

Customer :

Project Name :

Project No. :

Revision No. :

SPECIFICATION for INDUCTION MOTOR



0		For Bidding			
No.	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY

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AC INDUCTION MOTOR DATA SHEET

Catalog No.	HES2-36-143/5JP		Item No.			Rev. No.	[]	
Project Name			Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA				
Frame Size	145JP		Rated Output	1.5 kW		2 HP		
Type	PJP		Number of Poles	2				
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	2.07 A	2.59 A	5.18 A	
Insulation Class	F			Locked-rotor**	950 %	950 %	950 %	
Temp. Rise at full load (by resistance method)			Efficiency					
at 1.0 S.F			80 deg. C					
Motor Location	☐ Indoor ☐ Outdoor		50% Load		82.5 %			
Altitude	Less than 1,000 meter		75% Load		84.5 %			
Relative Humidity	Less than 80 %		100% Load		85.5 %			
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)					
Duty Type	Continuous (S1)		50% Load		0.700			
Service Factor	1.15		75% Load		0.800			
Mounting	B35		100% Load		0.850			
Bearing	Type	Anti-Friction	Speed at Full Load		3480 r.p.m			
	DE/N-DE	6206ZZC3 / 6204ZZC3	Torque					
	Lubricant	Grease(Polyrex-EM)	Full Load		3.04 lb.ft			
External Thrust	Not applicable		Locked-rotor**		180 %			
Coupling Method	☒ Direct ☐ V-belt		Breakdown**		250 %			
Shaft Extension	Single		Moment of Inertia (J)					
Terminal	Main	Cast Iron	Load(Max.)		2.729 lb.ft2			
Box	Aux.	No	Motor		0.042 lb.ft2			
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)					
Application			69 dB(A)					
Area classification	Hazardous		Vibration		3.8 mm/s (peak)			
Type of Ex-Protection	Class I&II, Division 2		Permissible number of consecutive starts		Cold	3 times		
Applicable Standard	NEMA MG1, CSA C390		Hot		2 times			
			Paint	Munsell No.	4.0PB5.4/5.5(VL-451)			
ACCESSORIES			SUBMITTAL DRAWING					
			Outline Dimension Drawing		Motor Weight(Approx.)			
			B35	LM-T2145C4JLV25	65 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.					
			6. Temp. code : T3C(160°C) at sine wave					
			Date	DSND	CHKD	CHKD	APPD	
			2025-09-19	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.

MAIN NAMEPLATE

3.94

2HP		2P	230/460V	Amps	5.18/2.59A	Type	HLS	Amb.	40°C
Frame	145JP	Duty	CONT	Encl.	TEFC	Model	HLS145PR135V	NEMA Nom. Eff.	85.5%
RPM	3480	Hertz	60Hz	S.F.	1.15	INS. Class	F	3/4 Eff.	84.5%
Bearing		Drive	6206ZZC3	S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)				NEMA Design	B
Usable at		Opp.	6204ZZC3	S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)				Code	L
CSA Certified for		Model -		CLASS I, Div. 2, Gr. A, B, C & D		CLASS II, Div. 2, Gr. E, F & G (Gr. E : up to 320FR)		Temp. Code	Frame
No.		Date		Weight		65 lb		Amb.40°C	140-320FR
4M-137664		MARINE DUTY IEEE45		Made in Vietnam H4 Designed By HYUNDAI, Korea		HD HYUNDAI ELECTRIC		Amb.55°C	T3C (160°C)
CC038A								T3A (180°C)	

WIRING DIAGRAM

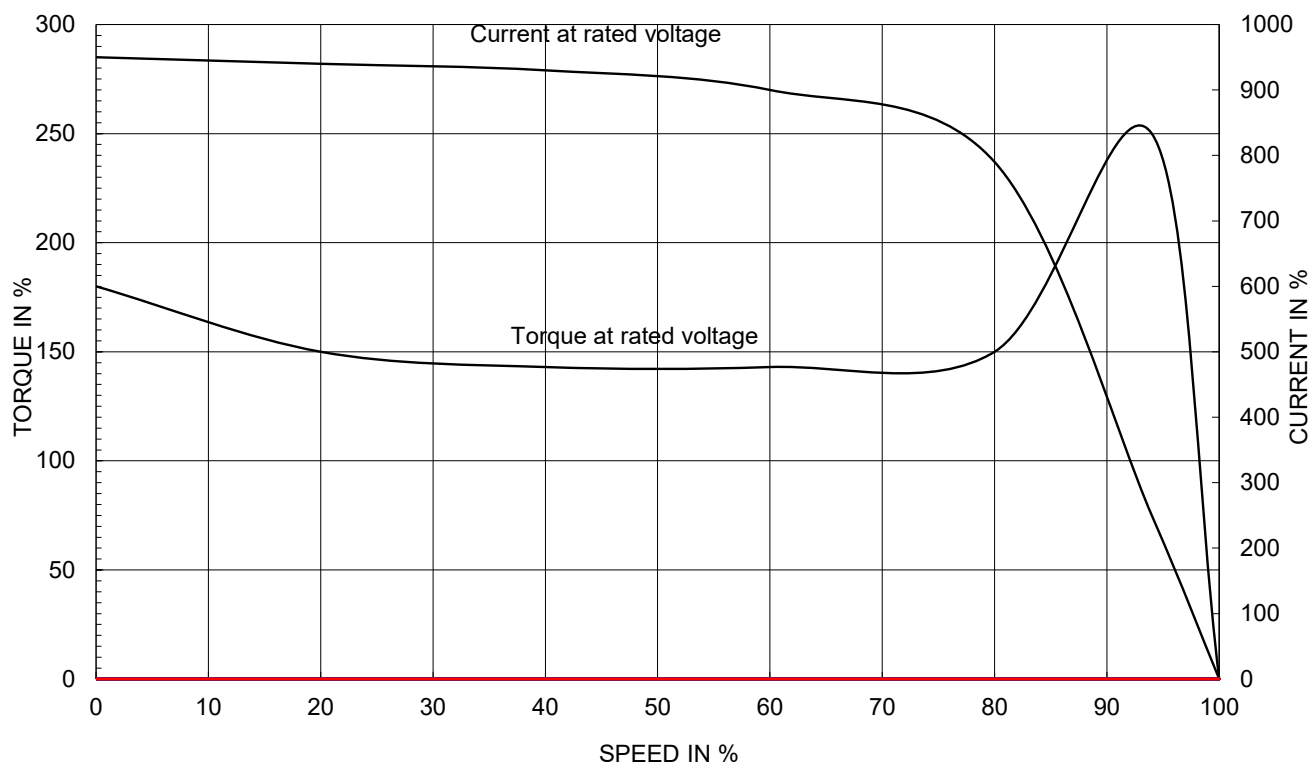
D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES. LOW VOLTAGE T4 T5 T6 T7 T8 T9 T1 T2 T3 L1 L2 L3 INTERNAL CONNECTIONS T1 T4 T5 T2 T7 T8 T9 T6 T3 HIGH VOLTAGE T4 T5 T6 T7 T8 T9 T1 T2 T3 L1 L2 L3 KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-128845	N/A

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HES, JM/JP, 143-215)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE	TITLE		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	4M-137664 / 4M-128845	Sheet No. of
HD HYUNDAI ELECTRIC				DWG NO	NP-HES2-36-143/5JP	Revision No. 0

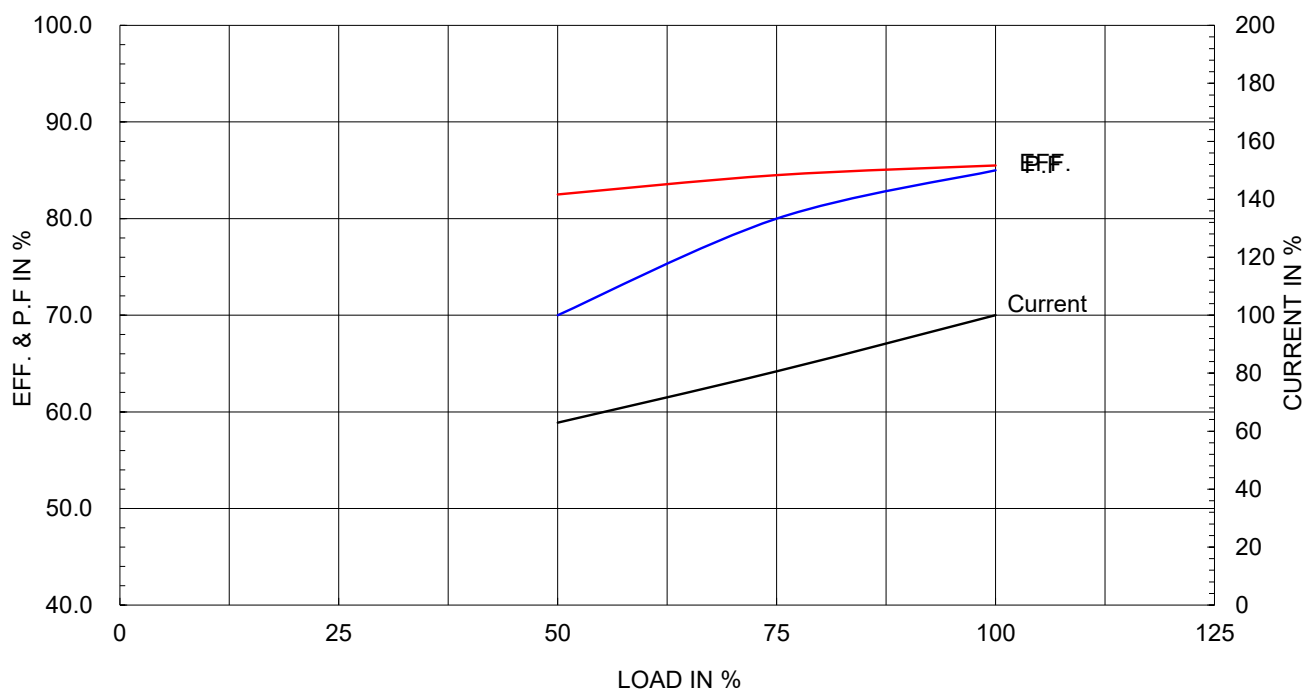
Type :	PJP	
Full Load Torque :	3.04	lb.ft
Load moment of Inertia (J) :	2.729	lb.ft2
Motor moment of Inertia (J) :	0.042	lb.ft2

1.5kW	2HP	2 P	60 Hz
Speed at Full Load :			3480 RPM
Rated Voltage	575V	460V	230V
Full Load Current	2.07A	2.59A	5.18A

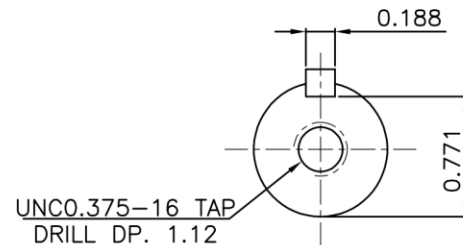
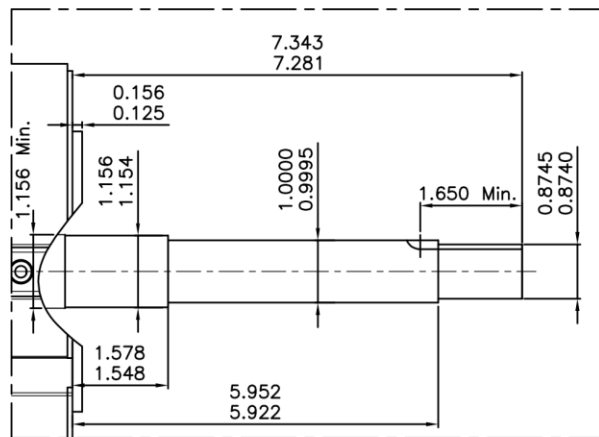
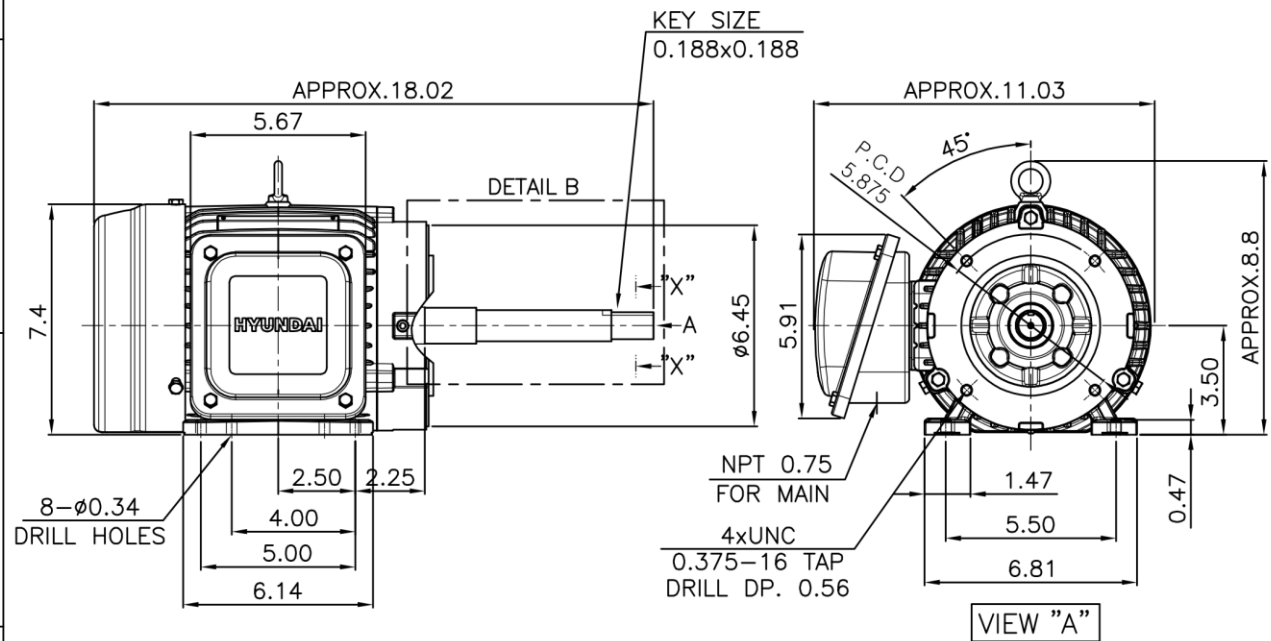
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



1	2	3	4	
REV	DATE	CONTENTS	REVD BY	CHKD BY



SECTION "X-X"
SCALE 5/6

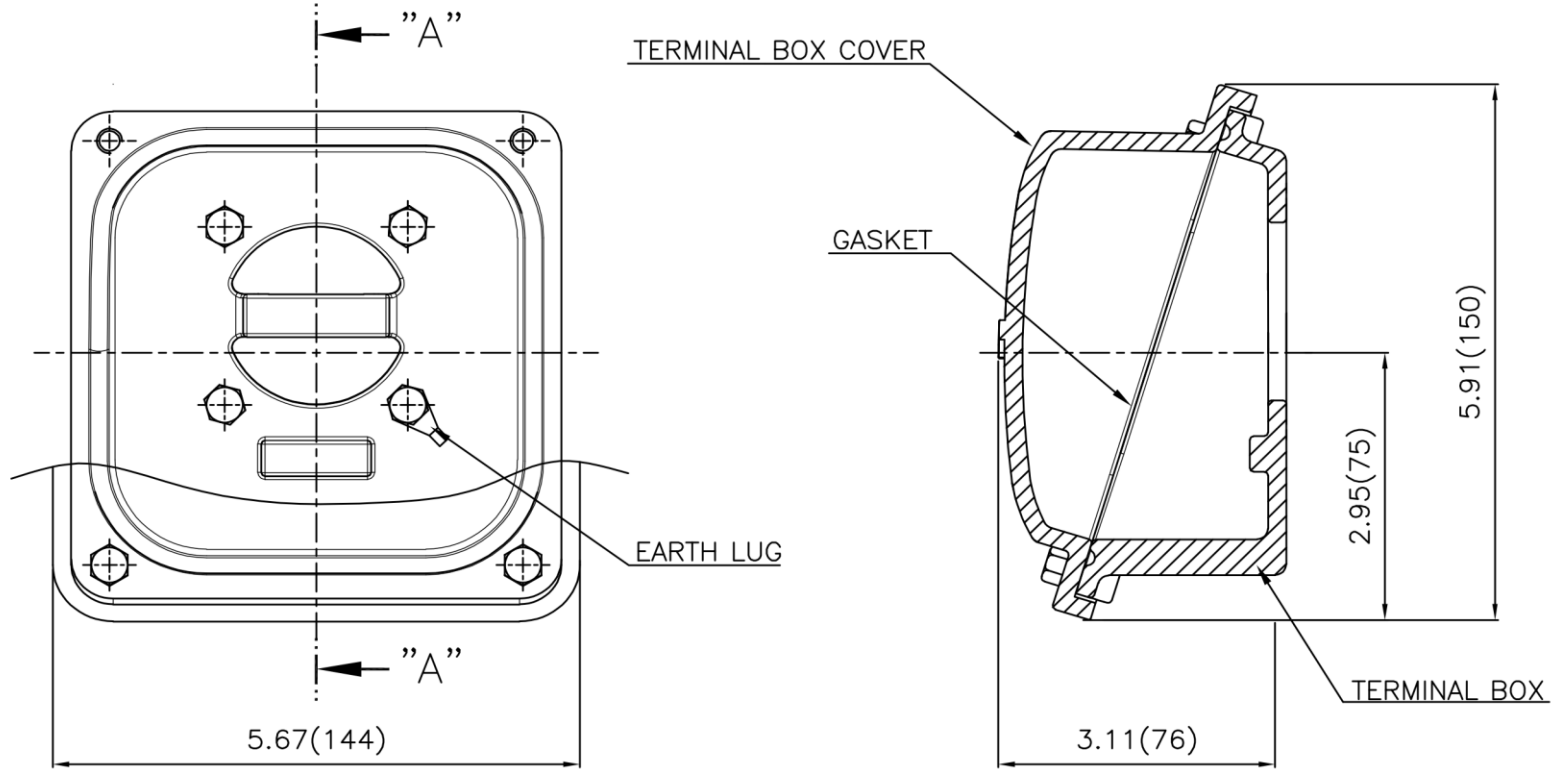
NOTE

[TOLERANCE]

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

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	NEMA 143/5TC (JP) (Dual hole)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	1/6	TITLE	OUTLINE	A4 (1/6)
CHKD BY		PROJEC'N	3rd Angle			
DSND BY	S.H.LEE	DATE	2025-01-17	REF. NO		Sheet No. of
				DWG NO	LM-T2145C4 JLV25	Revision No. 1

Cls. I&II, Div. 2 IEEE 841



▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REV'D BY	CHK'D BY	CHK'D BY	APP'D BY
1						

일반가공공차		일반재공공차	
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	A3 (1:1.5)	
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	네슬피	DATE	2023-10-19	DWG NO	3M-248456	Revision No.	0

