

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.		HES3-18-182TC		Item No.		Rev. No. []							
Project Name				Project No.		Quantity sets							
GENERAL SPECIFICATION				PERFORMANCE DATA									
Frame Size		182TC		Rated Output		2.2 kW 3 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 3.12 A 3.91 A 7.81 A							
Insulation Class		F				Locked-rotor**		930 % 930 % 930 %					
Temp. Rise at full load (by resistance method)				Efficiency									
at 1.0 S.F		80 deg. C		50% Load		86.5 %							
Motor Location		<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load		88.5 %							
Altitude		Less than 1,000 meter		100% Load		89.5 %							
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 6206ZZC3 / 6206ZZC3		Full Load		8.8 lb.ft							
		Lubricant Grease(Polyrex-EM)		Locked-rotor**		220 %							
External Thrust		Not applicable		Breakdown**		280 %							
Coupling Method		<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)									
Shaft Extension		Single		Load(Max.)		20.204 lb.ft2							
Terminal Box		Main Cast Iron		Motor		0.190 lb.ft2							
		Aux. No		Sound Pressure Level (No-load & mean value at 1m from motor)									
Location		Refer to Outline Drawing		60 dB(A)									
Application				Vibration 3.8 mm/sec (peak)									
Area classification		Hazardous		Permissible number of consecutive starts		Cold 3 times Hot 2 times							
Type of Ex-Protection		Class I&II, Division 2		Paint		Munsell No. 4.0PB5.4/5.5(VL-451)							
Applicable Standard		NEMA MG1, CSA C390											
ACCESSORIES				SUBMITTAL DRAWING									
				Outline Dimension Drawing \ Motor Weight(Approx.)									
				B35		LM-T2182C4PLV23		125 lb.					
				REMARK									
				<ol style="list-style-type: none"> 1. Premium efficiency according to NEMA MG1 2. Inverter Duty @ 1.0 Service Factor & F Temperature rise <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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. 									
SPARE PARTS				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

3.94

CROWN TRITON G2 Premium Efficiency
AC 3 Phase Motor

Cat. No. HES3-18-182TC

3HP	4P	230/460V	Amps	7.81/3.91	Type	HLS	Amb.	40°C	
Frame	182TC	Duty	CONT	Encl.	TEFC	Model	HLS182PR235	NEMA Nom. Eff.	89.5%
RPM	1770	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	L	
Usable at	50Hz 3HP 380V 5.14A 1460rpm S.F.: 1.15 Eff.: 87.5% Code: J								
	50Hz 3HP 400/415V 5.08/5.09A 1465/1465rpm S.F.: 1.15 Eff.: 87.5/87.5% 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	125 lb		

4M-136021
MARINE DUTY IEEE45

Made in Vietnam H4
Designed By HYUNDAI, Korea

1.57

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HES, 143-215)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE			A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	NAMEPLATE DRAWING		
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	4M-136021	Sheet No. of
				DWG NO	NP-HES3-18-182TC	Revision No. 0



PERFORMANCE CURVE

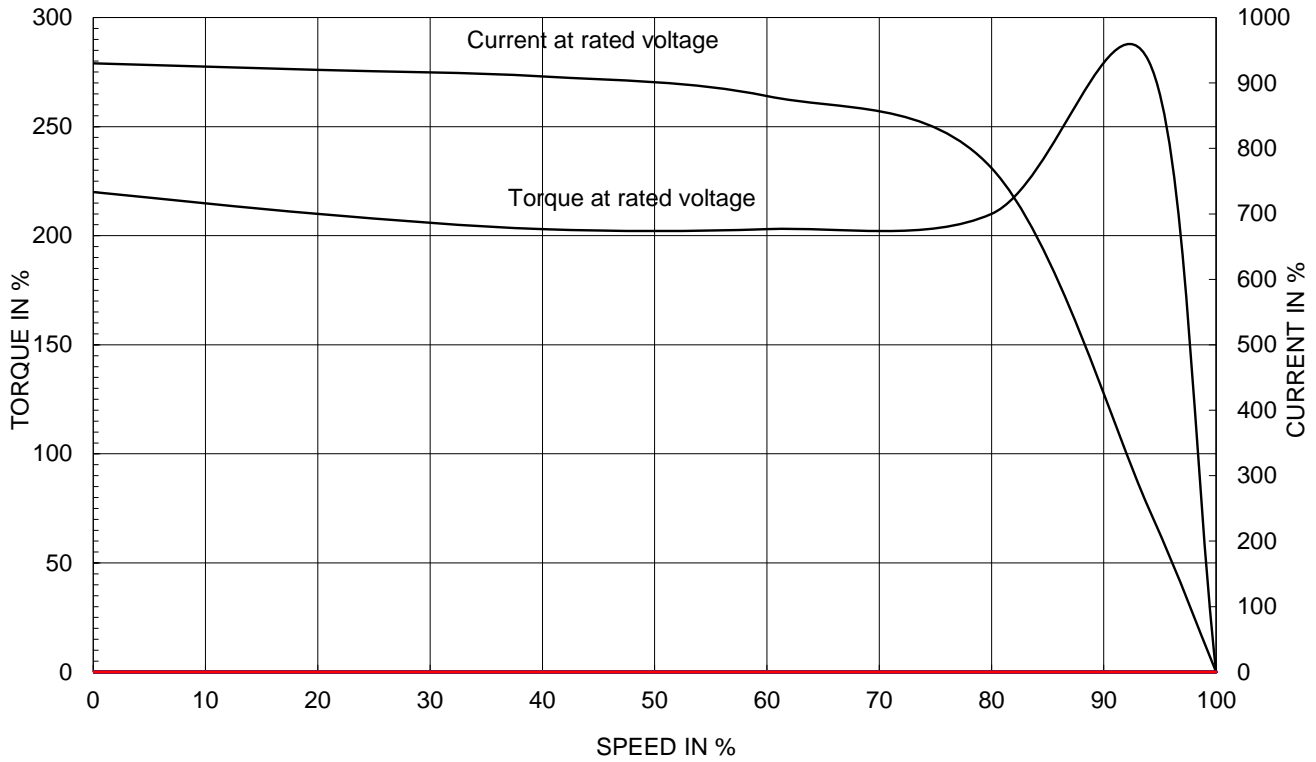
CURVE NO.

PC-HES3-18-182TC

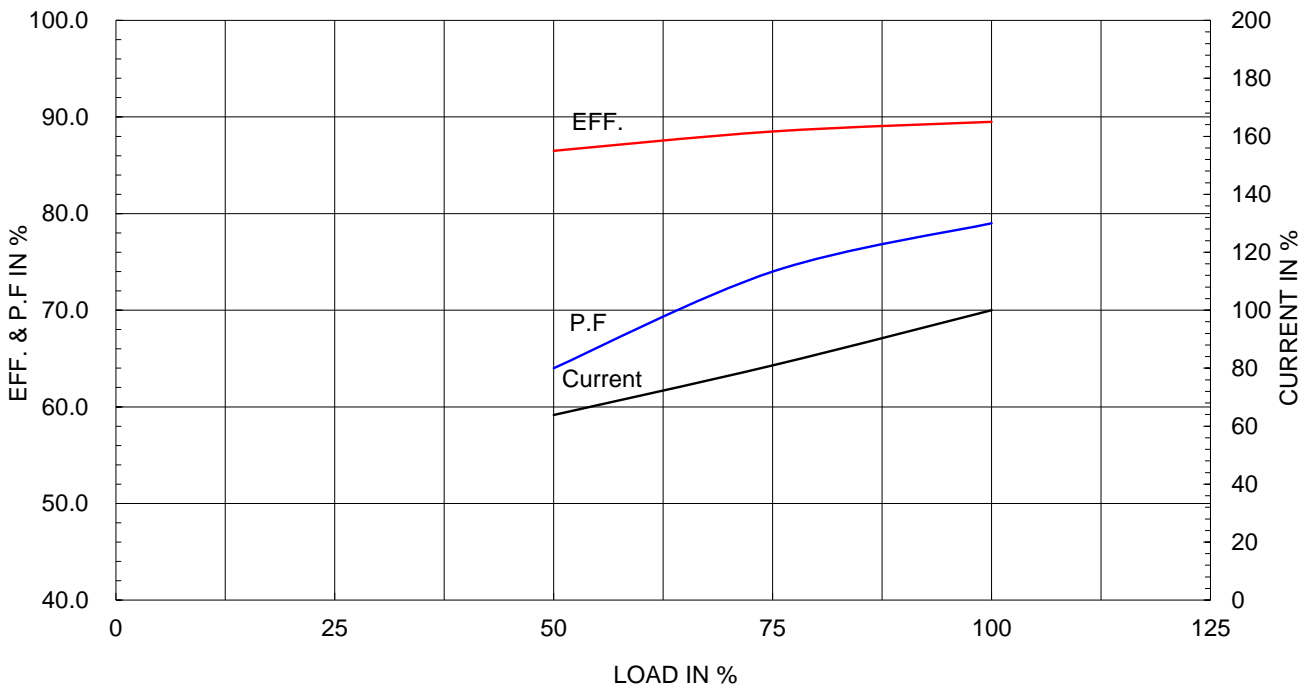
Type :	PJP
Full Load Torque :	8.8 lb.ft
Load moment of Inertia (J) :	20.204 lb.ft2
Motor moment of Inertia (J) :	0.190 lb.ft2

2.2kW 3HP	4 P	60 Hz
Speed at Full Load :		1770 RPM
Rated Voltage	575V	460V 230V
Full Load Current	3.1A	3.9A 7.8A

SPEED VS TORQUE & CURRENT CURVE



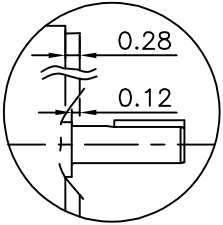
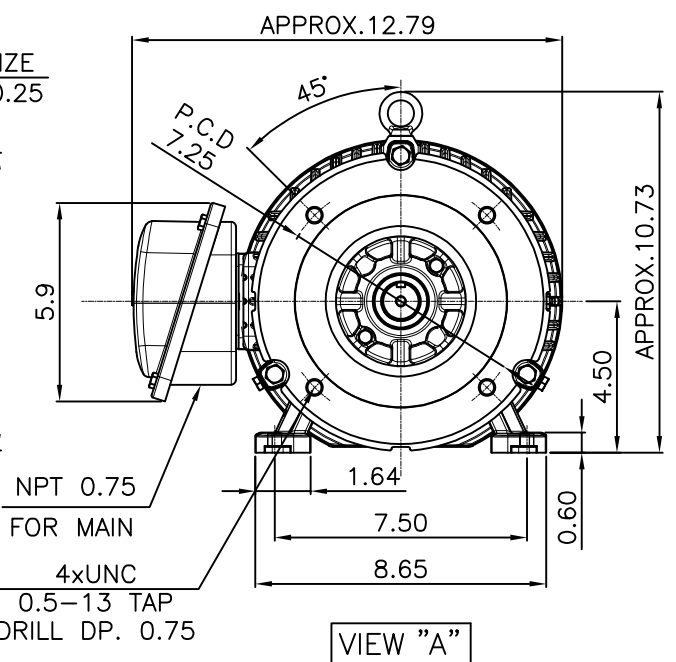
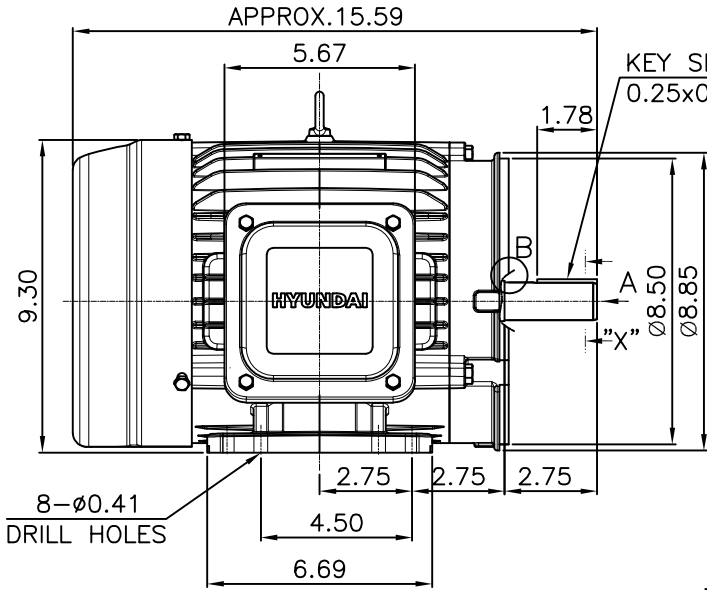
OUTPUT VS EFF., P.F & CURRENT CURVE



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

THIS DRAWING IS PROPRIETARY TO HYUNDAI ELECTRIC. NO PART OF THIS DRAWING MAYBE REPRODUCED WITHOUT THE PERMISSION OF HYUNDAI ELECTRIC.

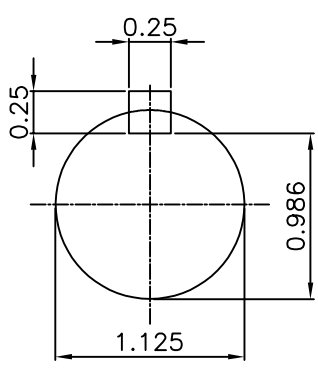
▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							



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	SUBJECT	NAMA 182TC	DWG SIZE	A4 (1:6)
CHKD BY	R.G.KIM	SCALE	1/6	TITLE	OUTLINE	REF. NO	Sheet No. of
CHKD BY		PROJEC'N	3rd Angle				
DSND BY	주유람	DATE	2021-04-29				
				DWG NO	LM-T2182C4PLV23	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

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. 140-180 (CAST IRON)	DWG SIZE	A3 (1:1.5)
CHKD BY		SCALE	1/1.5	TITLE			
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TERMINAL BOX ASS'Y			
DSND BY	배승희	DATE	2023-10-19	REF. NO		Sheet No.	of
				DWG NO	3M-248456	Revision No.	0

