

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.	HHI150-12-447TCRD	Item No.	Rev. No.	[      ]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION		PERFORMANCE DATA				
Frame Size	447TC	Rated Output	110 kW		150 HP	
Type	PJP	Number of Poles	6			
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	135.6 A	169.5 A	
Insulation Class	F		Locked-rotor**	680 %	680 %	680 %
Temp. Rise at full load (by resistance method)		Efficiency				
at 1.0 S.F	80 deg. C	50% Load		92.8 %		
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		94.8 %		
Altitude	Less than 1,000 meter	100% Load		95.8 %		
Relative Humidity	Less than 80 %	Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)	50% Load		0.700		
Duty Type	Continuous ( S1 )	75% Load		0.800		
Service Factor	1.15	100% Load		0.850		
Mounting	B5	Speed at Full Load	1185 r.p.m			
Bearing	Type	Anti-Friction				
	DE/N-DE	6318C3 / 6316C3				
	Lubricant	Grease(Polyrex-EM)				
External Thrust	Not applicable					
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt	Torque				
Shaft Extension	Single	Full Load	654.0 lb.ft			
Terminal Box	Main	Locked-rotor**				
	Aux.	140 %				
Location	Refer to Outline Drawing	Breakdown**	220 %			
Application		Moment of Inertia (J)				
Area classification	Hazardous	Load(Max.)	4,864.156 lb.ft2			
Type of Ex-Protection	Class I&II, Division 2	Motor	106.310 lb.ft2			
Applicable Standard	NEMA MG1, CSA C390	Sound Pressure Level (No-load & mean value at 1m from motor)				
ACCESSORIES		80 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	SUBMITTAL DRAWING		
	Outline Dimension Drawing \ Motor Weight(Approx.)		
	B5	LM-T1447C5PL001	2020 lb.

SPARE PARTS	REMARK				
	<ol style="list-style-type: none"> <li>1. Premium efficiency according to NEMA MG1</li> <li>2. Inverter Duty @ 1.0 Service Factor &amp; F Temperature rise               <ul style="list-style-type: none"> <li>- 10:1 VT (20:1 VT at 50% load)</li> <li>- 10:1 CT</li> <li>- CHP up to 1.5 times base speed, NEMA MG1 Part31</li> </ul> </li> <li>3. CSA Certification               <ul style="list-style-type: none"> <li>- Class I, Division 2, Group A, B, C &amp; D</li> <li>- Class II, Division 2 Group E, F &amp; G (Group E : up to 320Fr.)</li> </ul> </li> <li>4. Service Factor 1.15 and Temperature rise B are applicable under the condition of sine wave power.</li> <li>5. Service Factor 1.25 is applicable to motors of 100HP or less with temperature rise F &amp; Non-Hazardous.</li> </ol>				
	Date	DSND	CHKD	CHKD	APPD
	2024-07-13	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   CHKD BY   CHKD BY   APPD BY

4.72

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

150HP	6P	460V	Cat. No.	HHI150-12-447TCRD							
Model	HLS447PR06		INS. Class	F	HD-F1	Amps	169.5				
Type	HLS	Duty	CONT	Code	G	Amb.	40°C	Hertz	60Hz		
Frame	447TC	Encl.	TEFC	S.F.	1.15	RPM	1185	NEMA Nom. Eff.	95.8%		
Bearing	Drive	6318C3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)			3/4 Eff.	94.8%			
	Opp.	6316C3					NEMA Design	B			
Usable at	50Hz 125HP 380V 174A 985rpm S.F.: 1.0 Eff.: 95.2% Code: G										
	50Hz 125HP 400/415V 167.1/163.2A 986/987rpm S.F.: 1.0 Eff.: 95.4/95.5% Code: H/H										
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)		(sine wave)	Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)	T3A (180°C)	T3A (180°C)	T3 (200°C)
No.	-		Date	-		Weight	2020 lb				

4M-135702
Made in Korea H1

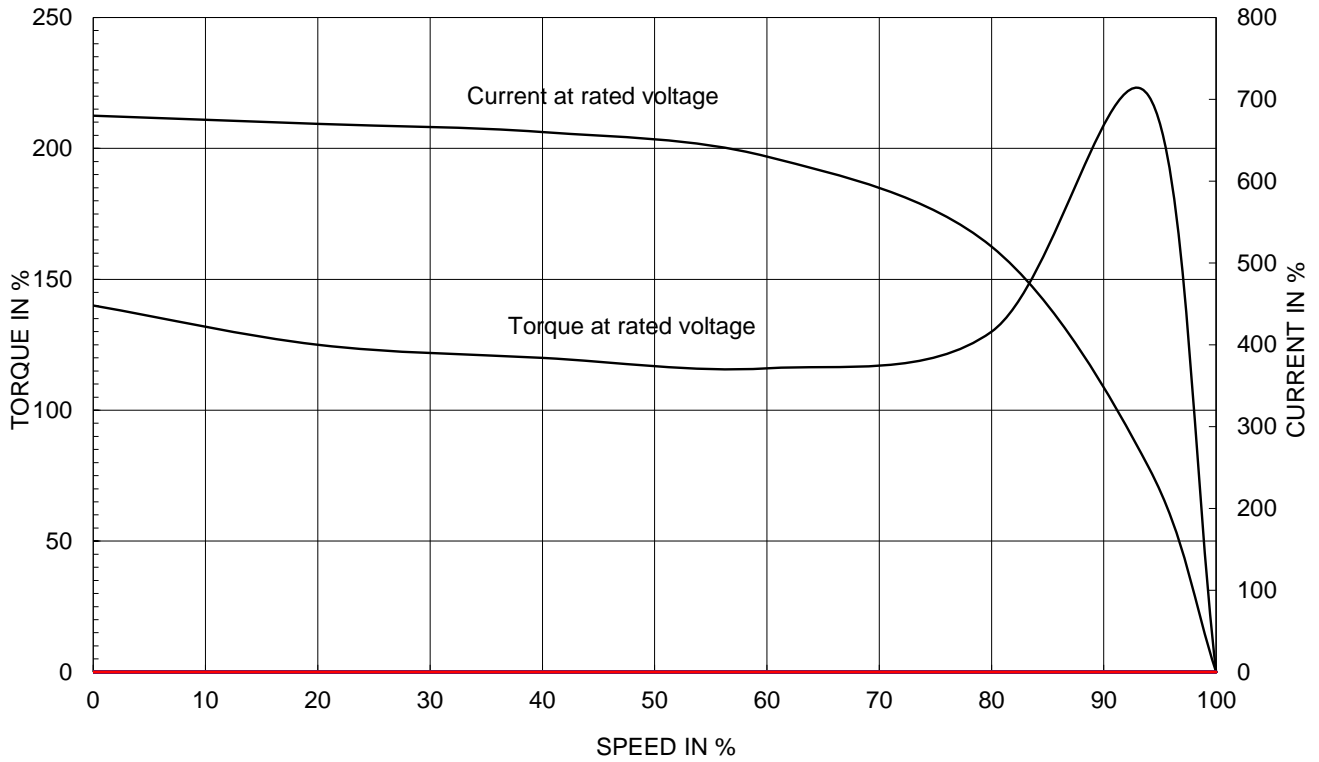
2.36

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HHI, 364-449)	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-135702</b>	Sheet No. of
				DWG NO	<b>NP-HHI150-12-447TCRD</b>	Revision No. <b>0</b>

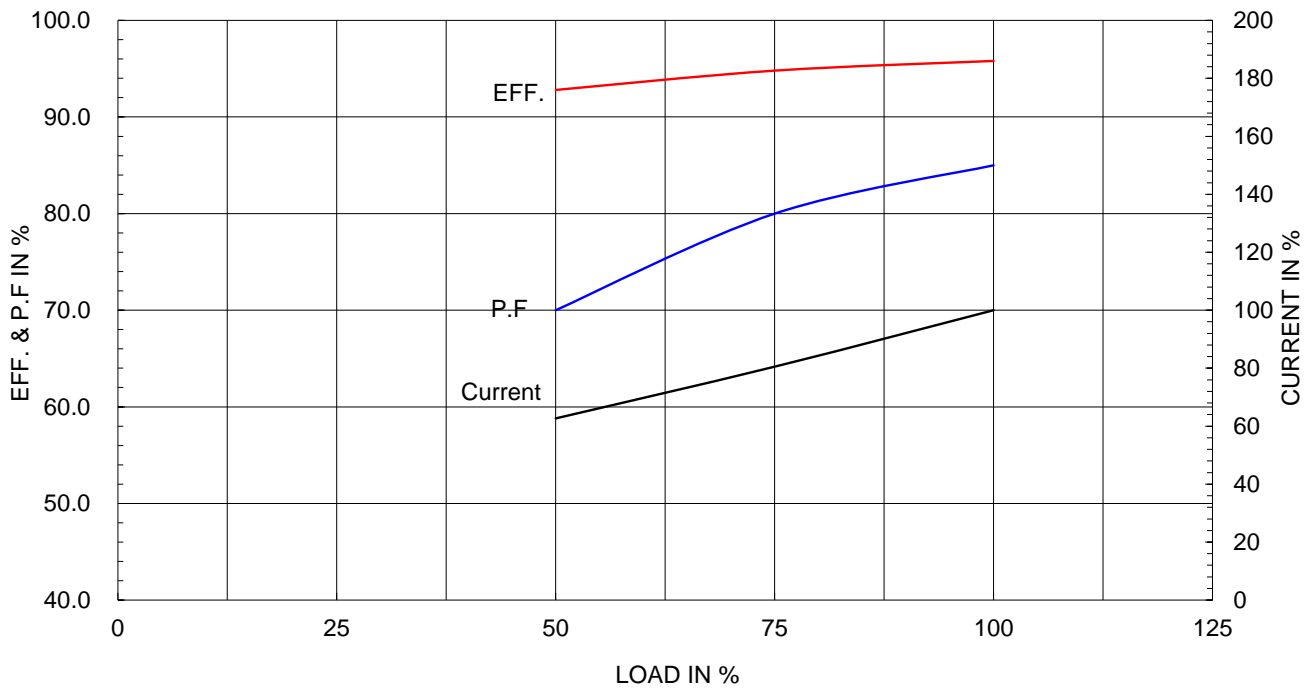
Type :	PJP	
Full Load Torque :	654.0	lb.ft
Load moment of Inertia (J) :	4864.156	lb.ft <sup>2</sup>
Motor moment of Inertia (J) :	106.310	lb.ft <sup>2</sup>

110kW	150HP	6 P	60 Hz
Speed at Full Load :			1185 RPM
Rated Voltage	575V	460V	230V
Full Load Current	135.6A	169.5A	339.1A

SPEED VS TORQUE & CURRENT CURVE



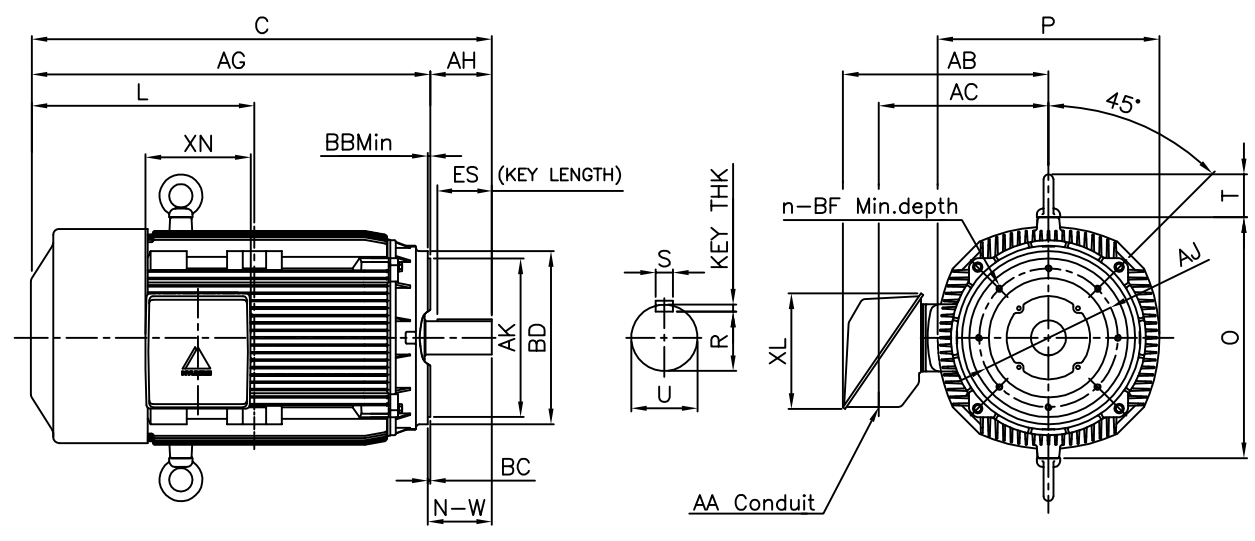
OUTPUT VS EFF., P.F & CURRENT CURVE



본 도면은 HD현대일렉트릭(주) 재산이며  
 허기없이 복사할 수 없음 (취급유의)

THIS DRAWING IS PROPRIETARY TO HYUNDAI ELECTRIC. NO PART OF THIS DRAWING  
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1	2	3	4
▽	50S	REV	DATE
▽▽	12.5S		
▽▽▽	3.2S		
▽▽▽▽	0.4S		



## DIMENSIONS

Unit : inch

C - F L A N G E									CONDUIT BOX					APPROX. WGT.(LB)
AJ	AK	BB Min	BC	BD	BF	BF depth	n	AH	AA	AB	AC	XL	XN	
14.00	16.00	0.25	0.25	17.48	5/8-11	0.94	8	8.25	3.00	21.26	18.03	11.65	10.63	2020

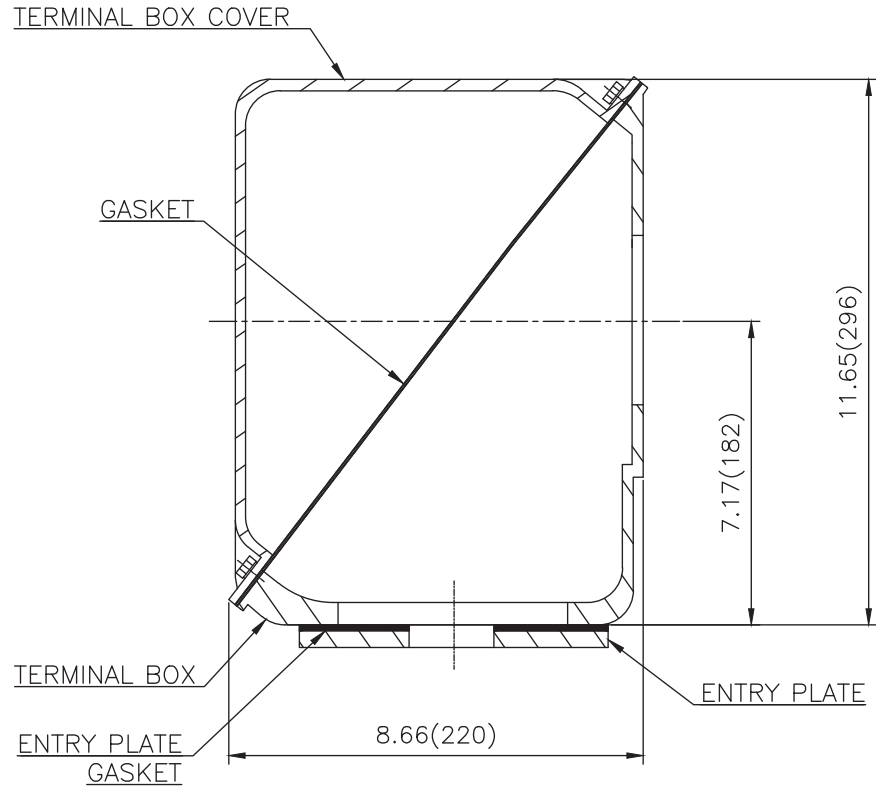
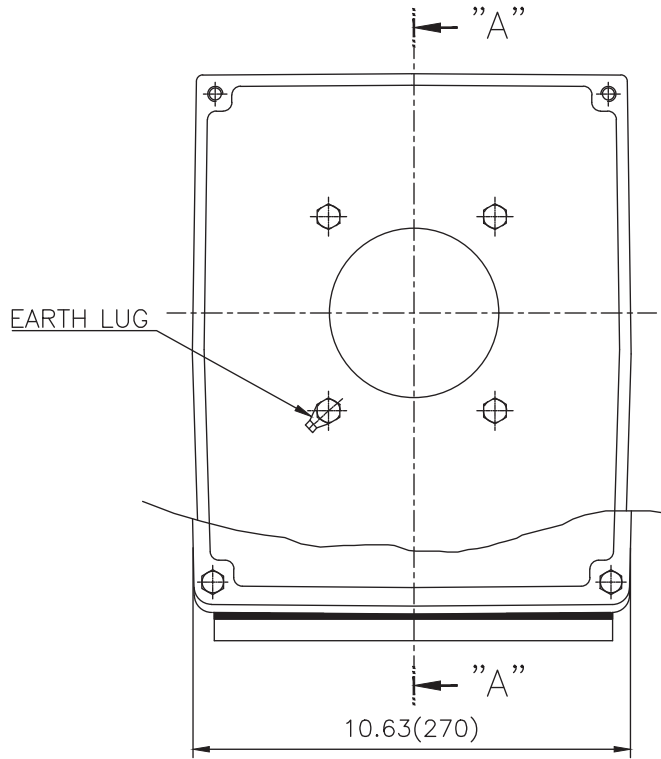
O V E R A L L						S H A F T					KEY	BEARING	
C	L	O	P	T	AG	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
								R	ES	S			
48.71	22.71	24.33	22.44	4.33	40.21	3.375	8.50	2.880	6.93	0.875	0.875	6318C3	6316C3

## 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 447TC		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	350A1519AA	Sheet No.	of
				DWG NO	LM-T14.47C5PL001	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

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

