

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.	IEEE1.5-18-145TCRD	Item No.	Rev. No.	[      ]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION		PERFORMANCE DATA				
Frame Size	145TC	Rated Output	1.1 kW      1.5 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	1.77 A	2.22 A	
Insulation Class	F		Locked-rotor**	900 %	900 %	900 %
Temp. Rise at full load (by resistance method)		Efficiency				
at 1.0 S.F	80 deg. C	50% Load		83.5 %		
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		85.5 %		
Altitude	Less than 1,000 meter	100% Load		86.5 %		
Relative Humidity	Less than 80 %	Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)	50% Load		0.570		
Duty Type	Continuous ( S1 )	75% Load		0.670		
Service Factor	1.15	100% Load		0.720		
Mounting	B5	Speed at Full Load	1750 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		4.4 lb.ft		
Terminal Box	Main	Locked-rotor**		260 %		
	Aux.	Breakdown**		290 %		
Location	Refer to Outline Drawing	Moment of Inertia (J)				
Application		Load(Max.)		11.865 lb.ft2		
Area classification	Hazardous	Motor		0.076 lb.ft2		
Type of Ex-Protection	Class I&II, Division 2	Sound Pressure Level (No-load & mean value at 1m from motor)				
Applicable Standard	IEEE841, NEMA MG1, CSA C390			56 dB(A)		
ACCESSORIES		Vibration				3.8 mm/sec (peak)
		Permissible number of consecutive starts		Cold	3 times	
				Hot	2 times	
		Paint	Munsell No.	7.5BG6/1.5		
SPARE PARTS		SUBMITTAL DRAWING				
		Outline Dimension Drawing		Motor Weight(Approx.)		
		B5	LM-II145C5PL001	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				
REMARK		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.				
REMARK		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.

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

1.5HP	4P	460V	Cat. No.	IEEE1.5-18-145TCRD			
Model	HLS145PL238		INS. Class	F	HD-F1	Amps	2.22
Type	HLS	Duty	CONT	Code	L	Hertz	60Hz
Frame	145TC	Encl.	TEFC	RPM	1750	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)			<input type="checkbox"/>
Usable at							
50Hz 1HP 380V 2.2A 1460rpm S.F.: 1.0 Eff.: 79.6% Code: L							
50Hz 1HP 400/415V 2.2/2.3A 1465/1465rpm S.F.: 1.0 Eff.: 79.6/79.6% Code: L/L							
CSA Certified for	Model	LATER		Type	PJP	Temp. Code	Frame
	CLASS I, Div 2, Gr A, B, C & D		CLASS II, Div 2, Gr E, F & G		(sine wave)	Amb.40°C	140~320FR
	CLASS I, Zone 2, Gr IIA, IIB & IIC					Amb.55°C	T3C (160°C)
No. -		Date -		Weight		55 lb	

**IEEE Std 841-2021**

NP249A7178RCP1

**MARINE DUTY IEEE45**

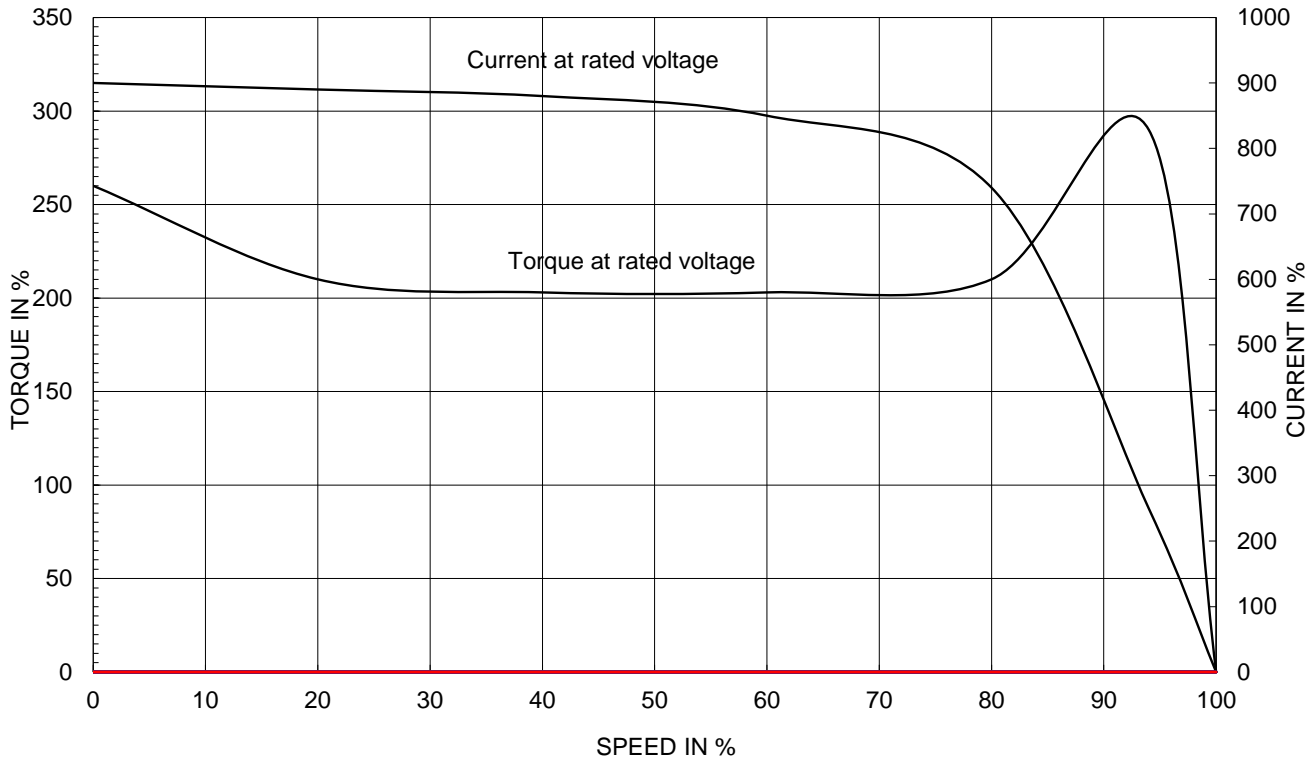
Made in Korea H3

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 IEEE841 (HL)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE			A4 ( 1:1 )
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	NAMEPLATE DRAWING		
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	<b>NP249A7178R</b>	Sheet No. of
				DWG NO	<b>NP-IEEE1.5-18-145TCRD</b>	Revision No. <b>0</b>

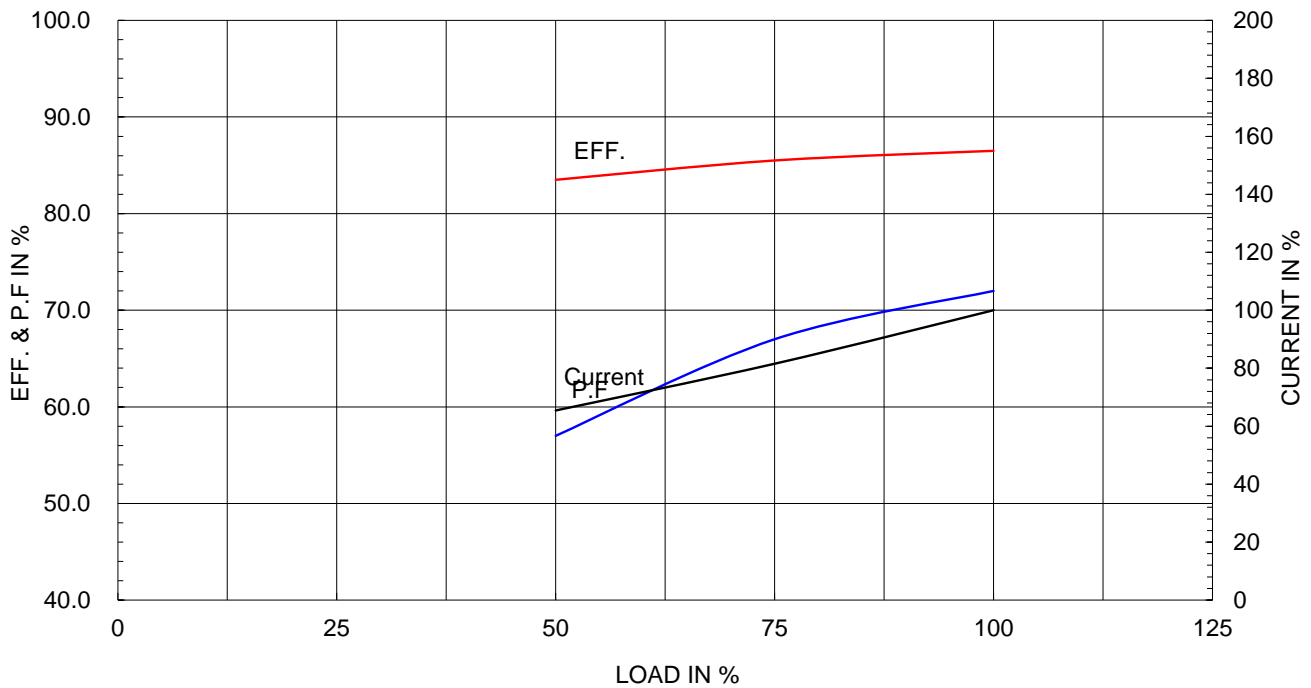
Type :	PJP
Full Load Torque :	4.4 lb.ft
Load moment of Inertia (J) :	11.865 lb.ft2
Motor moment of Inertia (J) :	0.076 lb.ft2

1.1kW 1.5HP	4 P	60 Hz
Speed at Full Load :		1750 RPM
Rated Voltage	575V	460V 230V
Full Load Current	1.8A	2.2A 4.4A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

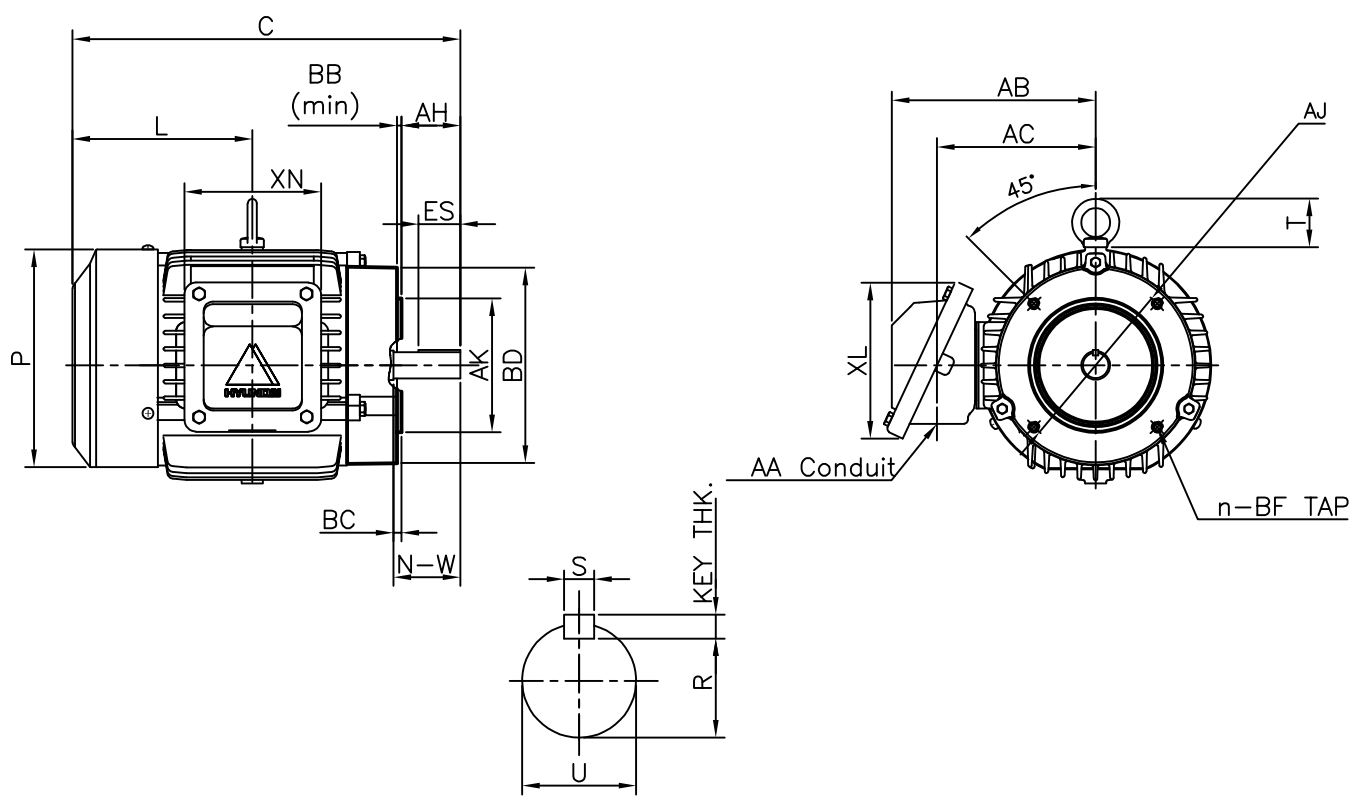


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▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							

**IEEE841**



DIMENSIONS

Unit : inch

F L A N G E							C O N D U I T   B O X					A P P R O X . W G T . ( L B )
AJ	AK	BD	BB	BC	BF	n	AA	AB	AC	XL	XN	
5.875	4.50	6.57	0.16	+0.12	3/8-16	4	0.75	7.02	5.34	5.26	4.61	55

O V E R A L L				S H A F T						K E Y T H K .	B E A R I N G	
C	L	P	T	U	N-W	A-H	K E Y W A Y				DRIVE E N D	OPP. DRIVE E N D
							R	ES	S			
13.05	6.05	7.33	1.63	0.875	2.25	2.12	0.771	1.41	0.188	0.188	6205Z	6204Z

**NOTE**

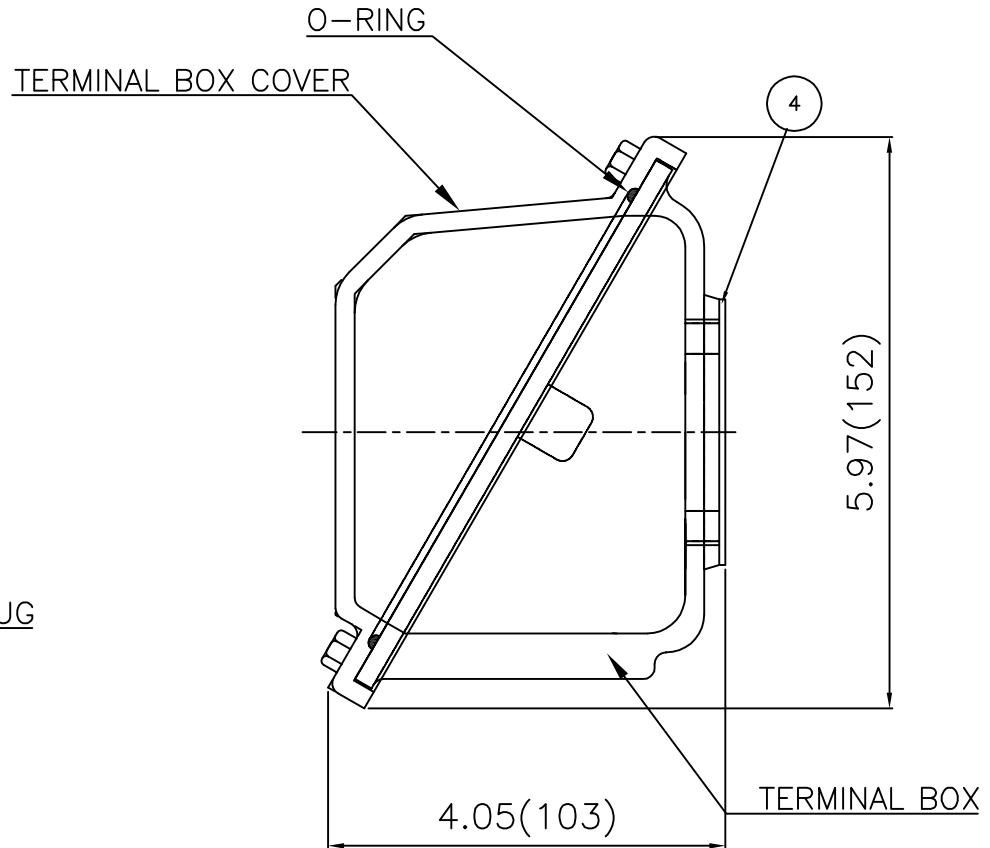
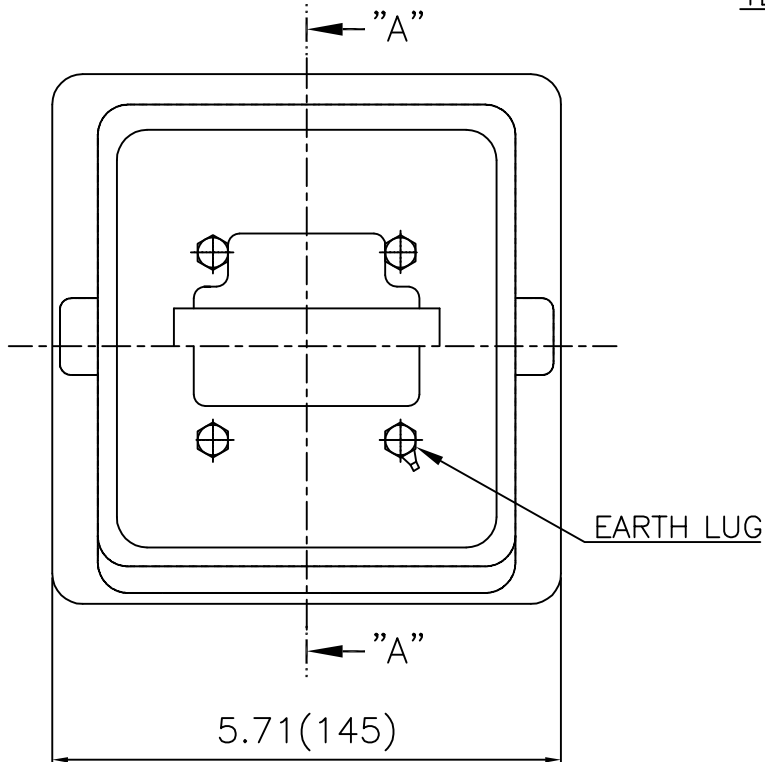
- 1.Dimension "D" tolerance : +0.00inch - 0.03inch
- 2.Dimension "U" tolerance : +0.000inch - 0.0005inch
- 3.Dimension "R" tolerance : +0.000inch - 0.015inch

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	NEMA 145TCH	DWG SIZE	A4 ( 1:1 )
CHKD BY	R.G.KIM	SCALE	NONE	TITLE	<b>OUTLINE</b>		
CHKD BY	Y.H.BAE	PROJEC'N	3각법(3rd Angle)				
DSND BY	H.K.LEE	DATE	2021-04-30				



REF. NO	350A8502AA	Sheet No.	of
DWG NO	LM-I1145C5PL001	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

일반기공차		일반계공차	
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	A3 (1:1.5)
CHKD BY	I.K.KIM	SCALE	1/2	TITLE			
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