HYUNDAI HEAVY INDUSTRIES CO.,LTD.

DATA SHEET of AC INDUCTION MOTOR

214 HP - 4 P TE

DESIGN NO : KS C4202-1996

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

GENERAL SPECIFICATION

Frame No.		280L
Type		TNB
Enclosure(Protection)		Totally Enclosed (IP IP54)
Cooling Method		IC411(FC)
Frequency		60 Hz
Phase		3 Φ
Insulation Class		■ F ☐ B ☐ H
Temp. Rise at full load (by resistance method)		
	at 1.0 S.F	105 ℃
Location		☐ Indoor ☐ Outdoor
Altitude		Less than 1000 meter
Humidity		Less than 80 %
Ambient Temp.		40 ℃ (Max.)
Duty		CONT.(S1)
Service Factor		1.00
Electric Design		NEMA Design B
Construction		☐ B3 ☐ B5 ☐ V1 ☐
Bearing	Type	Anti-friction
	DE/ODE	6318C3 \ 6316C3
	Lubricant	GREASE(ALVANIA#2)
External Thrust		Not applicable
Coupling Method		■ Direct ☐ V-Belt
Shaft Extension		■ Single ☐ Double
Terminal Box	Main	☐ Steel ■ Cast Iron
	Aux.	☐ Yes ■ No
	Location	■ Left ☐ Right
		(Viewed from Drive End)
Application		
Area Classification		Not applicable
Applicable Standard		KS
Inspection and Performance Test		
	HHI Stand.	Maker Test Report

PERFORMANCE DATA

Output		214 HP	160 KW	
Poles		4 P		
Rotor Type		Squirrel Cage		
Starting Method(*)		■ D.O.L.	☐ Y-△	
Rated Voltage		440 V	380 V	220 V
Current	Rated Load	250.9 A	290.5 A	501.8 A
	Start'g-D.O.L	1,706.0 A	1,975.4 A	3,412.0 A
Efficiency				
	50% Load	92.5 %		
	75% Load	93.6 %		
	100% Load	93.5 %		
Power Factor				
	50% Load	82.5 %		
	75% Load	87.5 %		
	100% Load	89.5 %		
Speed at Rated Load		1770 RPM / SLIP 1.67 %		
Torque (D.O.L)				
	Rated	88.0 Kg.m	100 %	
	Starting	140.9 Kg.m	160 %	
	Break down	193.7 Kg.m	220 %	
Allowable Load GD² referred to motor shaft		389.000 Kg.m²		
Motor GD²		12.010 Kg.m²		
Noise Level (dB(A))		88 dB(A) at 1m from motor(No-load)		
Vibration(Velocity)		3.8 mm/sec.(peak)		
Starting Duty		Cold 2 times \ Hot 1 time		
Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		

SUBMITTAL DRAWING

Outline Dimension Drawing \ Motor Weight(Approx.)			
	☐ B3	TJ8LAP51	860 Kg
	☐ B5	TJ8LBP51	900 Kg
	☐ V1	TJ8LPP51	900 Kg
Main T-Box Ass'y		3M-016882	

ACCESSORIES(OPTION ITEM)

SPARE PARTS

REMARK

Note: Others not mentioned in this specification shall be in accordance with HHI standard.
Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.

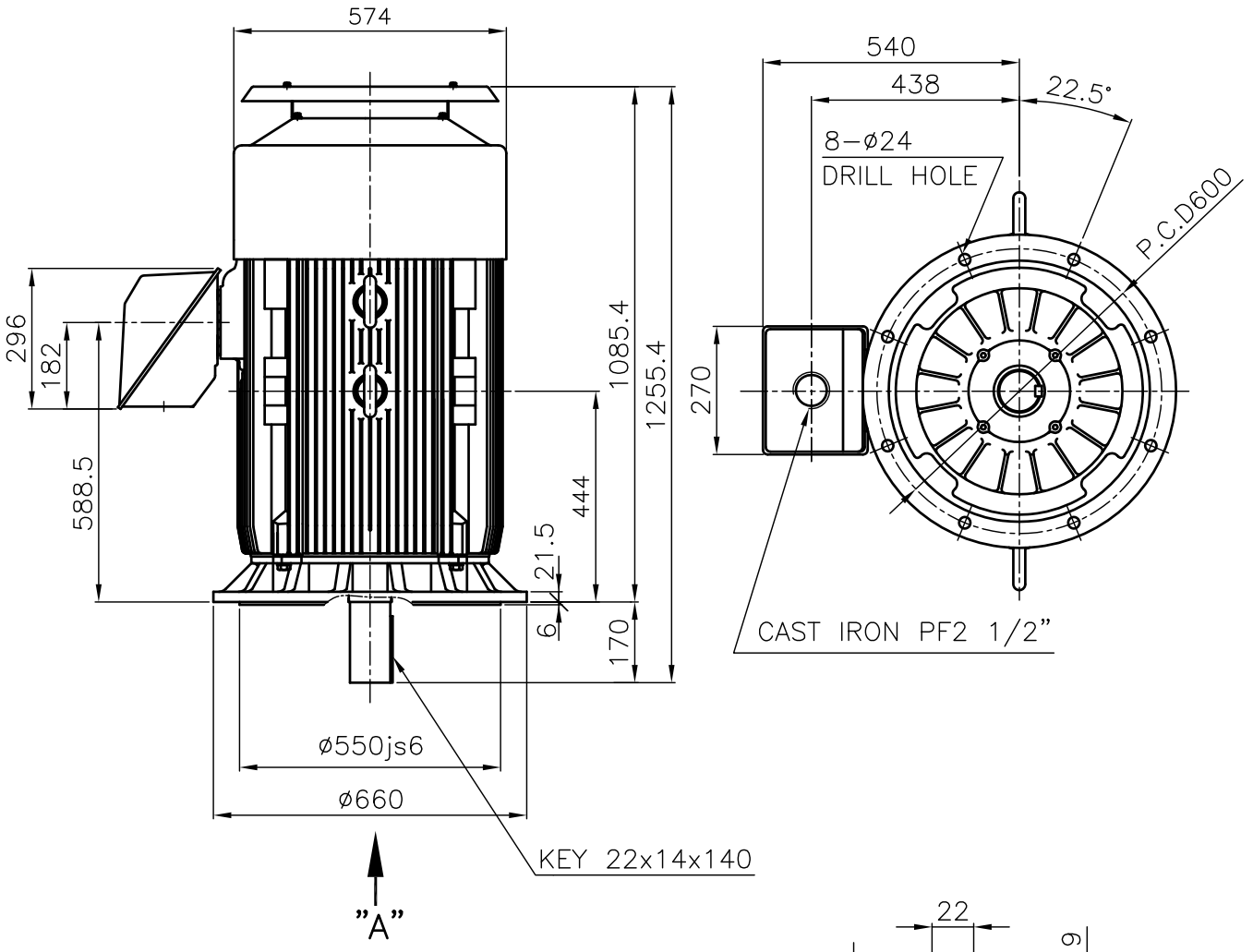
Date	DSND	CHKD	CHKD	APPD
2004.01.27	KIM R.G.		KIM O.J.	KANG K.G.

HYUNDAI HEAVY INDUSTRIES CO., LTD.

TEFC

THREE PHASE INDUCTION MOTOR

TYPE	(1) TNB , TDB
	CAST IRON FRAME

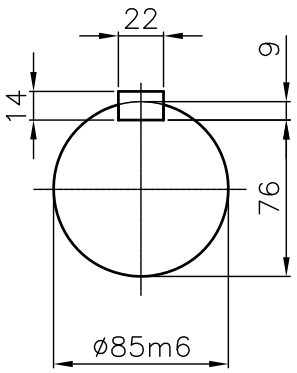


NOTE

1.TOLERANCE :

RABBET DIAMETER	ø550js6	±0.022
SHAFT DIAMETER	ø85m6	+0.035 +0.013
KEYWAY WIDTH	22P9	−0.022 −0.074
KEYWAY DEPTH	9	+0.2 0

2.The type (1)–"TNB, TDB" is for HHI's standard products and it can be changed for customer's requirements or detail designing.



VIEW "A"

SCALE 4/1

TEFC STANDARD

APPD BY	KANG K.J.	UNIT	MM
CHKD BY	KIM O.J.	SCALE	1/15
CHKD BY	LEE N.D.	PROJEC'N	3rd Angle
DSND BY	KIM RYAMG GYU	DATE	2007.03.23

SUBJECT	KS Fr.280L TEFC	CAD PROJ \ FILE: MMSTDMTR/TJ8LPP51
TITLE	OUTLINE THREE–PHASE INDUCTION MOTOR	

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

REF. NO	L3–SERIES	Sheet No. of
DWG NO	TJ8LPP51	Revision No. 0

HYUNDAI HEAVY INDUSTRIES CO., LTD.

PERFORMANCE CURVE

CURVE NO.

P-TNBJ8L04160

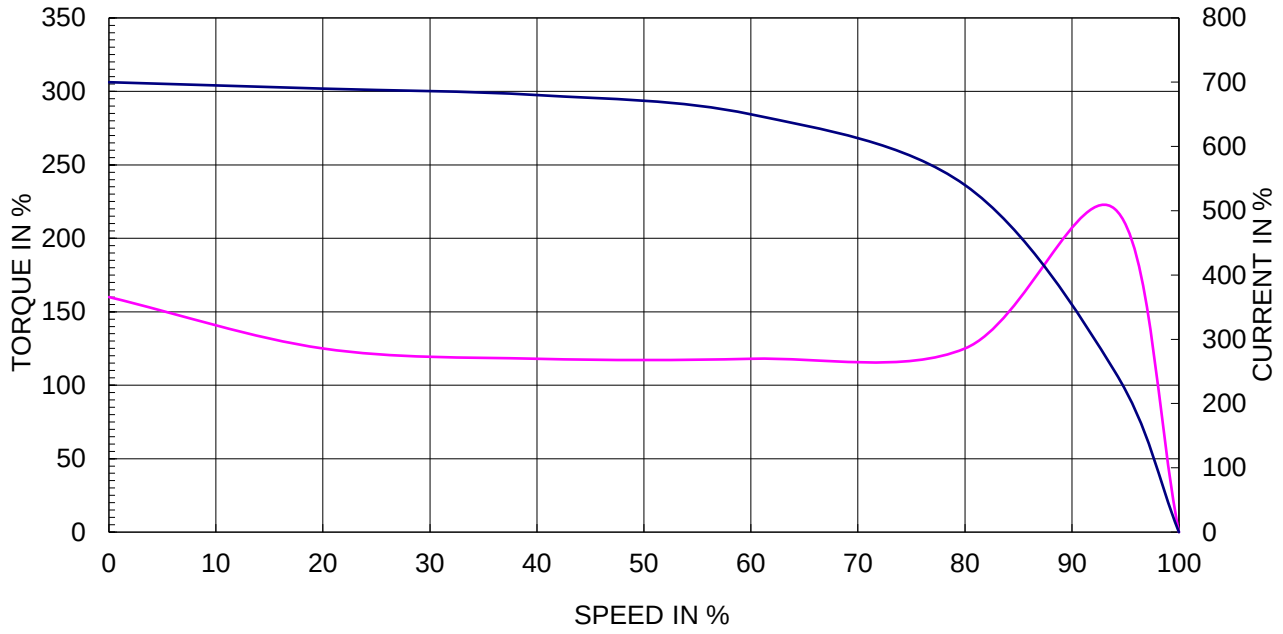
TYPE	:	
RATED TORQUE :	88.0	Kg.m
GD2 OF MOTOR :	12.0	$Kg.m^2$
(ALLOWABLE) GD2 OF LOA	389.0	$Kg.m^2$

160 kW | 4 P | 60 Hz

RATED SPEED : 1770 RPM

VOLTAGE	440V	380 V	220V
RATED CURRENT	250.9A	290.5 A	501.8A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE