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		200LL
Type		HS-45/4
Enclosure(Protection)		Totally Enclosed (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		1.15
Mounting		■ B3 ☐ B5 ☐ V1 ☐ B3/B5
Bearing	Type	Anti-Friction
	DE/N-DE	6313ZC3 / 6211ZC3
	Lubricant	Grease(Alvania RL2)
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		Non-Hazardous
Type of Ex-Protection		Not applicable
Applicable Standard		KS,IEC,NEMA MG1 Part30(Vpeak)

PERFORMANCE DATA

Rated Output		45 kW	60 HP	
Number of Poles		4		
Rotor Type		Squirrel Cage		
Starting Method*		■ D.O.L	☐ Y-△	
Rated Voltage		440 V	380 V	220 V
Current	Full Load	76.0 A	88.0 A	152.0 A
	Locked-rotor**	650 %	650 %	650 %
Efficiency				
	50% Load			
	75% Load			
	100% Load	93.6 %		
Power Factor(p.u)				
	50% Load			
	75% Load			
	100% Load	0.830		
Speed at Full Load		1775 r.p.m		
Torque				
	Full Load	24.7 kg·m		
	Locked-rotor**	160 %		
	Breakdown**	210 %		
Moment of Inertia (J)				
	Load(Max.)	26.000 kg·m²		
	Motor	0.546 kg·m²		
Sound Pressure Level (No-load & mean value at 1m from motor)		78 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	227B1940CB02	320	kg
B5	227B1941CB02	330	kg
V1	227B1942CB02	330	kg
B3/B5	227B1941PB02	330	kg
Main T-Box Ass'y	227B8003CB5		

SPARE PARTS

REMARK

High Efficiency

*. For use on PWM VFD 10:1VT, 3:1CT@1.0S.F&F Temp. rise

Date	DSND	CHKD	CHKD	APPD
2009-09-10	KIM R.G.	RA S.J.	KIM O.J.	KIM J.H.

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.

HYUNDAI HEAVY INDUSTRIES CO.,LTD.

PERFORMANCE CURVE

CURVE NO.

P-HS-45/4

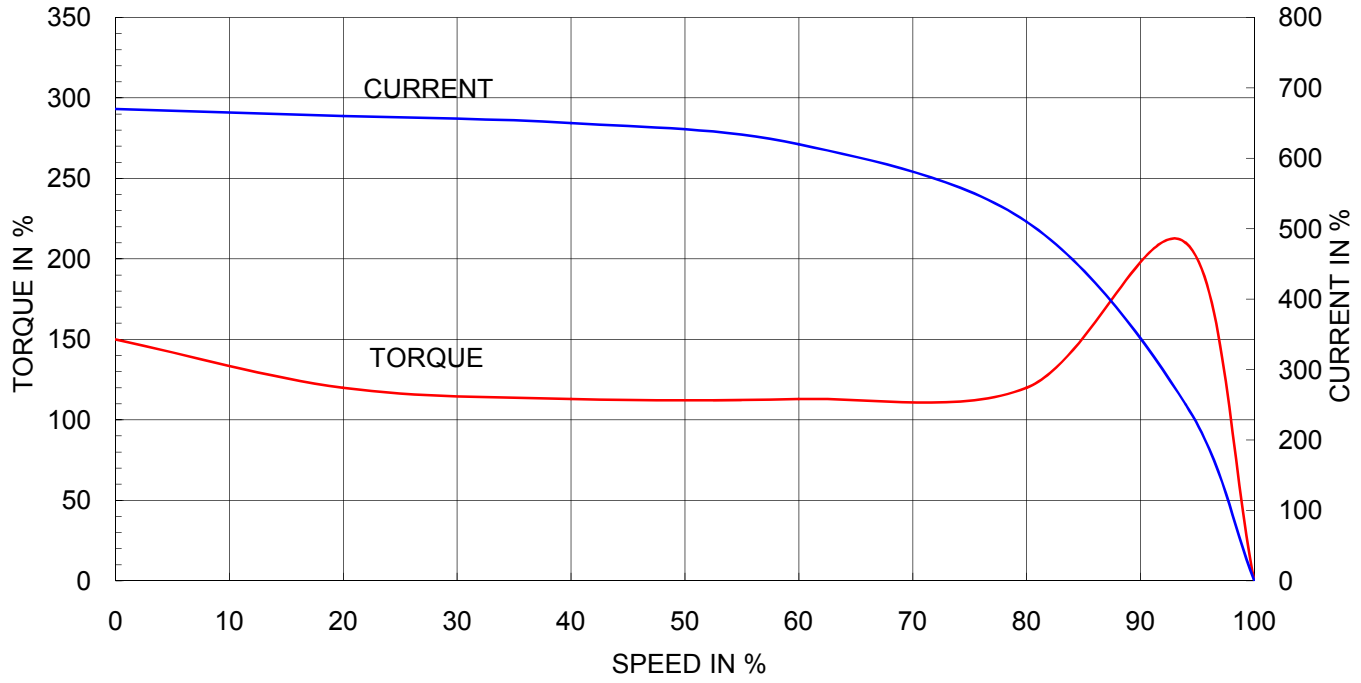
Type :	HS	
Full Load Torque :	24.7	Kg.m
Motor moment of Inertia (J) :	0.546	$Kg.m^2$
Load moment of Inertia (J) :	26.000	$Kg.m^2$

45 kW 4 P 60 Hz

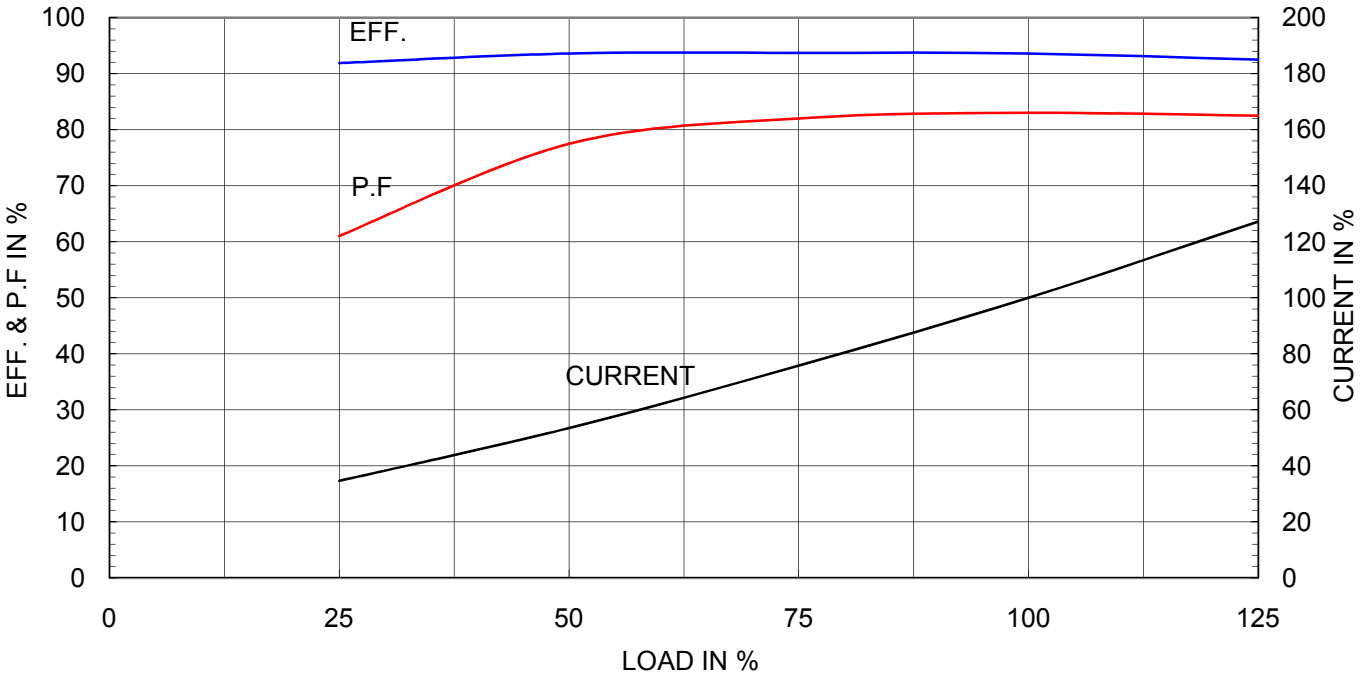
Speed at Full Load : 1775 RPM

Rated Voltage	440V	380V	220V	
Full Load Current	76.0A	88.0A	152.0A	

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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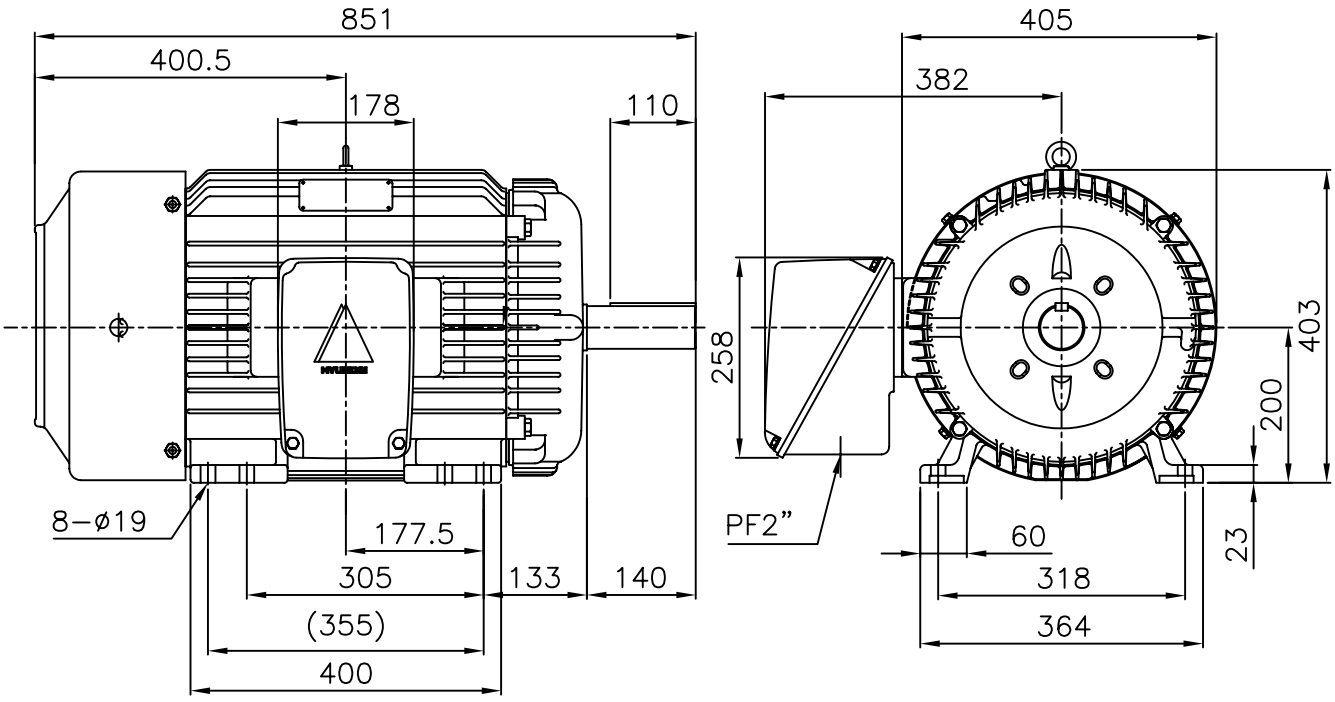
TEFC

THREE PHASE INDUCTION MOTOR

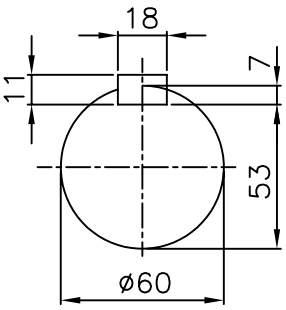
TYPE	HKS , HK
	CAST IRON FRAME



NOTE

1.TOLERANCE :

CENTER HEIGHT	$200^{+0}_{-0.5}$
BASE HOLES	$ø19^{+0.43}_{-0}$
SHAFT DIAMETER	$ø60^{+0.030}_{+0.011}$
KEYWAY WIDTH	$18^{+0}_{-0.043}$
KEYWAY DEPTH	$53^{+0}_{-0.2}$



∗CAST IRON CONDUIT BOX

APPD BY	KIM.Y.S	UNIT	mm	SUBJECT	XSD KS 200LL 4,6P	CAD PROJ \ FILE: XSDNKS\B1940CB2
CHKD BY	---	SCALE	1/10	TITLE	OUTLINE	
CHKD BY	KO.S.H	PROJEC'N	3rd Angle			
DSND BY	LEE KWANG SOO	DATE	2001.2.20			

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

REF. NO	B1940CB2	Sheet No. of
DWG NO	227B1940CB2	Revision No. 0

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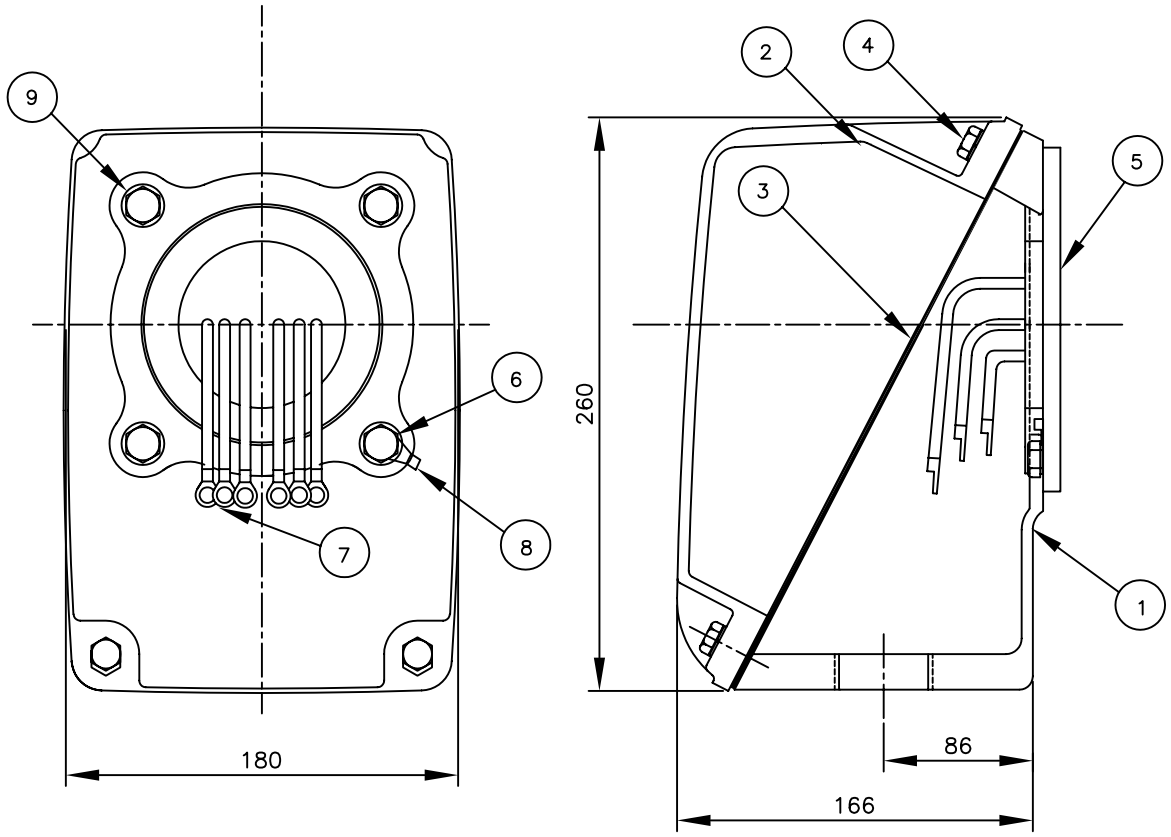

PT	DESCRIPTION	MATERIAL	DIMENSION	Q,TY
1	CONDUIT BOX	FC20		1
2	C/B COVER	FC20		1
3	GASKET(COVER)	N.B.R	T2X170X210	1
4	SCREW(COVER)	S45C	M8XL20	4
5	GASKET(C/B)	N.B.R		1
6	SCREW(C/B)	S45C	M8XL20	4
7	TERMINAL LUG	CU	T1.6	
8	TERMINAL GROUND	CU	T1.6	1
9	WASHER	S45C	M8 X L10	4

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.

APPD BY	KIM JIN HONG	UNIT	MM
CHKD BY	KIM YU SUNG	SCALE	1/2
CHKD BY	GO SECK HAN	PROJEC'N	3 각법(3rd Angle)
DSND BY	LEE KWANG SOO	DATE	94.12.20

HYUNDAI HEAVY INDUSTRIES CO., LTD. INDUSTRIAL & POWER SYSTEMS

SUBJECT	IEC 200FR	CAD PROJ 경 \ FILE 경	XSMOUT\B8003CB4
TITLE	CONDUIT BOX & COVER ASS'Y		
REF. NO	B8003CB5	Sheet No.	of
DWG NO	227B8003CB5	Revision No.	0