

## AC INDUCTION MOTOR DATA SHEET

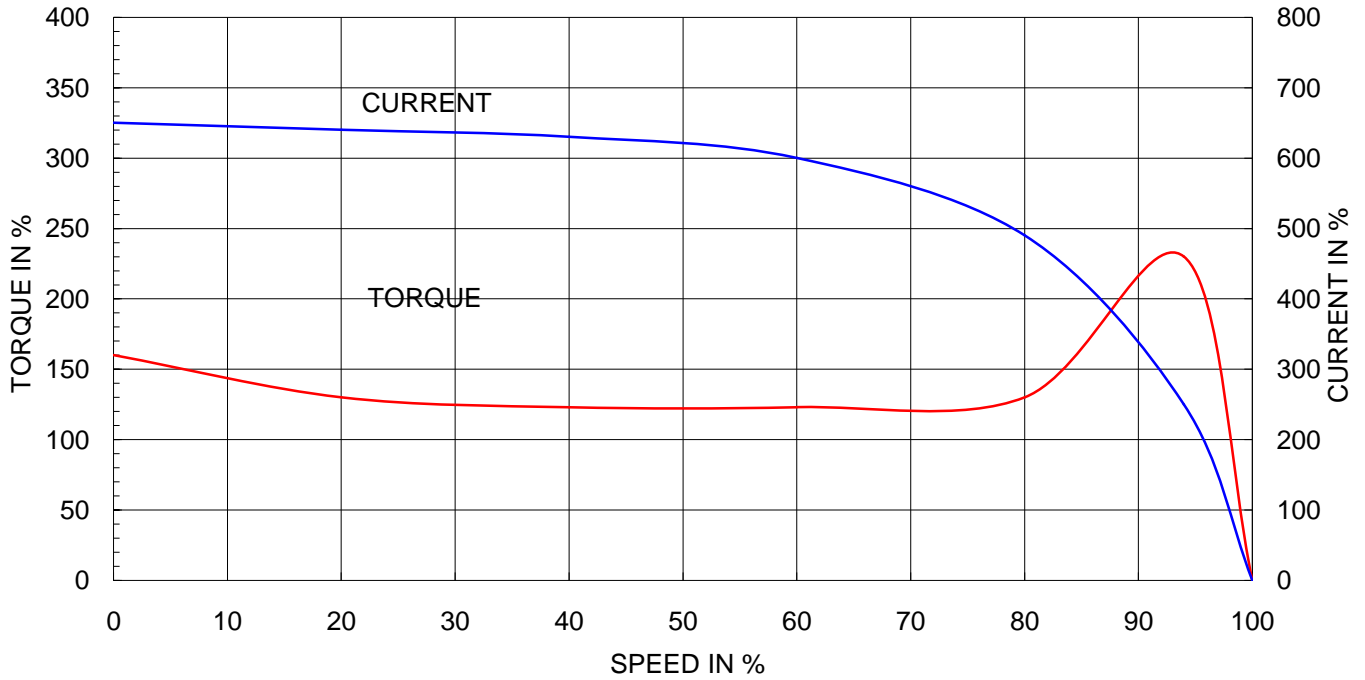
Model No.or RFQ No.		Item No.		Rev. No. [ 0 ]			
Project Name		Project No.		Quantity sets			
GENERAL SPECIFICATION			PERFORMANCE DATA				
Frame Size	180M		Rated Output	22 kW 30 HP			
Type	HL-XP		Number of Poles	4			
Enclosure(Protection)	Explosion Proof ( IP55 )		Rotor Type	Squirrel Cage			
Method of Cooling	IC411(FC)		Starting Method*	<input checked="" type="checkbox"/> D.O.L <input type="checkbox"/> Y- Δ			
Rated Frequency	60 Hz		Rated Voltage	440 V	380 V 220 V		
Number of Phases	3		Current	Full Load	37.6 A 43.6 A 75.3 A		
Insulation Class	<input checked="" type="checkbox"/> F <input type="checkbox"/> B <input type="checkbox"/> H		Locked-rotor**	650 %	650 % 650 %		
Temp. Rise at full load (by resistance method)			Efficiency				
at 1.0 S.F    80 deg. C			50% Load    91.9 %				
Motor Location	<input checked="" type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load    92.6 %				
Altitude	Less than 1000 meter		100% Load    92.4 %				
Relative Humidity	Less than 80 %		Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)		50% Load    0.722				
Duty Type	Continuos ( S1 )		75% Load    0.790				
Service Factor	1.00		100% Load    0.830				
Mounting	<input type="checkbox"/> B3 <input checked="" type="checkbox"/> B5 <input type="checkbox"/> V1 <input type="checkbox"/> B3/B5		Speed at Full Load    1775 r.p.m				
Bearing	Type	Anti-Friction		Torque			
	DE/N-DE	6310ZZC3 / 6310ZZC3		Full Load    12.1 kg·m			
	Lubricant	Grease(Polyrex-EM)		Locked-rotor**    160 %			
External Thrust	Not applicable		Breakdown**    230 %				
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-Belt		Moment of Inertia (J)				
Shaft Extension	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double		Load(Max.)    16.750 kg·m <sup>2</sup>				
Terminal Box	Main	<input type="checkbox"/> Steel <input checked="" type="checkbox"/> Cast Iron		Motor    0.180 kg·m <sup>2</sup>			
	Aux.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Sound Pressure Level (No-load & mean value at 1m from motor)			
	Location	Refer to Outline Drawing		77 dB(A)			
Application			Vibration    2.2 mm/sec (r.m.s)				
Area classification	Hazardous		Permissible number of consecutive starts				
Type of Ex-Protection	Ex d IIB T4		Cold    3 times				
Applicable Standard	KS,IEC		Hot    2 times				
ACCESSORIES			SUBMITTAL DRAWING				
			Outline Dimension Drawing		Motor Weight(Approx.)		
			B3			kg	
			B5	227B2022AA07	211	kg	
			V1			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.

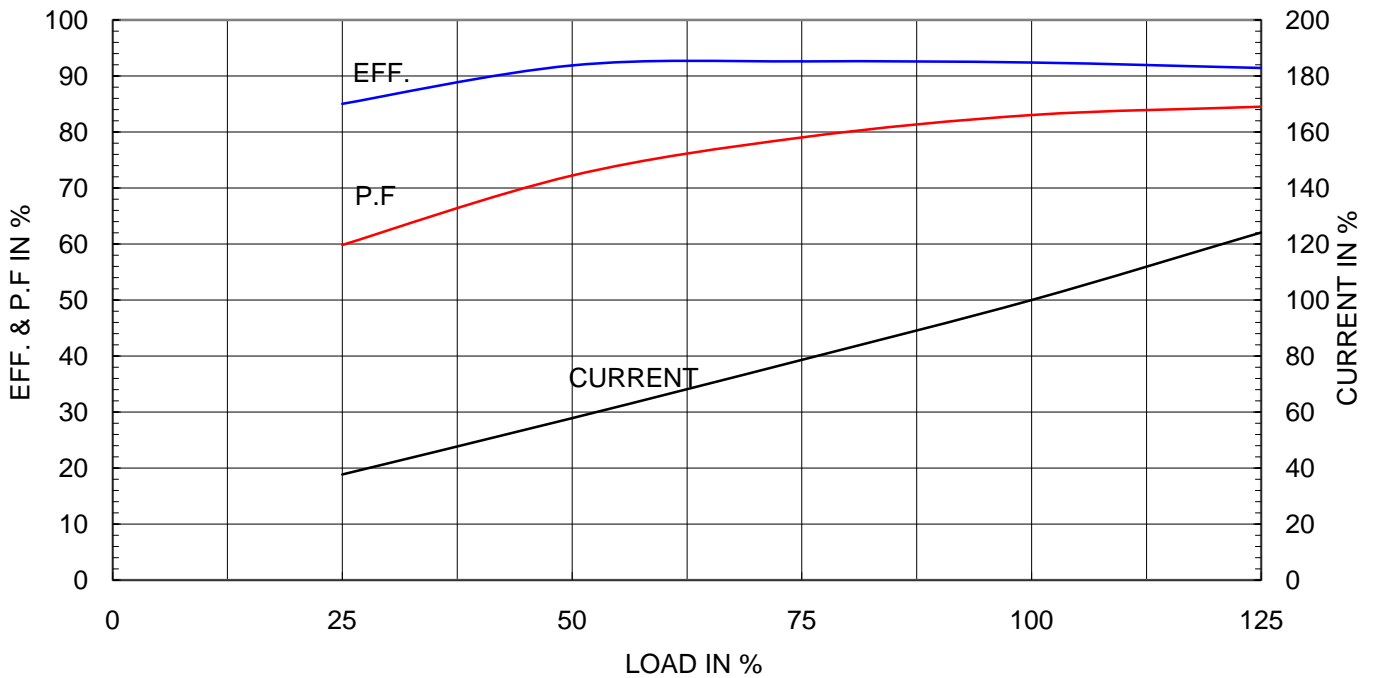
Type	:	HL-XP
Full Load Torque	:	12.1 Kg.m
Motor moment of Inertia (J)	:	0.180 Kg.m <sup>2</sup>
Load moment of Inertia (J)	:	16.750 Kg.m <sup>2</sup>

22 kW	4 P	60 Hz	
Speed at Full Load :		1775 RPM	
Rated Voltage	440V	380V	220V
Full Load Current	37.6A	43.6A	75.3A

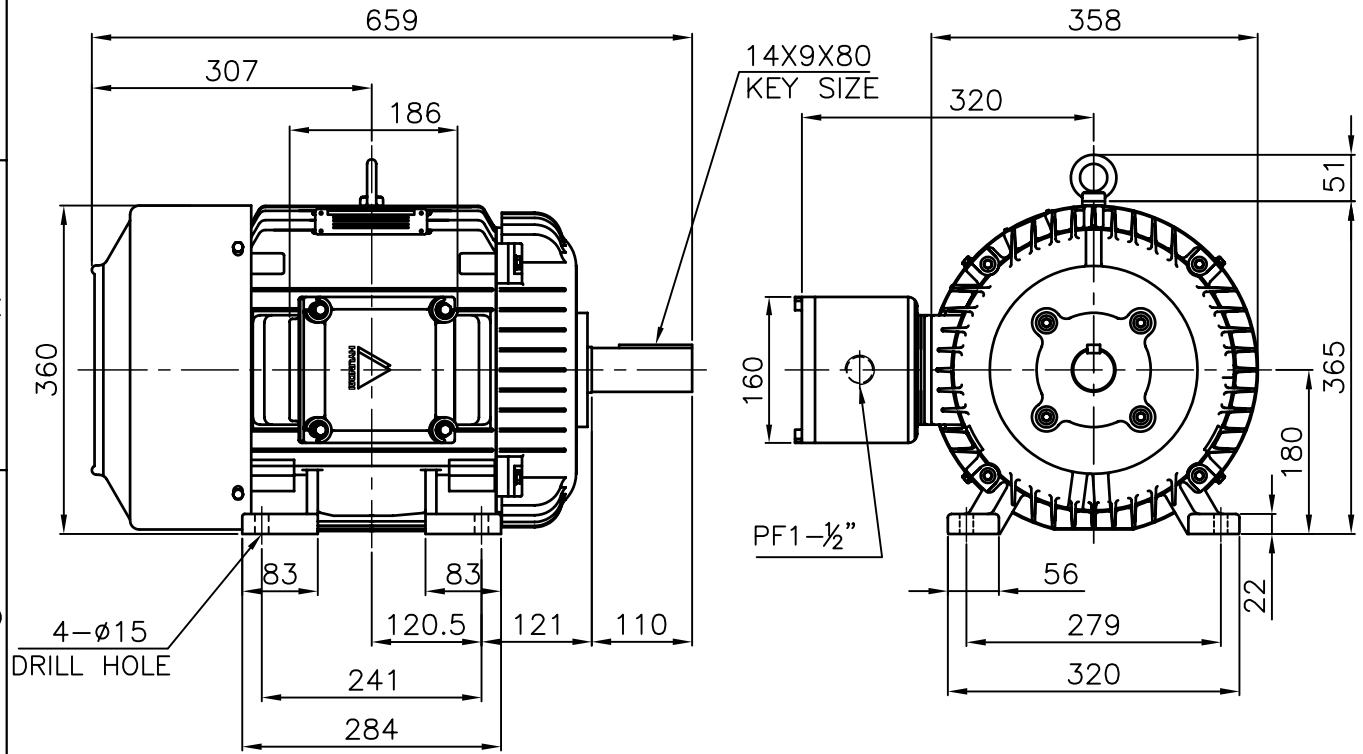
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



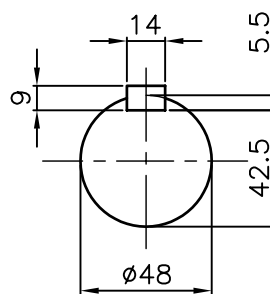
**Exd II**



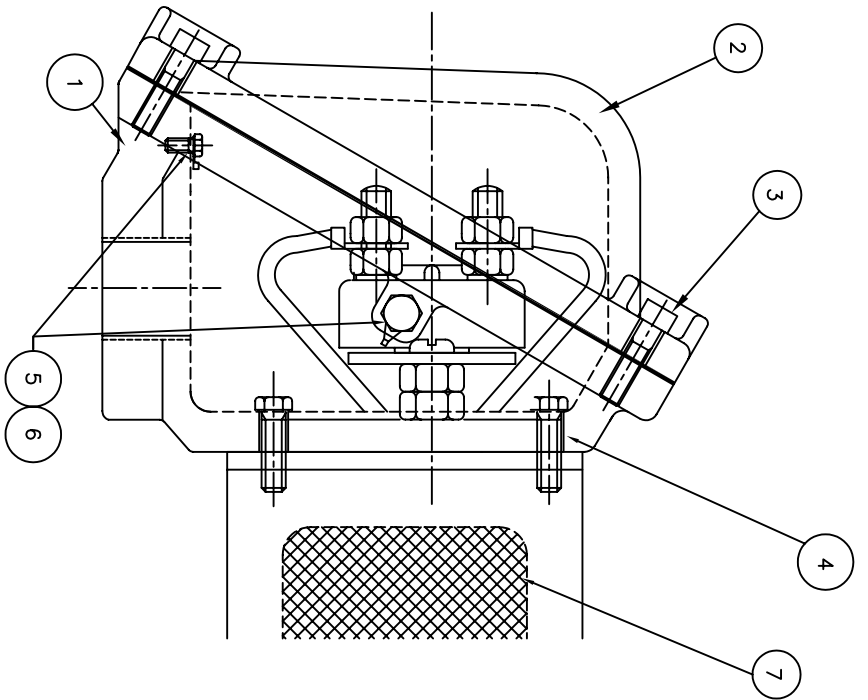
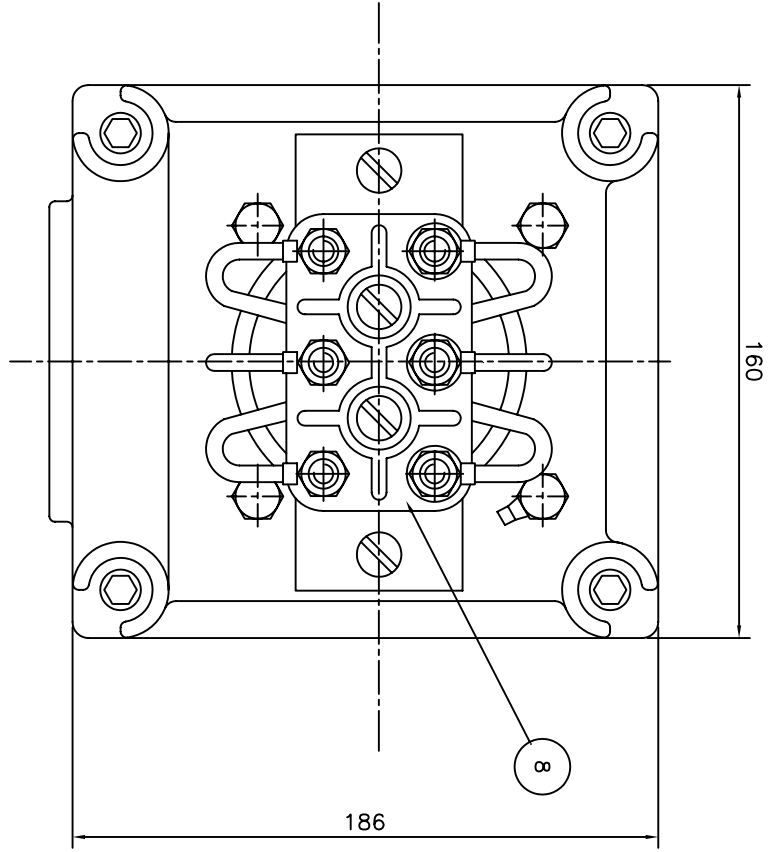
NOTE

1.TOLERANCE :

CENTER HEIGHT	180	$\begin{matrix} 0 \\ -0.5 \end{matrix}$
BASE HOLES	$\phi 15$	$\begin{matrix} +0.43 \\ 0 \end{matrix}$
SHAFT DIAMETER	$\phi 48$	$\begin{matrix} +0.018 \\ +0.002 \end{matrix}$
KEYWAY WIDTH	14	$\begin{matrix} 0 \\ -0.043 \end{matrix}$
KEYWAY DEPTH	5.5	$\begin{matrix} +0.2 \\ 0 \end{matrix}$



APPD BY	Y. S. KIM	UNIT	mm	SUBJECT	KS 180M	CAD PROJ \ FILE	XSDNKS\B2002AA07
CHKD BY	K. S. LEE	SCALE	1/8.5	TITLE	OUTLINE		
CHKD BY	-----	PROJEC'N	3rd Angle				
DSND BY	I. K. KIM	DATE	2008.10.22	REF. NO	B2002AA07	Sheet No.	of
				DWG NO	227B2002AA07	Revision No.	0



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

APPD BY	UNIT	MM	SUBJECT	IEC 160/180FR d2G4	CAD PROJ \FILE
CHKD BY	SCALE	N/S	TITLE		XSMOUT\7B1468LB
CHKD BY	PROJEC'N	3*48 (3rd Angle)			
DSND BY	DATE	99.2.2			
DESIGNED BY	DATE	99.2.2			



HEAVY INDUSTRIES CO. LTD.  
ELECTRICAL ENGINEERING DIVISION

MAIN TERMINAL BOX

REF. NO. 7B1470LB Sheet No. of

DWG NO. 227B1470LB

Revision No. 0

REV	DATE	CONTENTS	REV'D BY	CHK'D BY	CHK'D BY	APP'D BY
1						
2						
3						
4						