

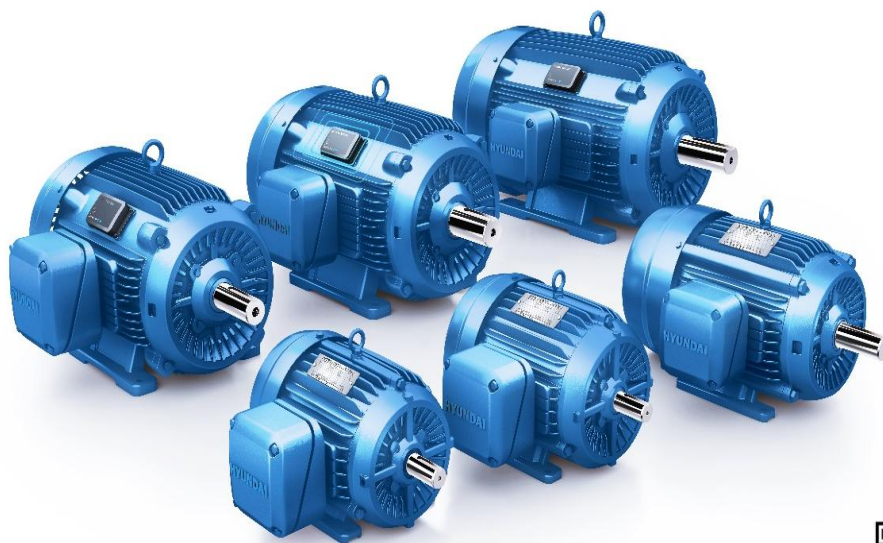
Customer :

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.	IEEEV2-18-145TCRD	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA				
Frame Size		145TC	Rated Output		1.5 kW		2 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	2.39 A	2.98 A	5.96 A
Insulation Class		F		Locked-rotor**	830 %	830 %	830 %
Temp. Rise at full load (by resistance method)			Efficiency				
at 1.0 S.F		80 deg. C		50% Load	83.5 %		
Motor Location		☐ Indoor ☐ Outdoor		75% Load	85.5 %		
Altitude		Less than 1,000 meter		100% Load	86.5 %		
Relative Humidity		Less than 80 %	Power Factor(p.u)				
Ambient Temp.		40 deg. C (Max.)		50% Load	0.580		
Duty Type		Continuous (S1)		75% Load	0.680		
Service Factor		1.15		100% Load	0.730		
Mounting		B5	Speed at Full Load		1745 r.p.m		
Bearing	Type	Anti-Friction	Torque				
	DE/N-DE	6205ZC3 / 6204ZC3		Full Load	6.06 lb.ft		
	Lubricant	Grease(Polyrex-EM)		Locked-rotor**	245 %		
External Thrust		Not applicable		Breakdown**	280 %		
Coupling Method		☒ Direct ☐ V-belt	Moment of Inertia (J)				
Shaft Extension		Single		Load(Max.)	15.365 lb.ft2		
Terminal	Main	Cast Iron		Motor	0.078 lb.ft2		
Box	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)				
	Location	Refer to Outline Drawing			56 dB(A)		
Application			Vibration		2.03 mm/s (peak)		
Area classification		Hazardous	Permissible number of		Cold	3 times	
Type of Ex-Protection		Class I&II, Division 2	consecutive starts		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.)				
		B5		LM-I2145C5PLV23	60 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				
SPARE PARTS		- 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

1.57

CROWN TRITON G2 Premium Efficiency AC 3 Phase Motor				Cat. No. IEEEV2-18-145TCRD						
2HP	4P	460V	Amps	2.98A	Type	HLS	Amb.	40°C		
Frame	145TC	Duty	CONT	Encl.	TEFC	Model	HLS145PR238V	NEMA Nom. Eff.	86.5%	
RPM	1745	Hertz	60Hz	S.F.	1.15	INS. Class	F	HD-F1	3/4 Eff.	85.5%
	Bearing	Drive	6205ZC3	S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)				NEMA Design	B	
		Opp.	6204ZC3	S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)				Code	L	
	Usable at	50Hz 2HP 380V 3.77A 1430rpm S.F.: 1.15 Eff.: 84.0% Code: J								
		50Hz 2HP 400/415V 3.72/3.72A 1440/1445rpm S.F.: 1.15 Eff.: 84.0/84.0% Code: K/K								
	CSA Certified for	Model	-	Type	PJP	Temp. Code	Frame	140~320FR		
		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)		
		CLASS I, Zone 2, Gr. IIA, IIB & IIC	(Gr. E : up to 320FR)				Amb.55°C	T3A (180°C)		
	No.	-	Date	-	Weight	60 lb				
	MARINE DUTY IEEE45 IEEE Std 841-2021		4M-138277	Made in Vietnam H4 Designed By HYUNDAI, Korea		HD HYUNDAI ELECTRIC				

WIRING DIAGRAM

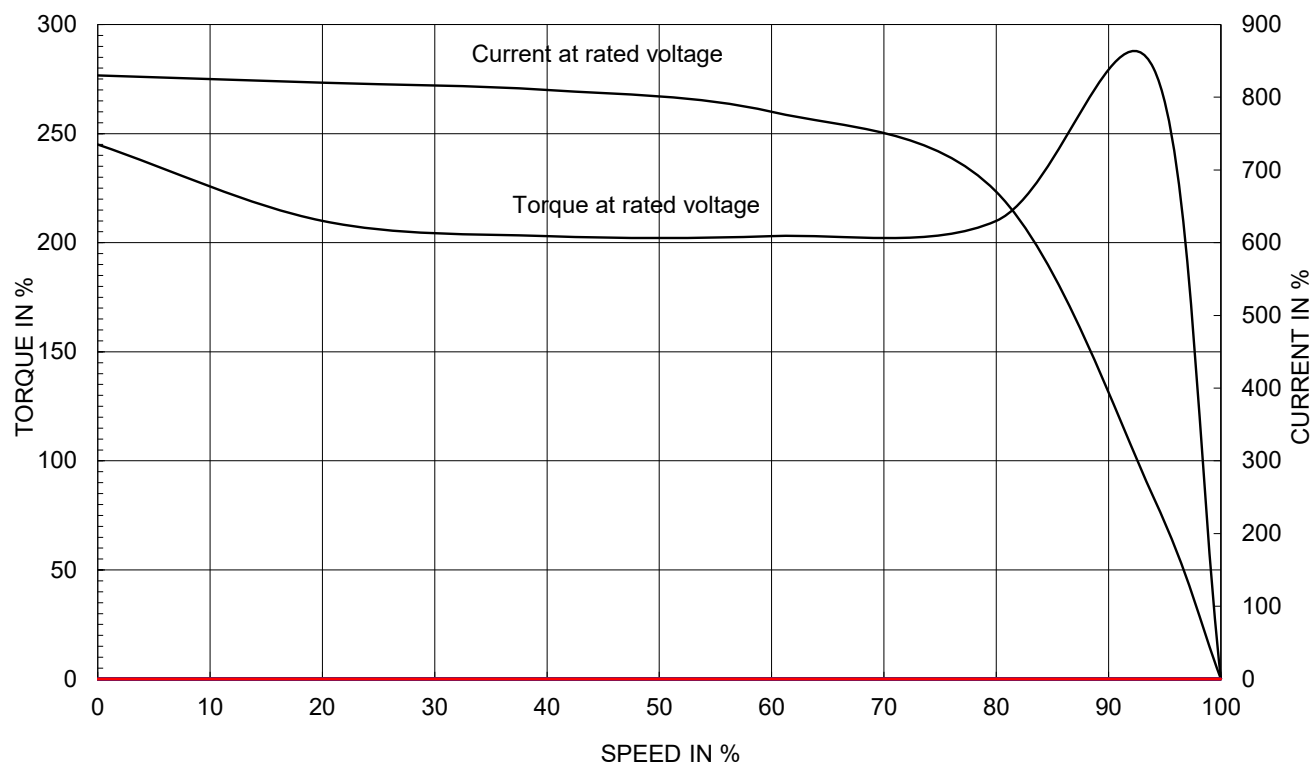
D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES. 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-128796	N/A

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 IEEE841 (SSEN, 143-215)	DWG SIZE	A4 (1:1)
CHKD BY	I.K.KIM	SCALE	NONE	NAMEPLATE DRAWING			
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	S.H.LEE	DATE	2024.06.07				
				REF. NO	4M-138277 / 4M-128796	Sheet No.	of
				DWG NO	NP-IEEEV2-18-145TCRD	Revision No.	0

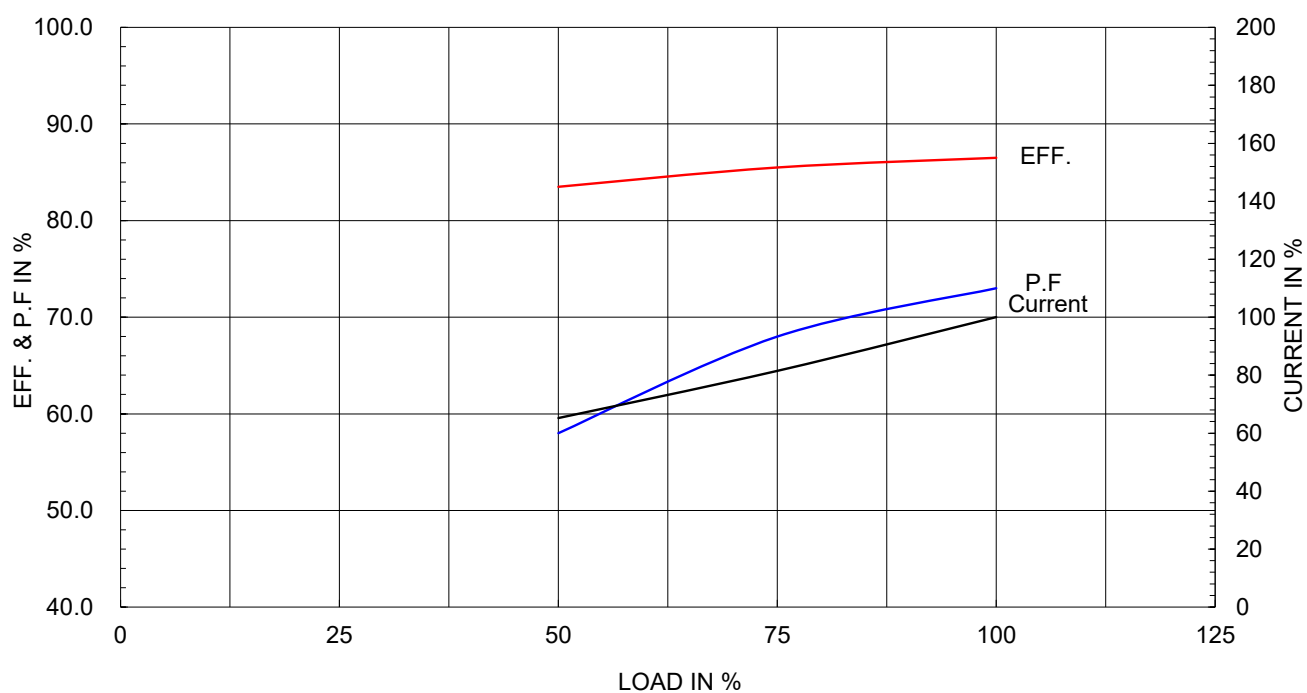
Type :	PJP	
Full Load Torque :	6.06	lb.ft
Load moment of Inertia (J) :	15.365	lb.ft2
Motor moment of Inertia (J) :	0.078	lb.ft2

1.5kW	2HP	4 P	60 Hz
Speed at Full Load :			1745 RPM
Rated Voltage	575V	460V	230V
Full Load Current	2.39A	2.98A	5.96A

SPEED VS TORQUE & CURRENT CURVE

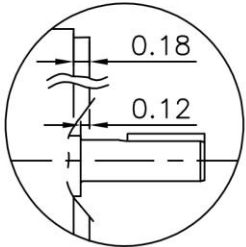
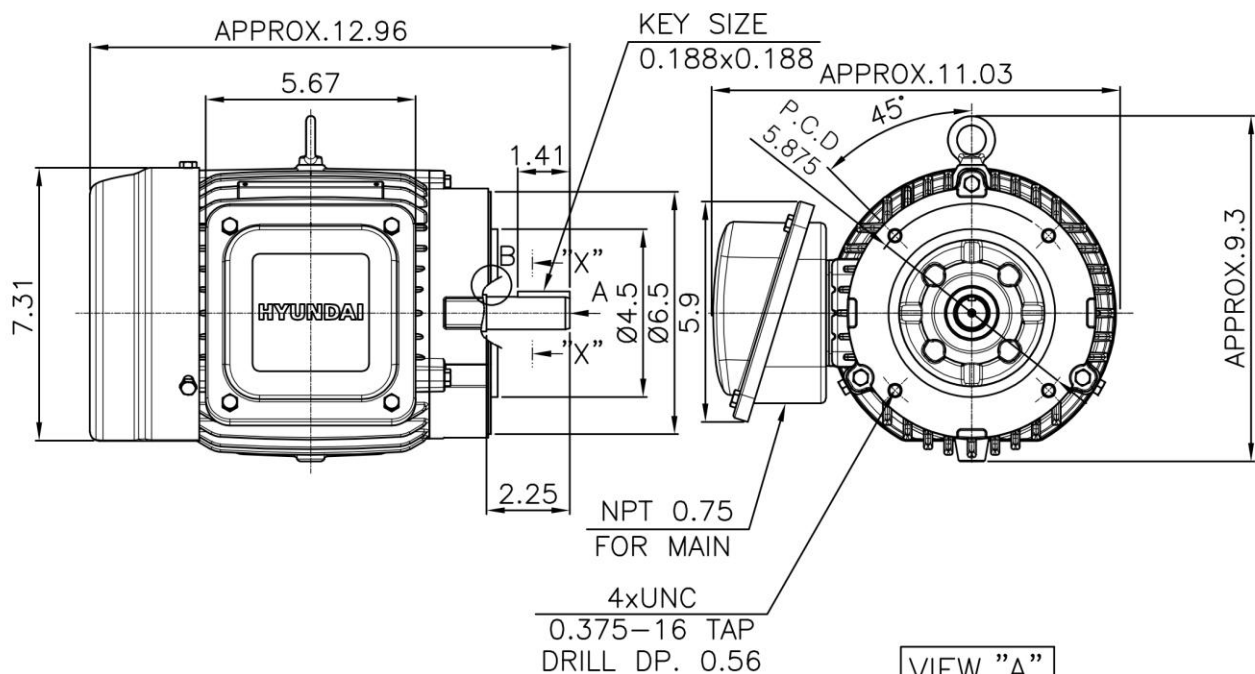


OUTPUT VS EFF., P.F & CURRENT CURVE



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

IEEE841

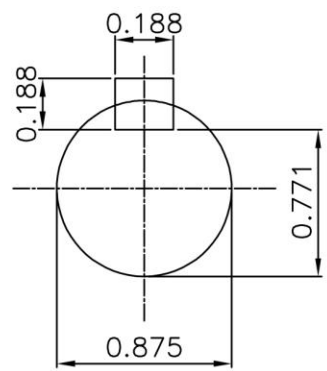


DETAIL - B

NOTE

[TOLERANCE]

1. CENTER HEIGHT : +0.00inch - 0.03inch
2. SHAFT DIAMETER : +0.000inch - 0.0005inch
3. KEYWAY DEPTH : +0.000inch - 0.015inch

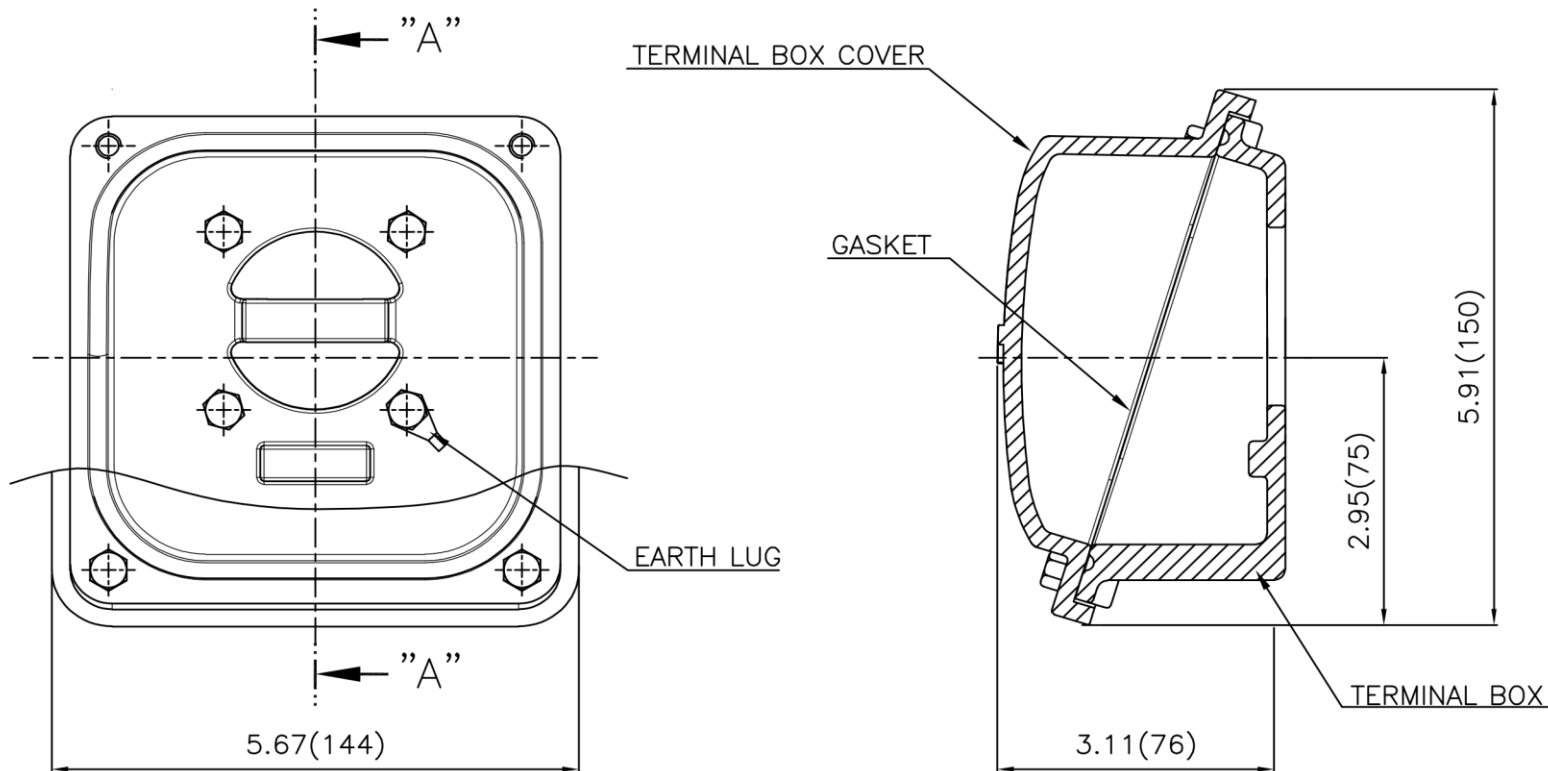


SECTION "X-X"

SCALE 5/6

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 145TC	DWG SIZE	A4 (15)
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-I2145C5PLV23	Revision No.	0

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						

일반기공차	일반기계공차
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.
APP'D BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR. 140-180 (CAST IRON)	DWG SIZE	
CHK'D BY		SCALE	1/1.5	TITLE	TERMINAL BOX ASS'Y	A3 (1:1.5)	
CHK'D BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No. of	
DSND BY	네슬희	DATE	2023-10-19	DWG NO	3M-248456	Revision No. 0	

