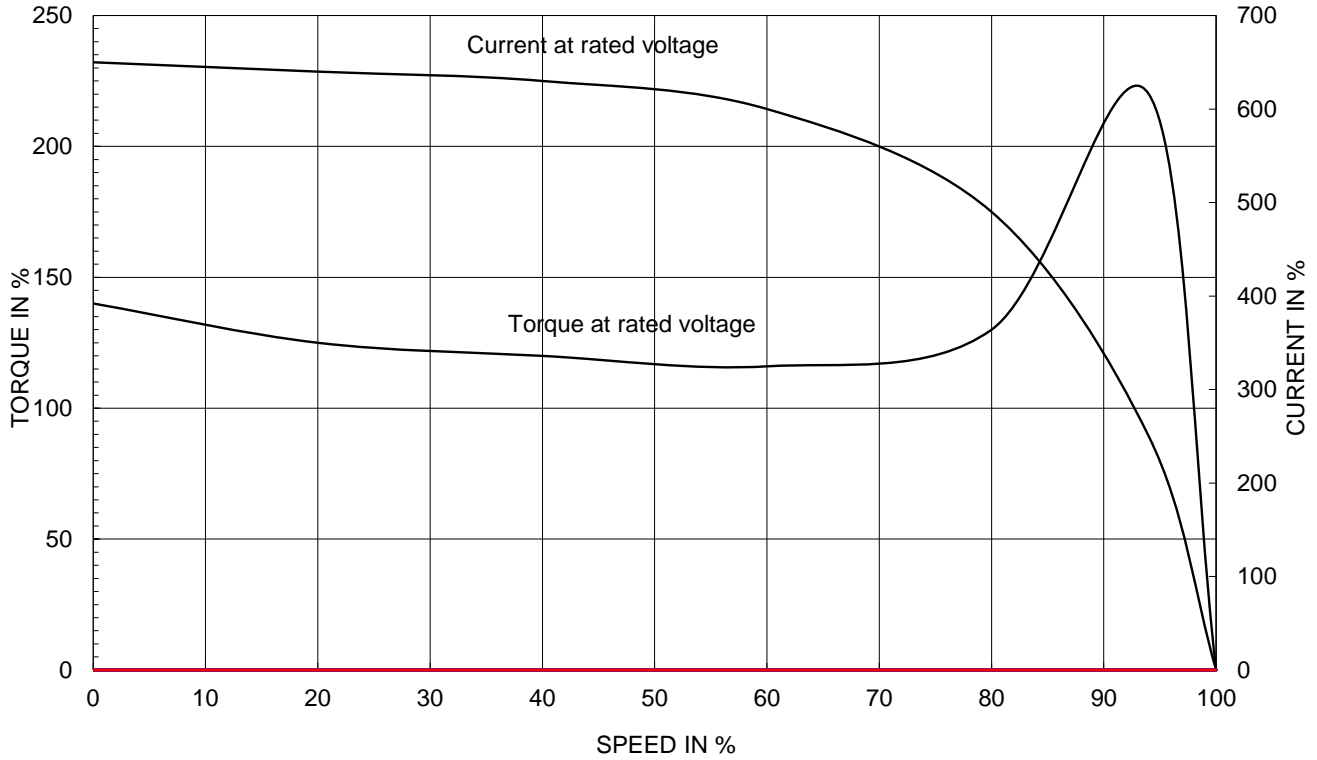


REF. NO	<b>4M-136067</b>	Sheet No.	of
DWG NO	<b>NP-IXHHI100-18-405T</b>	Revision No.	<b>0</b>

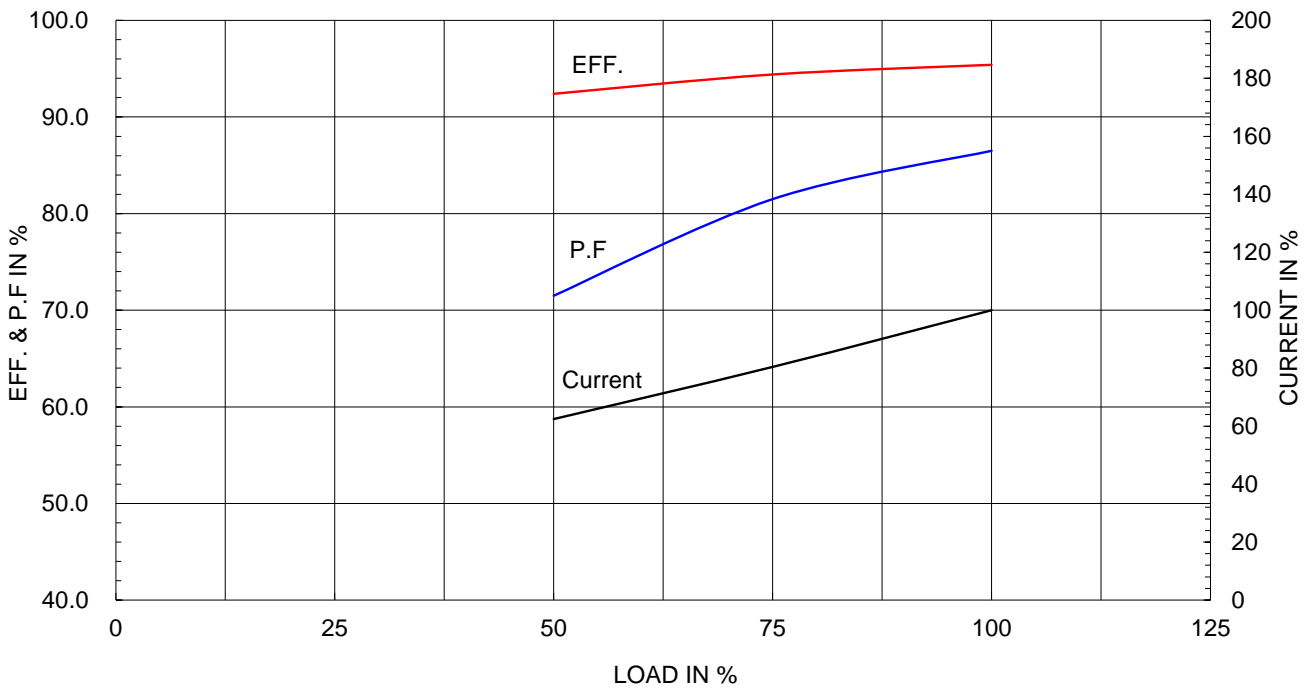
Type :	XJP	
Full Load Torque :	296.8	lb.ft
Load moment of Inertia (J) :	1337.213	lb.ft2
Motor moment of Inertia (J) :	35.910	lb.ft2

75kW	100HP	4 P	60 Hz
Speed at Full Load :			1780 RPM
Rated Voltage	575V	460V	230V
Full Load Current	91.3A	114.1A	228.1A

SPEED VS TORQUE & CURRENT CURVE

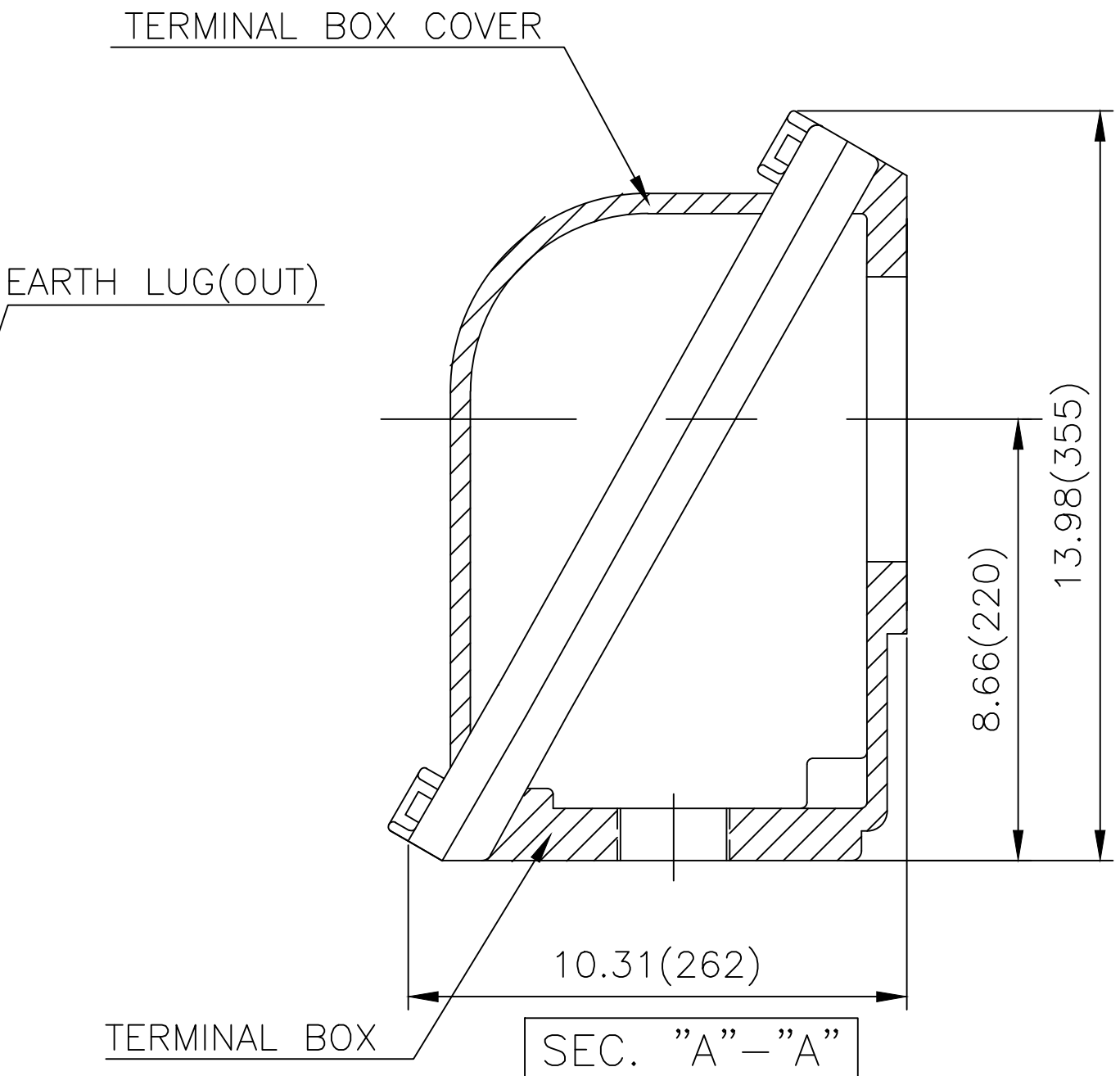
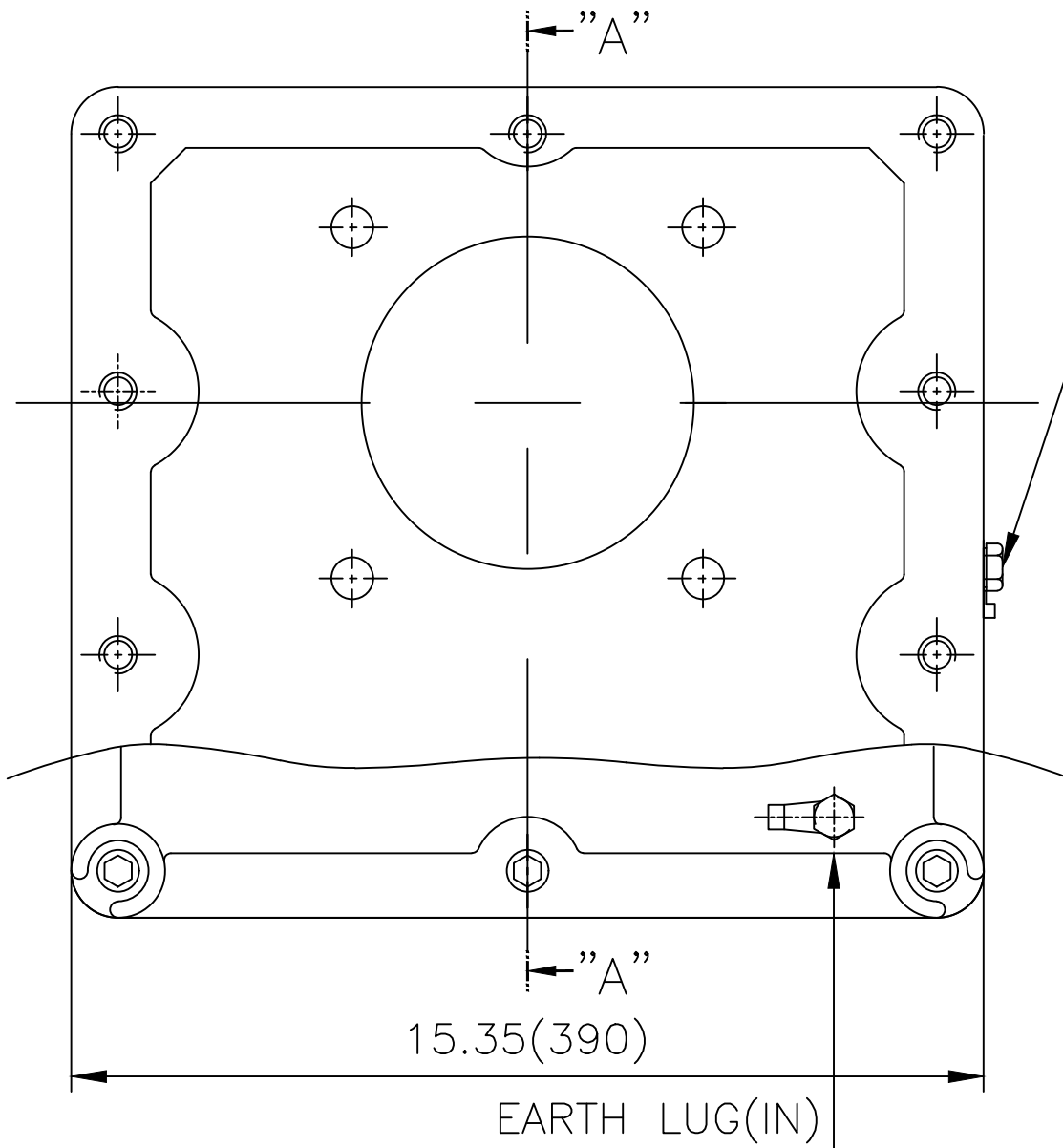


OUTPUT VS EFF., P.F & CURRENT CURVE





**Cls. I Div. 1**



▽	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	NEMA FR. 400~440(CAST IRON)	DWG SIZE	A3 ( 1:3 )
CHKD BY	R.G.KIM	SCALE	1/3	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY		PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	김은진	DATE	2023-11-08	DWG NO	3M-248636	Revision No.	0

