

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.	IEEE25-18-284TCRD	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 %	790 %
Temp. Rise at full load (by resistance method)			Efficiency				
at 1.0 S.F			80 deg. C				
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		50% Load		90.6 %		
Altitude	Less than 1,000 meter		75% Load		92.6 %		
Relative Humidity	Less than 80 %		100% Load		93.6 %		
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)				
Duty Type	Continuous ( S1 )		50% Load		0.660		
Service Factor	1.15		75% Load		0.760		
Mounting	B5		100% Load		0.810		
Bearing	Type	Anti-Friction	Speed at Full Load				
	DE/N-DE	6310ZC3 / 6310ZC3	1775 r.p.m				
	Lubricant	Grease(Polyrex-EM)	Torque				
External Thrust	Not applicable		Full Load		73.4 lb.ft		
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Locked-rotor**		170 %		
Shaft Extension	Single		Breakdown**		220 %		
Terminal	Main	Cast Iron	Moment of Inertia (J)				
Box	Aux.	No	Load(Max.)		141.396 lb.ft2		
	Location	Refer to Outline Drawing	Motor		3.940 lb.ft2		
Application			Sound Pressure Level (No-load & mean value at 1m from motor)				
Area classification	Hazardous		77 dB(A)				
Type of Ex-Protection	Class I&II, Division 2		Vibration				
Applicable Standard	IEEE841, NEMA MG1, CSA C390		3.8 mm/sec (peak)				
<b>ACCESSORIES</b>			Permissible number of consecutive starts				
			Cold		3 times		
			Hot		2 times		
			Paint	Munsell No.	7.5BG6/1.5		
			<b>SUBMITTAL DRAWING</b>				
<b>SPARE PARTS</b>			Outline Dimension Drawing \ Motor Weight(Approx.)				
			B5	LM-I1284C5PL001	380 lb.		
			<b>REMARK</b>				
			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**  
Premium Efficiency AC 3 Phase Motor

25HP	4P	460V	Cat. No.	IEEE25-18-284TCRD				
Model	HLS284PR23		INS. Class	F	HD-F1	Amps	30.6	
Type	HLS	Duty	CONT	Code	J	Amb.	40°C	
Frame	284TC	Encl.	TEFC	S.F.	1.15	RPM	1775	
Bearing	Drive	6310ZC3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		3/4 Eff.	92.6%	
	Opp.	6310ZC3				NEMA Design	B Torque	
Usable at	50Hz 20HP 380V 33.8A 1475rpm S.F.: 1.0 Eff.: 90.6% Code: J							
	50Hz 20HP 400/415V 33.4/33.5A 1480/1480rpm S.F.: 1.0 Eff.: 90.6/90.6% Code: K/L							
CSA Certified for	Model	LATER		Type	PJP			
	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)		Temp. Code (sine wave)	Frame	140~320FR	360~400FR	440FR
		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	380 lb	

**IEEE Std 841-2021**    **MARINE DUTY IEEE45**

4M-135701                      Made in Korea H1

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APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 IEEE841 (HL)	DWG SIZE	A4 ( 1:1 )
CHKD BY	I.K.KIM	SCALE	NONE				
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE <b>NAMEPLATE DRAWING</b>			
DSND BY	S.H.LEE	DATE	2024.06.07				
				REF. NO	<b>4M-135701</b>	Sheet No. of	
				DWG NO	<b>NP-IEEE25-18-284TCRD</b>	Revision No. <b>0</b>	



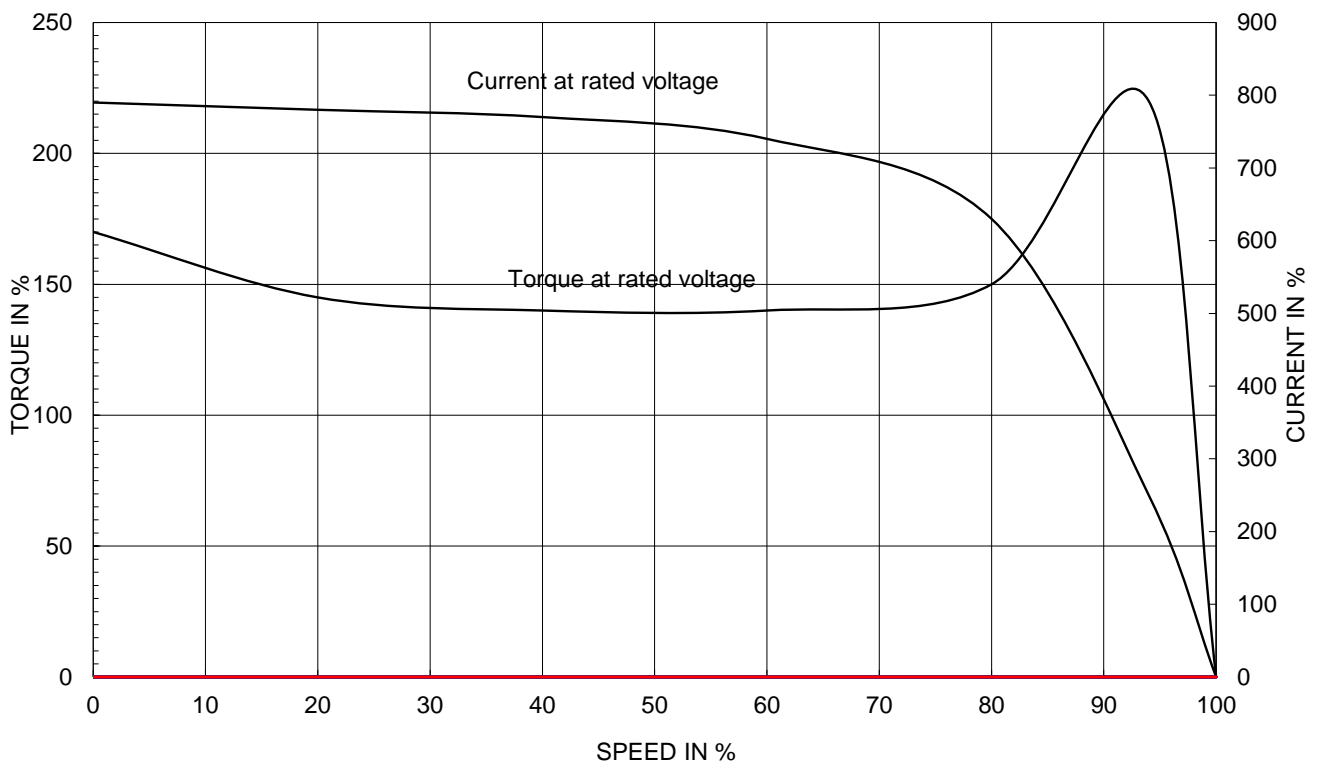
# PERFORMANCE CURVE

CURVE NO.  
PC-IEEE25-18-284TCRD

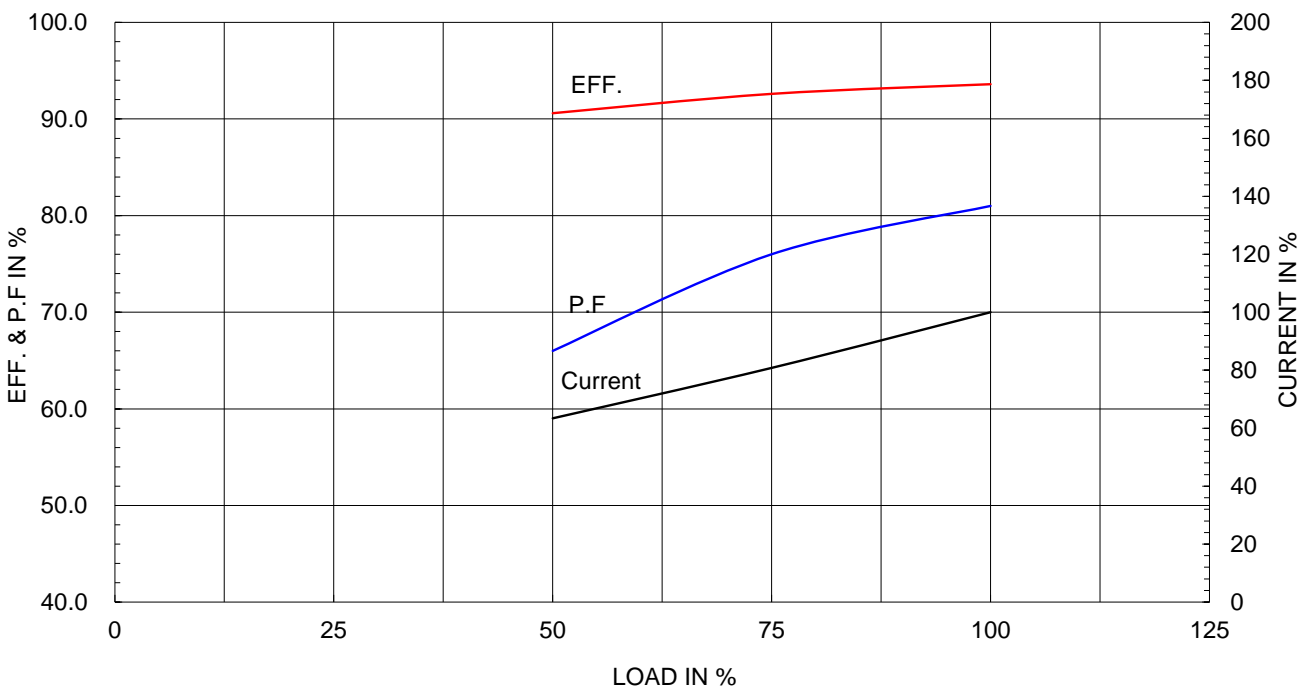
Type :	PJP
Full Load Torque :	73.4 lb.ft
Load moment of Inertia (J) :	141.396 lb.ft2
Motor moment of Inertia (J) :	3.940 lb.ft2

18.5kW 25HP	4 P	60 Hz
Speed at Full Load :		1775 RPM
Rated Voltage	575V	460V 230V
Full Load Current	24.5A	30.6A 61.3A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

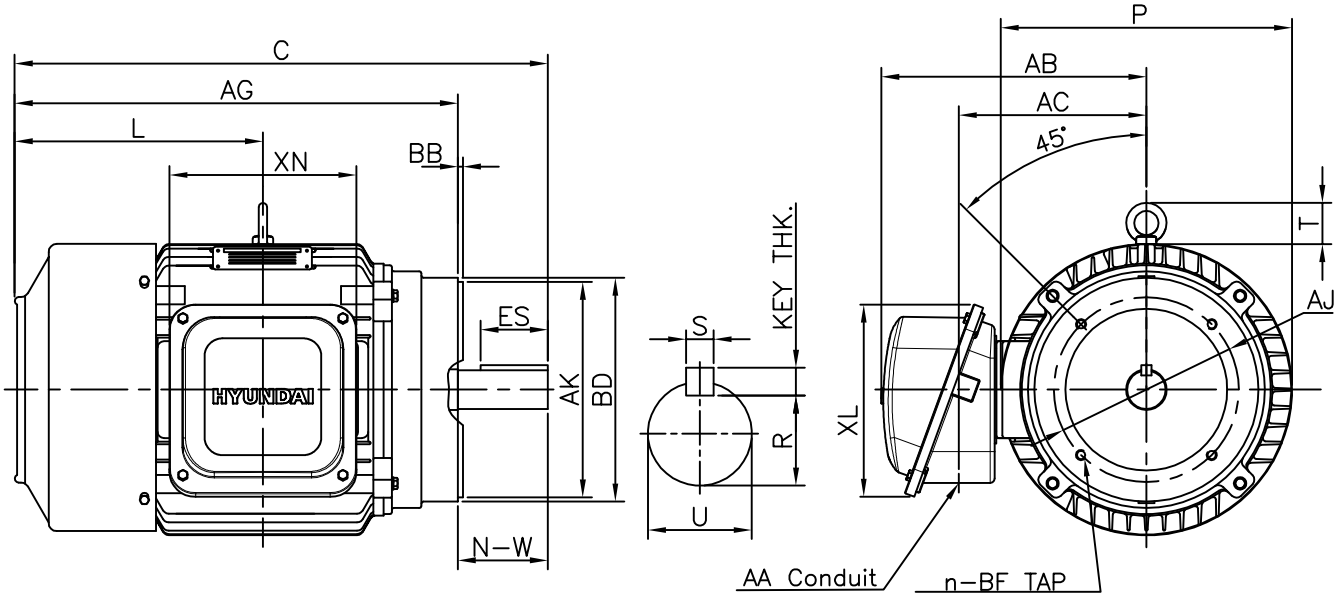


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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▽▽	12.5S		
▽▽▽	3.2S		
▽▽▽▽	0.4S		

**IEEE841**



DIMENSIONS

Unit : inch

F L A N G E						CONDUIT BOX					APPROX. WGT.(LB)
AJ	AK	BD	BB	BF	n	AA	AB	AC	XL	XN	
9.00	10.50	10.90	0.25	1/2-13	4	1.50	12.44	9.06	8.43	8.19	380

O V E R A L L					S H A F T					KEY THK.	B E A R I N G	
AG	C	L	P	T	U	N-W	KEYWAY				DRIVE END	OPP. DRIVE END
21.66	26.28	12.16	14.19	2.01	1.875	4.62	R	ES	S	0.500	6310ZC3	6310ZC3

**NOTE**

1. Dimension "U" tolerance : +0.000inch - 0.001inch
2. Dimension "R" tolerance : +0.000inch - 0.015inch
3. Dimension "AK" tolerance : +0.000inch - 0.003inch

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	NEMA 284TC		DWG SIZE	
CHKD BY	R.G.KIM	SCALE	NONE	TITLE				A4 ( 1:1 )
CHKD BY	Y.H.BAE	PROJEC'N	3각법(3rd Angle)					OUTLINE
DSND BY	H.K.LEE	DATE	2021-04-30	REF. NO	350A8509AA	Sheet No.	of	
				DWG NO	LM-I1284C5PL001	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				

