HD HYUNDAI ELECTRIC

Essential for Today
Potential for Tomorrow

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.	HES5-18-184TCRD	Item No.		Rev. No.	[ ]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION

Frame Size		184TC
Type		PJP
Enclosure(Protection)		Totally Enclosed / IP55
Method of Cooling		IC411(FC)
Rated Frequency		60 Hz
Number of Phases		3
Insulation Class		F
Temp. Rise at full load (by resistance method)		
	at 1.0 S.F	80 deg. C
Motor Location		☐ Indoor ☐ Outdoor
Altitude		Less than 1,000 meter
Relative Humidity		Less than 80 %
Ambient Temp.		40 deg. C (Max.)
Duty Type		Continuous (S1)
Service Factor		1.15
Mounting		B5
Bearing	Type	Anti-Friction
	DE/N-DE	6206ZZC3 / 6206ZZC3
	Lubricant	Grease(Polyrex-EM)
External Thrust		Not applicable
Coupling Method		☑ Direct ☐ V-belt
Shaft Extension		Single
Terminal Box	Main	Cast Iron
	Aux.	No
	Location	Refer to Outline Drawing
Application		
Area classification		Hazardous
Type of Ex-Protection		Class I&II, Division 2
Applicable Standard		NEMA MG1, CSA C390

PERFORMANCE DATA

Rated Output		3.7 kW		5 HP
Number of Poles		4		
Rotor Type		Squirrel Cage		
Starting Method*		D.O.L		
Rated Voltage		575 V	460 V	230 V
Current	Full Load	5.19 A	6.49 A	13.0 A
	Locked-rotor**	840 %	840 %	840 %
Efficiency				
	50% Load	86.5 %		
	75% Load	88.5 %		
	100% Load	89.5 %		
Power Factor(p.u)				
	50% Load	0.650		
	75% Load	0.750		
	100% Load	0.800		
Speed at Full Load		1760 r.p.m		
Torque				
	Full Load	14.81 lb.ft		
	Locked-rotor**	210 %		
	Breakdown**	260 %		
Moment of Inertia (J)				
	Load(Max.)	35.061 lb.ft2		
	Motor	0.309 lb.ft2		
Sound Pressure Level (No-load & mean value at 1m from motor)		60 dB(A)		
Vibration		3.8 mm/sec (peak)		
Permissible number of consecutive starts		Cold 3 times		
		Hot 2 times		
Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		

ACCESSORIES

SPARE PARTS

SUBMITTAL DRAWING

Outline Dimension Drawing	\ Motor Weight(Approx.)	
B5	LM-T2184C5PLV23	115 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.
6. Temp. code : T3C(160°C) at sine wave

Date	DSND	CHKD	CHKD	APPD
2025-07-22	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.

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

▣ MAIN NAMEPLATE

3.94

1.57

CROWN TRITON G2 Premium Efficiency AC 3 Phase Motor — Cat. No. HES5-18-184TCRD

5HP	4P	230/460V	Amps	13.0/6.49A	Type	HLS	Amb.	40°C
Frame	184TC	Duty CONT	Encl.	TEFC	Model	HLS184PR235V	NEMA Nom. Eff.	89.5%
RPM	1760	Hertz 60Hz	S.F.	1.15	INS. Class	F HD-F1	3/4 Eff.	88.5%
Bearing	Drive 6206ZZC3		S.F.1.25 (When 100HP or less,Temp Rise F & Non-Hazardous)				NEMA Design	B Torque
	Opp. 6206ZZC3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)				Code	K
Usable at	50Hz 5HP 380V 8.54A 1450rpm S.F.: 1.15 Eff.: 87.5% Code: H							
	50Hz 5HP 400/415V 8.44/8.47A 1455/1460rpm S.F.: 1.15 Eff.: 87.5/87.5% Code: K/K							
CSA Certified for	Model LATER				Type PJP		Temp. Code (Sine Wave)	Frame 140~320FR
	CLASS I, Div. 2, Gr. A, B, C & D		CLASS II, Div. 2, Gr. E, F & G					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 115 lb			

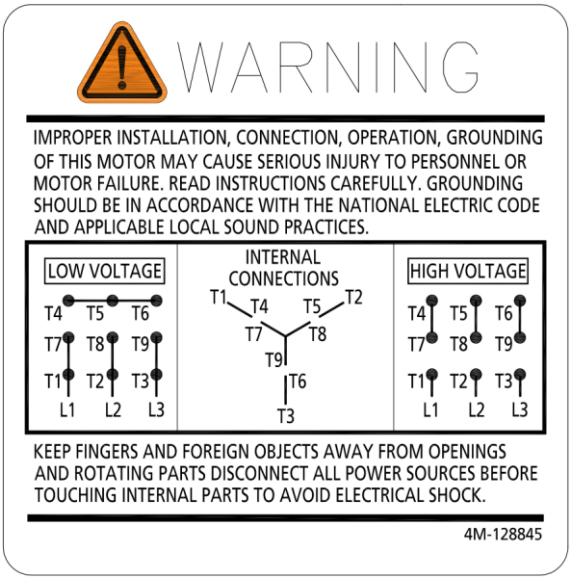
4M-136021 **MARINE DUTY IEEE45**

Made in Vietnam H4
Designed By HYUNDAI, Korea

HD HYUNDAI ELECTRIC

CC038A

▣ WIRING DIAGRAM

D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
	N/A

APPD BY	S.Y.KIM	UNIT	INCH
CHKD BY	I.K.KIM	SCALE	NONE
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle
DSND BY	S.H.LEE	DATE	2024.06.07

HD HYUNDAI ELECTRIC

SUBJECT	CSA Class I, Division2 Severe Duty (HES, 143-215)		DWG SIZE A4 (1:1)
TITLE	NAMEPLATE DRAWING		
REF. NO	4M-136021 / 4M-128845	Sheet No.	of
DWG NO	NP-HES5-18-184TCRD	Revision No.	0

HYUNDAI ELECTRIC

PERFORMANCE CURVE

CURVE NO.

PC-HES5-18-184TCRD

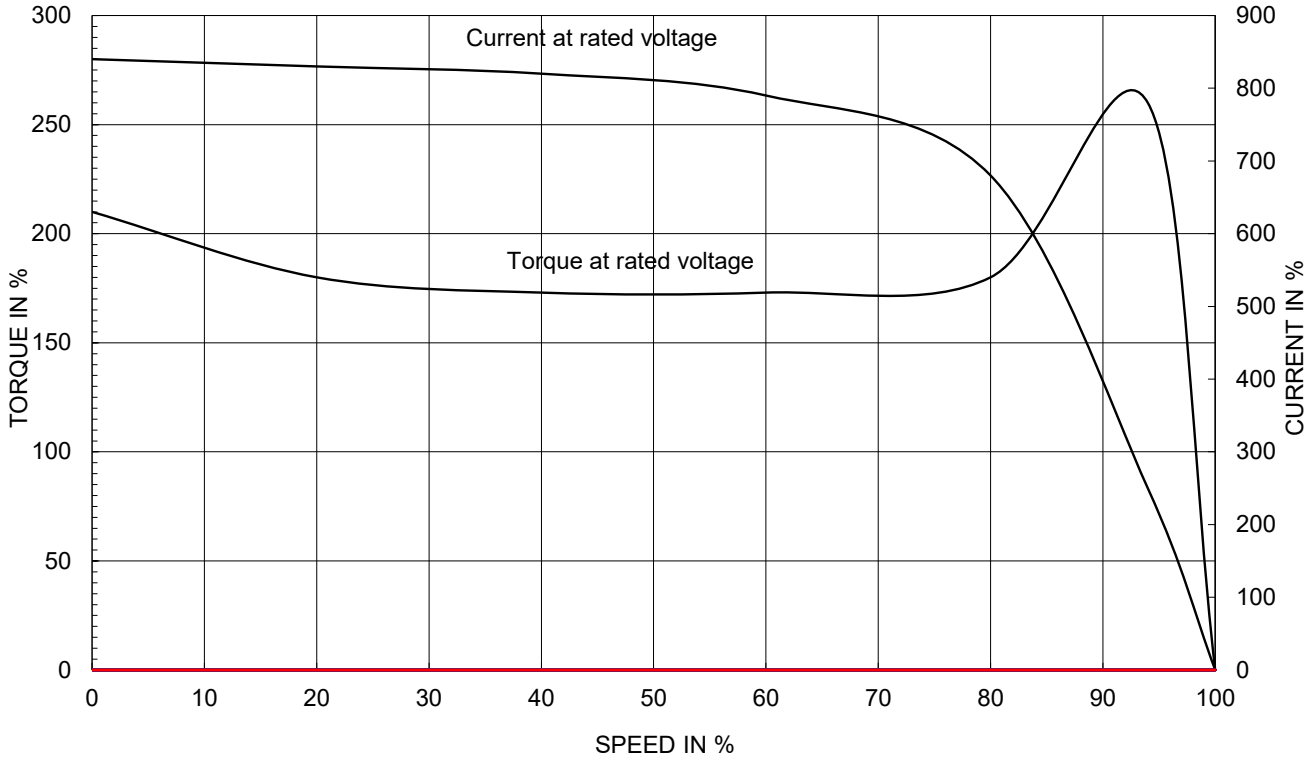
Type :	PJP	
Full Load Torque :	14.81	lb.ft
Load moment of Inertia (J) :	35.061	lb.ft2
Motor moment of Inertia (J) :	0.309	lb.ft2

3.7kW 5HP 4 P 60 Hz

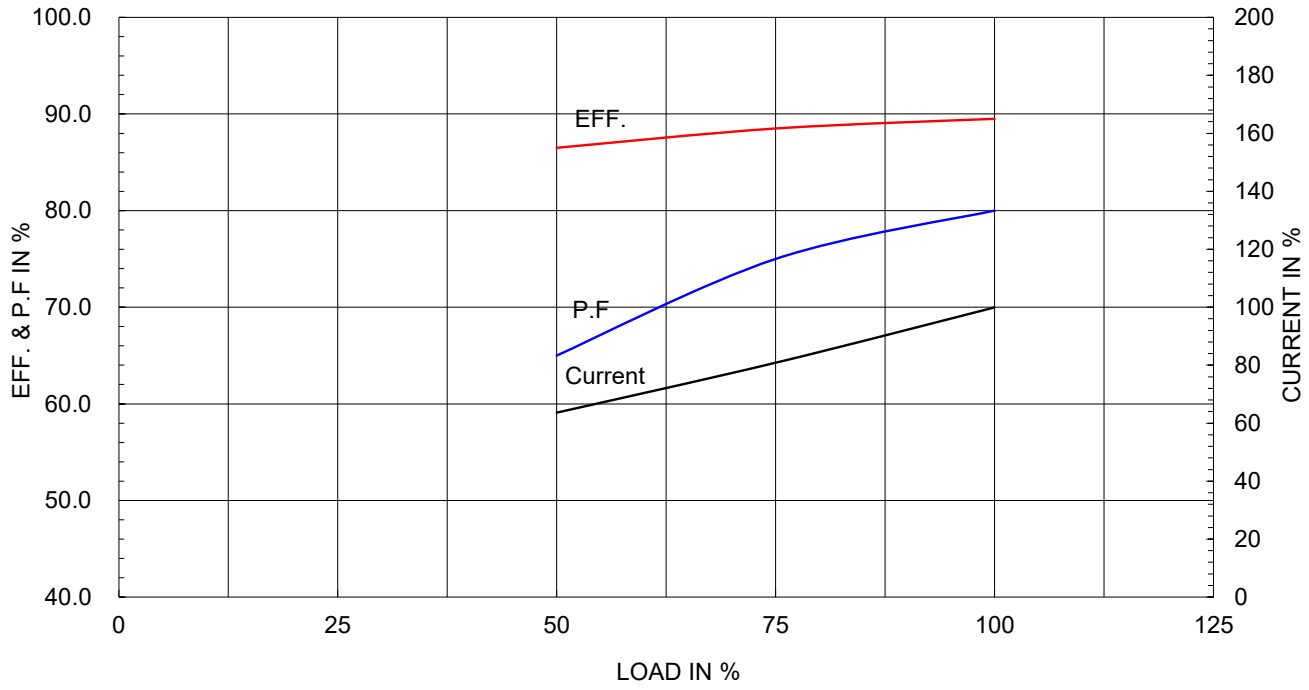
Speed at Full Load : 1760 RPM

Rated Voltage	575V	460V	230V
Full Load Current	5.19A	6.49A	13.0A

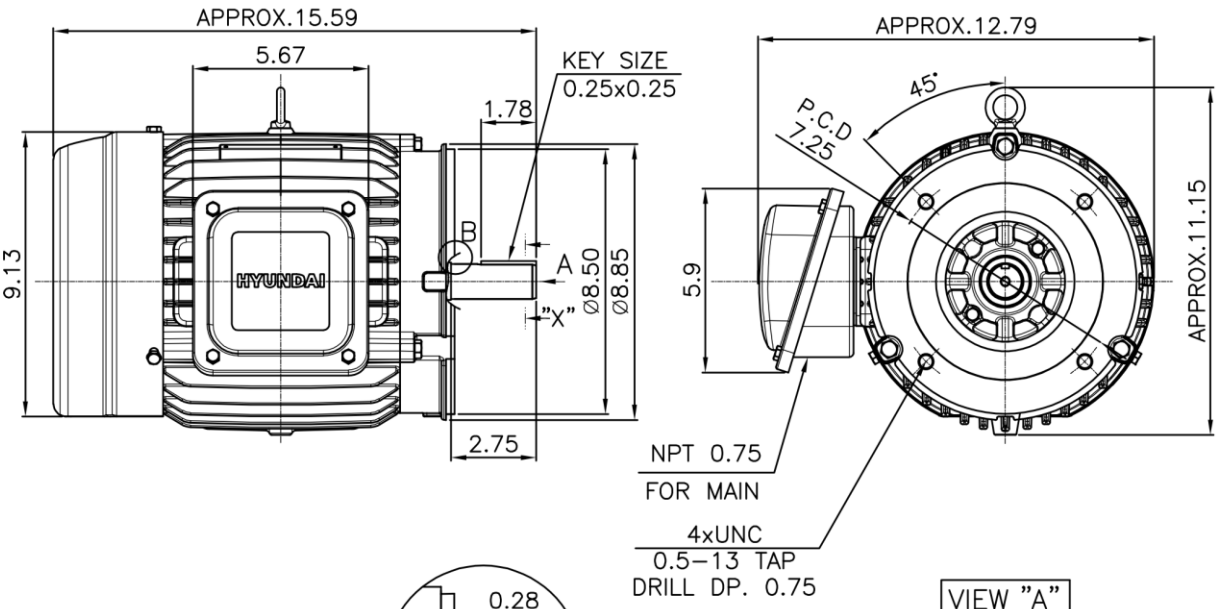
SPEED VS TORQUE & CURRENT CURVE



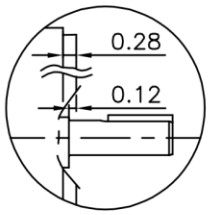
OUTPUT VS EFF., P.F & CURRENT CURVE



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



VIEW "A"

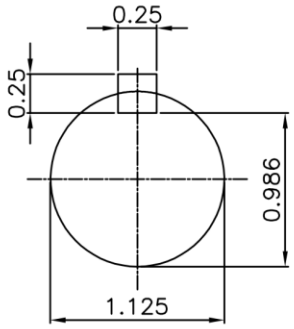


DETAIL – B

NOTE

[TOLERANCE]

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



SECTION "X-X"

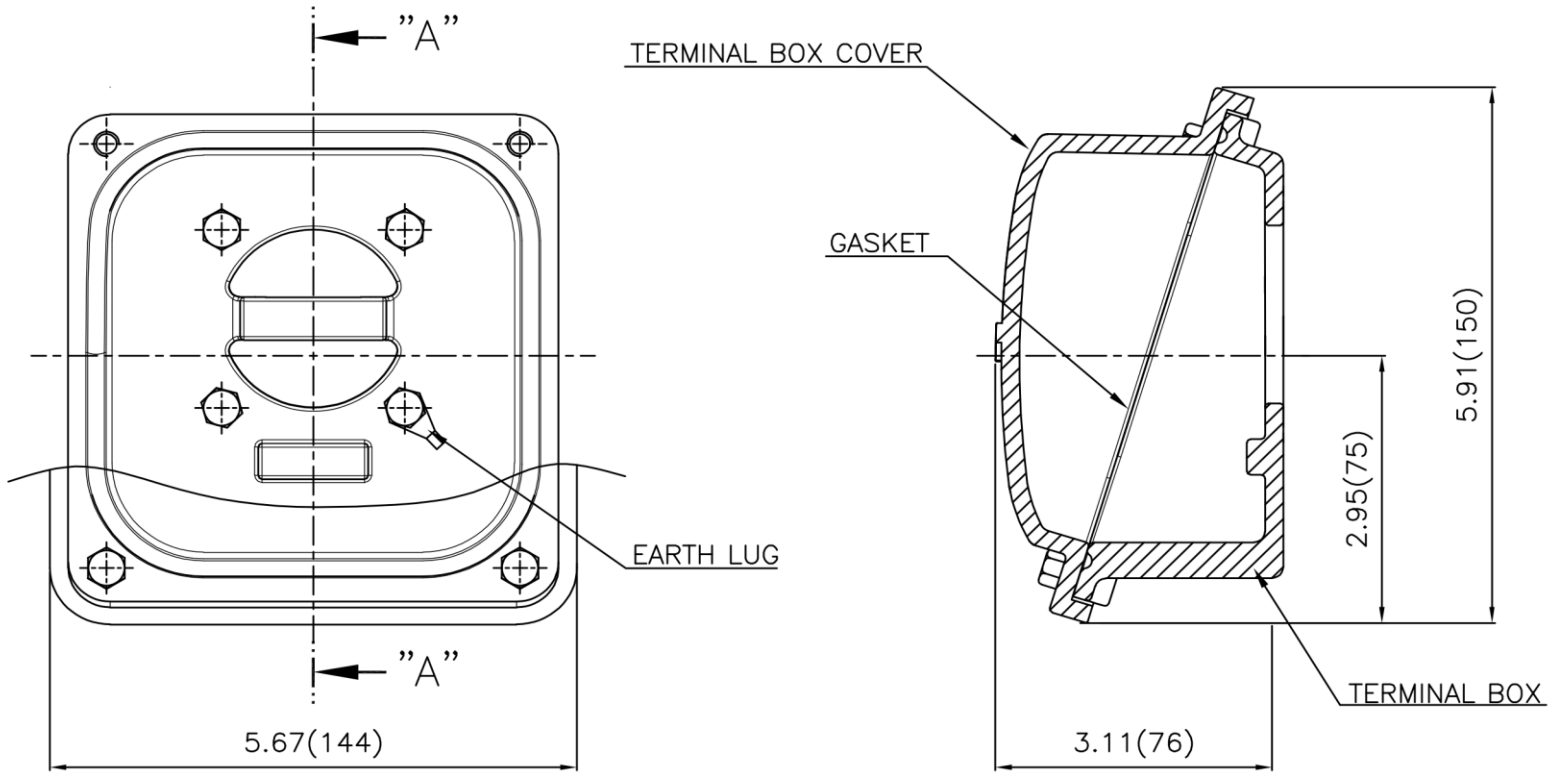
SCALE 5/6

APPD BY	S.Y.KIM	UNIT	inch
CHKD BY	R.G,KIM	SCALE	1/6
CHKD BY		PROJEC'N	3rd Angle
DSND BY	전지현	DATE	2021-04-28

SUBJECT	NAMA 184TC	DWG SIZE A4 (1:6)
TITLE	OUTLINE	
REF. NO	.	Sheet No. of
DWG NO	LM-T2184C5PLV23	Revision No. 0

HD HYUNDAI ELECTRIC

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

일반가공공차		일본제공공차	
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. 140–180 (CAST IRON)
CHKD BY		SCALE	1/1.5		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE	TERMINAL BOX ASS'Y
DSND BY	배슬희	DATE	2023–10–19		

DWG SIZE: A3 (1:1.5)

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REF. NO		Sheet No.	of
DWG NO	3M–248456	Revision No.	0