

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.	IEEE7.5-12-254T	Item No.	Rev. No. []
Project Name		Project No.	Quantity sets

GENERAL SPECIFICATION		PERFORMANCE DATA				
Frame Size	254T	Rated Output	5.5 kW 7.5 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	8.09 A	10.11 A	20.23 A
Insulation Class	F		Locked-rotor**	640 %	640 %	640 %
Temp. Rise at full load (by resistance method)		Efficiency				
at 1.0 S.F	80 deg. C	50% Load		88.0 %		
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		90.0 %		
Altitude	Less than 1,000 meter	100% Load		91.0 %		
Relative Humidity	Less than 80 %	Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)	50% Load		0.600		
Duty Type	Continuous (S1)	75% Load		0.700		
Service Factor	1.15	100% Load		0.750		
Mounting	B3	Speed at Full Load		1175 r.p.m		
Bearing	Type	Anti-Friction				
	DE/N-DE	6309ZC3 / 6309ZC3				
	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		33.0 lb.ft		
Terminal Box	Main	Cast Iron				
	Aux.	No				
	Location	Refer to Outline Drawing				
Application		Locked-rotor**		170 %		
Area classification	Hazardous	Breakdown**		250 %		
Type of Ex-Protection	Class I&II, Division 2	Moment of Inertia (J)				
Applicable Standard	IEEE841, NEMA MG1, CSA C390	Load(Max.)		126.887 lb.ft2		
		Motor		2.136 lb.ft2		
		Sound Pressure Level (No-load & mean value at 1m from motor)				
		64 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-I1254B3PL001	260 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.

1	2	3	4
REV	DATE	CONTENTS	REVD BY


4.72

CROWN TRITON
Premium Efficiency AC 3 Phase Motor




7.5HP	6P	460V	Cat. No.	IEEE7.5-12-254T				
Model	HLS254SR33		INS. Class	F	HD-F1	Amps	10.11	
Type	HLS	Duty	CONT	Code	H	Amb.	40°C	
Frame	254T	Encl.	TEFC	S.F.	1.15	RPM	1175	
Bearing	Drive	6309ZC3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		3/4 Eff.	90%	
	Opp.	6309ZC3				NEMA Design	B	
Usable at	50Hz 5HP 380V 10.3A 980rpm S.F.: 1.0 Eff.: 84.6% Code: L							
	50Hz 5HP 400/415V 10.5/10.7A 985/985rpm S.F.: 1.0 Eff.: 84.6/84.6% Code: L/L							
CSA Certified for	Model	LATER		Type	PJP			
	CLASS I, Div. 2, Gr. A, B, C & D CLASS I, Zone 2, Gr. IIA, IIB, & IIC	CLASS II, Div. 2, Gr. E, F & G (Gr. E : Up to 320FR)		Temp. Code (sine wave)	Frame	140~320FR	360~400FR	440FR
		Amb. 40°C	T3C (160°C)		T3B (165°C)	T3A (180°C)		
Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)					
No.	-		Date	-		Weight	260 lb	

IEEE Std 841-2021 MARINE DUTY IEEE45
4M-135701 Made in Korea H1



2.36

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 IEEE841 (HL)	DWG SIZE	A4 (1:1)
CHKD BY	I.K.KIM	SCALE	NONE				
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE NAMEPLATE DRAWING			
DSND BY	S.H.LEE	DATE	2024.06.07				
				REF. NO	4M-135701	Sheet No. of	
				DWG NO	NP-IEEE7.5-12-254T	Revision No. 0	



PERFORMANCE CURVE

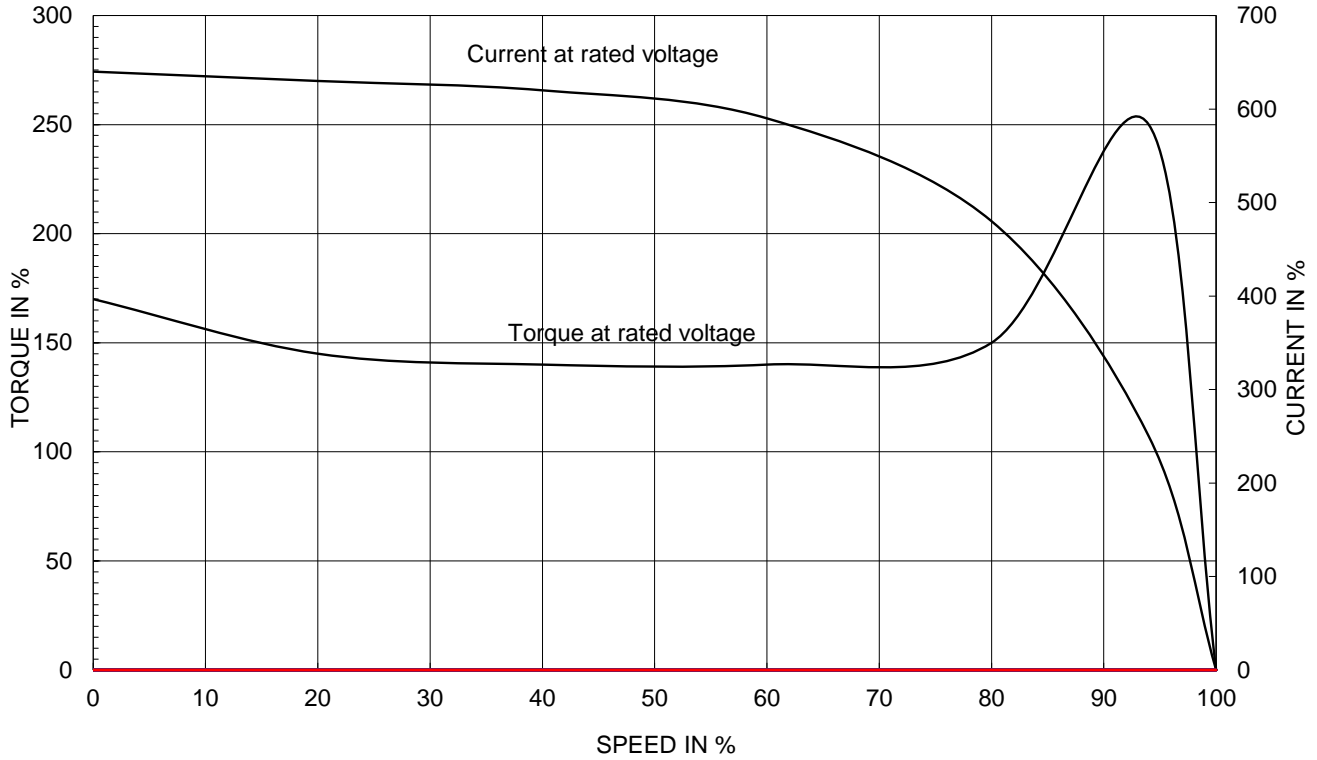
CURVE NO.

PC-IEEE7.5-12-254T

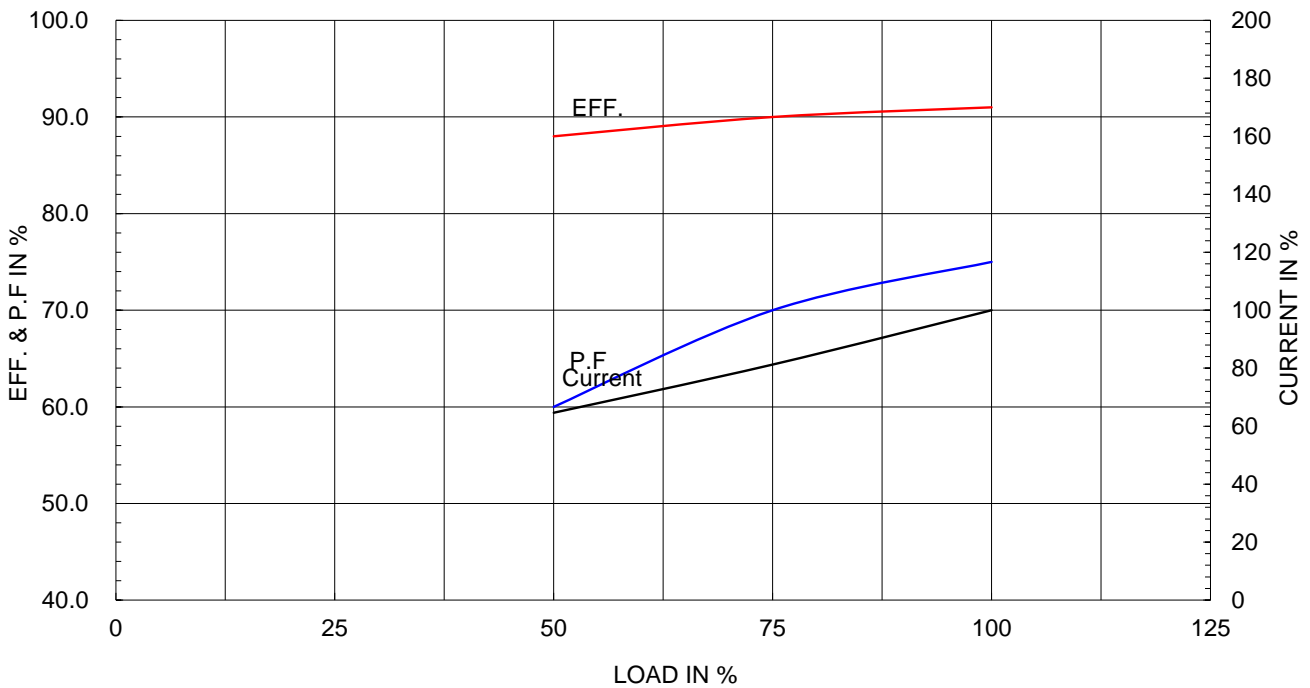
Type :	PJP
Full Load Torque :	33.0 lb.ft
Load moment of Inertia (J) :	126.887 lb.ft2
Motor moment of Inertia (J) :	2.136 lb.ft2

5.5kW	7.5HP	6 P	60 Hz
Speed at Full Load :			1175 RPM
Rated Voltage	575V	460V	230V
Full Load Current	8.1A	10.1A	20.2A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

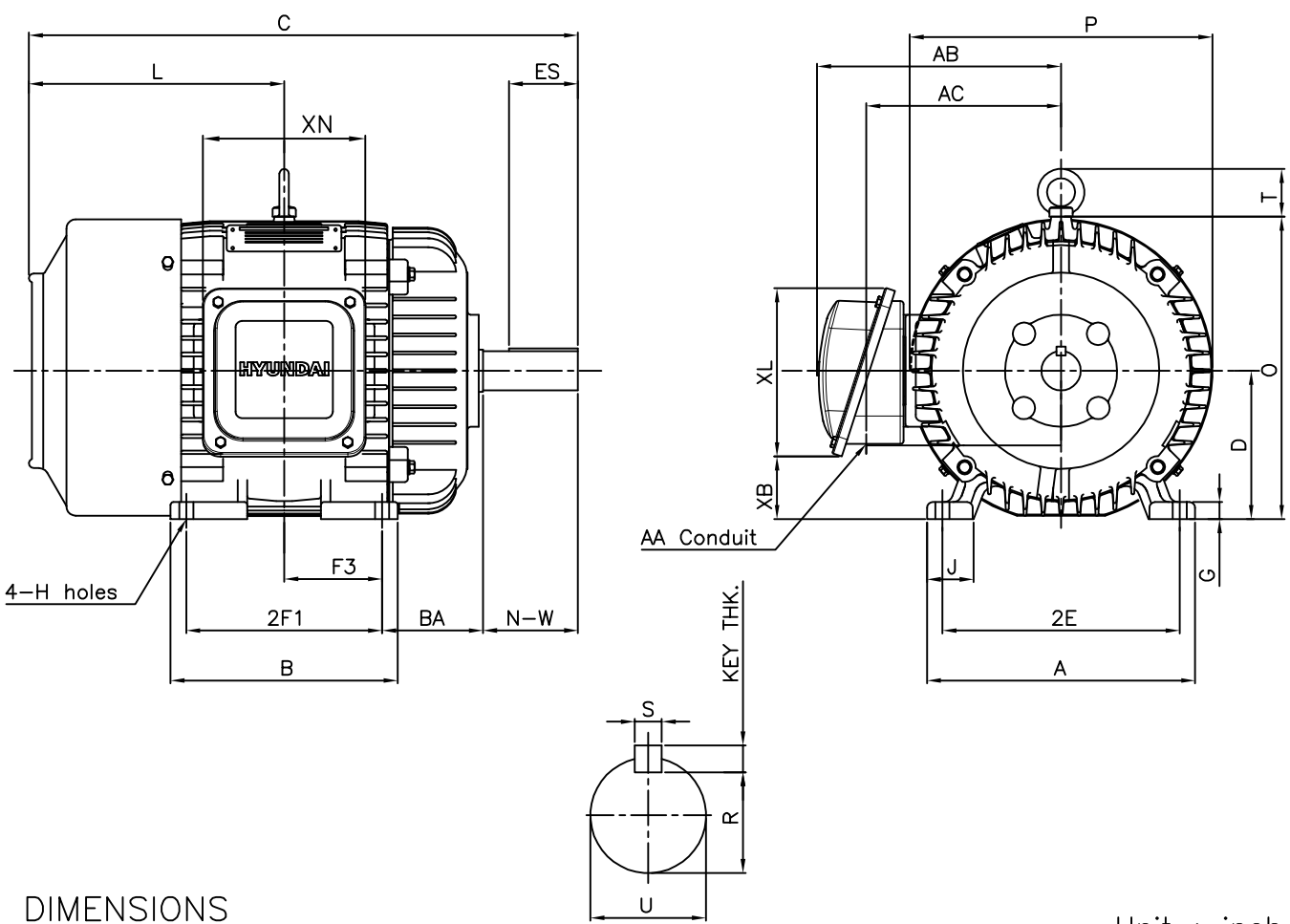


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급유의)

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

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

IEEE841



DIMENSIONS

Unit : inch

M O U N T I N G									C O N D U I T B O X						APPROX. WGT.(LB)
A	B	2E	2F1	2F2	F3	G	J	H	AA	AB	AC	XB	XL	XN	
11.30	9.56	10.00	8.25	-	4.13	0.72	1.93	0.53	1.25	11.85	8.46	2.64	8.43	8.19	260

O V E R A L L							S H A F T					KEY THK.	B E A R I N G	
BA	C	D	L	O	P	T	U	N-W	KEYWAY				DRIVE END	OPP. DRIVE END
									R	ES	S			
4.25	24.93	6.25	11.68	12.75	12.76	2.01	1.625	4.00	1.416	2.91	0.375	0.375	6309ZC3	6309ZC3

NOTE

- 1.Dimension "D" tolerance : +0.00inch - 0.03inch
- 2.Dimension "U" tolerance : +0.000inch - 0.001inch
- 3.Dimension "R" tolerance : +0.000inch - 0.015inch

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	NEMA 254T	DWG SIZE	A4 (1:1)		
CHKD BY	R.G.KIM	SCALE	NONE	TITLE	OUTLINE	REF. NO	350A8107AA		
CHKD BY	Y.H.BAE	PROJEC'N	3각법(3rd Angle)					Sheet No.	of
DSND BY	H.K.LEE	DATE	2021-04-30					Revision No.	0
				REF. NO	350A8107AA	Sheet No.	of		
				DWG NO	LM-I1254B3PL001	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

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	FR. 250-280 (CAST IRON)	DWG SIZE	
CHKD BY		SCALE	1/2	TITLE	TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	DATE	2023-10-19		
DSND BY	배승희						
REF. NO		Sheet No.	of	DWG NO	3M-248458	Revision No.	0

