

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

## IEEE841 TYPE

Catalog No.	IEEE1-12-145T	Item No.	Rev. No.	[      ]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION		PERFORMANCE DATA			
Frame Size	145T	Rated Output	0.75 kW		1 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	1.45 A	1.81 A
Insulation Class	F		Locked-rotor**	800 %	800 %
Temp. Rise at full load (by resistance method)		Efficiency			
at 1.0 S.F	80 deg. C	50% Load		79.5 %	
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		81.5 %	
Altitude	Less than 1,000 meter	100% Load		82.5 %	
Relative Humidity	Less than 80 %	Power Factor(p.u)			
Ambient Temp.	40 deg. C (Max.)	50% Load		0.480	
Duty Type	Continuous ( S1 )	75% Load		0.580	
Service Factor	1.15	100% Load		0.630	
Mounting	B3	Speed at Full Load		1155 r.p.m	
Bearing	Type	Anti-Friction			
	DE/N-DE	6205ZC3 / 6204ZC3			
	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		4.6 lb.ft	
Terminal Box	Main	Cast Iron			
	Aux.	No			
	Location	Refer to Outline Drawing			
Application		Locked-rotor**		180 %	
Area classification	Hazardous	Breakdown**		275 %	
Type of Ex-Protection	Class I&II, Division 2	Moment of Inertia (J)			
Applicable Standard	IEEE841, NEMA MG1, CSA C390	Load(Max.)		21.753 lb.ft2	
		Motor		0.083 lb.ft2	
		Sound Pressure Level (No-load & mean value at 1m from motor)			
		55 dB(A)			
		Vibration			
		3.8 mm/sec (peak)			
		Permissible number of consecutive starts		Cold 3 times	
				Hot 2 times	
		Paint	Munsell No.	7.5BG6/1.5	

ACCESSORIES

SUBMITTAL DRAWING		
Outline Dimension Drawing	Motor Weight(Approx.)	
B3	LM-II145B3PL001	55 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
  - 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.

Date	DSND	CHKD	CHKD	APPD
2024-07-13	S.H. Lee	I.K. Kim	R.G. Kim	S.W. Kim

SPARE PARTS

[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.

본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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1	2	3	4
REV	DATE	CONTENTS	REVD BY

4.02

1.81

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

1HP	6P	460V	Cat. No.	IEEE1-12-145T			
Model	HLS145SL338		INS. Class	F	HD-F1	Amps 1.81	
Type	HLS	Duty	CONT	Code	L	Hertz 60Hz	
Frame	145T	Encl.	TEFC	RPM	1155	Amb. 40°C	
<input type="checkbox"/>	Drive	6205ZC3		S.F.	1.15	NEMA Design B	
	Opp.	6204ZC3		S.F.1.00(10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)			
Usable at							
50Hz 0.75HP 380V 2.3A 960rpm S.F.: 1.0 Eff.: 73.1% Code: L							
50Hz 0.75HP 400/415V 2.4/2.5A 965/965rpm S.F.: 1.0 Eff.: 73.1/73.1% Code: L/L							
CSA Certified for	Model	LATER		Type	PJP	Temp. Code	
	CLASS I, Div 2, Gr A, B, C & D		CLASS II, Div 2, Gr E, F & G		(sine wave)	Frame	140~320FR
	CLASS I, Zone 2, Gr IIA, IIB & IIC					Amb.40°C	T3C (160°C)
				Amb.55°C	T3A (180°C)		
No.	-		Date	-		Weight 55 lb	

**IEEE Std 841-2021**

NP249A7178RCP1

**MARINE DUTY IEEE45**

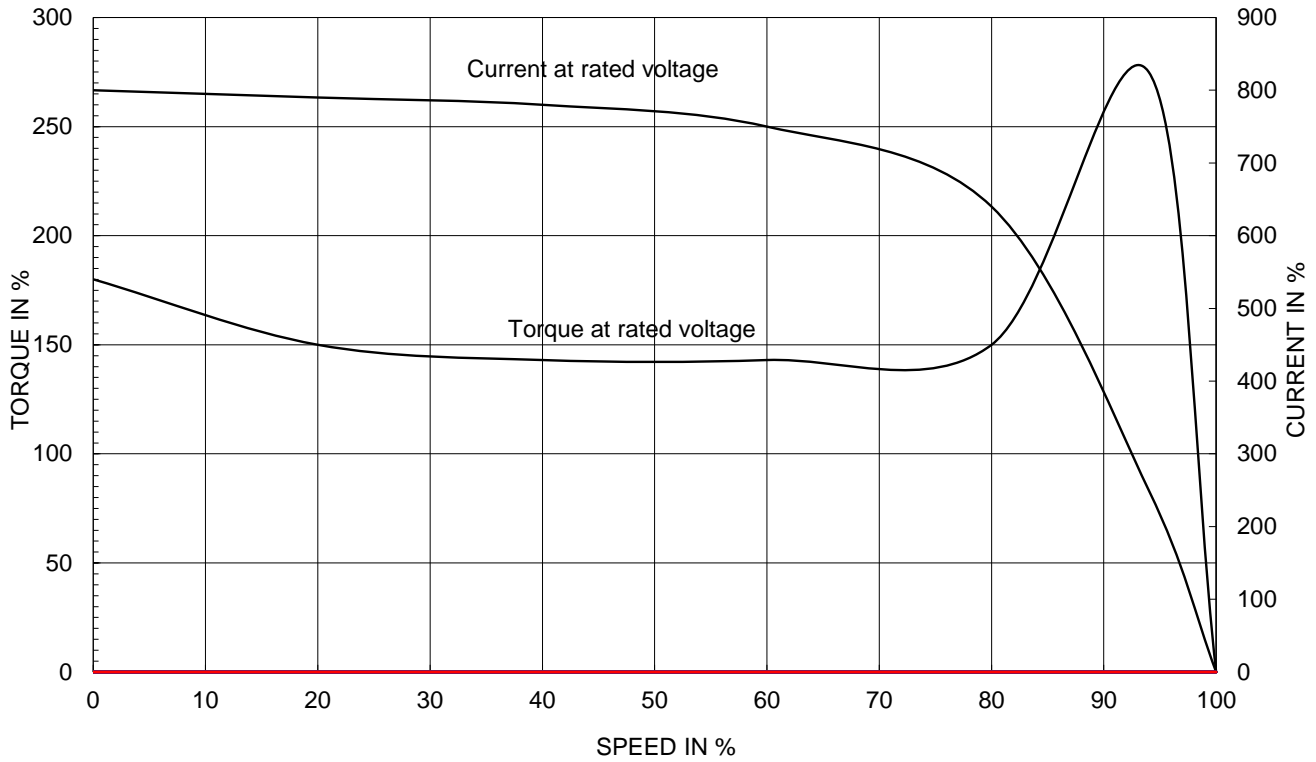
Made in Korea H3

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 IEEE841 (HL)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	NAMEPLATE DRAWING	A4 ( 1:1 )
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	NP249A7178R	Sheet No. of
				DWG NO	NP-IEEE1-12-145T	Revision No. <b>0</b>

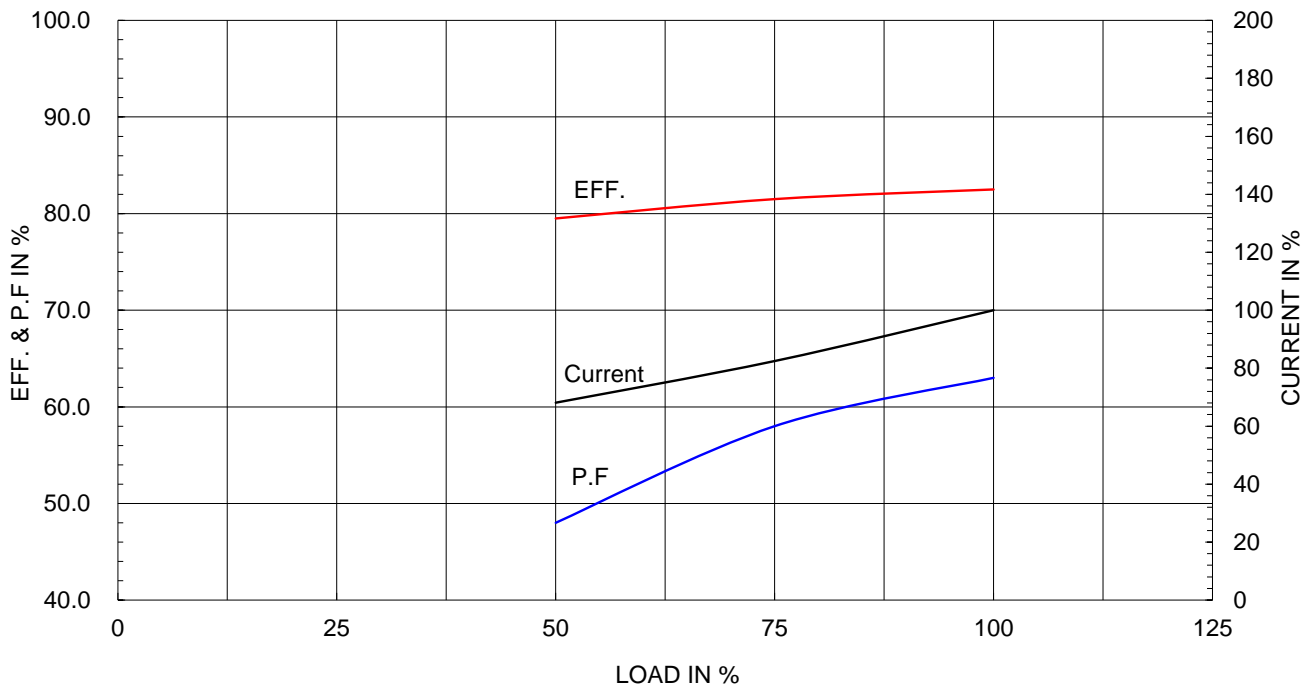
Type :	PJP
Full Load Torque :	4.6 lb.ft
Load moment of Inertia (J) :	21.753 lb.ft <sup>2</sup>
Motor moment of Inertia (J) :	0.083 lb.ft <sup>2</sup>

0.75kW	1HP	6 P	60 Hz
Speed at Full Load :			1155 RPM
Rated Voltage	575V	460V	230V
Full Load Current	1.4A	1.8A	3.6A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

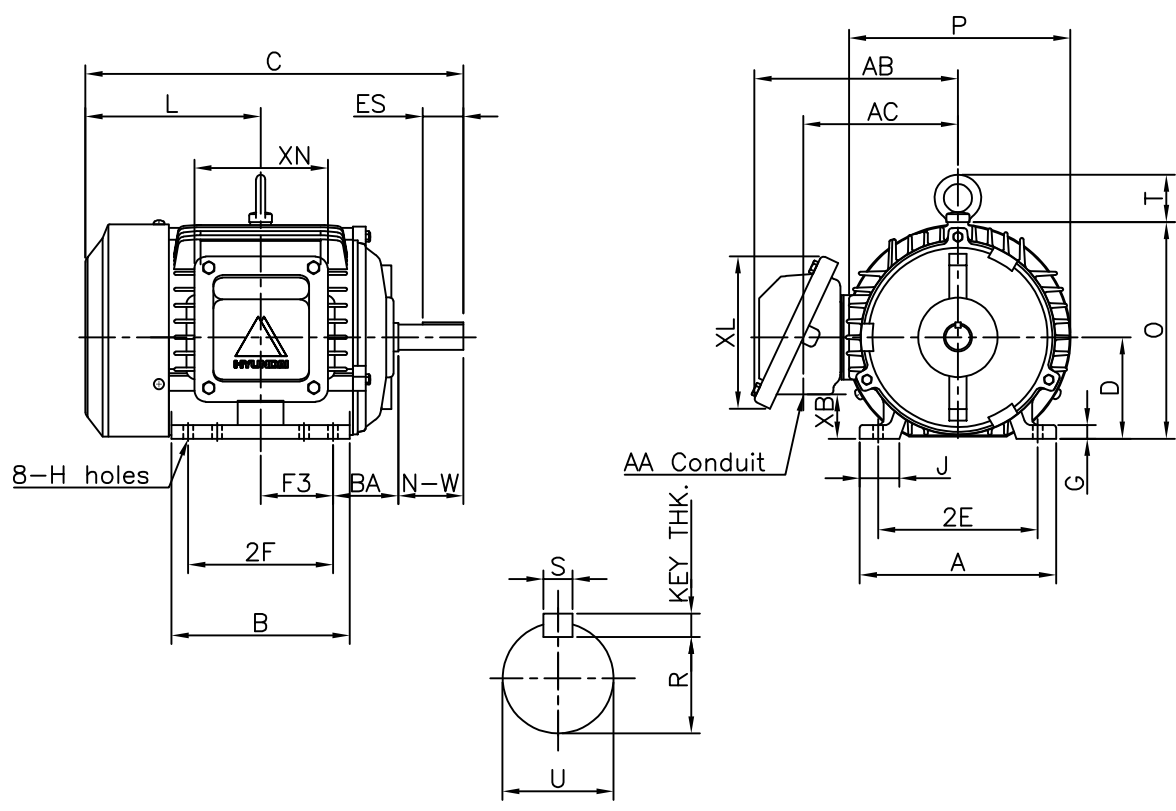


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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

## IEEE841



### DIMENSIONS

Unit : inch

MOUNTING									CONDUIT BOX						APPROX. WGT.(LB)
A	B	2E	2F	-	F3	G	J	H	AA	AB	AC	XB	XL	XN	
6.78	6.15	5.50	5.00	-	2.50	0.47	1.36	0.34	0.75	7.02	5.34	1.53	5.26	4.61	55

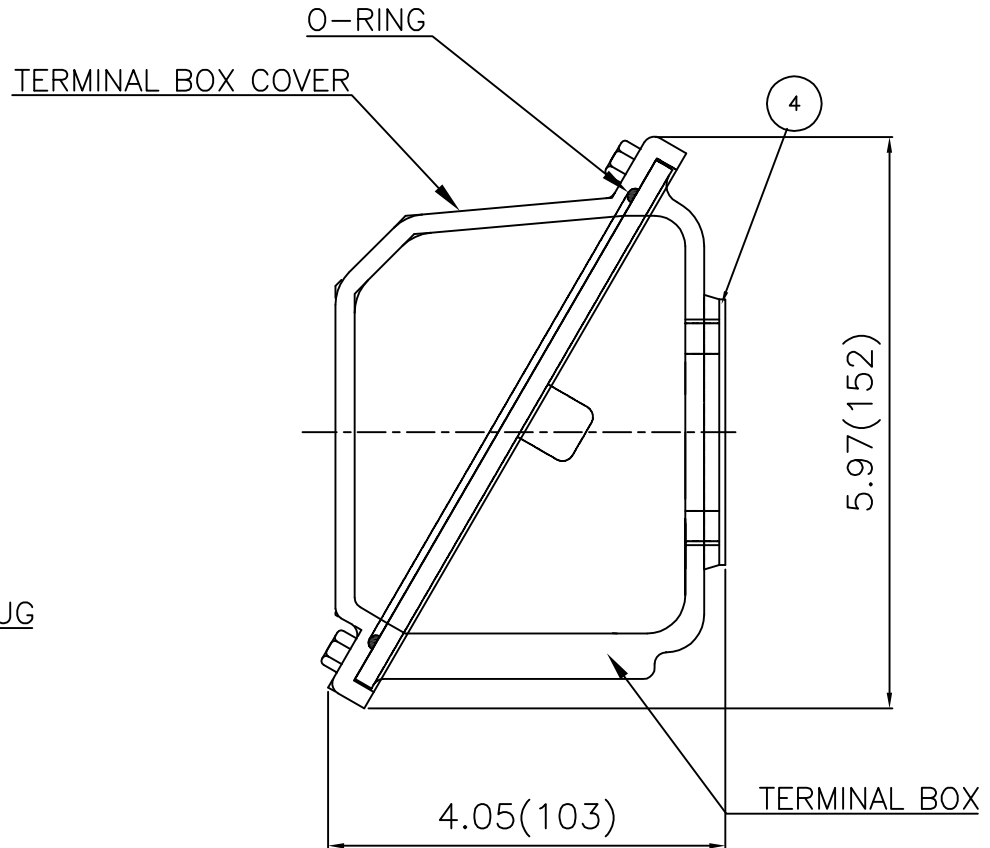
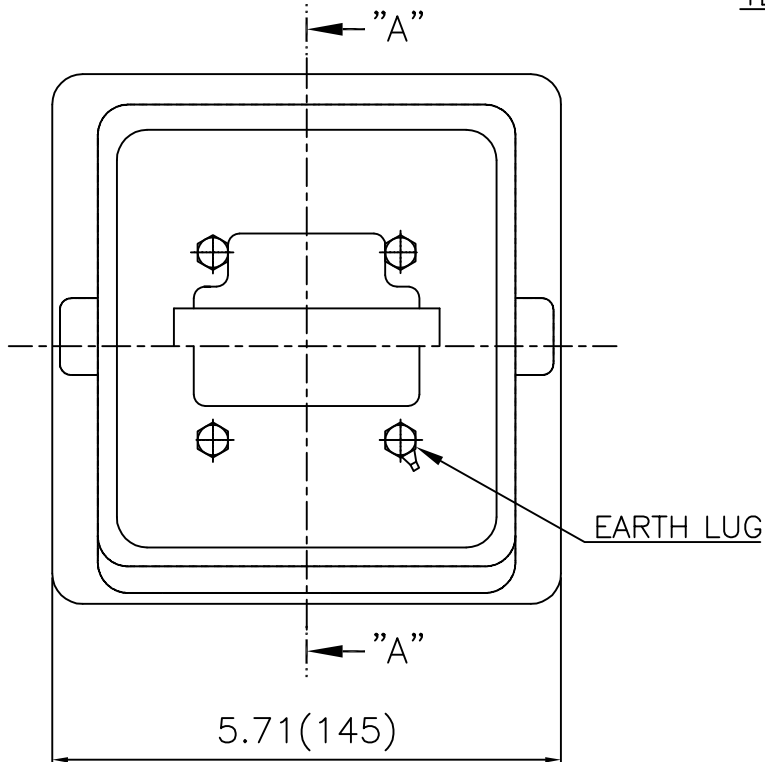
OVERALL									SHAFT			KEY THK.	BEARING	
BA	C	D	L	O	P	T	U	N-W	KEYWAY				DRIVE END	OPP. DRIVE END
									R	ES	S			
2.25	13.05	3.50	6.05	7.46	7.64	1.63	0.875	2.25	0.771	1.41	0.188	0.188	6205Z	6204Z

#### NOTE

- 1.Dimension "D" tolerance : +0.00inch - 0.03inch
- 2.Dimension "U" tolerance : +0.000inch - 0.0005inch
- 3.Dimension "R" tolerance : +0.000inch - 0.015inch

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	NEMA 145T		DWG SIZE
CHKD BY	R.G.KIM	SCALE	NONE	TITLE	OUTLINE		A4 ( 1:1 )
CHKD BY	Y.H.BAE	PROJEC'N	3각법(3rd Angle)				
DSND BY	H.K.LEE	DATE	2021-04-30				
				REF. NO	350A8102AA	Sheet No.	of
				DWG NO	LM-11145B3PL001	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

일반가공公差		일반재공公差	
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. 140 (CAST IRON)	DWG SIZE	
CHKD BY	I.K.KIM	SCALE	1/2	TITLE			A3 (1:1.5)
CHKD BY		PROJEC'N	3rd Angle	TERMINAL BOX ASS'Y			
DSND BY	E.J.KIM	DATE	2024-02-02	REF. NO		Sheet No.	of
		DWG NO	3M-249376	Revision No. 0			