

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.	IEEE10-18-215TC	Item No.	Rev. No. []
Project Name		Project No.	Quantity sets

GENERAL SPECIFICATION		PERFORMANCE DATA			
Frame Size	215TC	Rated Output	7.5 kW 10 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	10.40 A	12.99 A
Insulation Class	F		Locked-rotor**	750 %	750 %
Temp. Rise at full load (by resistance method)		Efficiency			
at 1.0 S.F	80 deg. C	50% Load		88.7 %	
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		90.7 %	
Altitude	Less than 1,000 meter	100% Load		91.7 %	
Relative Humidity	Less than 80 %	Power Factor(p.u)			
Ambient Temp.	40 deg. C (Max.)	50% Load		0.640	
Duty Type	Continuous (S1)	75% Load		0.740	
Service Factor	1.15	100% Load		0.790	
Mounting	B35	Speed at Full Load	1770 r.p.m		
Bearing	Type	Anti-Friction	Torque		
	DE/N-DE	6208ZC3 / 6208ZC3	Full Load	29.9 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**	180 %	
External Thrust	Not applicable	Breakdown**	240 %		
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt	Moment of Inertia (J)			
Shaft Extension	Single	Load(Max.)	62.787 lb.ft2		
Terminal Box	Main	Cast Iron	Motor	0.712 lb.ft2	
	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)		
Location	Refer to Outline Drawing			62 dB(A)	
Application		Vibration		3.8 mm/sec (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.)	
B35	LM-I2215C4PLV23	190 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
 - 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.

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

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1	2	3	4
REV	DATE	CONTENTS	REVD BY

3.94

CROWN TRITON G2 Premium Efficiency AC 3 Phase Motor Cat. No. IEEE10-18-215TC

10HP	4P	460V	Amps	12.99	Type	HLS	Amb.	40°C	
Frame	215TC	Duty	CONT	Encl.	TEFC	Model	HLS215PR238	NEMA Nom. Eff. 91.7%	
RPM	1770	Hertz	60Hz	S.F.	1.15	INS. Class	F HD-F1	3/4 Eff. 90.7%	
Bearing	Drive	6208ZC3	S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)				NEMA Design	B Torque	
	Opp.	6208ZC3	S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)				Code	J	
Usable at	50Hz 7.5HP 380V 14.5A 1475rpm S.F.: 1.0 Eff.: 87.7% Code: L								
	50Hz 7.5HP 400/415V 14.9/15.5A 1475/1480rpm S.F.: 1.0 Eff.: 87.7/87.7% Code: L/L								
CSA Certified for	Model	LATER			Type	PJP	Temp. Code	Frame	140-320FR
	CLASS I, Div. 2, Gr. A, B, C & D		CLASS II, Div. 2, Gr. E, F & G (Gr. E : up to 320FR)			(Sine Wave)	Amb.40°C	T3C (160°C)	
	CLASS I, Zone 2, Gr. IIA, IIB & IIC						Amb.55°C	T3A (180°C)	
No.	-		Date	-		Weight	190 lb		

MARINE DUTY IEIEE45
IEEE Std 841-2021

1.57

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 IEIEE841 (HL)	DWG SIZE	A4 (1:1)
CHKD BY	I.K.KIM	SCALE	NONE				
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE NAMEPLATE DRAWING			
DSND BY	S.H.LEE	DATE	2024.06.07				
				REF. NO	4M-135733	Sheet No. of	
				DWG NO	NP-IEIEE10-18-215TC	Revision No. 0	

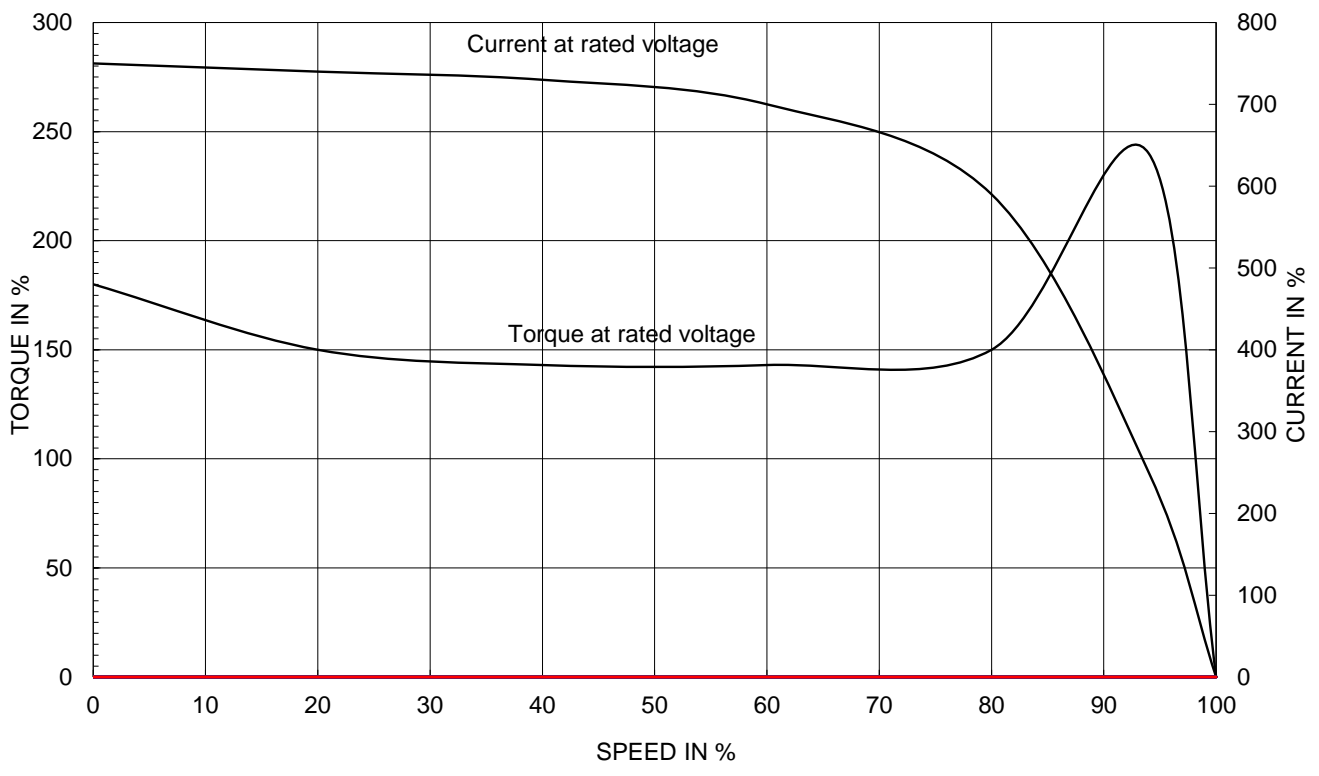


PERFORMANCE CURVE

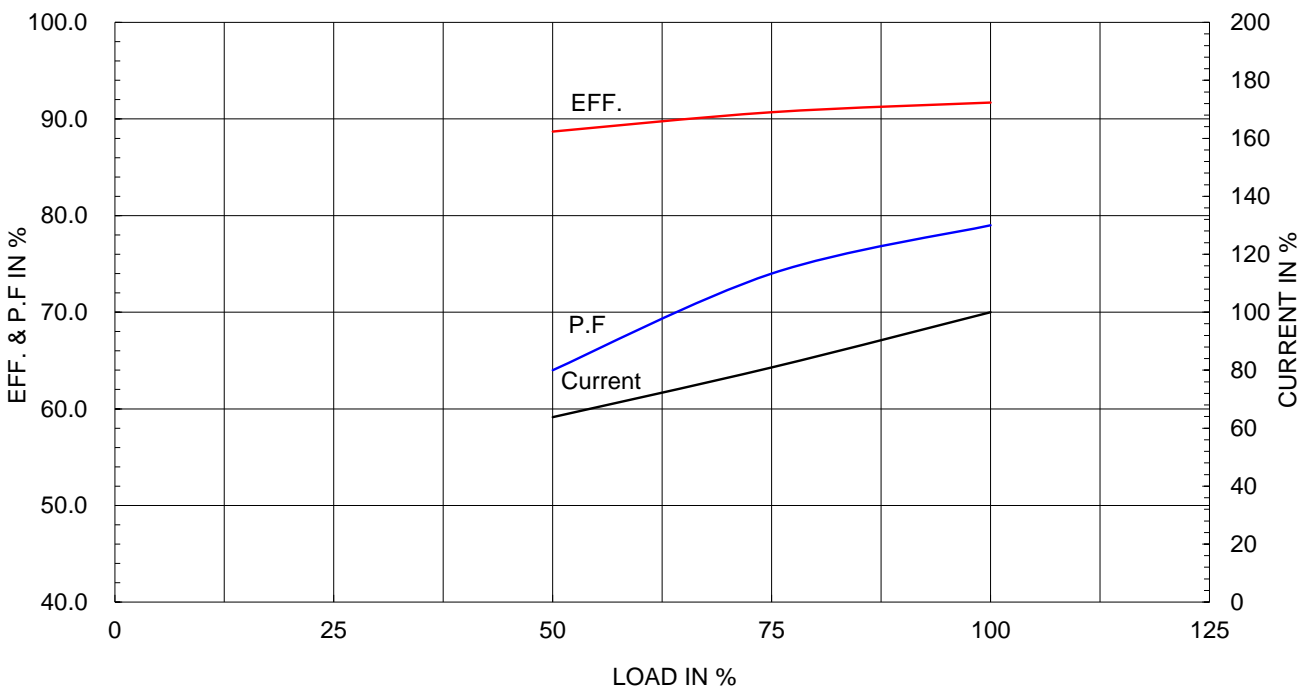
CURVE NO.
PC-IEEE10-18-215TC

Type :	PJP	7.5kW 10HP	4 P	60 Hz
Full Load Torque :	29.9 lb.ft	Speed at Full Load : 1770 RPM		
Load moment of Inertia (J) :	62.787 lb.ft2	Rated Voltage	575V	460V 230V
Motor moment of Inertia (J) :	0.712 lb.ft2	Full Load Current	10.4A	13.0A 26.0A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

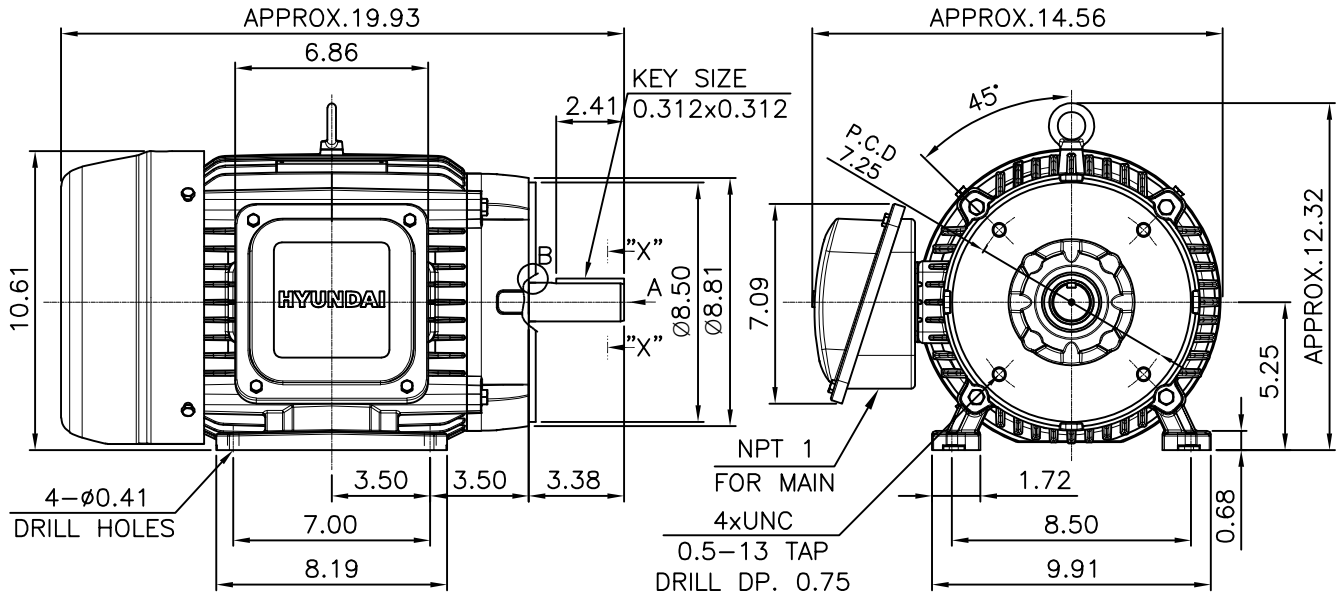


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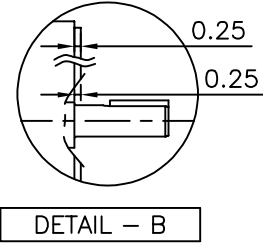
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▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							

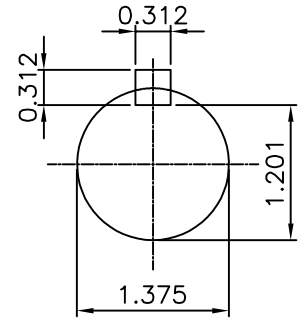
IEEE841



VIEW "A"



DETAIL - B



SECTION "X-X"
SCALE 4/7

NOTE

[TOLERANCE]

- 1. CENTER HEIGHT : +0.00inch - 0.03inch
- 2. SHAFT DIAMETER : +0.000inch - 0.0005inch
- 3. KEYWAY DEPTH : +0.000inch - 0.015inch

APPD BY	S.Y.KIM	UNIT	mm	SUBJECT	NEMA 215TC	DWG SIZE	A4 (1:7)
CHKD BY	R.G.KIM	SCALE	1/7	TITLE	OUTLINE	REF. NO	Sheet No. of
CHKD BY		PROJEC'N	3rd Angle				
DSND BY	J.H.JEON	DATE	2023-01-18				
				DWG NO	LM-I2215C4PLV23	REF. NO	.
						Revision No.	0

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



SEC. "A" - "A"

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

일반기준공차		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. 210 (CAST IRON)	DWG SIZE	
CHKD BY		SCALE	1/1.5	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-248457	Revision No.	0				

