

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.	HES7.5-12-254T	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
Insulation Class	F			Locked-rotor**	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	Torque			
	DE/N-DE	6309ZC3 / 6309ZC3	Full Load		33.0 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**		170 %	
External Thrust	Not applicable		Breakdown**		250 %	
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)			
Shaft Extension	Single		Load(Max.)		126.887 lb.ft2	
Terminal Box	Main	Cast Iron	Motor		2.136 lb.ft2	
	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)			
	Location	Refer to Outline Drawing			64 dB(A)	
Application			Vibration		3.8 mm/sec (peak)	
Area classification	Hazardous		Permissible number of consecutive starts		Cold 3 times Hot 2 times	
Type of Ex-Protection	Class I&II, Division 2		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)	

ACCESSORIES

SUBMITTAL DRAWING		
Outline Dimension Drawing	Motor Weight(Approx.)	
B3	LM-T2254B3PLV23	240 lb.

SPARE PARTS

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 G2

Premium Efficiency AC 3 Phase Motor







7.5HP	6P	230/460V	Cat. No.	HES7.5-12-254T					
Model	HLS254SR33		INS. Class	F	HD-F1	Amps	20.23/10.		
Type	HLS	Duty	CONT	Code	H	Amb.	40°C		
Frame	254T	Encl.	TEFC	S.F.	1.15	RPM	1175		
Bearing	Drive	6309ZC3		S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)		3/4 Eff.	90%		
	Opp.	6309ZC3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		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	Temp. Code			
	CLASS I, Div. 2, Gr. A, B, C & D		CLASS II, Div. 2 Gr. E, F & G		(sine wave)	Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC		(Gr. E: Up to 320FR)			Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)
No.	-		Date	-		Weight	240 lb		

4M-136024

MARINE DUTY IEEE45

Made in Vietnam H4

Designed By HYUNDAI, Korea



2.36

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HES, 254-326)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE			A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE NAMEPLATE DRAWING		
DSND BY	S.H.LEE	DATE	2024.06.07			

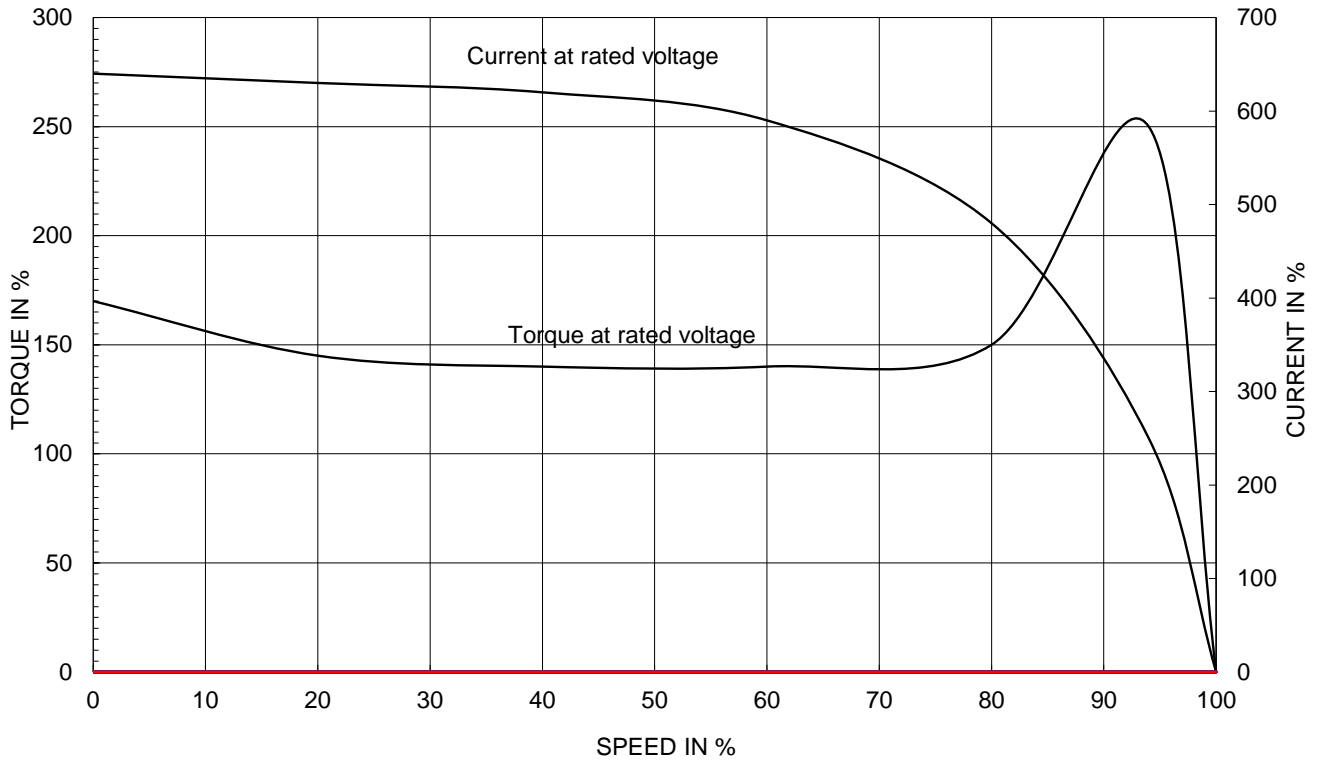


REF. NO	4M-136024	Sheet No.	of
DWG NO	NP-HES7.5-12-254T	Revision No.	0

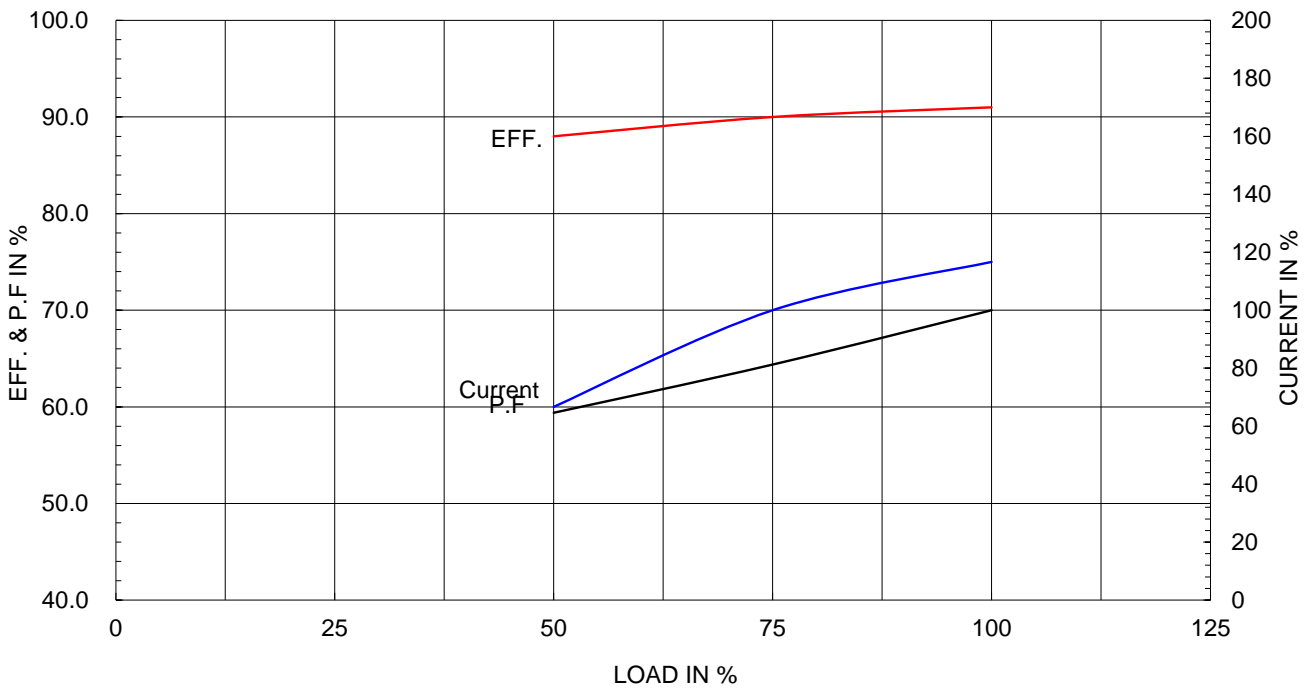
Type :	PJP
Full Load Torque :	33.0 lb.ft
Load moment of Inertia (J) :	126.887 lb.ft2
Motor moment of Inertia (J) :	2.136 lb.ft2

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



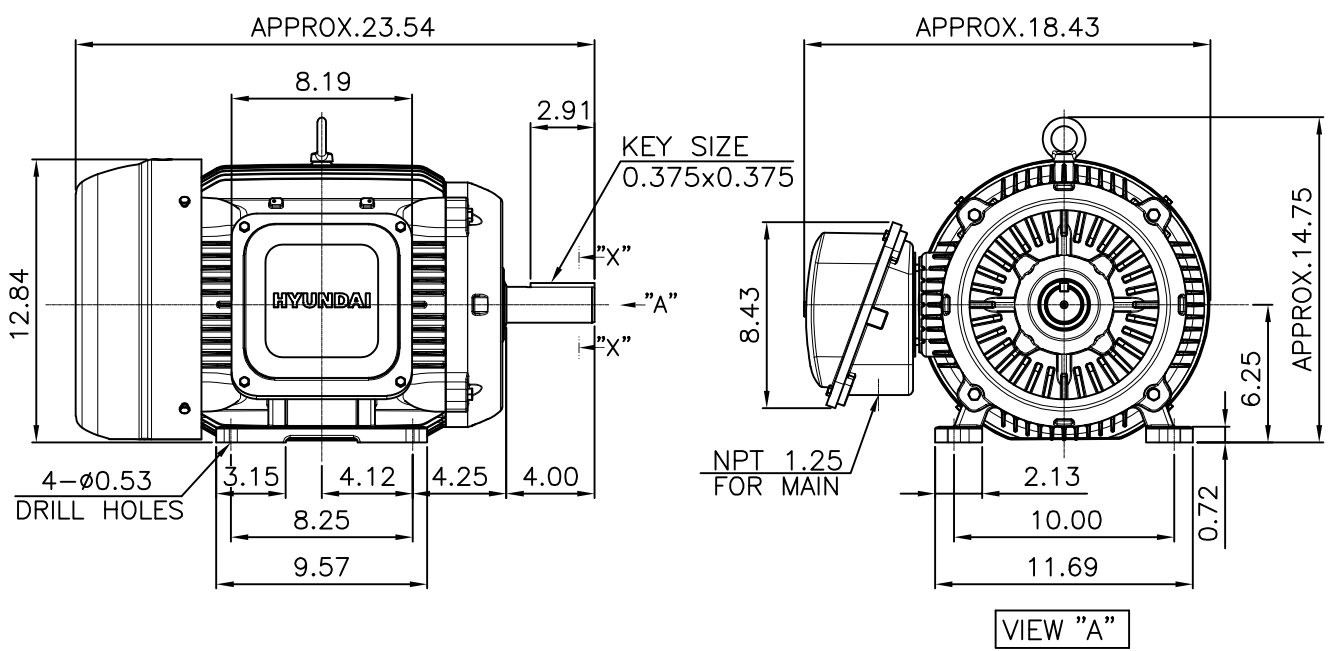
OUTPUT VS EFF., P.F & CURRENT CURVE



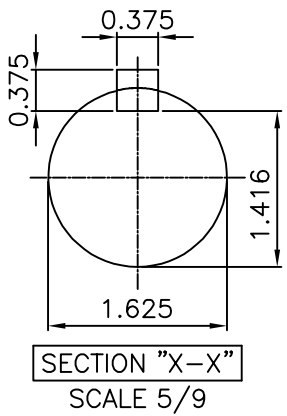
본 도면은 HD현대일렉트릭(주) 재산이며
 허가없이 복사할 수 없음 (취급주의)

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

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



- NOTE**
 [TOLERANCE]
- CENTER HEIGHT : +0.00inch - 0.03inch
 - SHAFT DIAMETER : +0.000inch - 0.001inch
 - KEYWAY DEPTH : +0.000inch - 0.015inch



APPD BY	S.Y.KIM	UNIT	mm	SUBJECT	NEMA 254T	DWG SIZE	
CHKD BY	R.G.KIM	SCALE	1/9			A4 (1:9)	
CHKD BY		PROJEC'N	3rd Angle	TITLE OUTLINE			
DSND BY	주유림	DATE	2021-04-28				
				REF. NO		Sheet No.	of
				DWG NO	LM-T2254B3PLV23	Revision No.	0



Cls. I&II, Div. 2 IEEE 841



▽	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				

