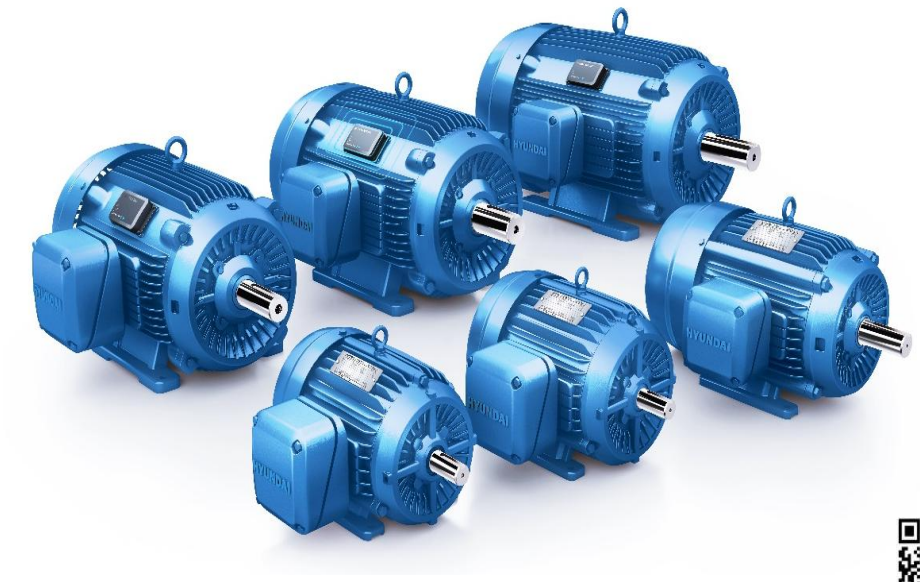
HD HYUNDAI ELECTRIC

Essential for Today
Potential for Tomorrow

Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION
for
INDUCTION MOTOR



0		For Bidding			
No.	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY

AC INDUCTION MOTOR DATA SHEET
IEEE841 TYPE

Catalog No.	IEEEV40-36-324TSCRD	Item No.		Rev. No.	[ ]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION

Frame Size		324TSC
Type		PJP
Enclosure(Protection)		Totally Enclosed / IP55
Method of Cooling		IC411(FC)
Rated Frequency		60 Hz
Number of Phases		3
Insulation Class		F
Temp. Rise at full load (by resistance method)		
	at 1.0 S.F	80 deg. C
Motor Location		☐ Indoor ☐ Outdoor
Altitude		Less than 1,000 meter
Relative Humidity		Less than 80 %
Ambient Temp.		40 deg. C (Max.)
Duty Type		Continuous (S1)
Service Factor		1.15
Mounting		B5
Bearing	Type	Anti-Friction
	DE/N-DE	6212ZC3 / 6212ZC3
	Lubricant	Grease(Polyrex-EM)
External Thrust		Not applicable
Coupling Method		☑ Direct ☐ V-belt
Shaft Extension		Single
Terminal Box	Main	Cast Iron
	Aux.	No
	Location	Refer to Outline Drawing
Application		
Area classification		Hazardous
Type of Ex-Protection		Class I&II, Division 2
Applicable Standard		IEEE841, NEMA MG1, CSA C390

PERFORMANCE DATA

Rated Output		30 kW		40 HP
Number of Poles		2		
Rotor Type		Squirrel Cage		
Starting Method*		D.O.L		
Rated Voltage		575 V	460 V	230 V
Current	Full Load	35.6 A	44.5 A	89.1 A
	Locked-rotor**	850 %	850 %	850 %
Efficiency				
	50% Load	89.4 %		
	75% Load	91.4 %		
	100% Load	92.4 %		
Power Factor(p.u)				
	50% Load	0.765		
	75% Load	0.865		
	100% Load	0.915		
Speed at Full Load		3560 r.p.m		
Torque				
	Full Load	59.37 lb.ft		
	Locked-rotor**	150 %		
	Breakdown**	230 %		
Moment of Inertia (J)				
	Load(Max.)	38.727 lb.ft2		
	Motor	3.987 lb.ft2		
Sound Pressure Level (No-load & mean value at 1m from motor)		82 dB(A)		
Vibration		2.03 mm/s (peak)		
Permissible number of consecutive starts		Cold 3 times		
		Hot 2 times		
Paint	Munsell No.	7.5BG6/1.5		

ACCESSORIES

SPARE PARTS

SUBMITTAL DRAWING

Outline Dimension Drawing	\ Motor Weight(Approx.)	
B5	LM-I2324C5CLV23	560 lb.

REMARK

1. Premium efficiency according to NEMA MG1
2. Inverter Duty @ 1.0 Service Factor & F Temperature rise
   -. 10:1 VT (20:1 VT at 50% load)
   -. 10:1 CT (1 hour duty, 4:1 continuous)
   -. CHP up to 1.5 times base speed, NEMA MG1 Part31
3. CSA Certification
   -. Class I, Division 2, Group A, B, C & D
   -. Class II, Division 2 Group E, F & G (Group E : up to 320Fr.)
4. Service Factor 1.15 and Temperature rise B are applicable under the condition of sine wave power.
5. Service Factor 1.25 is applicable to motors of 100HP or less with temperature rise F & Non-Hazardous.
6. Temp. code : T3C(160°C) at sine wave

Date	DSND	CHKD	CHKD	APPD
2025-09-19	S.H. LEE	I.K. KIM	R.G. KIM	S.W. 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 done according to maker standard, if not mentioned.

* In case of Inverter-Fed Motor, performance data is based on sine wave tests. It may be different from test data of Inverter combined motor.

** Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

▣ MAIN NAMEPLATE

4.72

2.36

CROWN TRITON G2
Premium Efficiency AC 3 Phase Motor

CC038A

40HP	2P	460V		Cat. No.	IEEEV40-36-324TSCRD		
Model	HLS324PR138V			INS. Class	F HD-F1	Amps	44.5A
Type	HLS	Duty	CONT	Code J	Amb. 40°C	Hertz	60Hz
Frame	324TSC	Encl.	TEFC	S.F. 1.15	RPM 3560	NEMA Nom. Eff.	92.4%
Bearing	Drive 6212ZC3			S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)		3/4 Eff.	91.4%
	Opp. 6212ZC3			S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		NEMA Design	B Torque
Usable at	50Hz 40HP 380V 59.5A 2955rpm S.F.: 1.0 Eff.: 91.7% Code: H						
	50Hz 40HP 400/415V 56.8/55.0A 2960/2965rpm S.F.: 1.0 Eff.: 91.7/91.7% Code: J/K						

CSA Certified for	Model -	Type PJP	Temp. Code (sine wave)	Frame	140~320FR	360~400FR	440FR
	CLASS I, Div. 2, Gr. A, B, C & D CLASS I, Zone 2, Gr. IIA, IIB, & IIC	CLASS II, Div. 2 Gr. E, F & G (Gr. E : Up to 320FR)		Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)
				Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)

No.	-	Date	-	Weight	560 lb

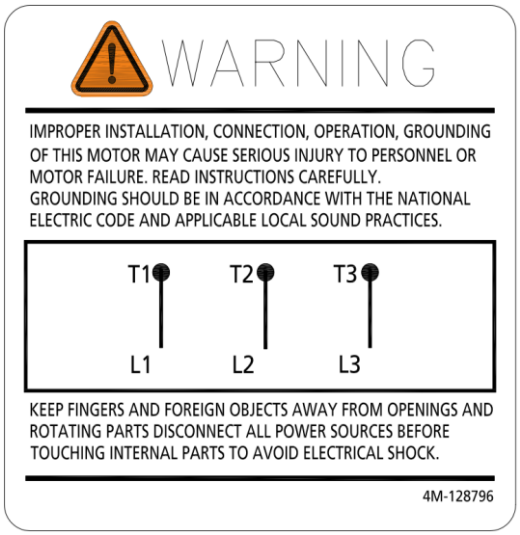
MARINE DUTY IEEE45
IEEE Std 841-2021

4M-138416

Made in Vietnam H4
Designed By HYUNDAI, Korea

HD HYUNDAI ELECTRIC

▣ WIRING DIAGRAM

D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
	N/A

APPD BY	S.Y.KIM	UNIT	INCH
CHKD BY	I.K.KIM	SCALE	NONE
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle
DSND BY	S.H.LEE	DATE	2024.06.07

SUBJECT	CSA Class I, Division2 IEEE841 (SSEN, 254-326)	DWG SIZE A4 (1:1)
TITLE	NAMEPLATE DRAWING	
REF. NO	4M-138416 / 4M-128796	Sheet No. of
DWG NO	NP-IEEEV40-36-324TSCRD	Revision No. 0

HD HYUNDAI ELECTRIC

HYUNDAI ELECTRIC

PERFORMANCE CURVE

CURVE NO.

PC-IEEEV40-36-324TSCRD

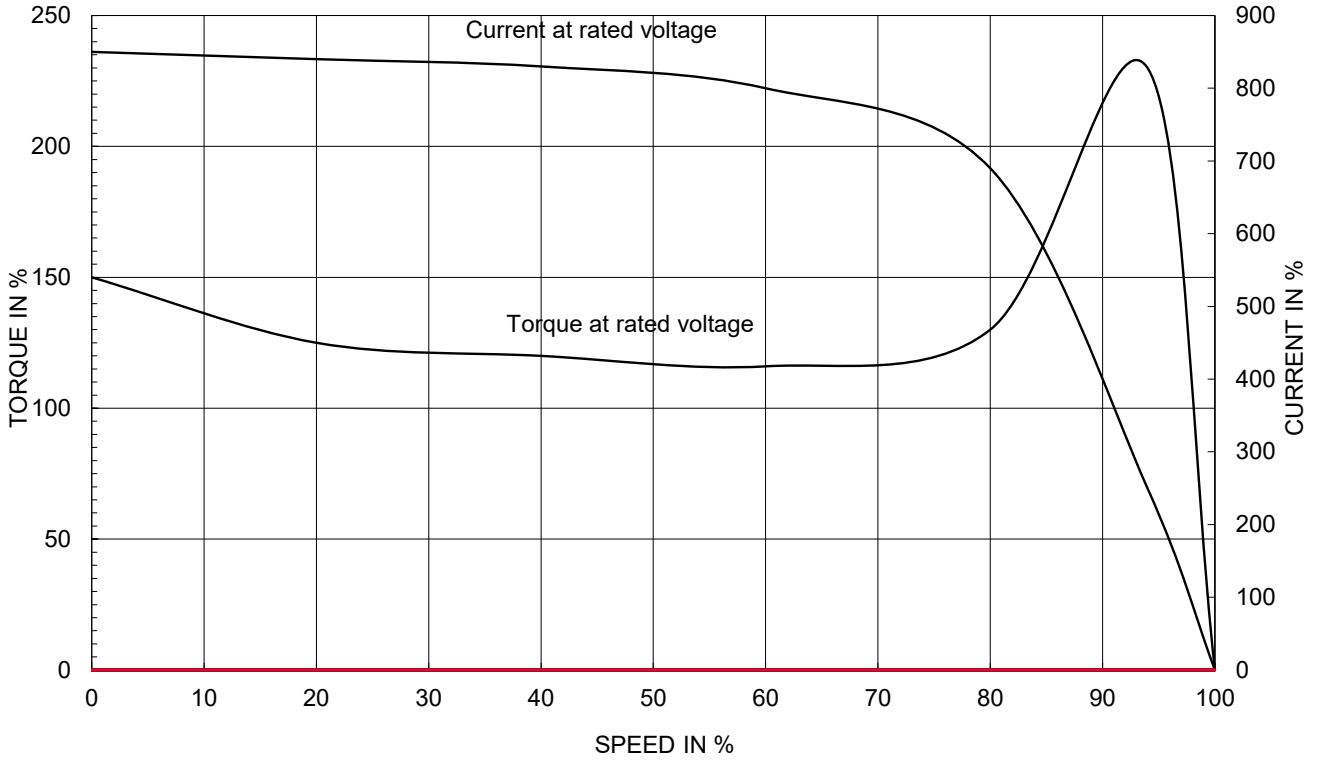
Type :	PJP	
Full Load Torque :	59.37	lb.ft
Load moment of Inertia (J) :	38.727	lb.ft2
Motor moment of Inertia (J) :	3.987	lb.ft2

30kW 40HP 2 P 60 Hz

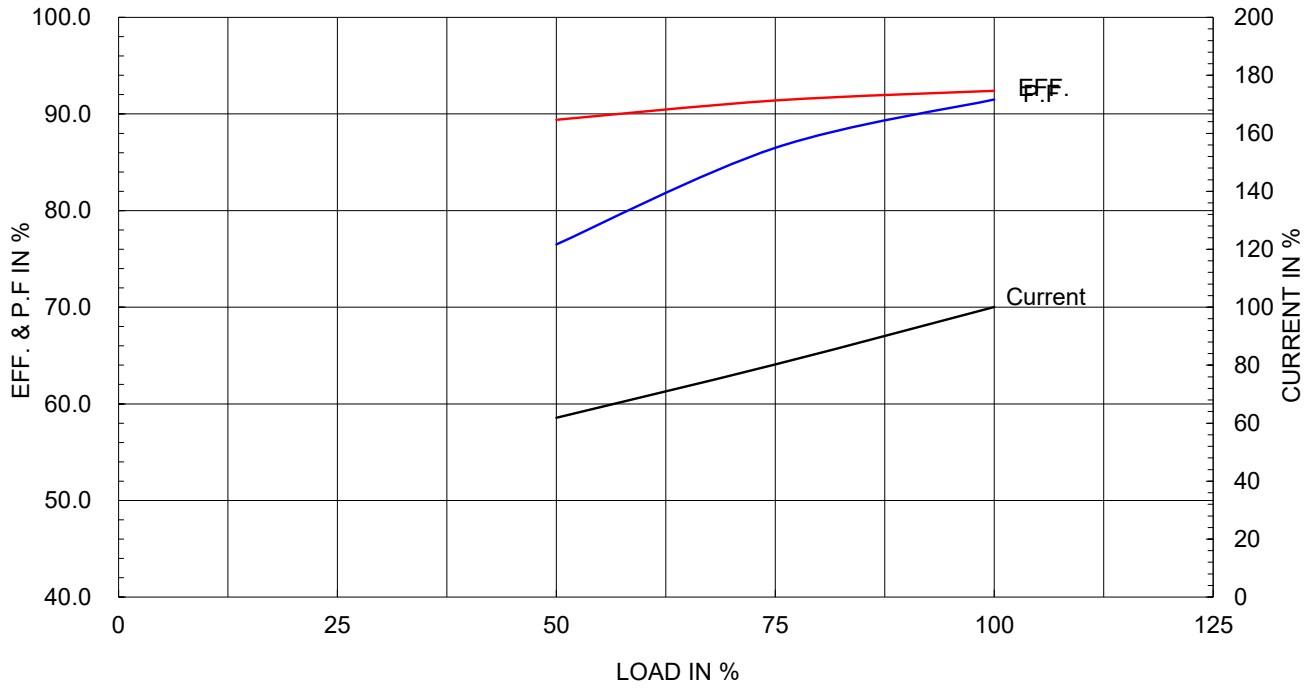
Speed at Full Load : 3560 RPM

Rated Voltage	575V	460V	230V
Full Load Current	35.6A	44.5A	89.1A

SPEED VS TORQUE & CURRENT CURVE

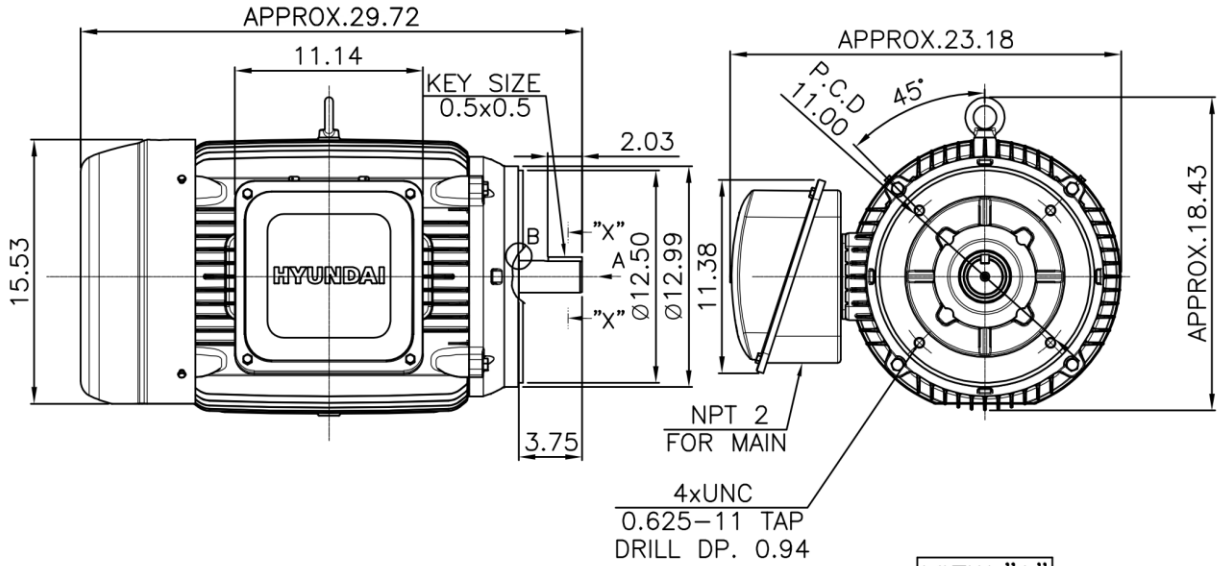


OUTPUT VS EFF., P.F & CURRENT CURVE

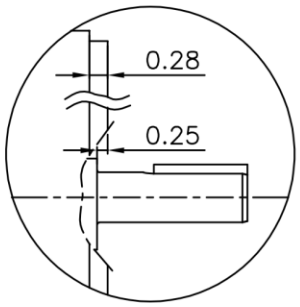


▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							

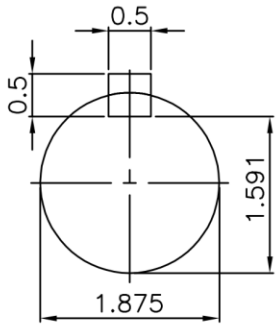
IEEE841



VIEW "A"



DETAIL – B



SECTION "X-X"
SCALE 5/11

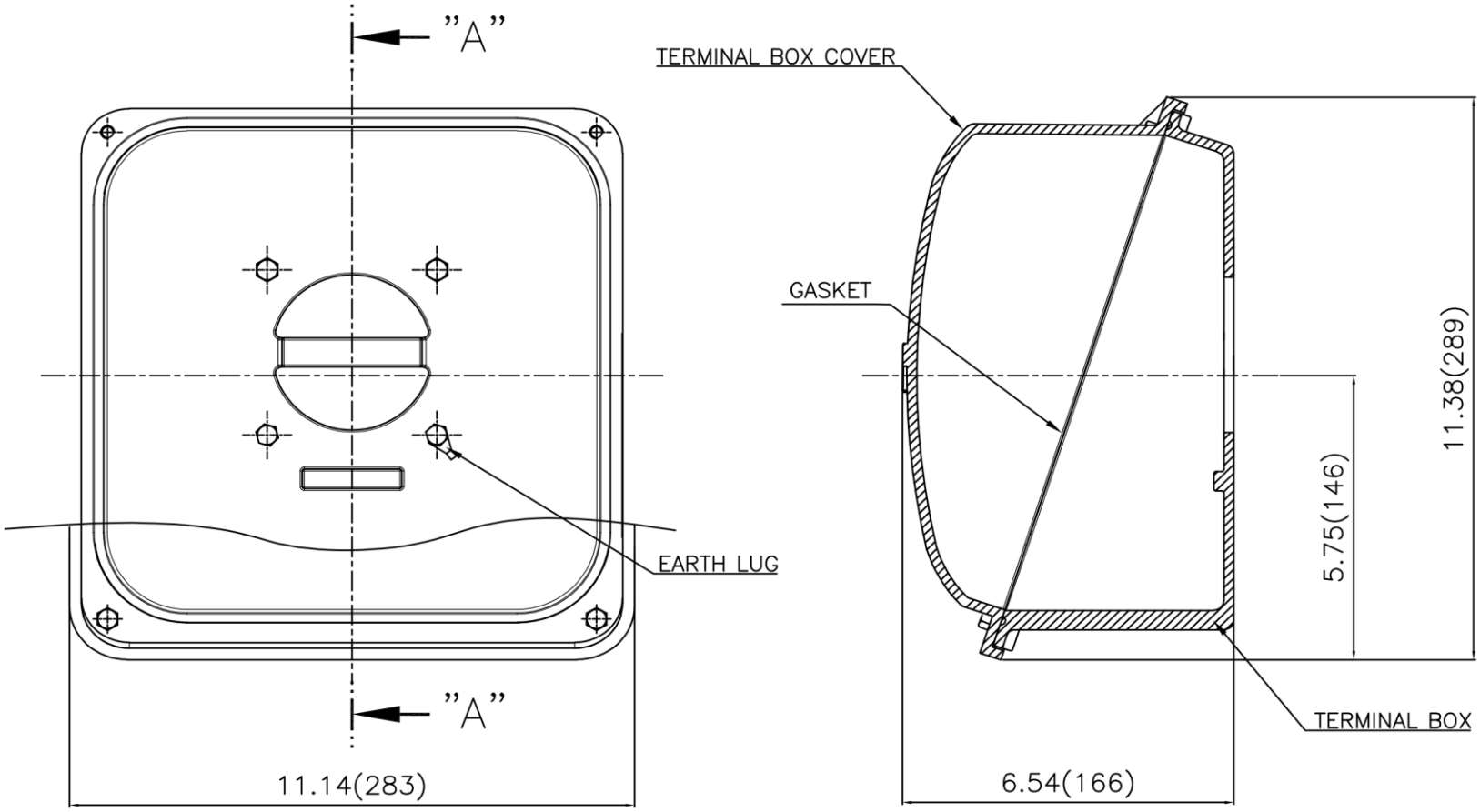
NOTE

[TOLERANCE]

1. CENTER HEIGHT : +0.00inch – 0.03inch
2. SHAFT DIAMETER : +0.000inch – 0.001inch
3. KEYWAY DEPTH : +0.000inch – 0.015inch

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 324TSC	DWG SIZE A4 (1:11)
CHKD BY	R.G.KIM	SCALE	1/11	TITLE	OUTLINE	
CHKD BY		PROJEC'N	3rd Angle			
DSND BY	전지현	DATE	2021-04-28			
HD HYUNDAI ELECTRIC				REF. NO	.	Sheet No. of
				DWG NO	LM-I2324C5CLV23	Revision No. 0

Cls. I&II, Div. 2
IEEE 841



SEC. "A"–"A"

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

일반기공공차		일반재관공차	
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	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR. 320 (CAST IRON)
CHKD BY		SCALE	1/2.5		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE	TERMINAL BOX ASS'Y
DSND BY	배승희	DATE	2023–10–19	REF. NO	
				DWG NO	3M–248459

DWG SIZE A3 (1:2.5)

Sheet No. of

Revision No. 0