

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.	HES20-36-256TC	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
Insulation Class	F			Locked-rotor**	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	<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		0.740	
Duty Type	Continuous (S1)		75% Load		0.840	
Service Factor	1.15		100% Load		0.890	
Mounting	B35		Speed at Full Load	3550 r.p.m		
Bearing	Type	Anti-Friction	Torque			
	DE/N-DE	6309ZC3 / 6309ZC3	Full Load	29.8 lb.ft		
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**	150 %		
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.)	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			
Area classification	Hazardous		3.8 mm/sec (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-T2256C4PLV23	310 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.

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REV	DATE	CONTENTS	REVD BY

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CROWN TRITON G2

Premium Efficiency AC 3 Phase Motor

20HP	2P	230/460V	Cat. No.	HES20-36-256TC			
Model	HLS256PR13		INS. Class	F	HD-F1	Amps	46.5/23.2
Type	HLS	Duty	CONT	Code	H	Amb.	40°C
Frame	256TC	Encl.	TEFC	S.F.	1.15	RPM	3550
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 Torque
Usable at	50Hz 15HP 380V 23.5A 2955rpm S.F.: 1.0 Eff.: 89.4% Code: J						
	50Hz 15HP 400/415V 22.7/22.4A 2960/2960rpm S.F.: 1.0 Eff.: 89.4/89.4% Code: K/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		Frame	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	310 lb

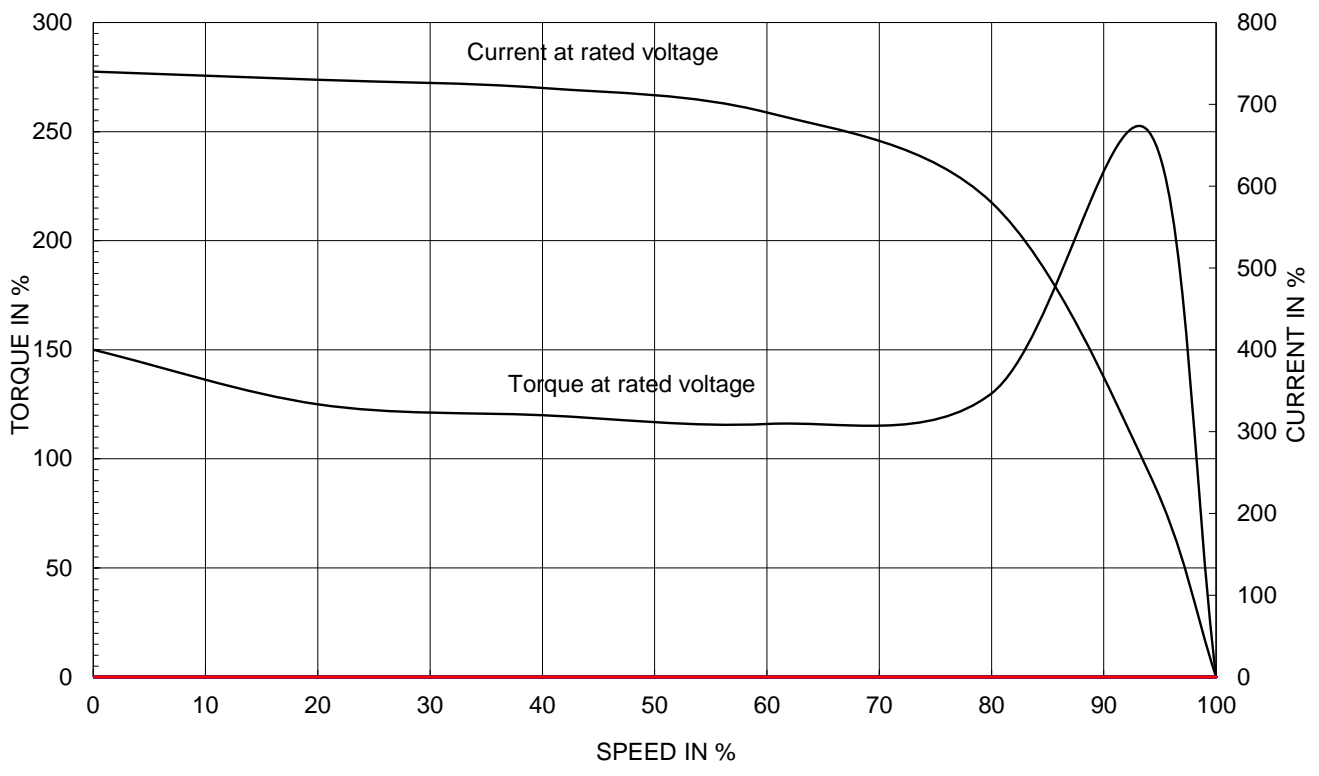
4M-136024
MARINE DUTY IEEE45
Made in Vietnam H4
Designed By HYUNDAI, Korea

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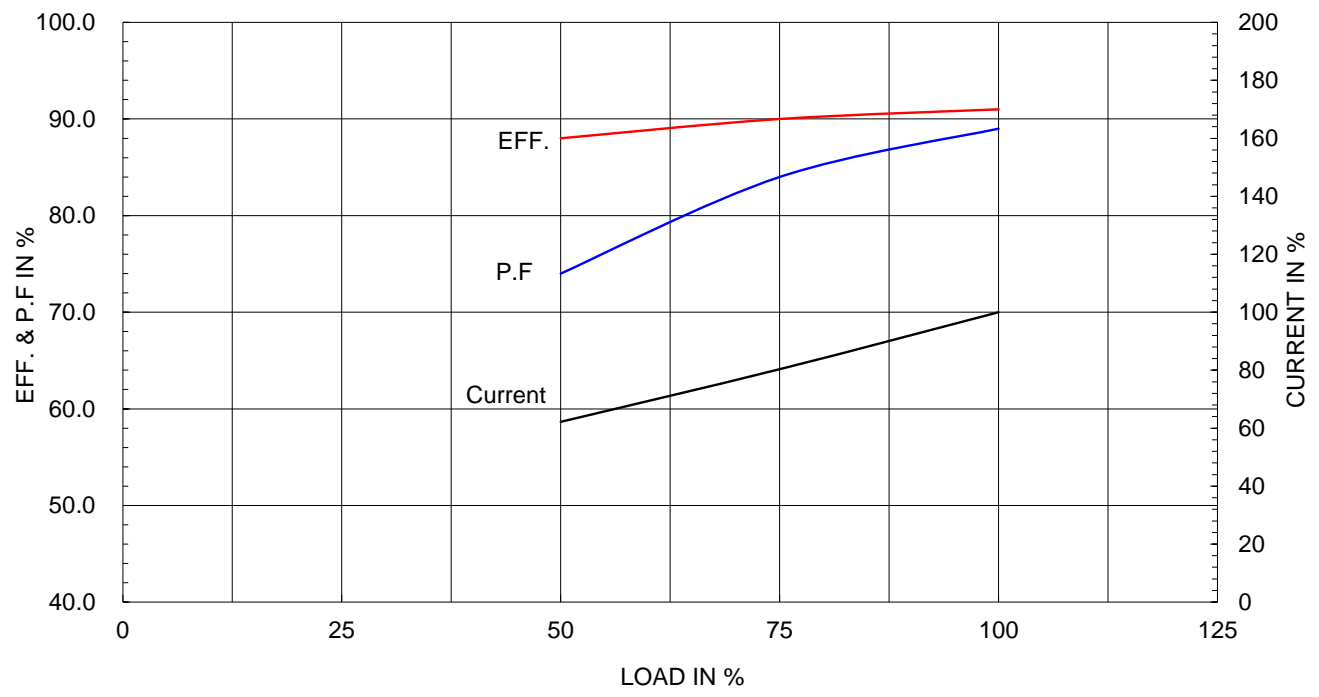
APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HES, 254-326)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE			A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	NAMEPLATE DRAWING		
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	4M-136024	Sheet No. of
				DWG NO	NP-HES20-36-256TC	Revision No. 0

Type :	PJP	15kW	20HP	2 P	60 Hz	
Full Load Torque :	29.8 lb.ft	Speed at Full Load : 3550 RPM				
Load moment of Inertia (J) :	21.594 lb.ft2	Rated Voltage		575V	460V	230V
Motor moment of Inertia (J) :	1.163 lb.ft2	Full Load Current		18.6A	23.2A	46.5A

SPEED VS TORQUE & CURRENT CURVE



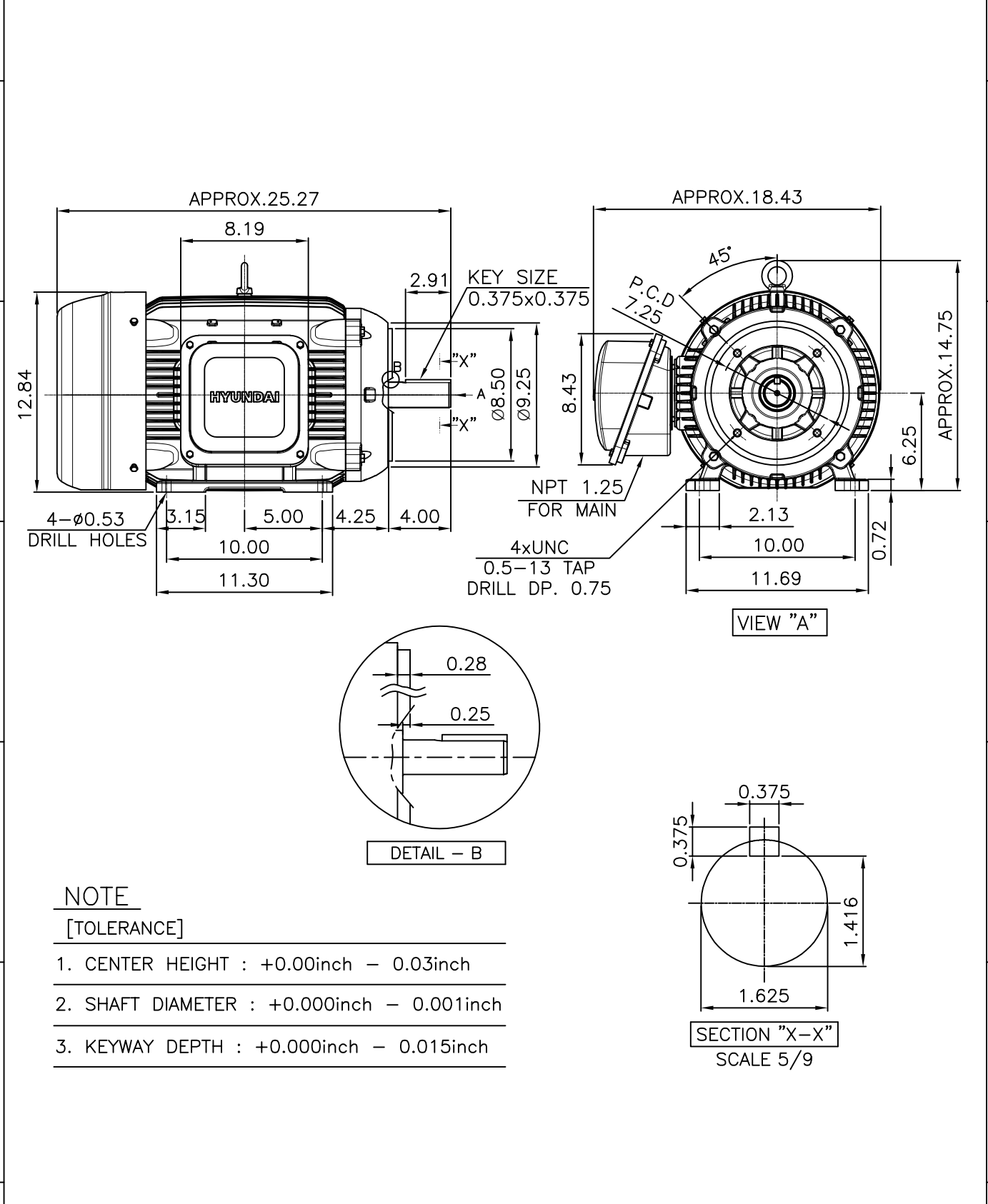
OUTPUT VS EFF., P.F & CURRENT CURVE



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

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▽	50S	REV	DATE
▽▽	12.5S		
▽▽▽	3.2S		
▽▽▽▽	0.4S		



APPD BY	S.Y.KIM	UNIT	mm	SUBJECT	NEMA 256TC	DWG SIZE	A4 (19)
CHKD BY	R.G.KIM	SCALE	1/9	TITLE OUTLINE			
CHKD BY		PROJEC'N	3rd Angle				
DSND BY	전지현	DATE	2021-04-29				
				REF. NO		Sheet No.	of
				DWG NO	LM-T2256C4PLV23	Revision No.	0



Cls. I&II, Div. 2
IEEE 841



SEC. "A"-"A"

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR. 250-280 (CAST IRON)		
CHKD BY		SCALE	1/2	TITLE			
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TERMINAL BOX ASS'Y			
DSND BY	배승희	DATE	2023-10-19	REF. NO		Sheet No.	of
				DWG NO	3M-248458	Revision No.	0

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



REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
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