HYUNDAI HEAVY INDUSTRIES CO.,LTD.

AC INDUCTION MOTOR DATA SHEET

Model No.or RFQ No.		Item No.		Rev. No.	[0]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION

Frame Size		160M
Type		HL-XP
Enclosure(Protection)		Explosion Proof (IP55)
Method of Cooling		IC411(FC)
Rated Frequency		60 Hz
Number of Phases		3
Insulation Class		■ F ☐ B ☐ H
Temp. Rise at full load (by resistance method)		
	at 1.0 S.F	80 deg. C
Motor Location		☐ Indoor ■ Outdoor
Altitude		Less than 1000 meter
Relative Humidity		Less than 80 %
Ambient Temp.		40 deg. C (Max.)
Duty Type		Continuos (S1)
Service Factor		1.00
Mounting		☐ B3 ☐ B5 ■ V1 ☐ B3/B5
Bearing	Type	Anti-Friction
	DE/N-DE	6309ZZC3 / 6309ZZC3
	Lubricant	Grease(Polyrex-EM)
External Thrust		Not applicable
Coupling Method		■ Direct ☐ V-Belt
Shaft Extension		■ Single ☐ Double
Terminal Box	Main	☐ Steel ■ Cast Iron
	Aux.	☐ Yes ■ No
	Location	Refer to Outline Drawing
Application		
Area classification		Hazardous
Type of Ex-Protection		Ex d IIB T4
Applicable Standard		KS,IEC

PERFORMANCE DATA

Rated Output		7.5 kW	10 HP	
Number of Poles		6		
Rotor Type		Squirrel Cage		
Starting Method*		■ D.O.L	☐ Y-△	
Rated Voltage		440 V	380 V	220 V
Current	Full Load	14.5 A	16.8 A	28.9 A
	Locked-rotor**	650 %	650 %	650 %
Efficiency				
	50% Load	88.7 %		
	75% Load	90.0 %		
	100% Load	89.5 %		
Power Factor(p.u)				
	50% Load	0.580		
	75% Load	0.706		
	100% Load	0.760		
Speed at Full Load		1170 r.p.m		
Torque				
	Full Load	6.2 kg·m		
	Locked-rotor**	170 %		
	Breakdown**	250 %		
Moment of Inertia (J)				
	Load(Max.)	15.000 kg·m²		
	Motor	0.090 kg·m²		
Sound Pressure Level (No-load & mean value at 1m from motor)		64 dB(A)		
Vibration		2.2 mm/sec (r.m.s)		
Permissible number of consecutive starts		Cold 3 times		
		Hot 2 times		
Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		

ACCESSORIES

SUBMITTAL DRAWING

Outline Dimension Drawing \ Motor Weight(Approx.)			
B3			kg
B5			kg
V1	227B2062AA05	145	kg
B3/B5		0	kg
Main T-Box Ass'y	227B1470LB		

SPARE PARTS

REMARK

High Efficiency

Date	DSND	CHKD	CHKD	APPD
2011-04-14	W.H.BACK	S. J. RA	O. J. KIM	J. H. 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 maker standard, if not mentioned.
* In case of Inverter-Fed Motor, performance data is based on sine wave tests.
** Data is based on when the motor is supplied at rated voltage & frequency. and the data is expressed as a percentage of full-load value.

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PERFORMANCE CURVE

CURVE NO.

P-HS-7.5/6

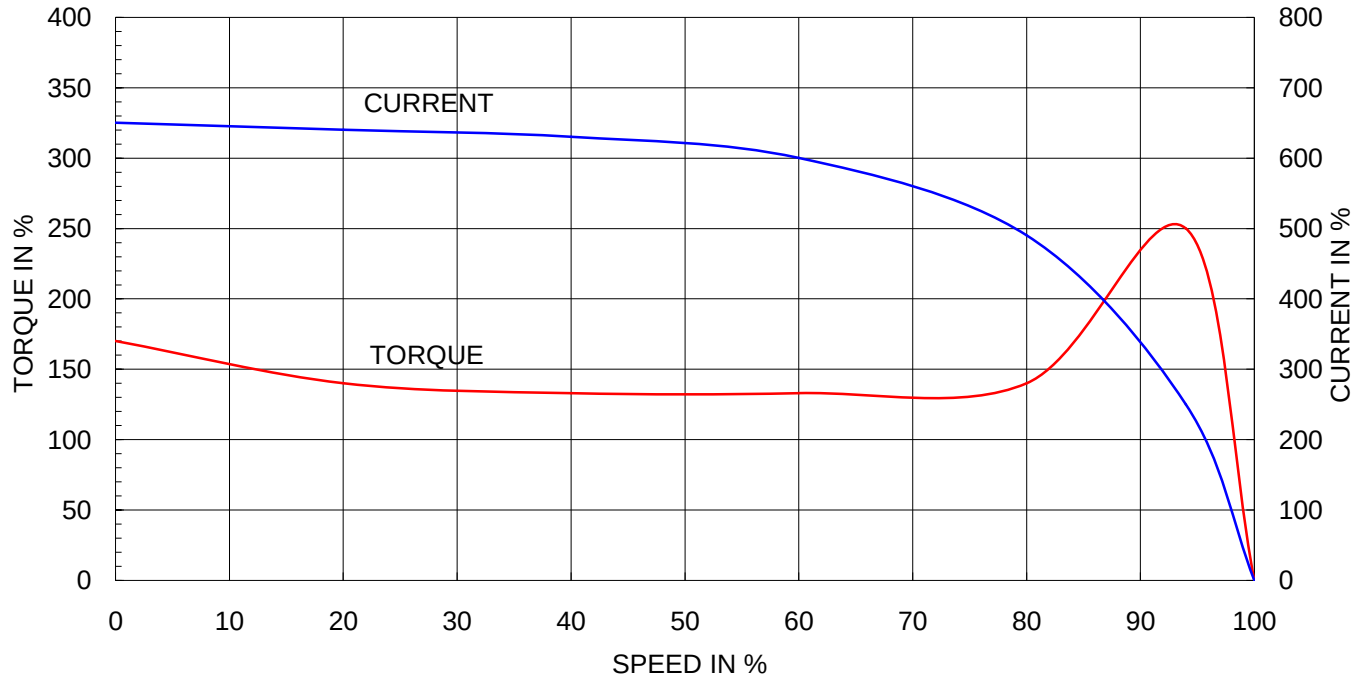
Type :	HL-XP	
Full Load Torque :	6.2	Kg.m
Motor moment of Inertia (J) :	0.090	$Kg.m^2$
Load moment of Inertia (J) :	15.000	$Kg.m^2$

7.5 kW 6 P 60 Hz

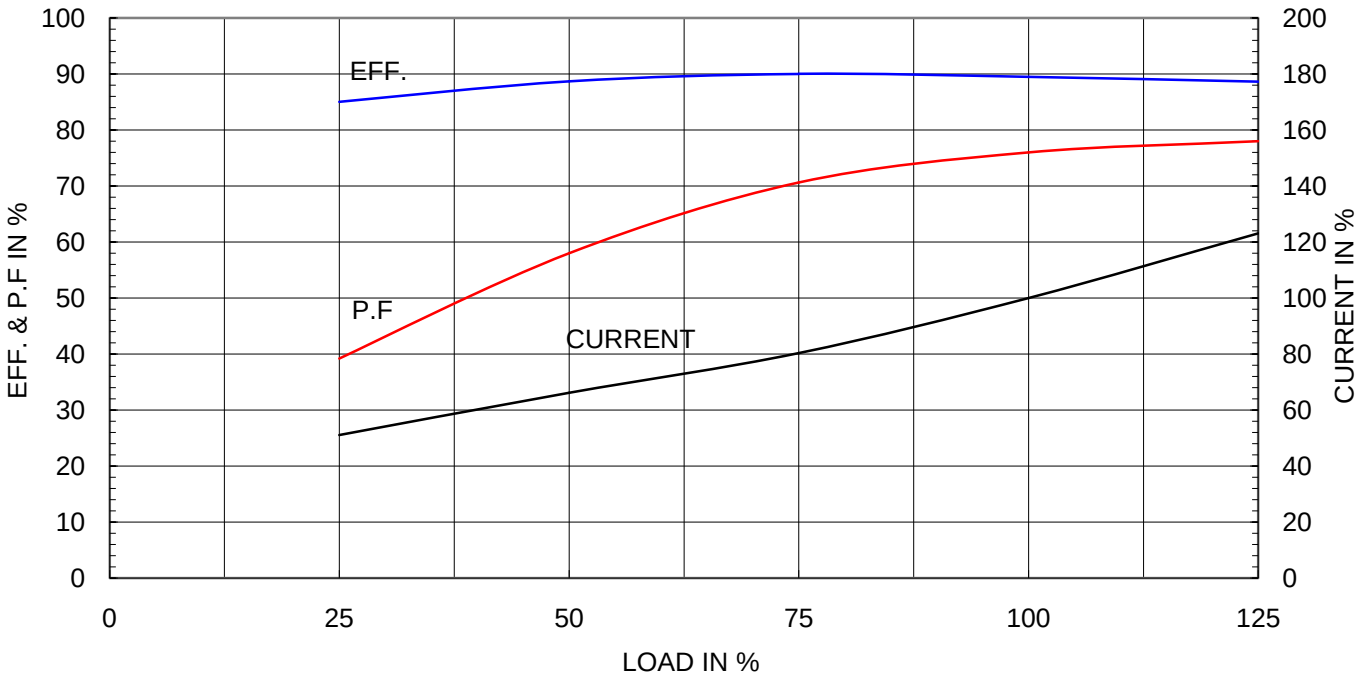
Speed at Full Load : 1170 RPM

Rated Voltage	440V	380V	220V	
Full Load Current	14.5A	16.8A	28.9A	

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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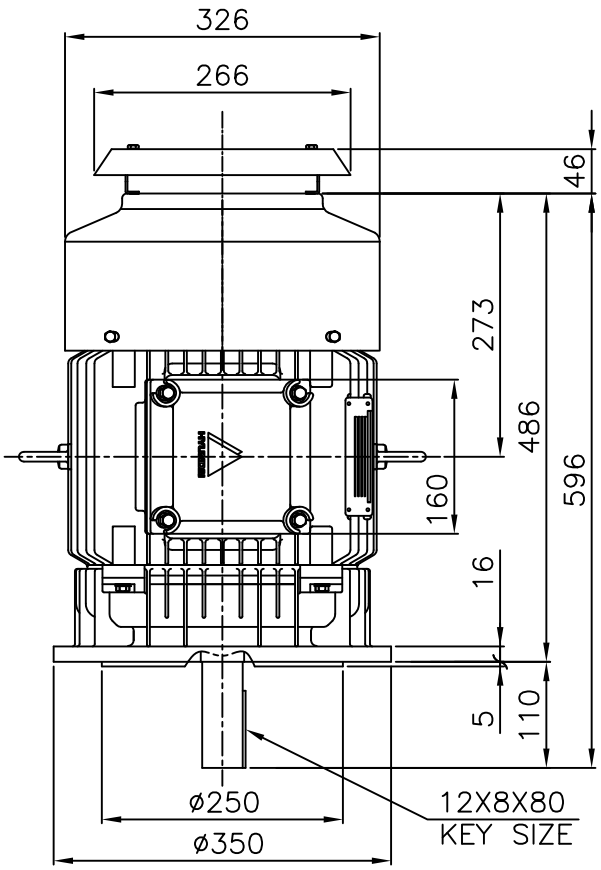
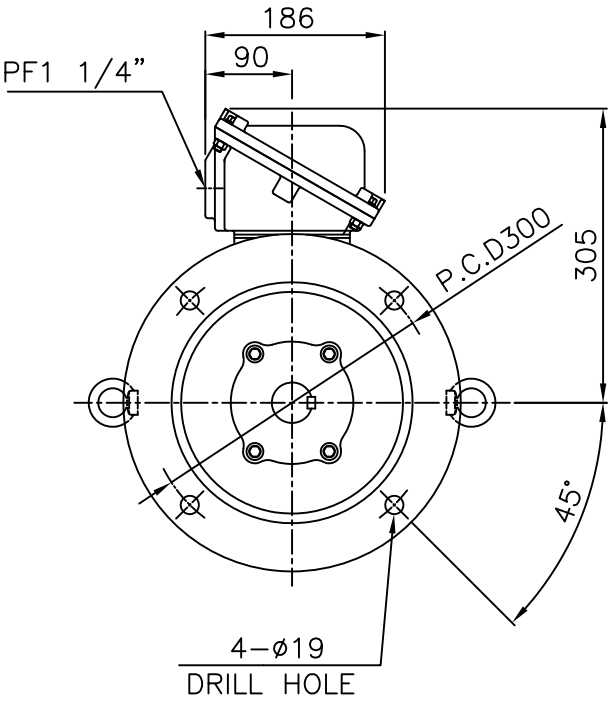
TEFC
THREE PHASE INDUCTION MOTOR

TYPE	HL, HLS
	CAST IRON FRAME

Exd II

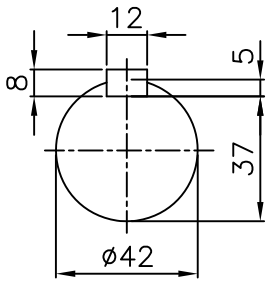




NOTE

1.TOLERANCE :

FLANGE HOLES	ø19	$^{+0.43}_{0}$
RABBET DIAMETER	ø250	$^{+0.016}_{-0.013}$
SHAFT DIAMETER	ø42	$^{+0.018}_{+0.002}$
KEYWAY WIDTH	12	$^{0}_{-0.043}$
KEYWAY DEPTH	5	$^{+0.2}_{0}$

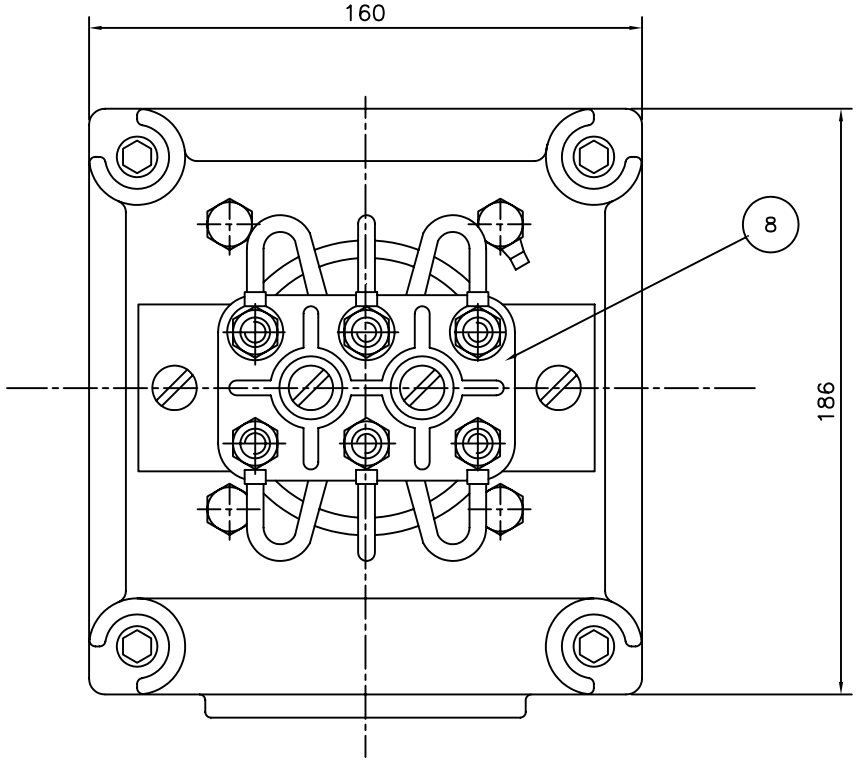


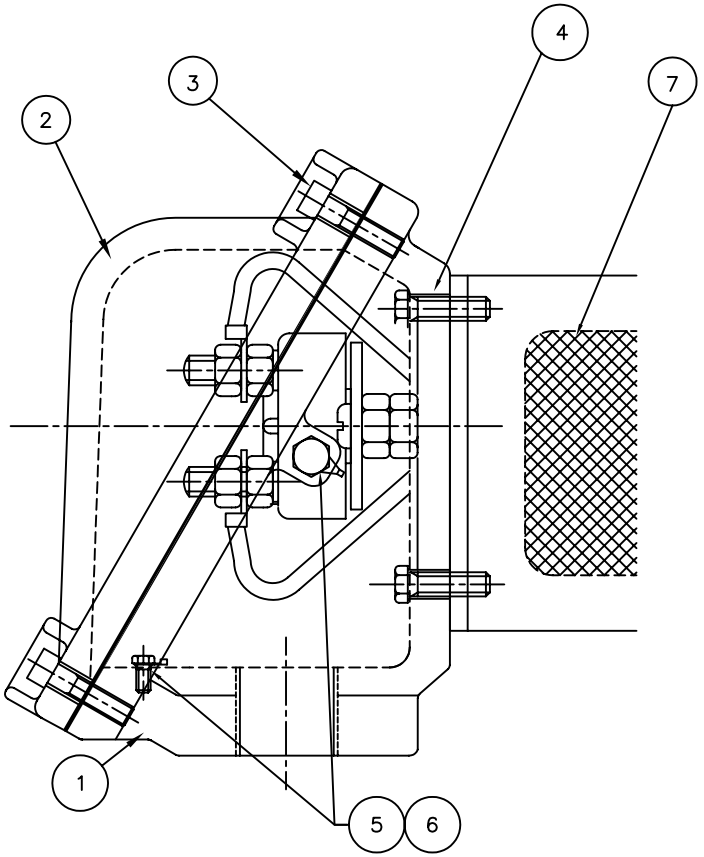
APPD BY	Y. S. KIM	UNIT	mm
CHKD BY	K. S. LEE	SCALE	1/8
CHKD BY	-----	PROJEC'N	3rd Angle
DSND BY	I. K. KIM	DATE	2008.10.22

SUBJECT	KS 160M	CAD PROJ \ FILE: XSDNKS\B2062AA05
TITLE	OUTLINE	
REF. NO	B2062AA05	Sheet No. of
DWG NO	227B2062AA05	Revision No. 0

HYUNDAI HEAVY INDUSTRIES CO., LTD.
Electro-Electric System Division

HYUNDAI HEAVY INDUSTRIES CO., LTD.





Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
	ASSEMBLY						
1	TERMINAL BOX	FC15					1
1	TERMINAL BOX COVER	FC15					2
4	T/B + COVER BOLT	S45C					3
4	T/B + FRAME BOLT	S45C					4
2	GRD. BOLT	S45C					5
2	GRD TERMINAL LUG	CU					6
.	SEALING COMPOUND	D4C29C					7
1	TERMINAL BLOCK						8

APPD BY		UNIT	MM
CHKD BY		SCALE	N/S
CHKD BY		PROJEC'N	3 각법(3rd Angle)
DSND BY	LEE E.J.	DATE	99.2.2

SUBJECT: IEC 160/180FR d2G4

CAD PROJ ₩ \ FILE ₩: XSMOUT\7B1468LB

TITLE: MAIN TERMINAL BOX

HYUNDAI HEAVY INDUSTRIES CO. LTD. ELECTRICAL ENGINEERING DIVISION

REF. NO	7B1470LB
DWG NO	227B1470LB

Sheet No. of

Revision No. 0

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY