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		280S
Type		HS-90/6
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		Continuous (S1)
Service Factor		1.00
Mounting		■ B3 ☐ B5 ☐ V1 ☐ B3/B5
Bearing	Type	Anti-Friction
	DE/N-DE	6318C3 / 6314C3
	Lubricant	Grease(Gadus S2 V 100 2)
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 II T4
Applicable Standard		KS,IEC

PERFORMANCE DATA

Rated Output		90 kW	120 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	145.9 A	169.0 A	291.9 A
	Locked-rotor**	650 %	650 %	650 %
Efficiency				
	50% Load	93.6 %		
	75% Load	94.2 %		
	100% Load	94.1 %		
Power Factor(p.u)				
	50% Load	0.771		
	75% Load	0.839		
	100% Load	0.860		
Speed at Full Load		1185 r.p.m		
Torque				
	Full Load	74.0 kg·m		
	Locked-rotor**	170 %		
	Breakdown**	250 %		
Moment of Inertia (J)				
	Load(Max.)	130.225 kg·m²		
	Motor	4.135 kg·m²		
Sound Pressure Level (No-load & mean value at 1m from motor)		77 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	GJ8SAP02	960	kg
B5	0	0	kg
V1			kg
B3/B5	0	0	kg
Main T-Box Ass'y	3M-036962		

SPARE PARTS

REMARK

High Efficiency

Date	DSND	CHKD	CHKD	APPD
2010-05-28	R.G. KIM	O.J. KIM	J.H. KIM	K.J. KANG

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-90/6

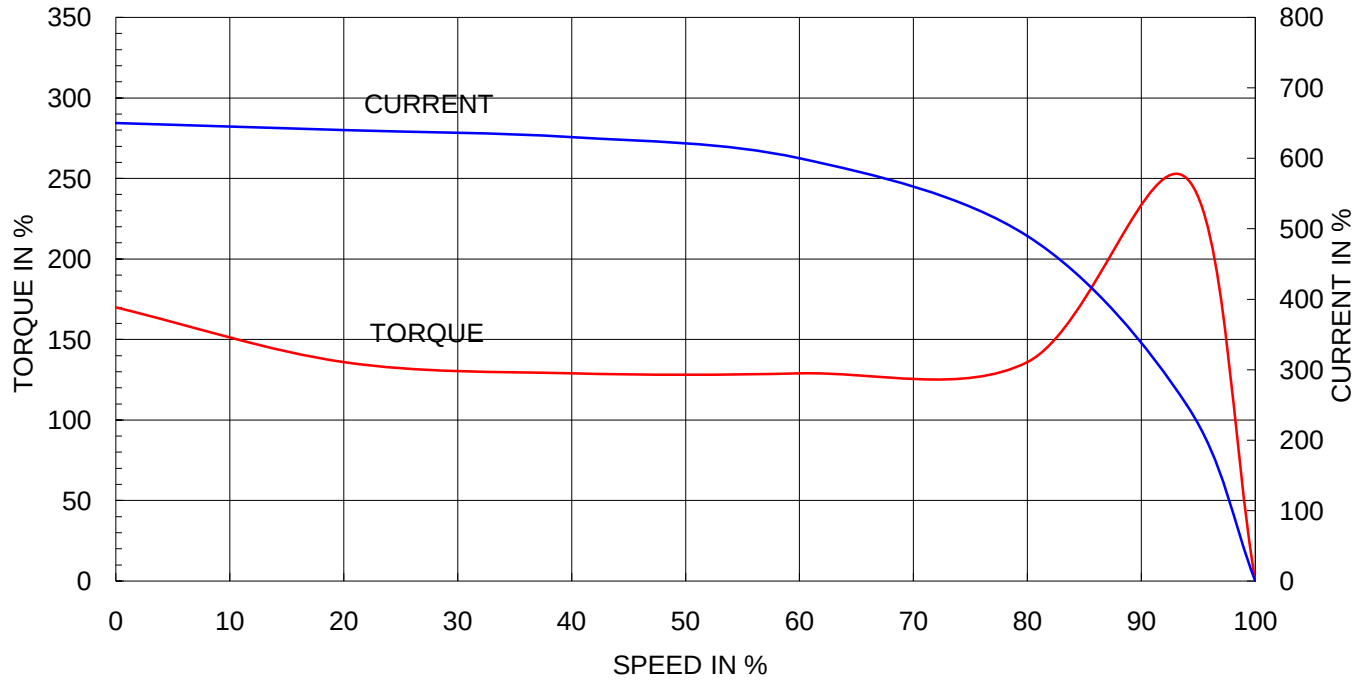
Type :	GHB280M	
Full Load Torque :	74.0	Kg.m
Motor moment of Inertia (J) :	4.135	$Kg.m^2$
Load moment of Inertia (J) :	130.225	$Kg.m^2$

90 kW 6 P 60 Hz

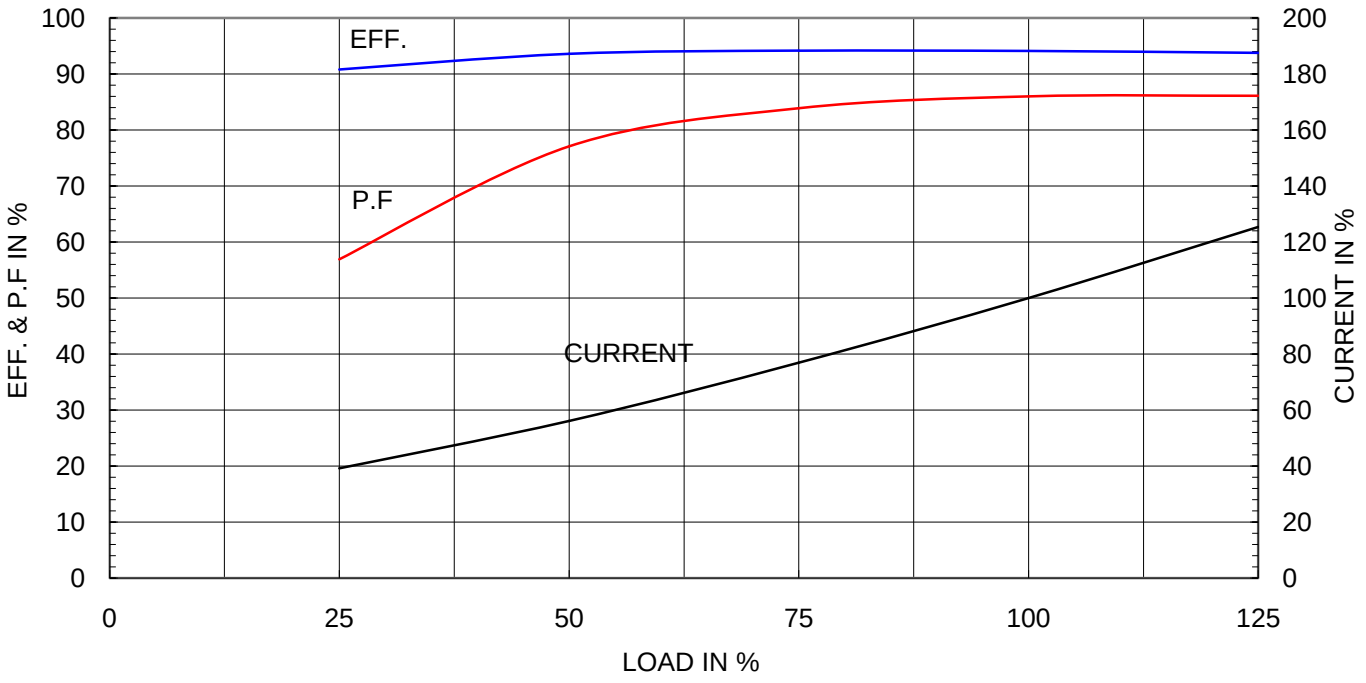
Speed at Full Load : 1185 RPM

Rated Voltage	440V	380V	220V	
Full Load Current	145.9A	169.0A	291.9A	

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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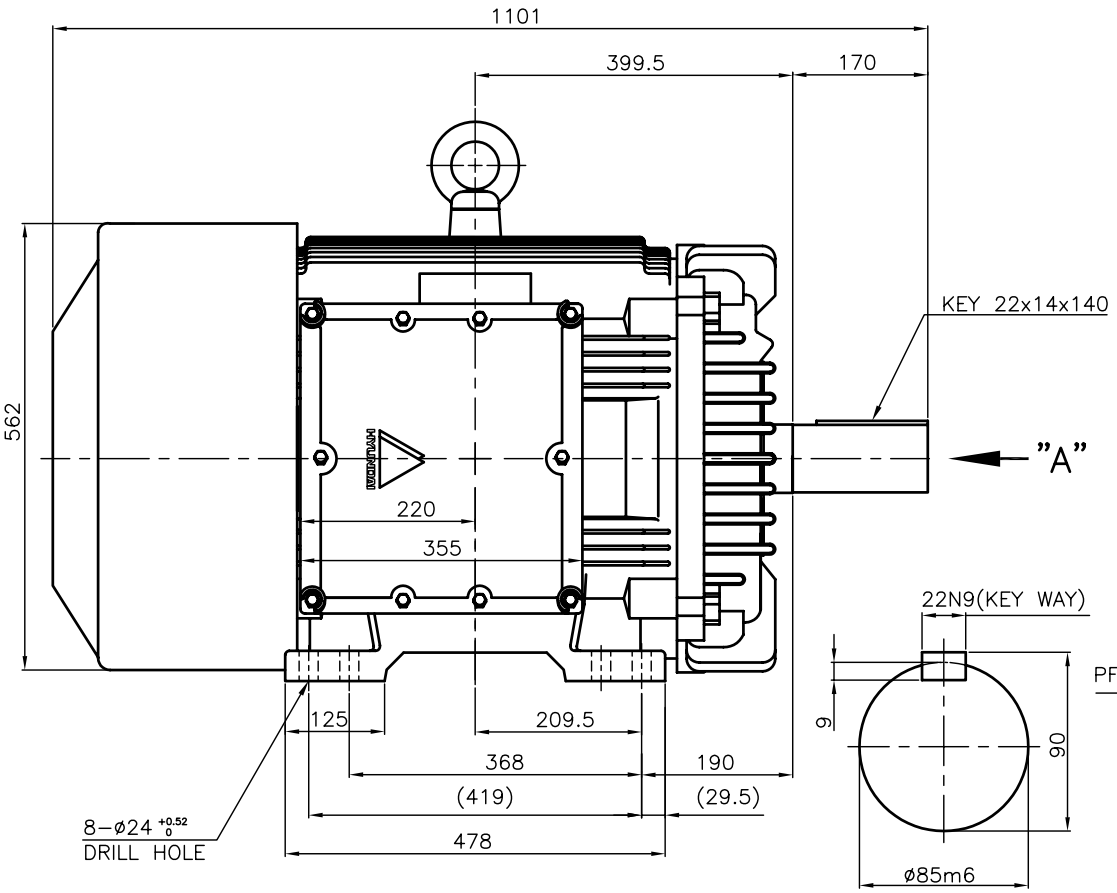
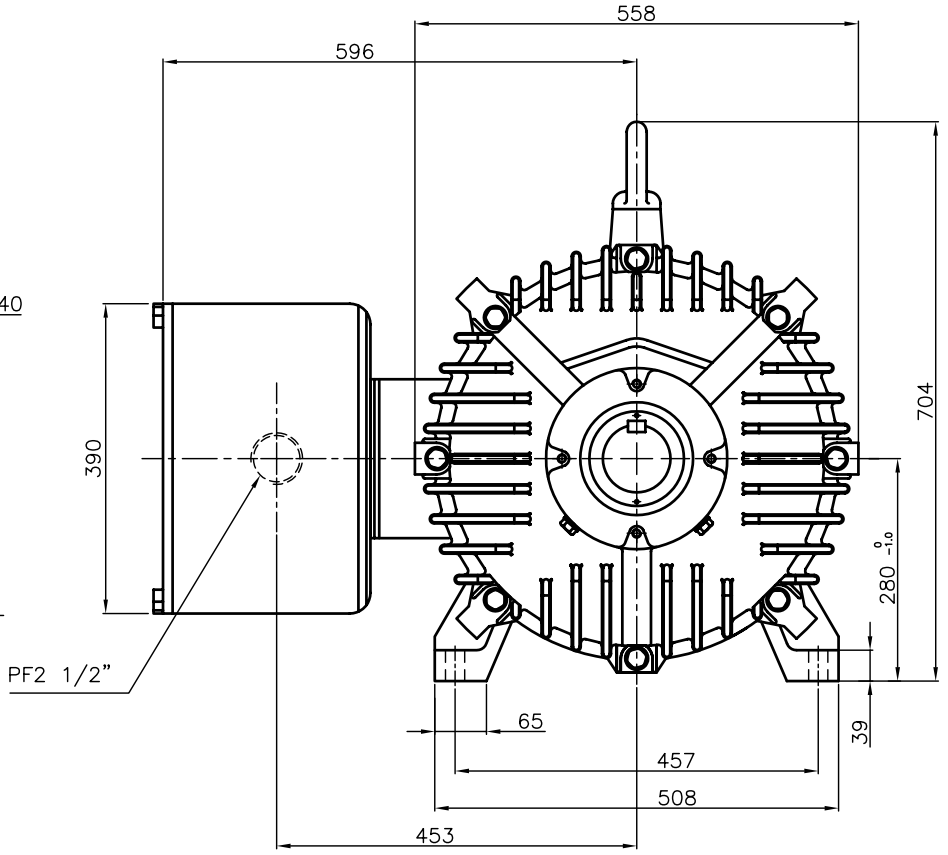
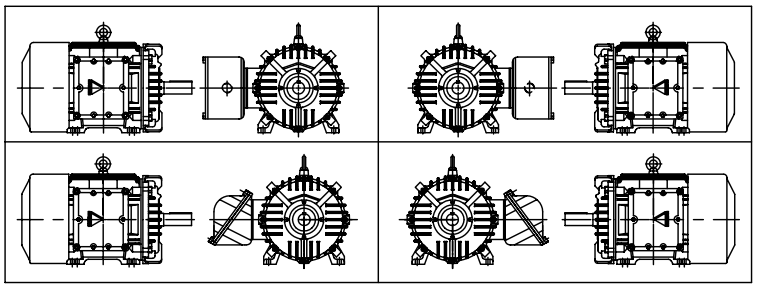


VIEW "A"
SCALE 2.5/1



*TERMINAL BOX LOCATION



Ex d IIB T4

(EXPLOSION CONSTRUCTION & IGNITION GROP)

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

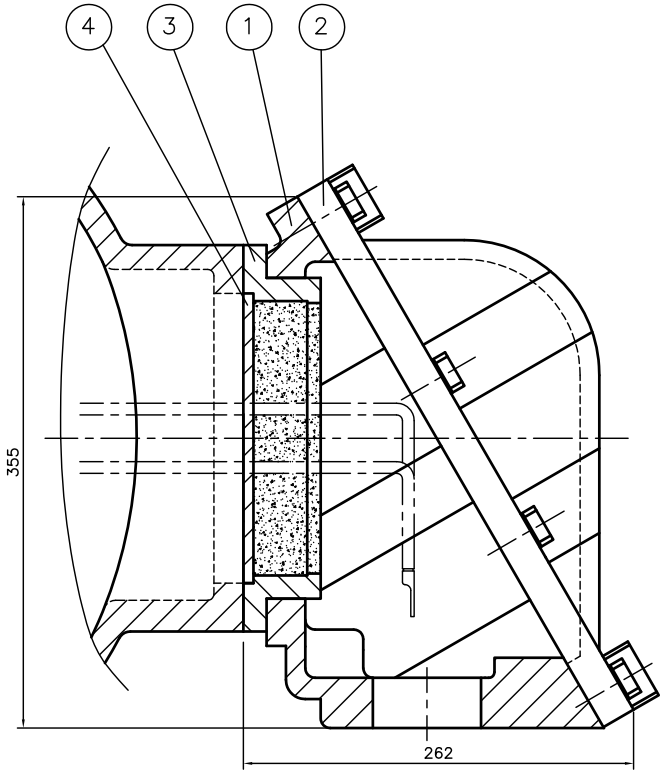
REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

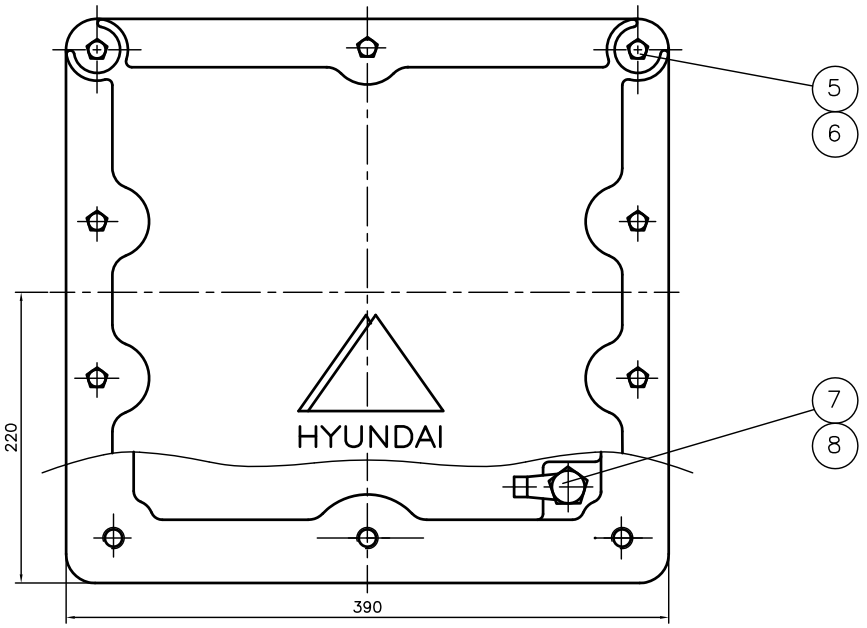
일반 가공 공차		일반 제관 공차	
1-4	±0.1	6-30	±0.5
4-18	±0.2	30-120	±0.8
18-63	±0.3	120-315	±1.2
63-250	±0.5	315-1000	±2.0
250-	±0.8	1000-	±3.0

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	강경중	UNIT	mm	SUBJECT	KS FR.280S, PTYPE, EP	CAD PROJ \ FILE	MMSTDMTR\GJ8SAP02
CHKD BY	김옥진	SCALE	1/7	TITLE	OUTLINE DIMENSION		
CHKD BY	김종선	PROJEC'N	3rd Angle		THREE-PHASE INDUCTION MOTOR		
DSND BY	김량규	DATE	2005.06.07	REF. NO		Sheet No.	of
				DWG NO	GJ8SAP-02	Revision No.	

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

27KJ





NO.	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
1	HEX. BOLT	BRONZE	M10				8
1	EARTH TERMINAL LUG	ST'D					7
10	SPRING WASHER	SUP3					6
10	HEX. BOLT	S45C	M12				5
1	GUIDE PLATE	E.G.P					4
1	ADAPTER	FC25					3
1	TERMINAL BOX COVER	FC25					2
1	TERMINAL BOX BODY	FC25					1

APPD BY		UNIT	MM	SUBJECT	HLA6 FR.250,280 (d2G4)
Q.P CHK		SCALE	NONE	TITLE	TERMINAL BOX ASS'Y
CHKD BY		PROJEC'N	3 각법(3rd Angle)		
DSND BY	KIM JONG SEON	DATE	98.10.30	REF. NO	Sheet No. of
HYUNDAI HEAVY INDUSTRIES CO., LTD.				DWG NO	3M-036962 Revision No.

CAD PROJ ⊞ \ FILE ⊞
T-BOX-M \ 3r036962

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY