

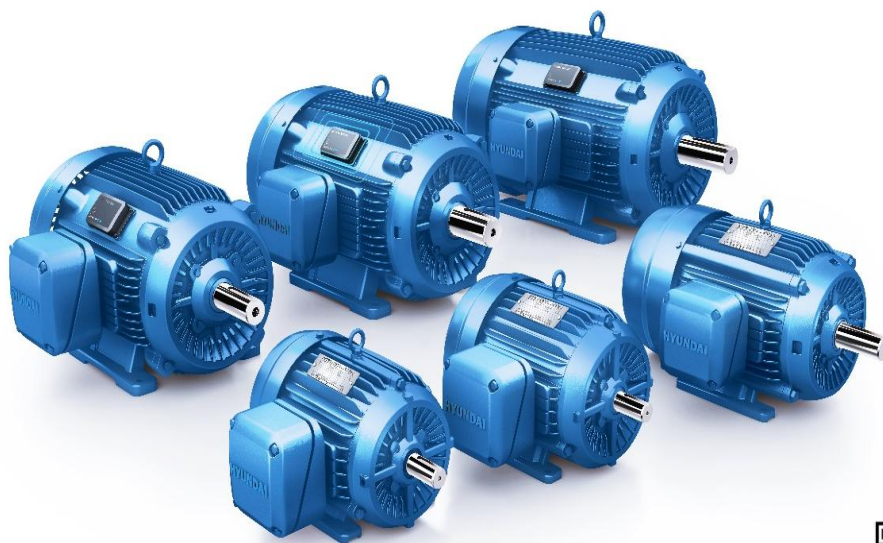
Customer :

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.	IEEEV20-36-256TCRD	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size		256TC	Rated Output		15 kW 20 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	18.6 A	23.2 A 46.5 A
Insulation Class		F		Locked-rotor**	740 %	740 % 740 %
Temp. Rise at full load (by resistance method)			Efficiency			
at 1.0 S.F		80 deg. C	50% Load		88.0 %	
Motor Location		☐ Indoor ☐ 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		0.740	
Duty Type		Continuous (S1)	75% Load		0.840	
Service Factor		1.15	100% Load		0.890	
Mounting		B5	Speed at Full Load		3550 r.p.m	
Bearing	Type	Anti-Friction	Torque			
	DE/N-DE	6309ZC3 / 6309ZC3	Full Load		29.77 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**		150 %	
External Thrust		Not applicable	Breakdown**		250 %	
Coupling Method		☒ Direct ☐ V-belt	Moment of Inertia (J)			
Shaft Extension		Single	Load(Max.)		21.594 lb.ft2	
Terminal Box	Main	Cast Iron	Motor		1.163 lb.ft2	
	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)			
	Location	Refer to Outline Drawing			77 dB(A)	
Application			Vibration		2.03 mm/s (peak)	
Area classification		Hazardous	Permissible number of consecutive starts		Cold	3 times
Type of Ex-Protection		Class I&II, Division 2			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-I2256C5PLV23	300 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 (1 hour duty, 4:1 continuous)				
		- 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.

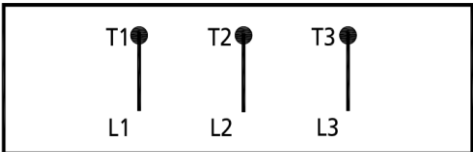
MAIN NAMEPLATE

4.72

20HP		2P	460V	Cat. No.	IEEEV20-36-256TCRD				
Model	HLS256PR138V			INS. Class	F	HD-F1	Amps	23.2A	
Type	HLS	Duty	CONT	Code	H	Amb.	40°C	Hertz	60Hz
Frame	256TC	Encl.	TEFC	S.F.	1.15	RPM	3550	NEMA Nom. Eff.	91.0%
Bearing	Drive	6309ZC3			S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)			3/4 Eff.	90.0%
	Opp.	6309ZC3			S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)			NEMA Design	B Torque
Usable at	50Hz 20HP 380V 31.2A 2935rpm S.F.: 1.0 Eff.: 90.2% Code: G								
	50Hz 20HP 400/415V 29.9/29.1A 2945/2950rpm S.F.: 1.0 Eff.: 90.2/90.2% Code: H/H								
CSA Certified for	Model	-	Type	PJP	Temp. Code	Frame	140~320FR	360~400FR	440FR
	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2 Gr. E, F & G (Gr. E: Up to 320FR)			Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)	
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC				Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)	
No.	-	Date	-	Weight	300 lb				
MARINE DUTY IEEE45 IEEE Std 841-2021				4M-138416	Made in Vietnam H4 Designed By HYUNDAI, Korea		HD HYUNDAI ELECTRIC		

2.36

WIRING DIAGRAM

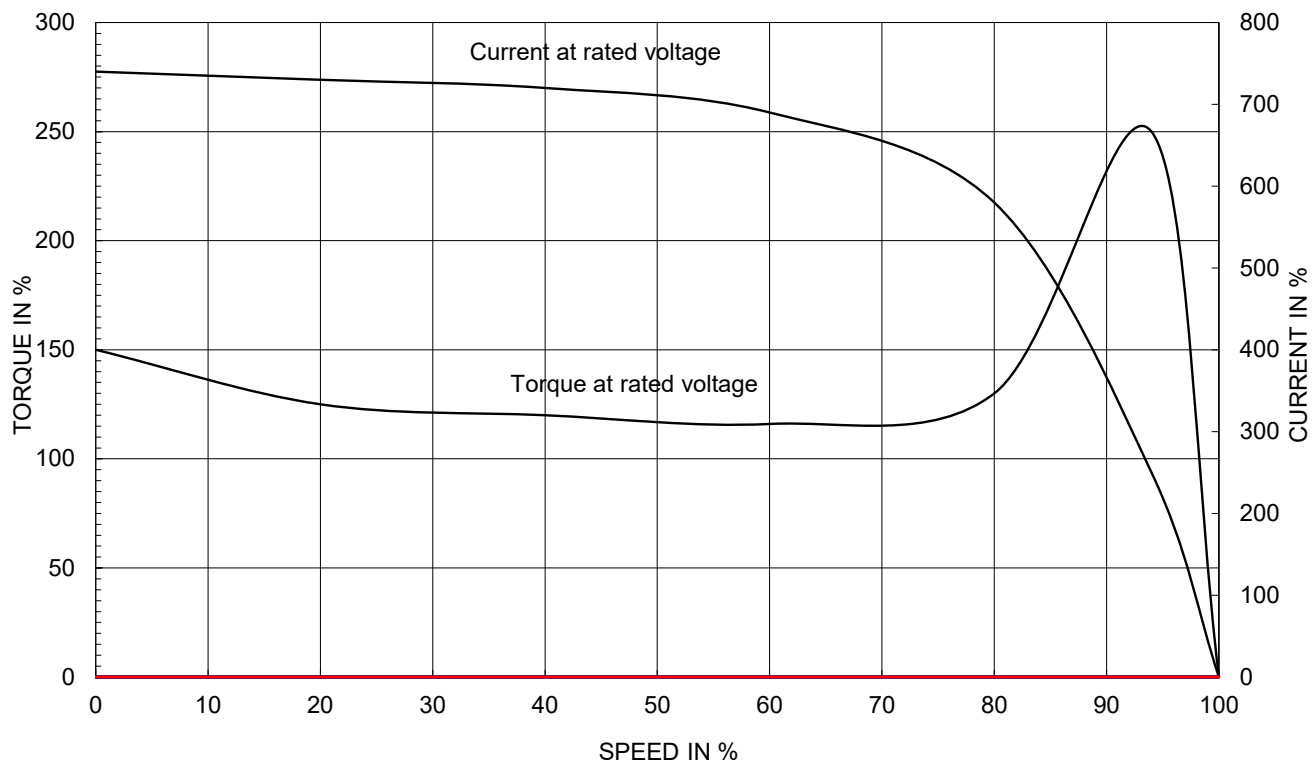
D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES.  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, 254-326)	DWG SIZE	A4 (1:1)		
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	NAMEPLATE DRAWING	REF. NO	4M-138416 / 4M-128796		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle					Sheet No.	of
DSND BY	S.H.LEE	DATE	2024.06.07						
HD HYUNDAI ELECTRIC				Revision No.	0				

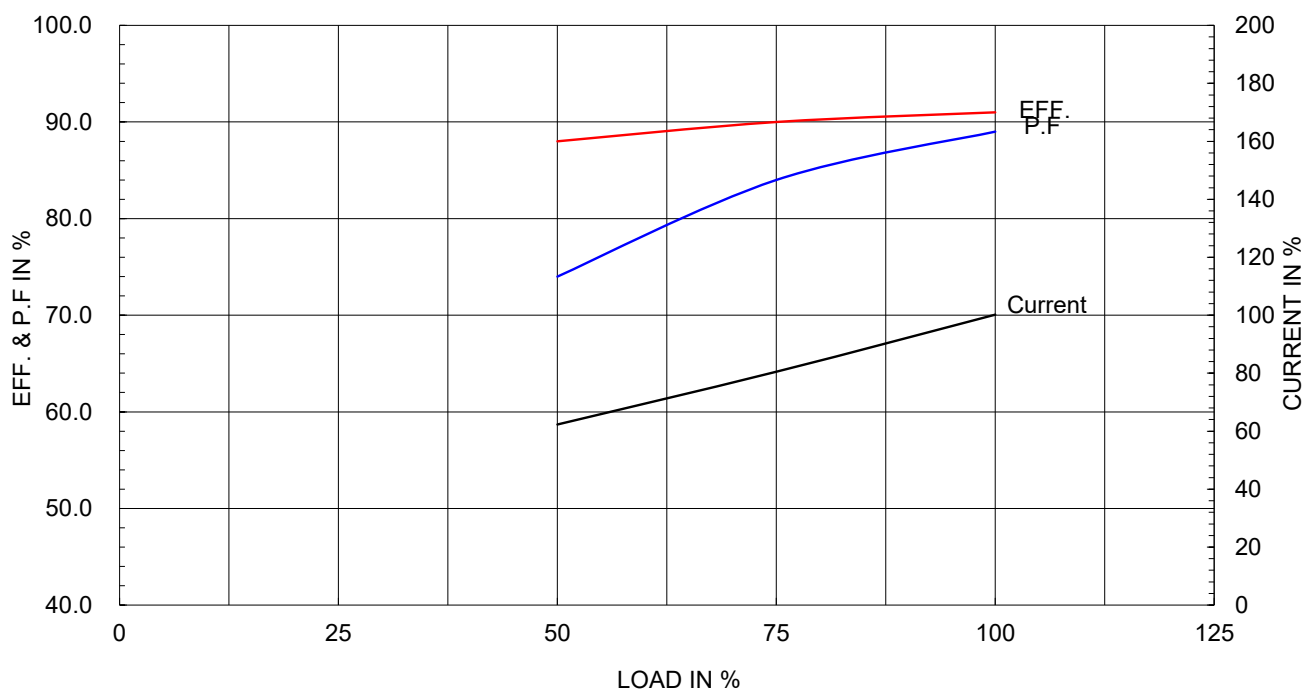
Type :	PJP	
Full Load Torque :	29.77	lb.ft
Load moment of Inertia (J) :	21.594	lb.ft2
Motor moment of Inertia (J) :	1.163	lb.ft2

15kW	20HP	2 P	60 Hz
Speed at Full Load :			3550 RPM
Rated Voltage	575V	460V	230V
Full Load Current	18.6A	23.2A	46.5A

SPEED VS TORQUE & CURRENT CURVE

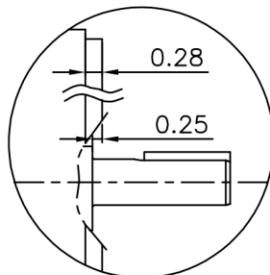
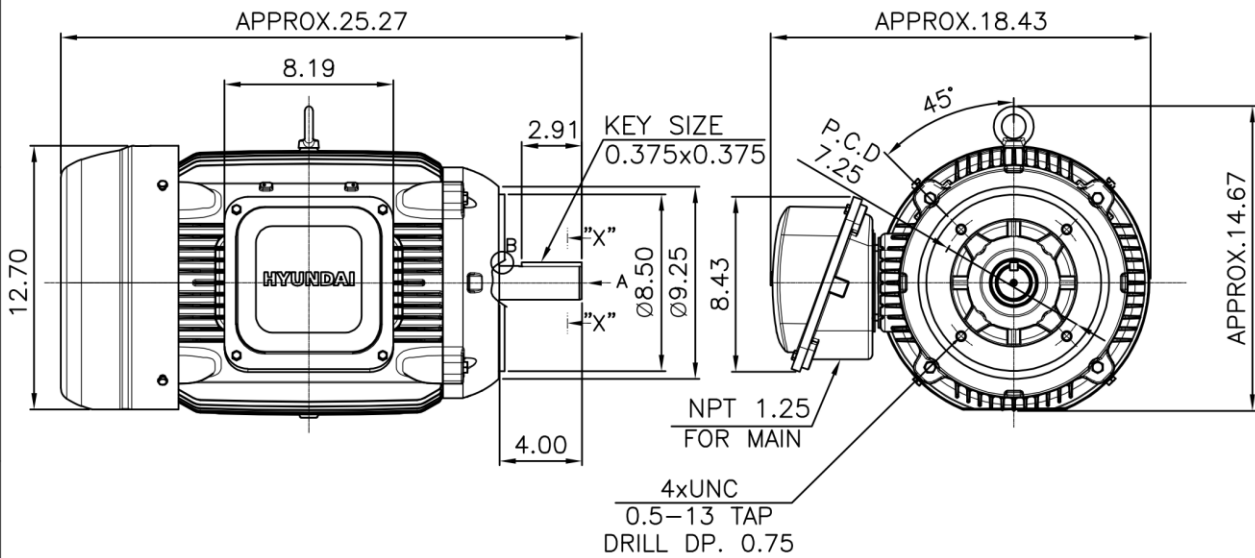


OUTPUT VS EFF., P.F & CURRENT CURVE



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

IEEE841

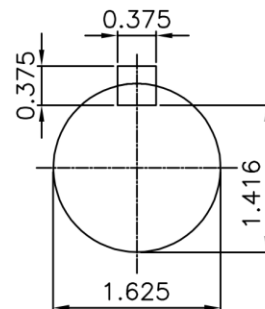


DETAIL - B

NOTE

[TOLERANCE]

- CENTER HEIGHT : +0.00inch - 0.03inch
- SHAFT DIAMETER : +0.000inch - 0.001inch
- KEYWAY DEPTH : +0.000inch - 0.015inch

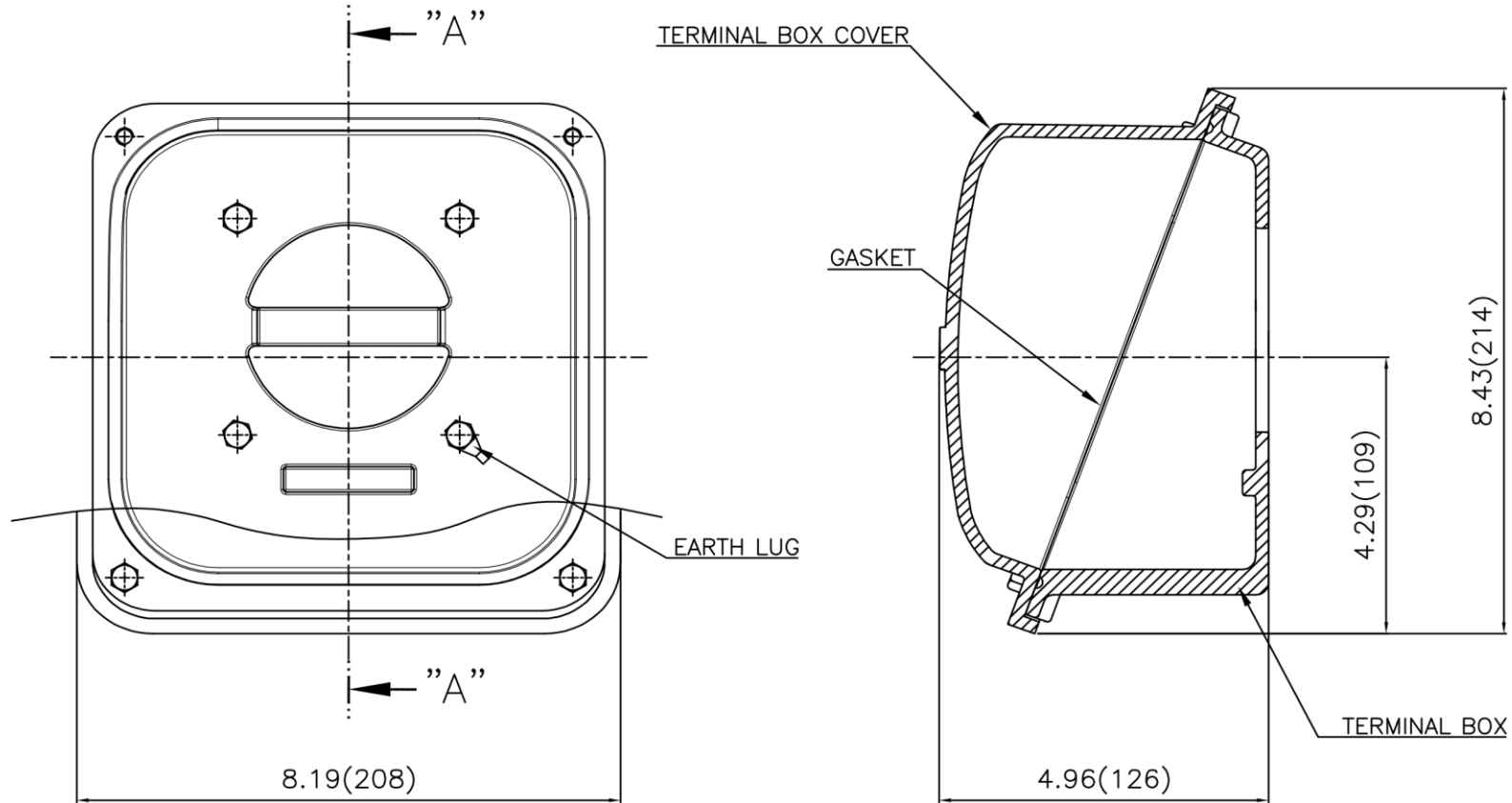


SECTION "X-X"
SCALE 5/9

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 256TC	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-I2256C5PLV23	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						

일반가공공차		일반계관공차	
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	A3 (1:2)	
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No. of	
DSND BY	네슬의	DATE	2023-10-19	DWG NO	3M-248458	Revision No. 0	

