

MODEL NUMBER	IEEE100-18-405T		
HORSEPOWER	100		
RPM / POLES	1800 / 4		
VOLTAGE / PHASE	460 / 3		
FRAME	405T		
ENCLOSURE / DEGREE OF PROTECTION	TEFC / IP56		
FREQUENCY	60 HZ		
FULL LOAD SPEED	1780 RPM		
SERVICE FACTOR	1.15		
INSULATION CLASS	F Class N Varnish		
FULL LOAD AMPS; 460	114.1 A		
LOCKED ROTOR CURRENT (% Full Load)	650 %		
NEMA CODE LETTER	G		
EFFICIENCY / POWER FACTOR	<u>LOAD</u>	<u>EFF.</u>	<u>P.F.</u>
	100 %	95.4 %	86.5 %
	75 %	95.4 %	84.5 %
	50 %	94.1 %	78.4 %
DUTY CYCLE	S1 / Continuous		
TORQUE	<u>FULL LOAD</u>	<u>LRT</u>	<u>BDT</u>
	296.8 lb.ft	140 %	220 %
NEMA DESIGN	B		
MOMENT OF INERTIA	<u>LOAD (Max.)</u>	<u>MOTOR</u>	
	1337.213 lb.ft <sup>2</sup>	35.910 lb.ft <sup>2</sup>	
SOUND PRESSURE LEVEL ( No Load 1 M From Motor)	82 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	NU316		
OPPOSITE DRIVE-END BEARING	6313C3		
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	1110 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		



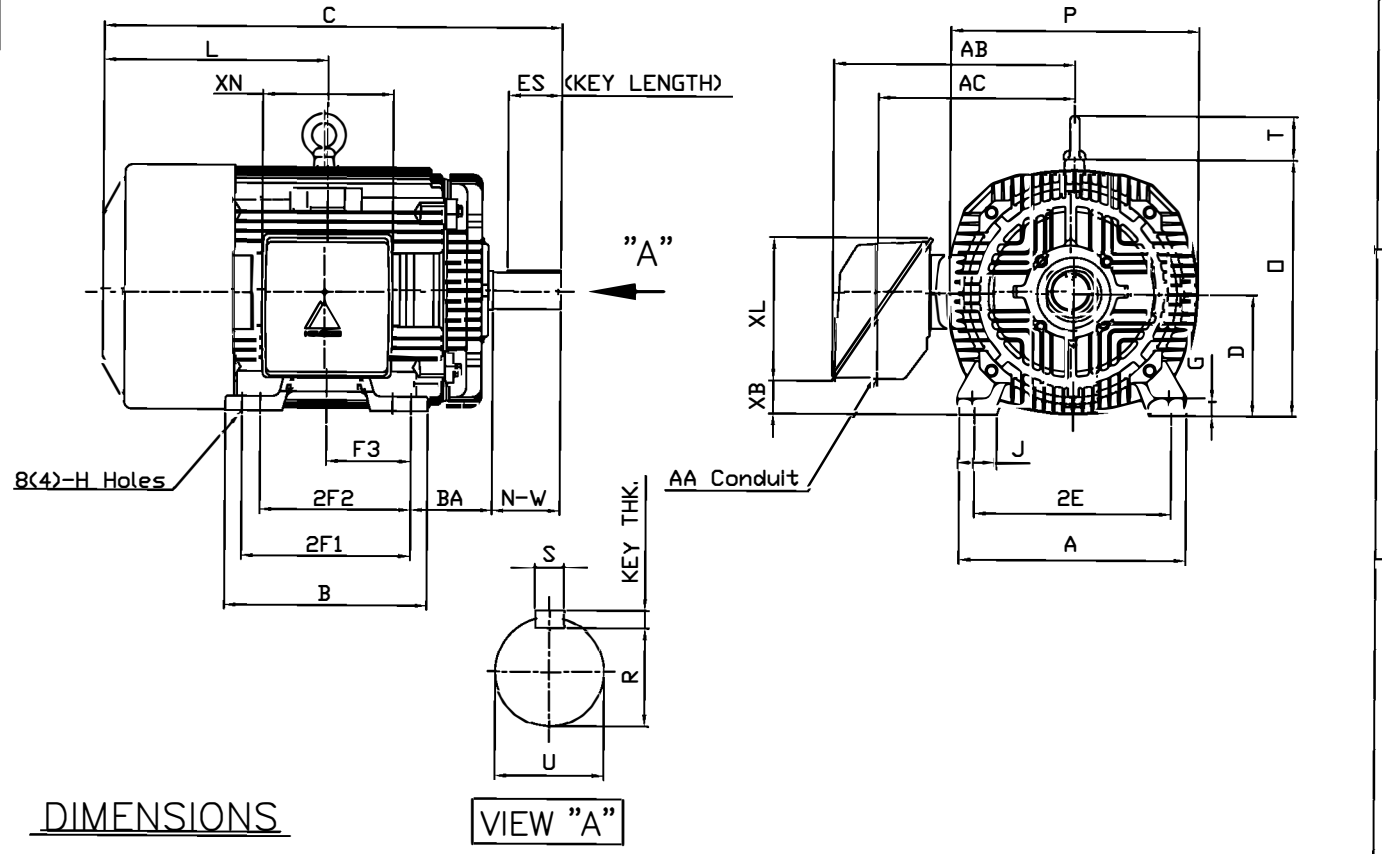
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본 도면은 현대중공업(주) 재산이며 복제할 수 없음 (추첨유역)

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<b>HYUNDAI</b> HEAVY INDUSTRIES CO., LTD.		<b>IEEE841 TEFC</b> THREE PHASE INDUCTION MOTOR		<b>TYPE</b>	PLP Cast iron frame
FRAME SIZE	OUTPUT(HP)	POLES	Hz	TIME RATING	
405T			60	CONT	



DIMENSIONS

VIEW "A"

M O U N T I N G									C O N D U I T B O X					APPROX. WGT.(LB)	
A	B	2E	2F1	2F2	F3	G	J	H	AA	AB	AC	XB	XL		XN
18.43	16.46	16.00	13.75	(12.25)	6.870	1.18	3.03	0.81	3.00	20.28	14.85	2.83	11.65	10.63	1220

O V E R A L L							S H A F T				KEY	BEARING		
BA	C	D	L	O	P	T	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
									R	ES	S			
6.62	41.01	10.00	20.57	20.79	20.16	3.55	2.875	7.25	2.450	5.65	0.750	0.750	NU316	6313C3

NOTE

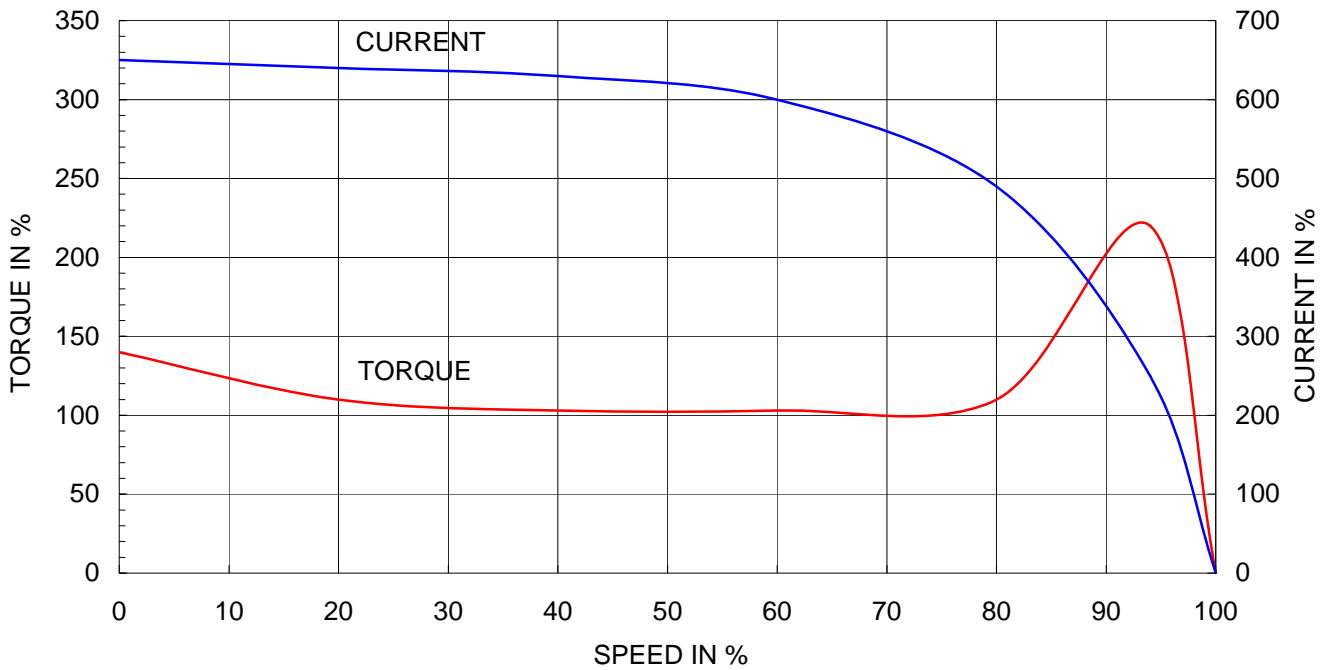
1. Dimension "D" tolerance : +0.00inch - 0.03inch (143T-365T) ; +0.000inch - 0.06inch (404T-449T)
2. Dimension "U" tolerance : +0.000inch - 0.005inch (143T-215T), +0.000inch - 0.001inch (254T-449T)
3. Dimension "R" tolerance : +0.000inch - 0.015inch

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	K.J.KANG	UNIT	INCH	SUBJECT	405T	CAD PROJ <input type="checkbox"/> FILE <input type="checkbox"/>	
Q.P CHK	O.J.KIM	SCALE	N/S				
CHKD BY	N.D.LEE	PROJEC'N	3 각법(3rd Angle)	TITLE <b>OUTLINE</b>			
DSND BY	A.L.SHIN	DATE	2011.03.31				
<b>HYUNDAI</b> HEAVY INDUSTRIES CO., LTD.				REF. NO	A8116AA	Sheet No.	of
				DWG NO	350A8116AA	Revision No.	0

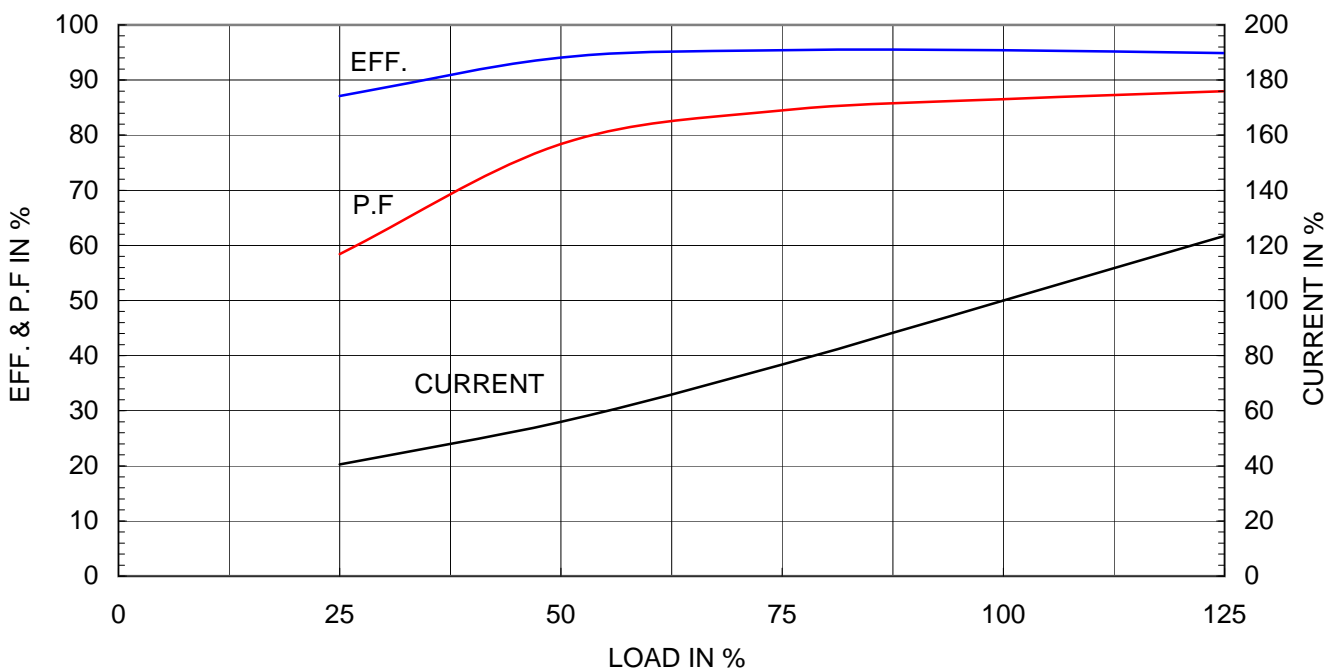
Type	: PLP
Full Load Torque	: 296.8 lb.ft
Motor moment of Inertia (J)	: 35.910 lb.ft <sup>2</sup>
Load moment of Inertia (J)	: 1337.213 lb.ft <sup>2</sup>

75 kW	100 HP	60 Hz	
4 P	Rated Speed	: 1780 RPM	
Rated Voltage	575V	460V	230V
Full Load Current	91.3A	114.1A	228.1A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE





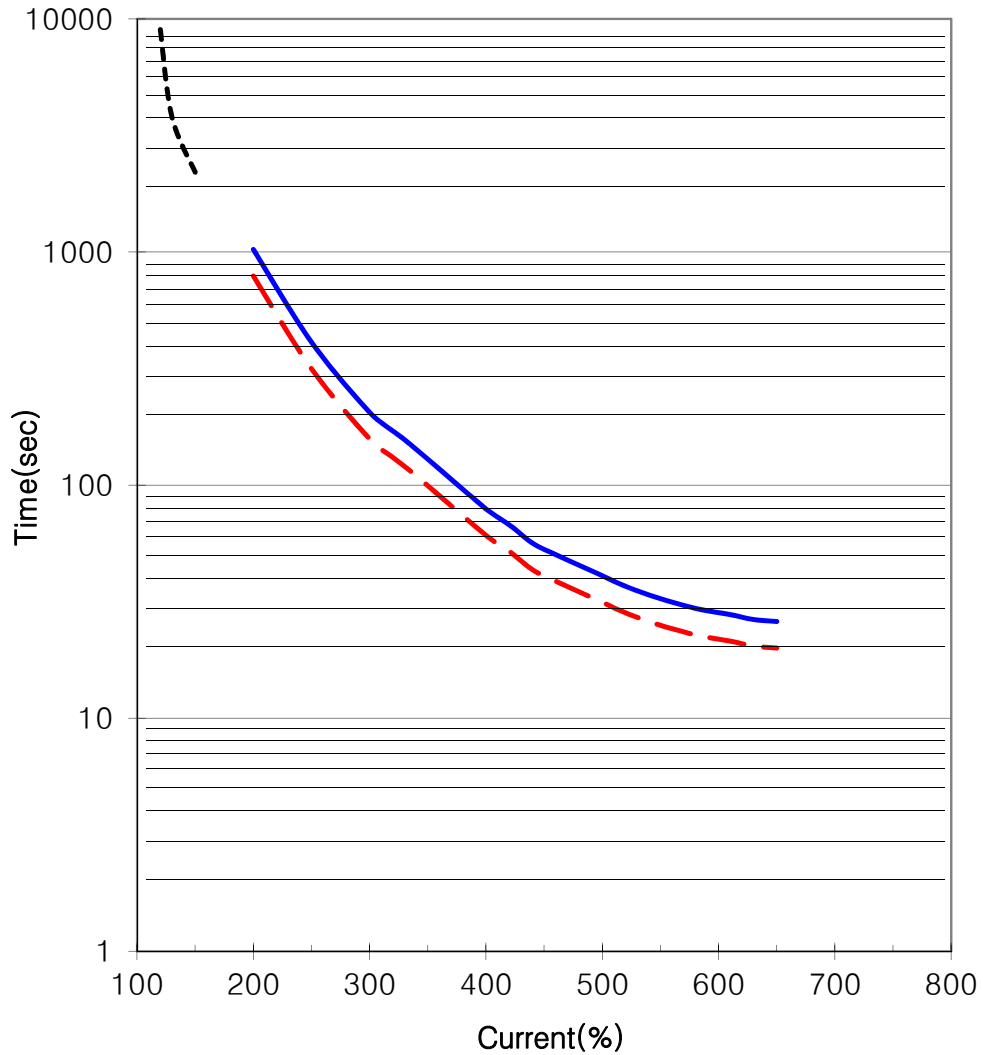
### THERMAL LIMIT & TIME CURRENT CURVE

CURVE NO.

T-PLP100-18-405T

Type :	PLP100-18-405T	
FULL LOAD TORQUE :	296.8	lb.ft
J OF LOAD :	-	lb.ft <sup>2</sup>
J OF MOTOR :	35.9	lb.ft <sup>2</sup>

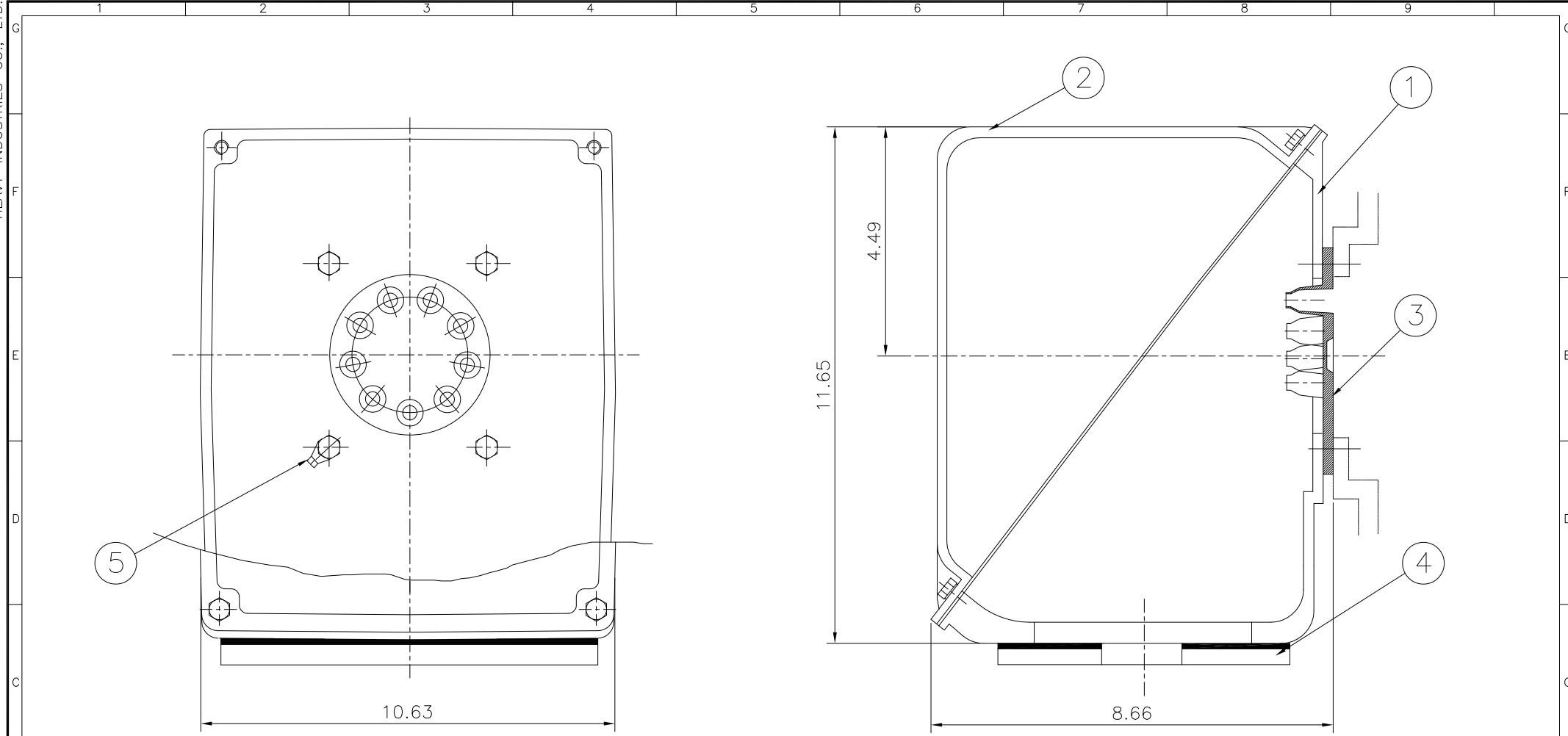
100	HP	4	P	60	Hz
RATED SPEED :		1780 rpm			
VOLTAGE		460 V	575 V		
RATED CURRENT		114.1A	91.3A		



— THERMAL LIMIT CURVE AT COLD CONDITION  
- - THERMAL LIMIT CURVE AT HOT CONDITION

STARTING TIME	SAFE STALL TIME
- at rated voltage starting	20 sec. at Hot condition
- at 80% of rated voltage starting	26 sec. at Cold condition

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▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY	일반기능공차		일반제관공차	
							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

1	EARTH TERMINAL LUG									5
1	CABLE ENTRY PLATE									4
1	GASKET	NBR								3
1	TERMINAL BOX COVER	CAST IRON								2
1	TERMINAL BOX BODY	CAST IRON								1
Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.			
APPD BY	KANG KYEONG JUNG	UNIT	INCH	SUBJECT	NEMA 400, 440		DWG SIZE			
CHKD BY	KIM JIN HONG	SCALE	Non Scale			TITLE	Main Terminal Box Assembly			
CHKD BY	KIM OK JIN	PROJEC'N	3각법 (3rd Angle)							
DSND BY	KIM RYANG GYU	DATE	2011-10-21							
REF. NO						Sheet No.	of			
DWG NO	3M-016882					Revision No.	0			