

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.	HES25-18-284TC	Item No.		Rev. No.	[      ]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	284TC		Rated Output	18.5 kW      25 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	24.5 A	30.6 A
Insulation Class	F			Locked-rotor**	790 %	790 %
Temp. Rise at full load (by resistance method)			Efficiency			
at 1.0 S.F	80 deg. C		50% Load      90.6 %			
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load      92.6 %			
Altitude	Less than 1,000 meter		100% Load      93.6 %			
Relative Humidity	Less than 80 %		Power Factor(p.u)			
Ambient Temp.	40 deg. C (Max.)		50% Load      0.660			
Duty Type	Continuous ( S1 )		75% Load      0.760			
Service Factor	1.15		100% Load      0.810			
Mounting	B35		Speed at Full Load	1775 r.p.m		
Bearing	Type	Anti-Friction	Torque			
	DE/N-DE	6310ZC3 / 6310ZC3	Full Load      73.4 lb.ft			
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**      170 %			
External Thrust	Not applicable		Breakdown**      220 %			
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)			
Shaft Extension	Single		Load(Max.)      141.396 lb.ft2			
Terminal Box	Main	Cast Iron	Motor      3.940 lb.ft2			
	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)			
	Location	Refer to Outline Drawing	72 dB(A)			
Application			Vibration      3.8 mm/sec (peak)			
Area classification	Hazardous		Permissible number of consecutive starts			
Type of Ex-Protection	Class I&II, Division 2		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-T2284C4PLV23	375 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

4.72

**CROWN TRITON G2**

**Premium Efficiency AC 3 Phase Motor**

25HP	4P	230/460V	Cat. No.	HES25-18-284TC						
Model	HLS284PR23		INS. Class	F	HD-F1	Amps	61.3/30.6			
Type	HLS	Duty	CONT	Code	J	Amb.	40°C	Hertz	60Hz	
Frame	284TC	Encl.	TEFC	S.F.	1.15	RPM	1775	NEMA Nom. Eff.	93.6%	
Bearing	Drive	6310ZC3		S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)		3/4 Eff.	92.6%			
	Opp.	6310ZC3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		NEMA Design	B Torque			
Usable at	50Hz 25HP 380V 40.21A 1470rpm S.F.: 1.15 Eff.: 92.4% Code: G									
	50Hz 25HP 400/415V 39.13/38.74A 1475/1475rpm S.F.: 1.15 Eff.: 92.4/92.4% Code: H/H									
CSA Certified for	Model	LATER		Type	PJP	Temp. Code	Frame	140~320FR	360~400FR	440FR
	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)		(sine wave)	Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)		
					Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)		
No.	-		Date	-		Weight	375 lb			

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

2.36

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HES, 254-326)	DWG SIZE	A4 ( 1:1 )
CHKD BY	I.K.KIM	SCALE	NONE				
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	<b>NAMEPLATE DRAWING</b>			
DSND BY	S.H.LEE	DATE	2024.06.07				
				REF. NO	<b>4M-136024</b>	Sheet No.	of
				DWG NO	<b>NP-HES25-18-284TC</b>	Revision No.	<b>0</b>

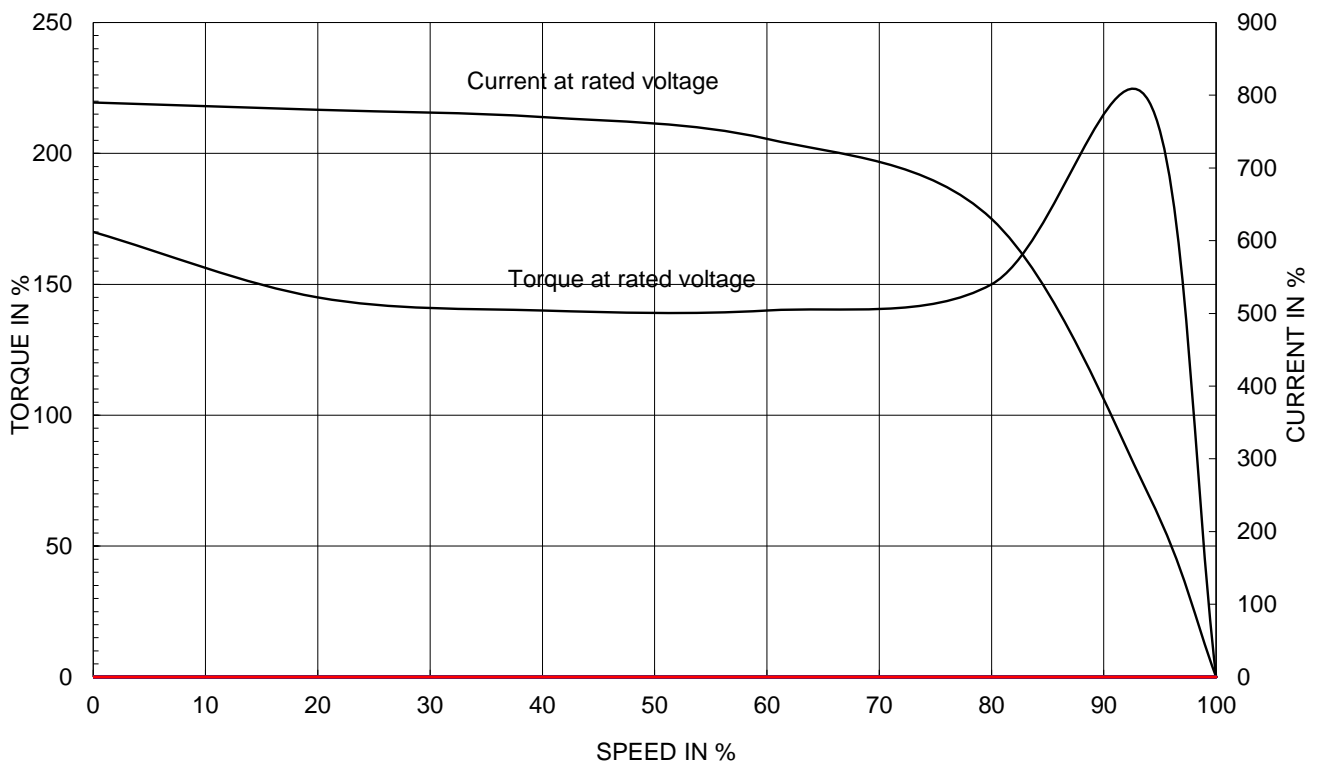


# PERFORMANCE CURVE

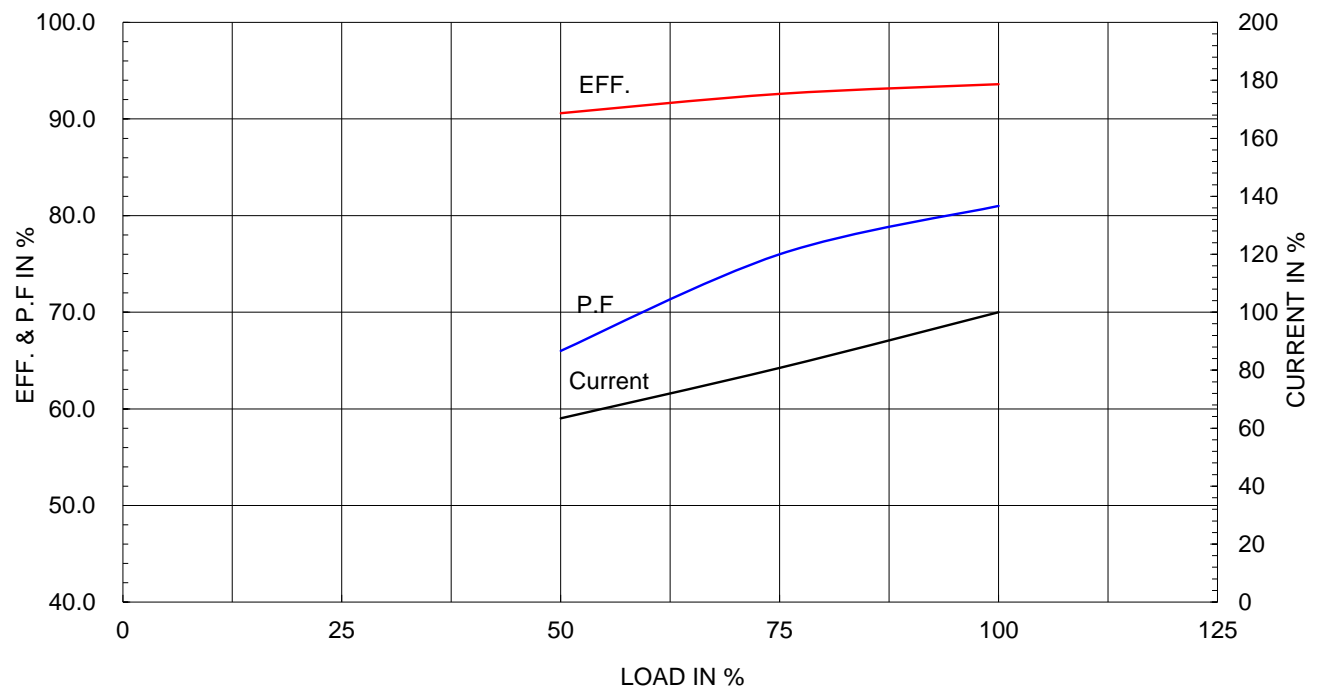
CURVE NO.  
PC-HES25-18-284TC

Type :	PJP	18.5kW	25HP	4 P	60 Hz
Full Load Torque :	73.4 lb.ft	Speed at Full Load : 1775 RPM			
Load moment of Inertia (J) :	141.396 lb.ft2	Rated Voltage			
Motor moment of Inertia (J) :	3.940 lb.ft2	575V	460V	230V	
		Full Load Current			
		24.5A	30.6A	61.3A	

SPEED VS TORQUE & CURRENT CURVE



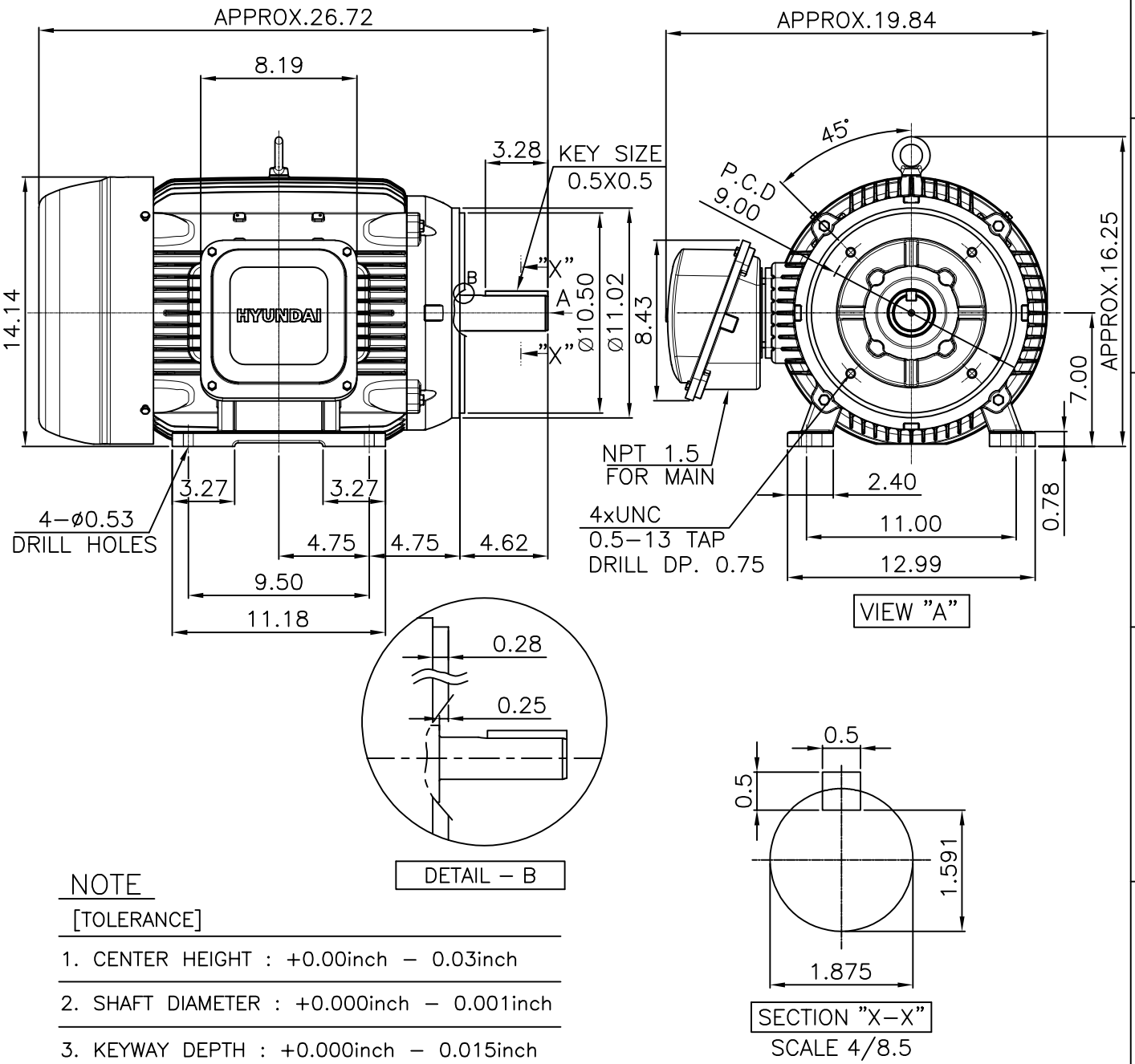
OUTPUT VS EFF., P.F & CURRENT CURVE



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

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



APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 284TC	DWG SIZE	A4 (1:8.5)
CHKD BY	R.G.KIM	SCALE	1/8.5	TITLE	OUTLINE	REF. NO	Sheet No. of
CHKD BY		PROJEC'N	3rd Angle				
DSND BY	주유람	DATE	2021-04-29				
				DWG NO	LM-T2284C4PLV23	REF. NO	.
						Revision No.	0



# Cls. I&II, Div. 2 IEEE 841



▽	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. 250-280 (CAST IRON)	DWG SIZE	
CHKD BY		SCALE	1/2	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-248458	Revision No.	0				

