

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.	HES1-12-145T	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	Torque			
	DE/N-DE	6205ZZC3 / 6204ZZC3	Full Load		4.6 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**		180 %	
External Thrust	Not applicable		Breakdown**		275 %	
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)			
Shaft Extension	Single		Load(Max.)		21.753 lb.ft2	
Terminal Box	Main	Cast Iron	Motor		0.083 lb.ft2	
	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)			
Location	Refer to Outline Drawing				55 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)	
Applicable Standard	NEMA MG1, CSA C390					

ACCESSORIES

SUBMITTAL DRAWING		
Outline Dimension Drawing	Motor Weight(Approx.)	
B3	LM-T2145B3PLV23	55 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
2024-09-10	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 CHKD BY CHKD BY APPD BY

3.94

1.57

CROWN TRITON G2		Premium Efficiency AC 3 Phase Motor		Cat. No. HES1-12-145T	
1HP	6P	230/460V	Amps 3.62/1.81	Type HLS	Amb. 40°C
Frame 145T	Duty CONT	Encl. TEFC	Model HLS145SL335	NEMA Nom. Eff. 82.5%	
RPM 1155	Hertz 60Hz	S.F. 1.15	INS Class F HD-F1	3/4 Eff. 81.5%	
Bearing	Drive 6205ZZC3	S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)			NEMA Design B
	Opp. 6204ZZC3	S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)			Code L
Usable at	50Hz 1HP 380V 2.42A 945rpm S.F.: 1.15 Eff.: 79.9% Code: H				
	50Hz 1HP 400/415V 2.47/2.54A 950/955rpm S.F.: 1.15 Eff.: 80/80% Code: J/K				
CSA Certified for	Model LATER	Type PJP	Temp. Code (Sine Wave)	Frame 140-320FR	 
	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)		Amb.40°C T3C (160°C) Amb.55°C T3A (180°C)	
No. -	Date -	Weight 55 lb			
 		4M-136021 MARINE DUTY IEEE45	Made in Vietnam H4 Designed By HYUNDAI, Korea		

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HES, 143-215)	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-136021	Sheet No. of
				DWG NO	NP-HES1-12-145T	Revision No. 0



PERFORMANCE CURVE

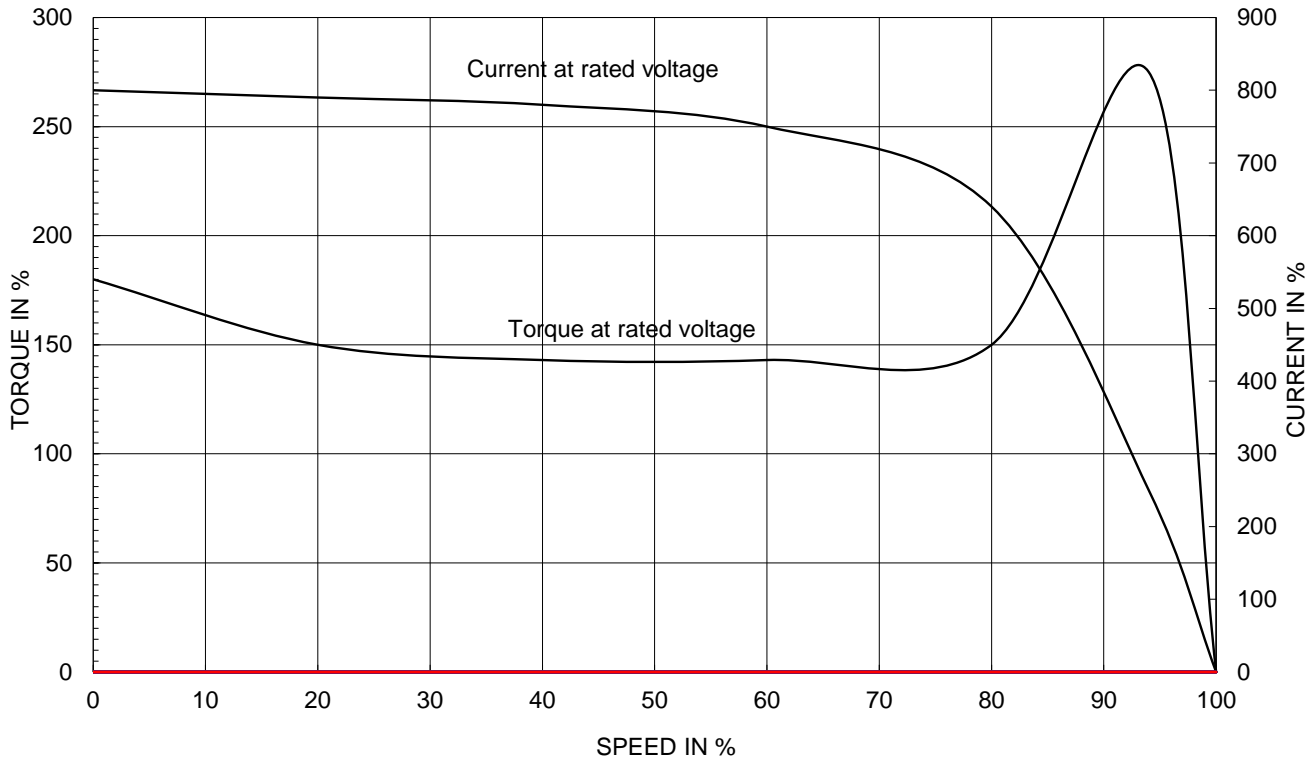
CURVE NO.

PC-HES1-12-145T

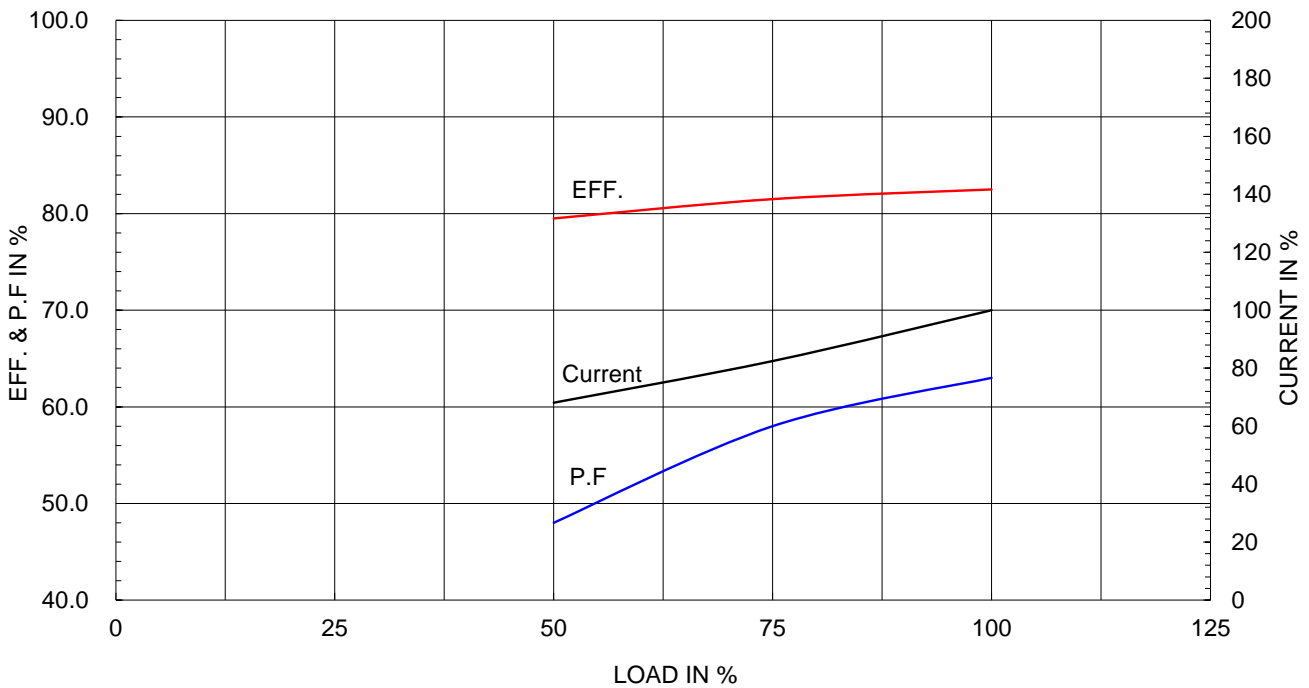
Type :	PJP
Full Load Torque :	4.6 lb.ft
Load moment of Inertia (J) :	21.753 lb.ft ²
Motor moment of Inertia (J) :	0.083 lb.ft ²

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



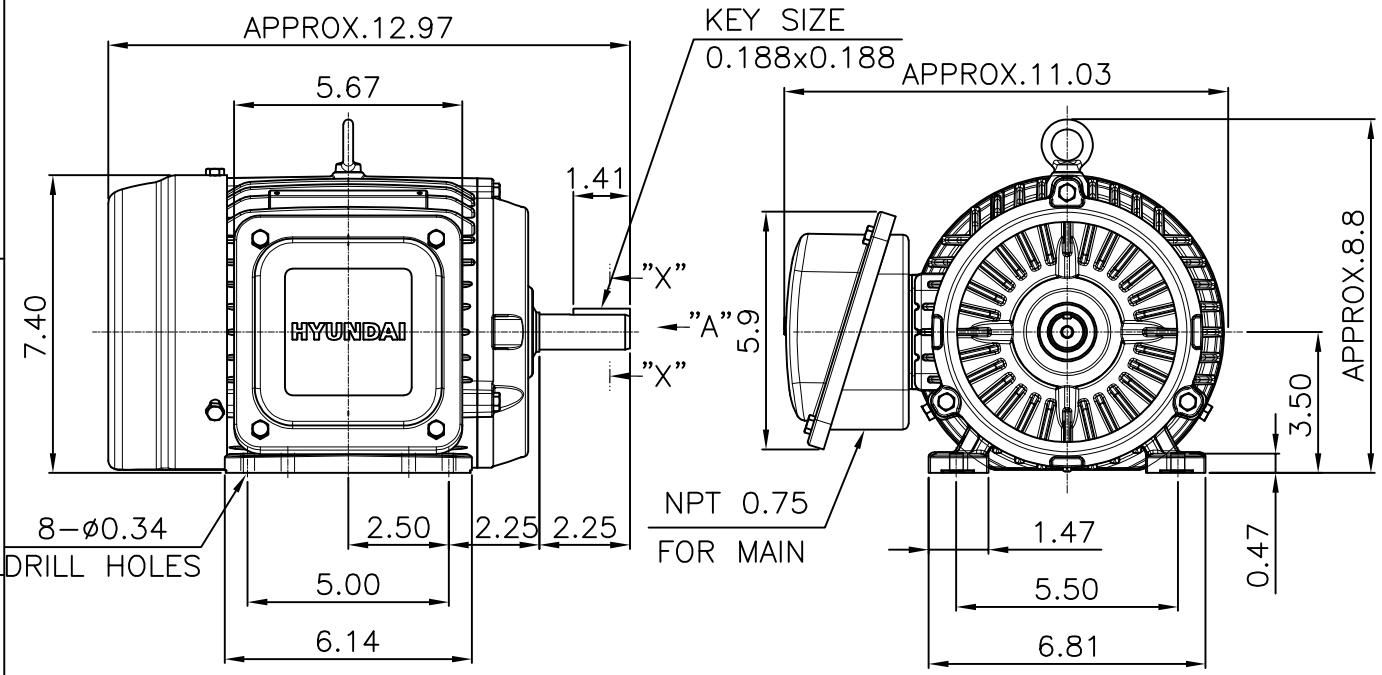
OUTPUT VS EFF., P.F & CURRENT CURVE



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

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

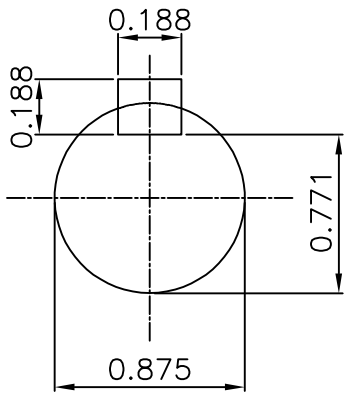
▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							



VIEW "A"

NOTE
[TOLERANCE]

- CENTER HEIGHT : +0.00inch - 0.03inch
- SHAFT DIAMETER : +0.000inch - 0.0005inch
- KEYWAY DEPTH : +0.000inch - 0.015inch



SECTION "X-X"
SCALE 5/5

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 145T	DWG SIZE	A4 (1:5)
CHKD BY	R.G.KIM	SCALE	1/5	TITLE	OUTLINE		
CHKD BY		PROJEC'N	3rd Angle				
DSND BY	주유림	DATE	2021-04-28				



REF. NO		Sheet No.	of
DWG NO	LM-T2145B3PLV23	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. 140-180 (CAST IRON)	DWG SIZE	
CHKD BY		SCALE	1/1.5	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-248456	Revision No.	0				

