

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.	IEEE20-36-256TC	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                      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	<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			
	DE/N-DE	6309ZC3 / 6309ZC3			
	Lubricant	Grease(Polyrex-EM)			
External Thrust	Not applicable				
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt	Torque			
Shaft Extension	Single	Full Load		29.8 lb.ft	
Terminal Box	Main	Cast Iron			
	Aux.	No			
	Location	Refer to Outline Drawing			
Application		Locked-rotor**		150 %	
Area classification	Hazardous	Breakdown**		250 %	
Type of Ex-Protection	Class I&II, Division 2	Moment of Inertia (J)			
Applicable Standard	IEEE841, NEMA MG1, CSA C390	Load(Max.)		21.594 lb.ft2	
		Motor		1.163 lb.ft2	
		Sound Pressure Level (No-load & mean value at 1m from motor)			
		79 dB(A)			
		Vibration			
		3.8 mm/sec (peak)			
		Permissible number of consecutive starts		Cold                      3 times	
				Hot                      2 times	
		Paint	Munsell No.	7.5BG6/1.5	

ACCESSORIES

SUBMITTAL DRAWING		
Outline Dimension Drawing	Motor Weight(Approx.)	
B35	LM-I1256C4PL001	300 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.

1	2	3	4
REV	DATE	CONTENTS	REVD BY   CHKD BY   CHKD BY   APPD BY

4.72

**CROWN TRITON**  
Premium Efficiency AC 3 Phase Motor

20HP	2P	460V	Cat. No.	IEEE20-36-256TC				
Model	HLS256PR13		INS. Class	F	HD-F1	Amps	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.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		3/4 Eff.	90%	
	Opp.	6309ZC3				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			
	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	300 lb	

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

4M-135701                      Made in Korea H1

2.36

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-IEEE20-36-256TC</b>	Revision No. <b>0</b>	



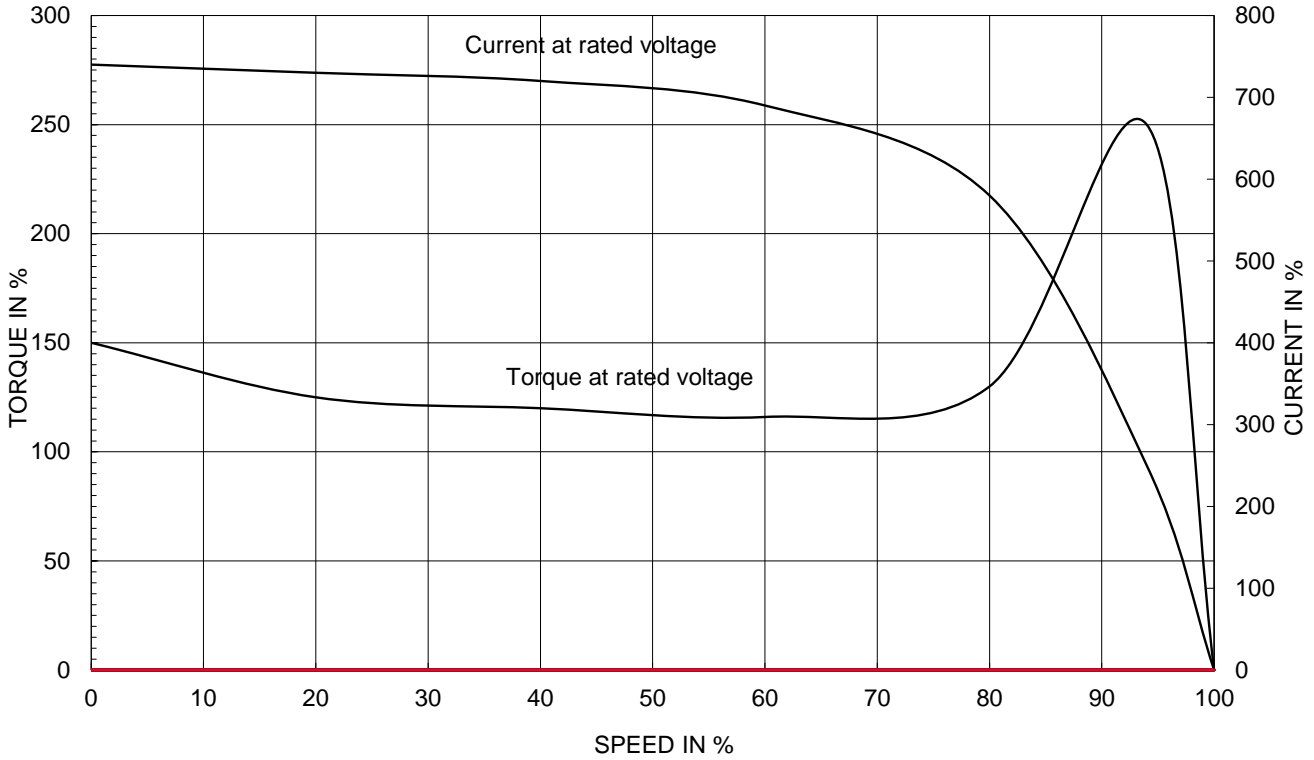
# PERFORMANCE CURVE

CURVE NO.  
PC-IEEE20-36-256TC

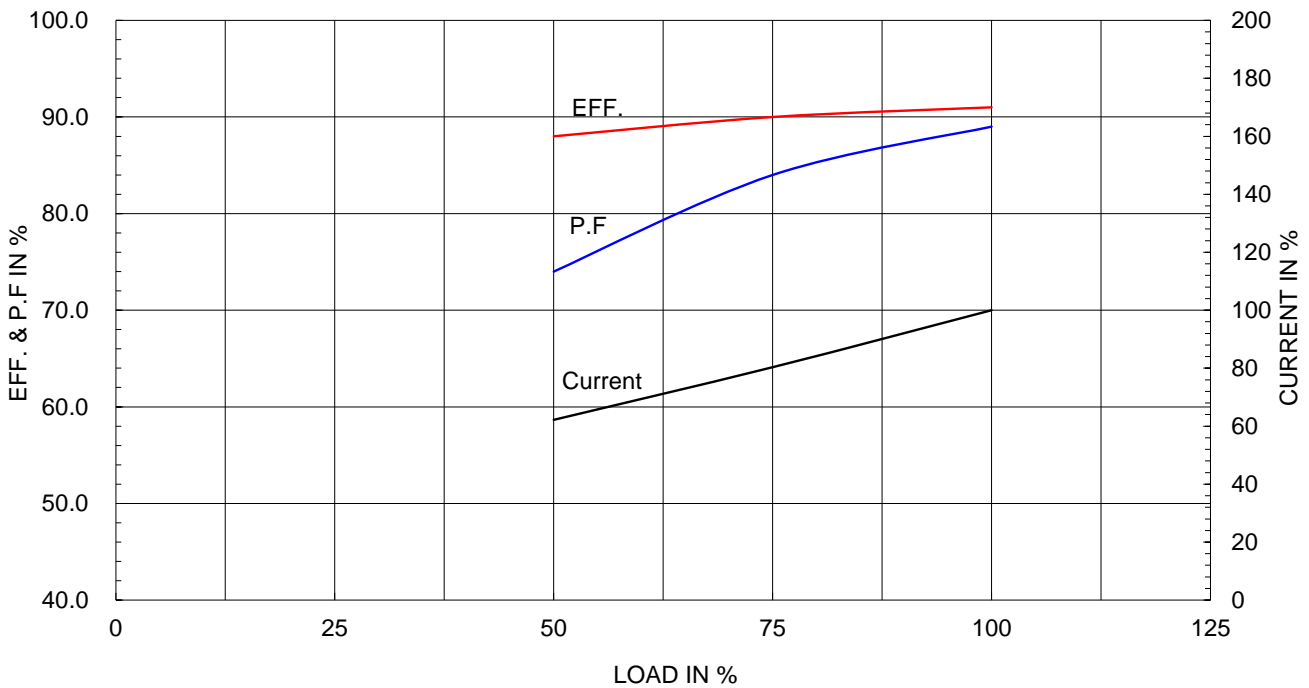
Type :	PJP
Full Load Torque :	29.8 lb.ft
Load moment of Inertia (J) :	21.594 lb.ft2
Motor moment of Inertia (J) :	1.163 lb.ft2

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

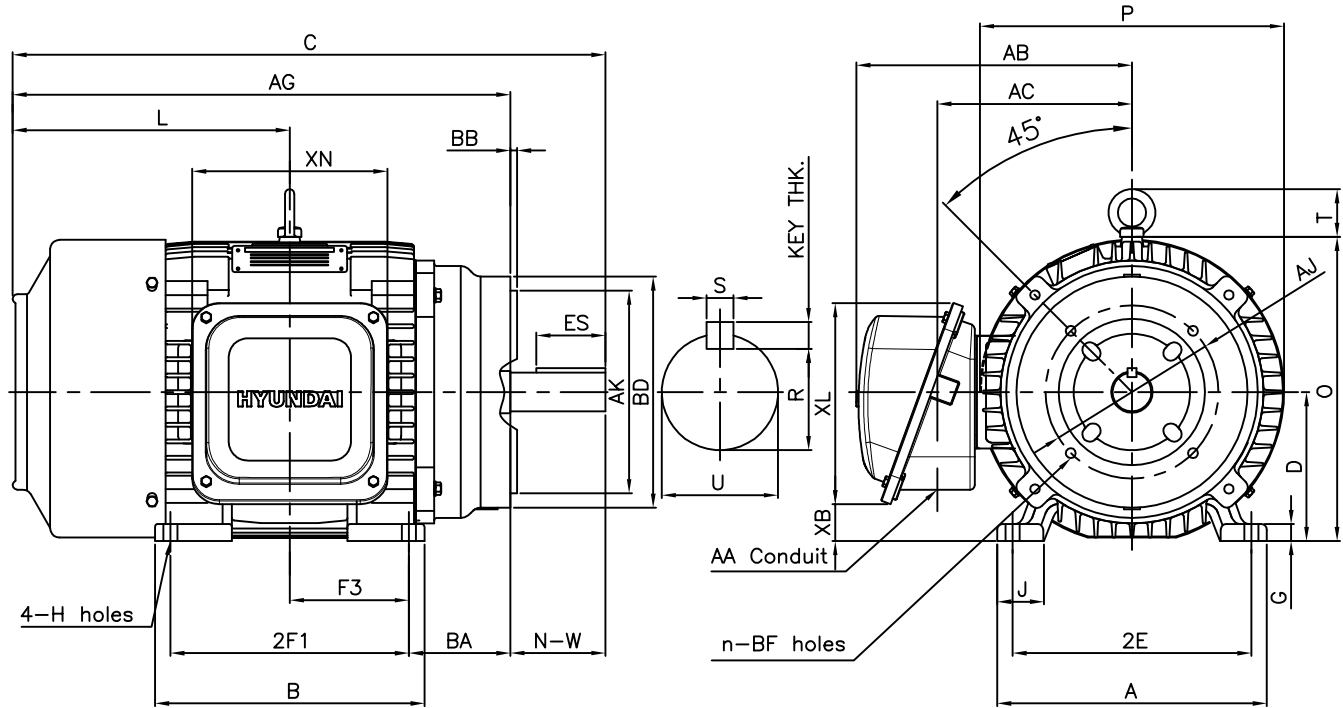


본 도면은 HD현대일렉트릭(주) 재산이며 허기없이 복사할 수 없음 (취급유의)

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

**IEEE841**



DIMENSIONS

Unit : inch

F L A N G E						M O U N T I N G								
AJ	AK	BD	BB	BF	n	A	B	2E	2F1	2F2	F3	G	J	H
7.25	8.50	9.68	0.25	1/2-13	4	11.30	11.30	10.00	10.00	-	5.00	0.72	1.93	0.53

C O N D U I T B O X						O V E R A L L								APPROX. WGT.(LB)
AA	AB	AC	XB	XL	XN	AG	BA	C	D	L	O	P	T	
1.25	11.85	8.46	2.64	8.43	8.19	20.86	4.25	24.86	6.25	11.61	12.75	12.76	2.01	300

S H A F T					KEY THK.	B E A R I N G	
U	N-W	KEYWAY				DRIVE END	OPP. DRIVE END
		R	ES	S			
1.625	4.00	1.416	2.91	0.375	0.375	6309ZC3	6309ZC3

**NOTE**

- 1.Dimension "D" tolerance : +0.00inch - 0.03inch
- 2.Dimension "U" tolerance : +0.000inch - 0.0005inch
- 3.Dimension "R" tolerance : +0.000inch - 0.015inch

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	NEMA 256TC(KIT)	DWG SIZE	A4 ( 1:1 )
CHKD BY	R.G.KIM	SCALE	NONE	TITLE	OUTLINE		
CHKD BY	Y.H.BAE	PROJEC'N	3각법(3rd Angle)				
DSND BY	H.K.LEE	DATE	2021-05-06				



REF. NO	350A8308AA	Sheet No.	of
DWG NO	LM-I1256C4PL001	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

