

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.	IEEE1-18-143T	Item No.	Rev. No.	[]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION		PERFORMANCE DATA			
Frame Size	143T	Rated Output	0.75 kW		1 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	1.26 A	1.57 A
Insulation Class	F		Locked-rotor**	930 %	930 %
Temp. Rise at full load (by resistance method)		Efficiency			
at 1.0 S.F	80 deg. C	50% Load		82.5 %	
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		84.5 %	
Altitude	Less than 1,000 meter	100% Load		85.5 %	
Relative Humidity	Less than 80 %	Power Factor(p.u)			
Ambient Temp.	40 deg. C (Max.)	50% Load		0.550	
Duty Type	Continuous (S1)	75% Load		0.650	
Service Factor	1.15	100% Load		0.700	
Mounting	B3	Speed at Full Load	1755 r.p.m		
Bearing	Type	Anti-Friction	Torque		
	DE/N-DE	6205ZC3 / 6204ZC3	Full Load	3.0 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**	280 %	
External Thrust	Not applicable	Breakdown**	310 %		
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt	Moment of Inertia (J)			
Shaft Extension	Single	Load(Max.)	7.910 lb.ft2		
Terminal Box	Main	Cast Iron	Motor	0.059 lb.ft2	
	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)		
Location	Refer to Outline Drawing			56 dB(A)	
Application		Vibration		3.8 mm/sec (peak)	
Area classification	Hazardous	Permissible number of consecutive starts		Cold	3 times
Type of Ex-Protection	Class I&II, Division 2			Hot	2 times
Applicable Standard	IEEE841, NEMA MG1, CSA C390	Paint	Munsell No.	7.5BG6/1.5	

ACCESSORIES

SUBMITTAL DRAWING		
Outline Dimension Drawing	Motor Weight(Approx.)	
B3	LM-II143B3PL001	53 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

[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)

THIS DRAWING IS PROPRIETARY TO HYUNDAI ELECTRIC. NO PART OF THIS DRAWING MAYBE REPRODUCED WITHOUT THE PERMISSION OF HYUNDAI ELECTRIC.

1	2	3	4
REV	DATE	CONTENTS	REVD BY

4.02

1.81

CROWN TRITON
Premium Efficiency AC 3 Phase Motor

1HP	4P	460V	Cat. No.	IEEE1-18-143T			
Model	HLS143SL238		INS. Class	F	HD-F1	Amps 1.57	
Type	HLS	Duty	CONT	Code	L	Hertz 60Hz	
Frame	143T	Encl.	TEFC	RPM	1755	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 1.7A 1455rpm S.F.: 1.0 Eff.: 77.1% Code: L							
50Hz 0.75HP 400/415V 1.7/1.8A 1460/1465rpm S.F.: 1.0 Eff.: 77.1/77.1% 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 53 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-IEEE1-18-143T	Revision No. 0



PERFORMANCE CURVE

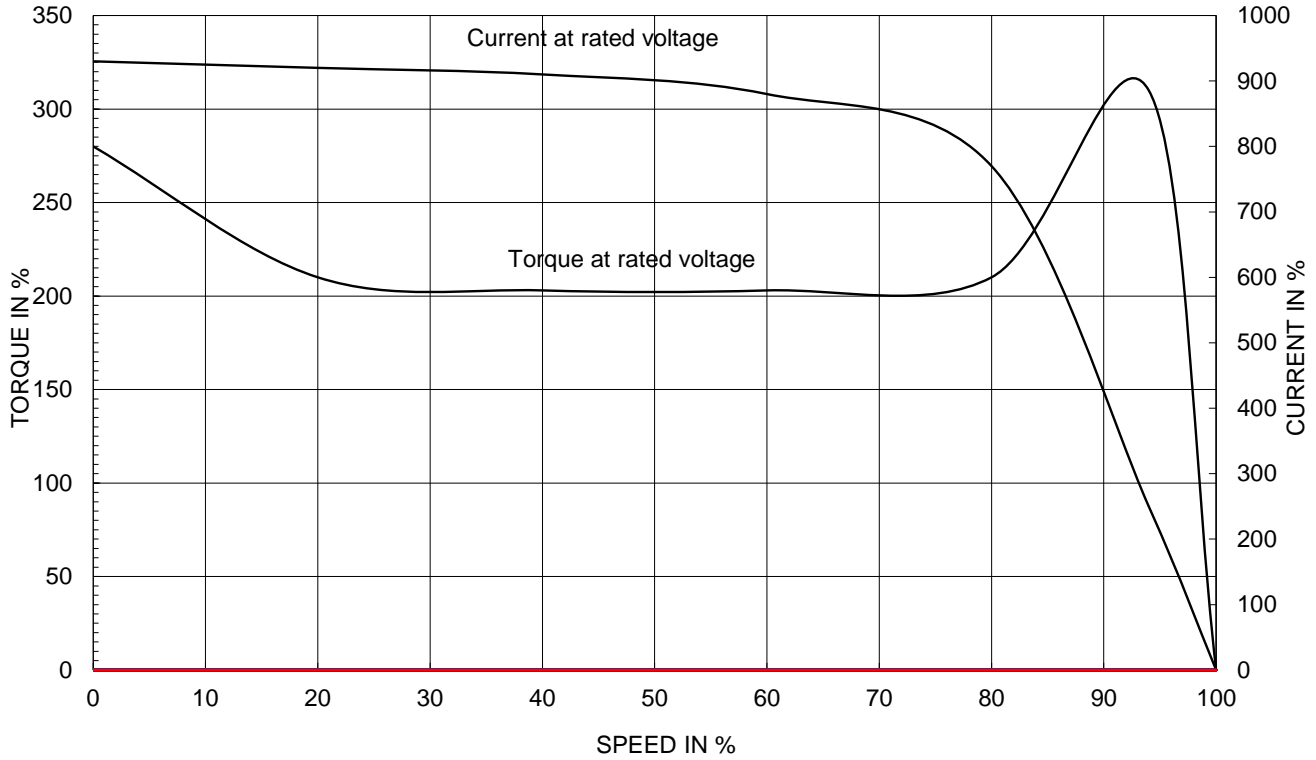
CURVE NO.

PC-IEEE1-18-143T

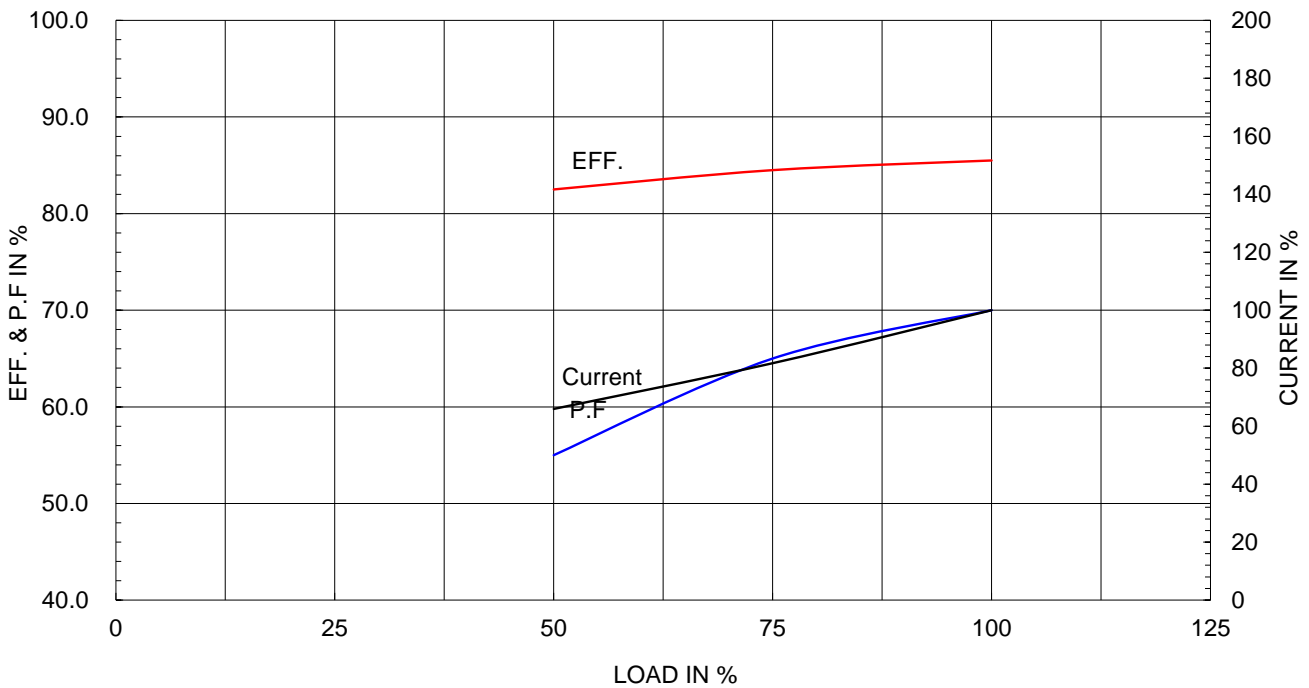
Type :	PJP
Full Load Torque :	3.0 lb.ft
Load moment of Inertia (J) :	7.910 lb.ft ²
Motor moment of Inertia (J) :	0.059 lb.ft ²

0.75kW	1HP	4 P	60 Hz
Speed at Full Load :			1755 RPM
Rated Voltage	575V	460V	230V
Full Load Current	1.3A	1.6A	3.1A

SPEED VS TORQUE & CURRENT CURVE

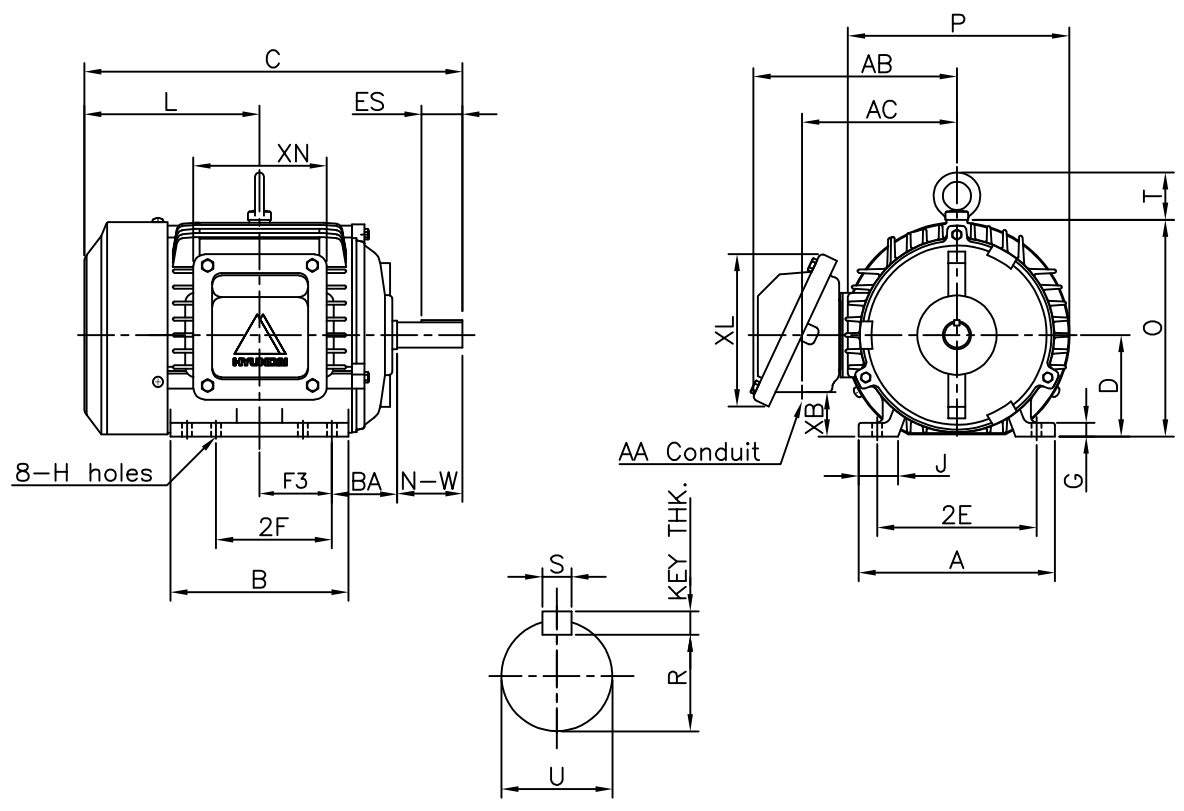


OUTPUT VS EFF., P.F & CURRENT CURVE



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

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	-	4.00	2.50	0.47	1.36	0.34	0.75	7.02	5.34	1.53	5.26	4.61	53

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

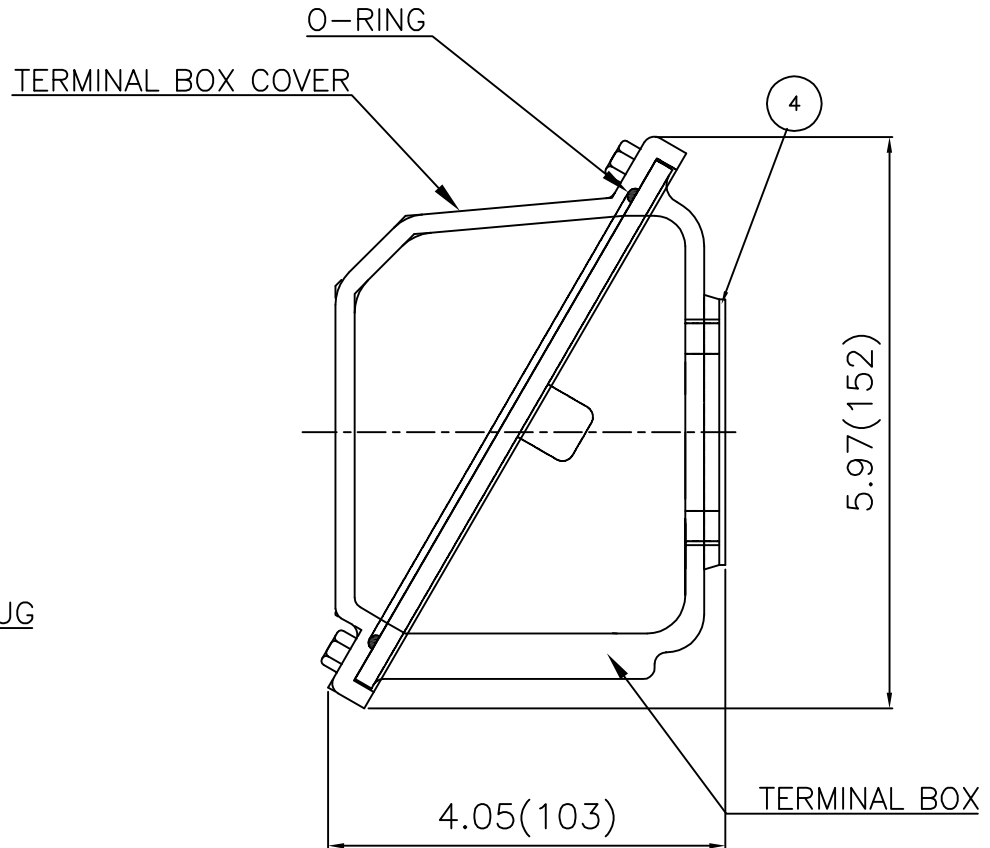
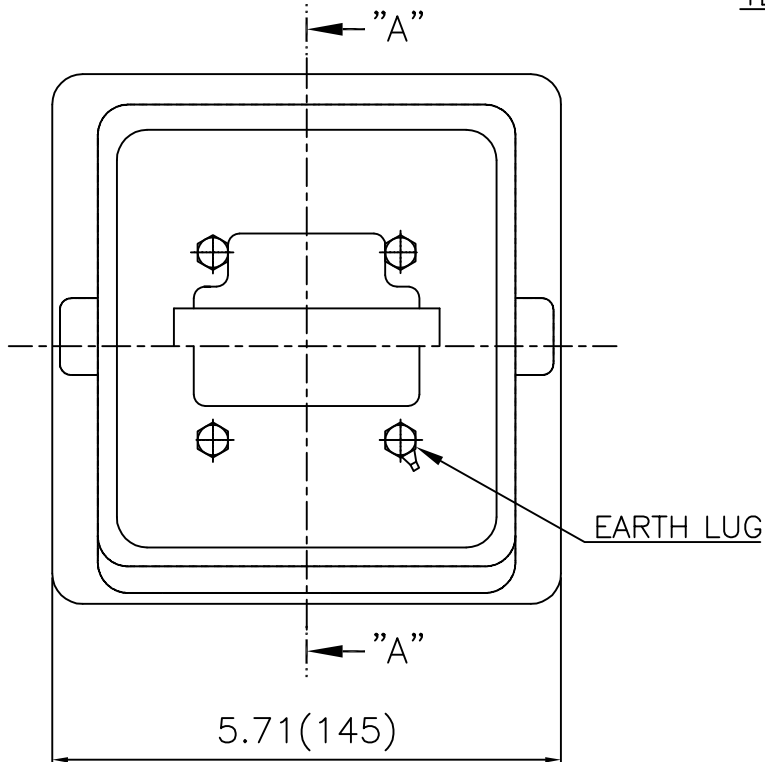
- 1.Dimension "D" tolerance : +0.00inch - 0.03inch
- 2.Dimension "U" tolerance : +0.000inch - 0.0005inch
- 3.Dimension "R" tolerance : +0.000inch - 0.015inch

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	NEMA 143T	DWG SIZE	A4 (1:1)
CHKD BY	R.G.KIM	SCALE	NONE	TITLE	OUTLINE		
CHKD BY	Y.H.BAE	PROJEC'N	3각법(3rd Angle)				
DSND BY	H.K.LEE	DATE	2021-04-30				



REF. NO	350A8101AA	Sheet No.	of
DWG NO	LM-11143B3PL001	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	
CHKD BY	I.K.KIM	SCALE	1/2	TITLE	TERMINAL BOX ASS'Y	A3 (1:1.5)	
CHKD BY		PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	E.J.KIM	DATE	2024-02-02	DWG NO	3M-249376	Revision No.	0

