HYUNDAI HEAVY INDUSTRIES CO.,LTD.

WORLDWIDE Electric Corp

AC INDUCTION MOTOR DATA SHEET
IEEE-841 MOTORS

MODEL NUMBER	**IEEE20-36-256T**		
HORSEPOWER	**20**		
RPM / POLES	**3600 / 2**		
VOLTAGE / PHASE	**460 / 3**		
FRAME	**256T**		
ENCLOSURE / DEGREE OF PROTECTION	**TEFC / IP56**		
FREQUENCY	**60 HZ**		
FULL LOAD SPEED	**3535 RPM**		
SERVICE FACTOR	**1.15**		
INSULATION CLASS	**F Class N Varnish**		
FULL LOAD AMPS; 460	**23.1 A**		
LOCKED ROTOR CURRENT (% Full Load)	**650 %**		
NEMA CODE LETTER	**G**		
EFFICIENCY / POWER FACTOR	LOAD	EFF.	P.F.
	100 %	**91.7 %**	**89.0 %**
	75 %	**91.7 %**	**87.2 %**
	50 %	**91.2 %**	**82.0 %**
DUTY CYCLE	**S1 / Continuous**		
TORQUE	FULL LOAD	LRT	BDT
	29.9 lb.ft	**180 %**	**250 %**
NEMA DESIGN	**B**		
MOMENT OF INERTIA	LOAD (Max.)		MOTOR
	54.580 lb.ft^2		**1.163 lb.ft^2**
SOUND PRESSURE LEVEL (No Load 1 M From Motor)	**79 dB(A)**		
MAX. SHAFT VIBRATION	**0.08 In/Sec – Peak Velocity**		
NUMBER OF STARTS (Hot / Cold)	**2 Hot / 3 Cold**		
MAX. AMBIENT TEMPERATURE	**40° C**		
MAX. ELEVATION	**3300 Ft. Above Sea Level**		
TEMPERATURE RISE (At Full Load)	**80° C**		
DRIVE-END BEARING	**6309ZC3**		
OPPOSITE DRIVE-END BEARING	**6309ZC3**		
BEARING SEAL TYPE	**ProTech™ IP66 Labyrinth On DE and ODE**		
GREASE TYPE	**Mobil Polyrex EM**		
MOUNTING	**F1 (F2 Suitable), W6, W8, B3, V5, V6**		
ROTATION	**Bi-Directional**		
APPROXIMATE WEIGHT	**300 lbs**		
AREA CLASSIFICATION	**Class I, Division 2, Groups A, B, C, D, T3A**		
PAINT	**Epoxy**		
INVERTER RATING	**10:1 CT / 1000:1 VT**		
INSULATION TYPE	**Hyundai Inverter Shield, Meets NEMA MG1 Part 31**		
SPECIFICATION - In Accordance With	**IEEE-841, Version 2009, NEMA, CSA**		

C SP US CSA E EEV 109973 ee CC 038A CE UL® ABS TYPE APPROVED PRODUCT

REVISED 01/13/17

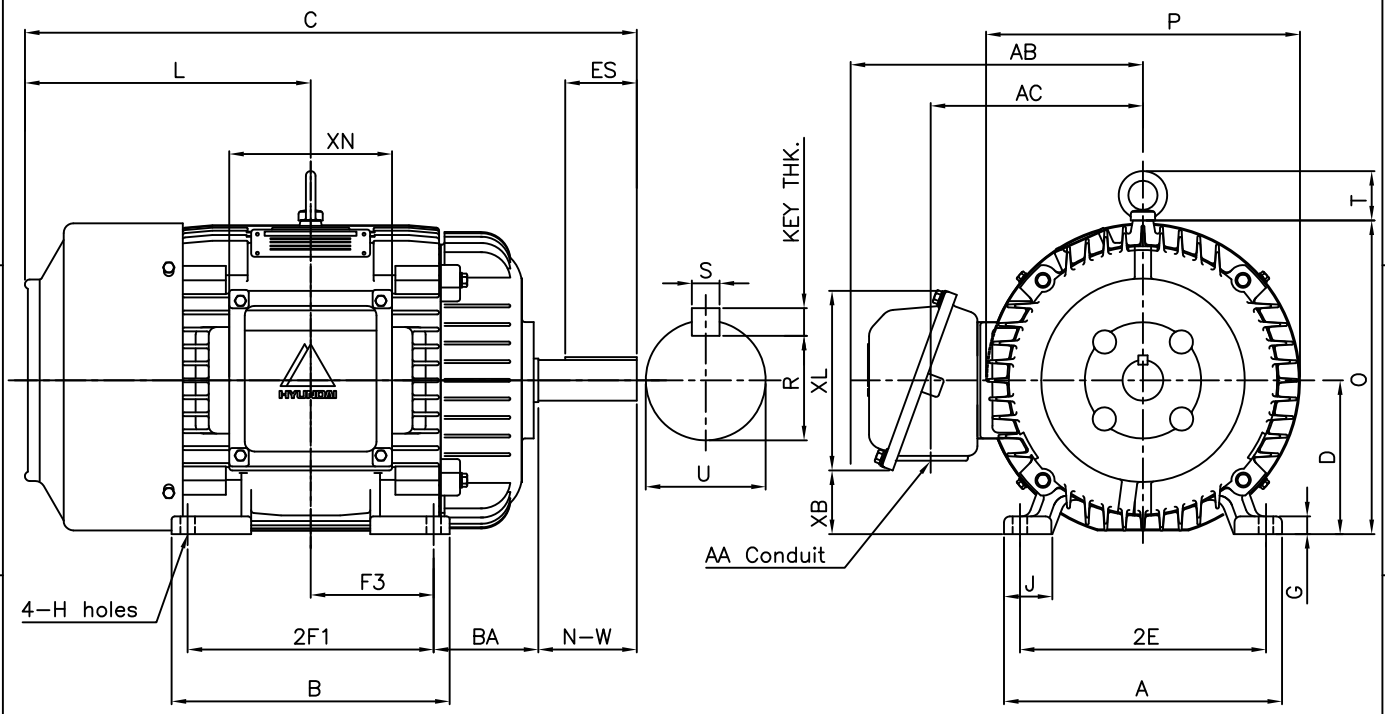
HYUNDAI HEAVY INDUSTRIES CO., LTD.

IEEE841 TEFC

THREE PHASE INDUCTION MOTOR

TYPE	PLP
	CAST IRON FRAME

FRAME SIZE	OUTPUT(HP)	POLES	Hz	TIME RATING



DIMENSIONS

MOUNTING									CONDUIT BOX						APPROX. WGT.(LB)
A	B	2E	2F1	2F2	F3	G	J	H	AA	AB	AC	XB	XL	XN	
11.30	11.30	10.00	10.00	–	5.00	0.72	1.93	0.53	1.25	11.88	9.08	2.63	7.56	6.61	300

OVERALL							SHAFT					KEY THK.	BEARING	
BA	C	D	L	O	P	T	U	N–W	KEYWAY				DRIVE END	OPP. DRIVE END
									R	ES	S			
4.25	24.93	6.25	11.68	12.75	12.76	2.01	1.625	4.00	1.416	2.91	0.375	0.375	6309ZC3	6309ZC3

NOTE

1. Dimension "D" tolerance : +0.00inch – 0.03inch
2. Dimension "U" tolerance : +0.000inch – 0.001inch
3. Dimension "R" tolerance : +0.000inch – 0.015inch

APPD BY	J. H. KIM	UNIT	INCH
CHKD BY	K. S. LEE	SCALE	1/8
CHKD BY		PROJEC'N	3rd Angle
DSND BY	KIM IN KYU	DATE	2010.12.31

SUBJECT	NEMA 256T	CAD PROJ \ FILE
		XSMOUTN\A8108AA

TITLE: OUTLINE

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

REF. NO	A1108AA	Sheet No. of
DWG NO	350A8108AA	Revision No. 0

HYUNDAI HEAVY INDUSTRIES CO.,LTD.

PERFORMANCE CURVE

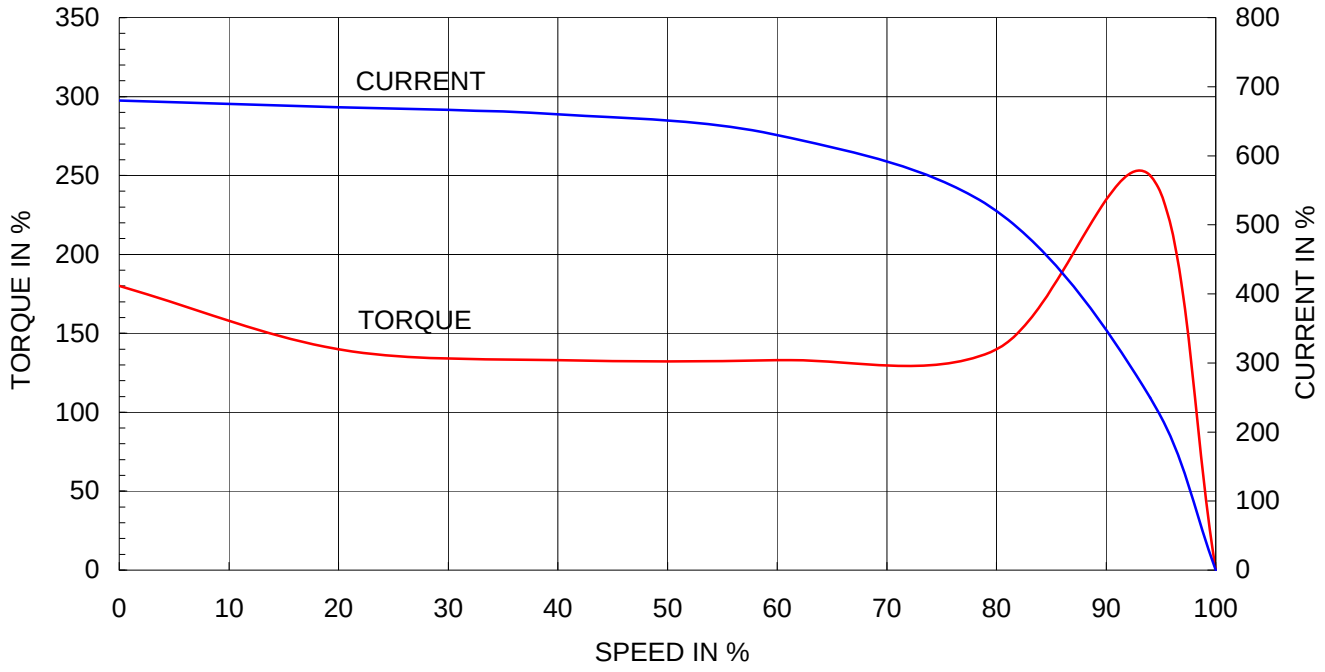
CURVE NO.

P-PLP256SR1

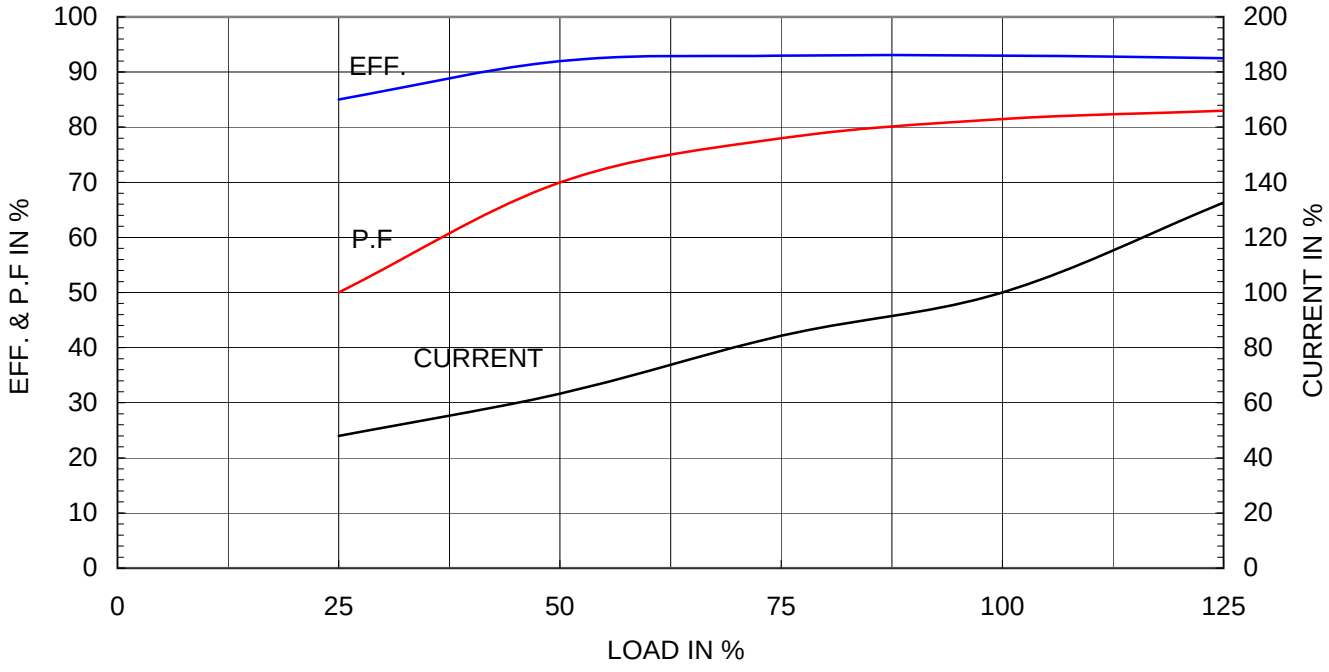
Type :	PLP		
Full Load Torque :	29.9	lb.ft	
Motor moment of Inertia (J) :	1.163	lb.ft ^{2}	
Load moment of Inertia (J) :	54.580	lb.ft ^{2}	

15 kW	20 HP	60 Hz		
2 P	Rated Speed :	3535 RPM		
Rated Voltage	575V	460V	230V	
Full Load Current	18.5A	23.1A	46.2A	

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



HYUNDAI HEAVY INDUSTRIES CO.,LTD.

THERMAL LIMIT & TIME CURRENT CURVE

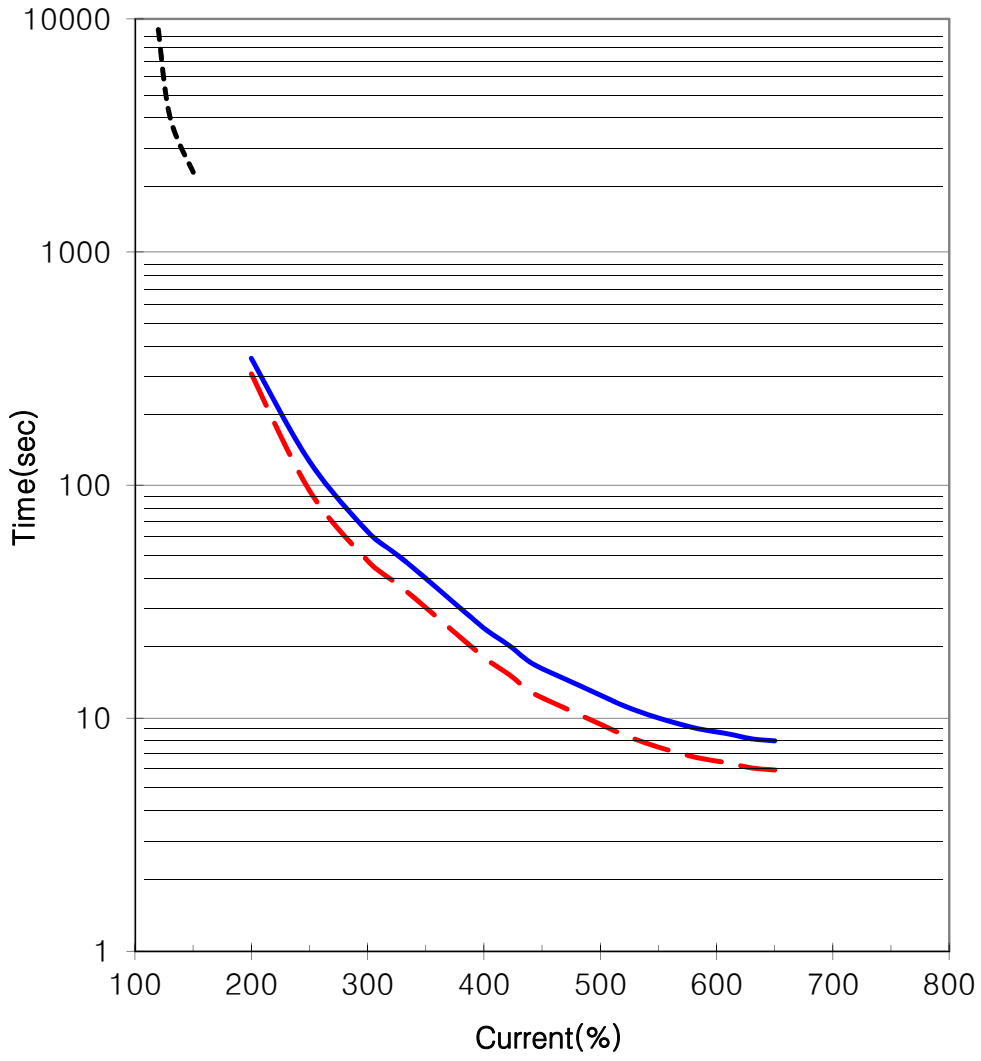
CURVE NO.

T-PLP20-36-256T

Type :	PLP20-36-256T	
FULL LOAD TORQUE :	29.9	lb.ft
J OF LOAD :	-	lb.ft²
J OF MOTOR :	1.2	lb.ft²

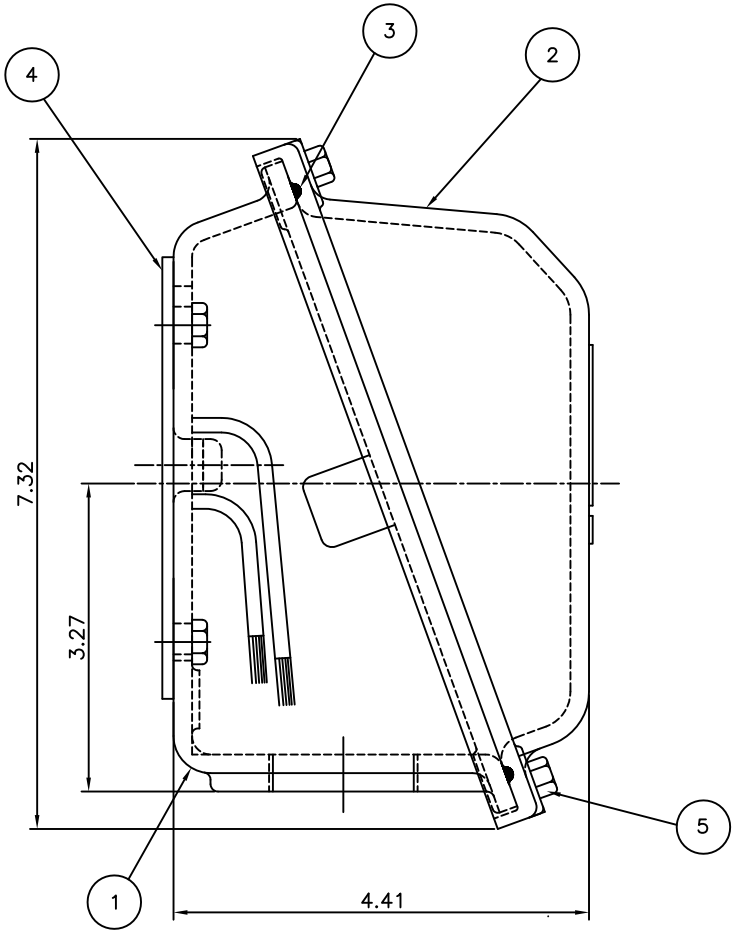
20	HP	2	P	60 Hz
RATED SPEED :				3535 rpm

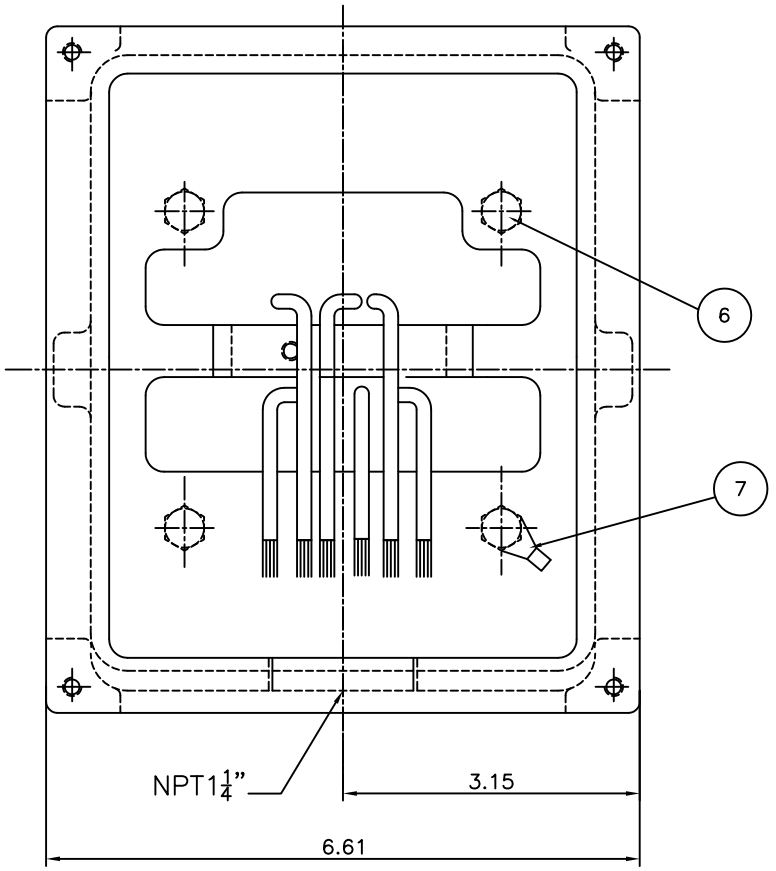
VOLTAGE	460 V	575 V
RATED CURRENT	23.1A	18.5A



STARTING TIME	SAFE STALL TIME
- at rated voltage starting	6 sec. at Hot condition
- at 80% of rated voltage starting	8 sec. at Cold condition

HYUNDAI HEAVY INDUSTRIES CO., LTD.





PT	DESPRIPTION	MATERIAL	DIMENSION	Q'TY
1	CONDUIT BOX	FC15	--	1
2	CONDUIT BOX COVER	FC15	--	1
3	O-RING / COVER	EPDM	ø4	1
4	BOX GASKET	NBR	--	1
5	COVER+BOX HEX BOLT	S45C	M6 X L20	4
6	BOX+FRAME HEX BOLT	S45C	M8 X L20	4
7	GROUND TERMINAL LUG	CU	--	1

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

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

APPD BY	KIM.Y.S	UNIT	INCH
CHKD BY	KO.S.H	SCALE	1:1
CHKD BY	---	PROJEC'N	3 각법(3rd Angle)
DSND BY	Y.J.HWANG	DATE	2005.02.16

HYUNDAI HEAVY INDUSTRIES CO., LTD. ELECTRICAL ENGINEERING DIVISION

SUBJECT	NEMA254/256	CAD PROJ 명 \ FILE 명	227B8008NA1
TITLE	TERMINAL BOX ASSEMBLY		
REF. NO	227B8008NA1	Sheet No.	of
DWG NO	227B8008NA1	Revision No.	0

THIS DRAWING IS PROPRIETARY TO HHI. NO PART OF THIS DRAWING MAYBE REPRODUCED WITHOUT THE PERMISSION OF HHI.