

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.	IEEE700-36-5812S-IBBRSRSHSP	Item No.		Rev. No.	[      ]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA		
Frame Size	5812S		Rated Output	522 kW      700 HP	
Type	HNE6		Number of Poles	2	
Enclosure(Protection)	Totally Enclosed / IP55		Rotor Type	Squirrel Cage	
Method of Cooling	IC411(FC)		Starting Method*	D.O.L	
Rated Frequency	60 Hz		Rated Voltage	575 V	460 V      230 V
Number of Phases	3		Current	Full Load	614.7 A      768.4 A      1,536.8 A
Insulation Class	F			Locked-rotor**	720 %      720 %      720 %
Temp. Rise at full load (by resistance method)			Efficiency		
at 1.0 S.F	80 deg. C		50% Load      92.8 %		
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load      94.8 %		
Altitude	Less than 1,000 meter		100% Load      95.8 %		
Relative Humidity	Less than 80 %		Power Factor(p.u)		
Ambient Temp.	40 deg. C (Max.)		50% Load      0.740		
Duty Type	Continuous ( S1 )		75% Load      0.840		
Service Factor	1.15		100% Load      0.890		
Mounting	B3		Speed at Full Load	3570 r.p.m	
Bearing	Type	Anti-Friction	Torque		
	DE/N-DE	6316C3 / 6316C3-INS.	Full Load      1,030.1 lb.ft		
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**      150 %		
External Thrust	Not applicable		Breakdown**      250 %		
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)		
Shaft Extension	Single		Load(Max.)      513.845 lb.ft2		
Terminal Box	Main	Steel	Motor      121.840 lb.ft2		
	Aux.	Yes	Sound Pressure Level (No-load & mean value at 1m from motor)		
	Location	Refer to Outline Drawing	89 dB(A)		
Application			Vibration      3.8 mm/sec (peak)		
Area classification	Hazardous		Permissible number of consecutive starts		
Type of Ex-Protection	Class I, Division 2		Cold      2 times		
Applicable Standard	IEEE841, NEMA MG1, CSA C390		Hot      1 time		
	Paint	Munsell No.	7.5BG6/1.5		

ACCESSORIES
*. B.T.D.(Pt 100 Ω at 0°C,Single) : 2EA/Motor
*. W.T.D.(Pt 100 Ω at 0°C) : 2EA/Ph.
*. Space Heater : 1EA/Motor

SUBMITTAL DRAWING		
Outline Dimension Drawing	Motor Weight(Approx.)	
B3	LM-I5812B3C7001	6730 lb.

REMARK
1. Premium efficiency according to NEMA MG1
2. Inverter Duty @ 1.0 Service Factor & F Temperature rise -. 10:1 VT -. 2:1 CT
3. NDE side : Insulated bearing
4. CSA Certification -. Class I, Division 2, Group A, B, C & D; Temp code : T3A
5. Shaft material : AISI4140
6. Uni-directional CCW viewed from drive end.

SPARE PARTS
1. Spare Axial Fan (C.W Direction)

Date	DSND	CHKD	CHKD	APPD
2024-07-13	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.

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## CROWN TRITON

Premium Efficiency AC 3 Phase Motor

700HP	2P	460V	Cat. No. IEEE700-36-5812S-IBBRSRSHSP
Model	LATER	INS. Class	F
Type	HNE6	Duty	CONT
Frame	5812S	Encl.	TEFC
Bearing	Drive	6316C3	S.F. 1.15
	Opp.	6316C3-INS.	RPM 3570
Usable at		NEMA Nom. Eff. 95.8%	
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D		Temp. Code (sine wave)
No.	-	Date	-
IEEE Std 841-2021		Weight 6730 lb	
4M-136445		Made in Korea H1	

2.36

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 IEEE841 (XL)	DWG SIZE	A4 ( 1:1 )
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	NAMEPLATE DRAWING		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	S.H.LEE	DATE	2024.06.07				
				REF. NO	<b>4M-136445</b>	Sheet No. of	
				DWG NO	NP-IEEE700-36-5812S-IBBRSRSHSP	Revision No. <b>0</b>	



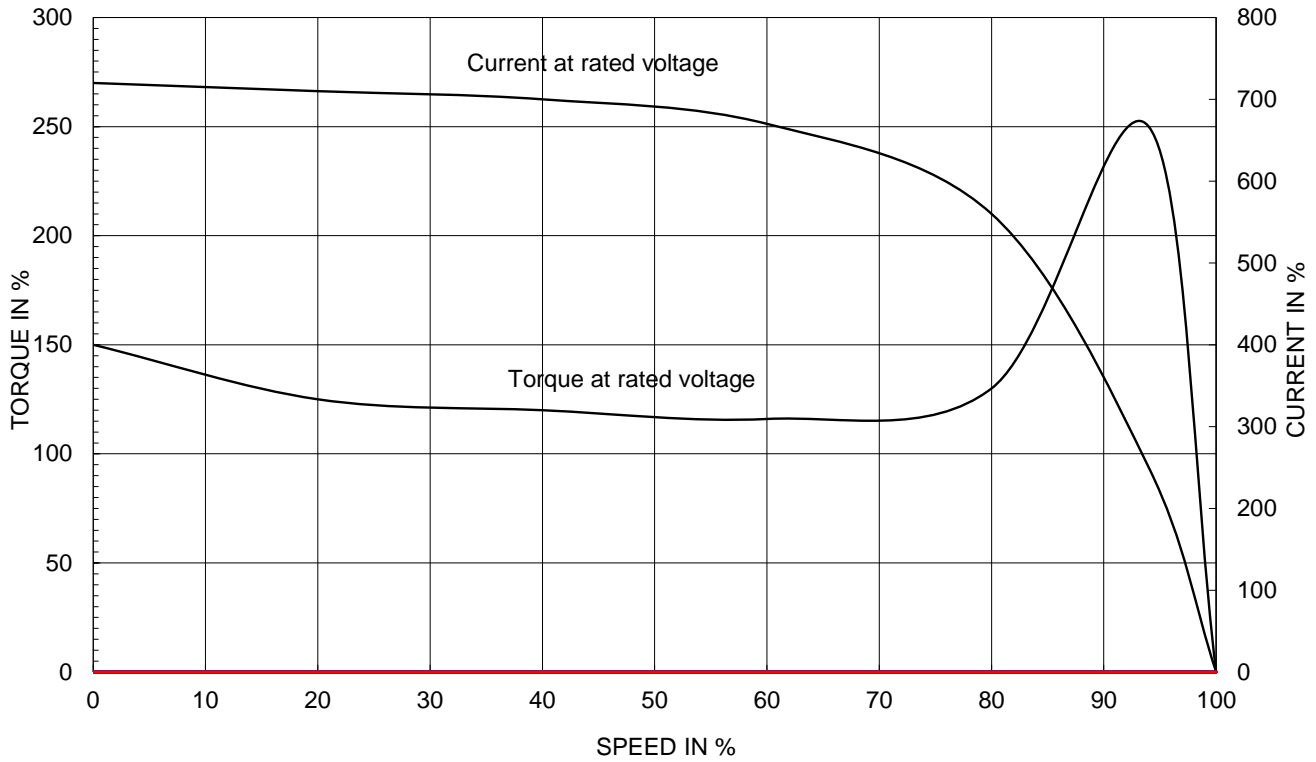
# PERFORMANCE CURVE

CURVE NO.  
PC-IEEE700-36-5812S-IBBRSRSHSP

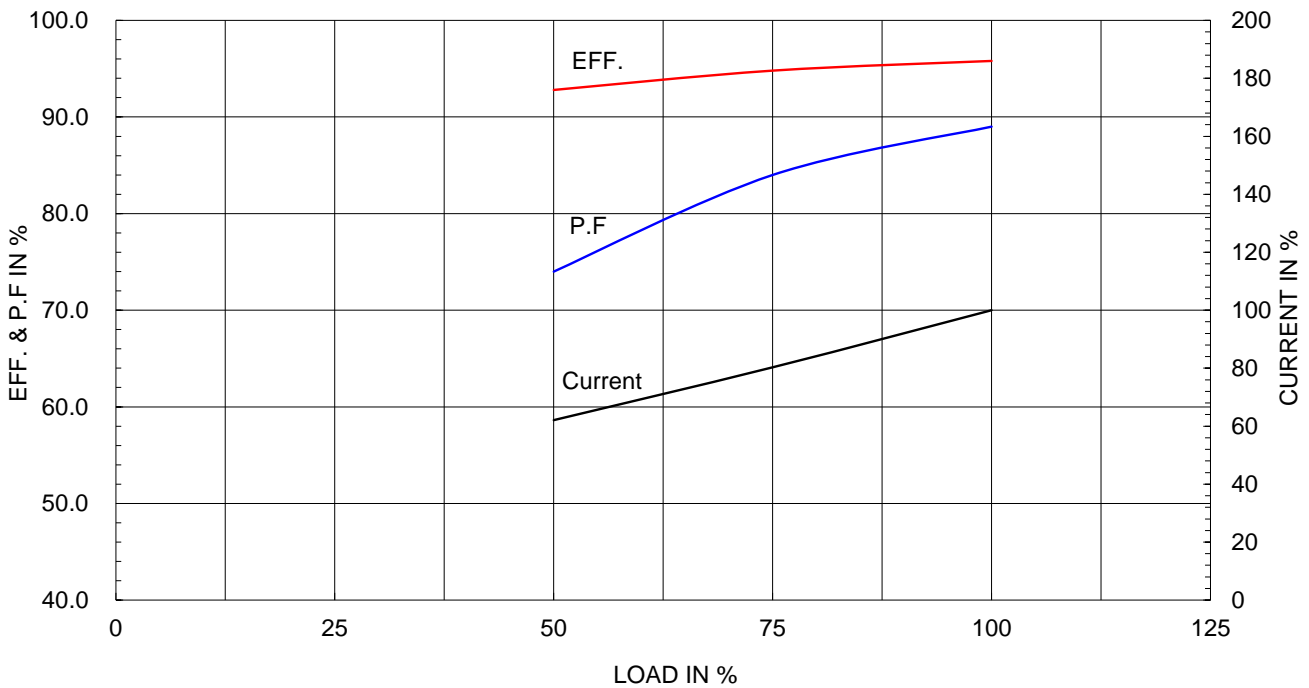
Type :	HNE6
Full Load Torque :	1030.1 lb.ft
Load moment of Inertia (J) :	513.845 lb.ft2
Motor moment of Inertia (J) :	121.840 lb.ft2

522kW 700HP	2 P	60 Hz
Speed at Full Load :		3570 RPM
Rated Voltage	575V	460V 230V
Full Load Current	614.7A	768.4A #####

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

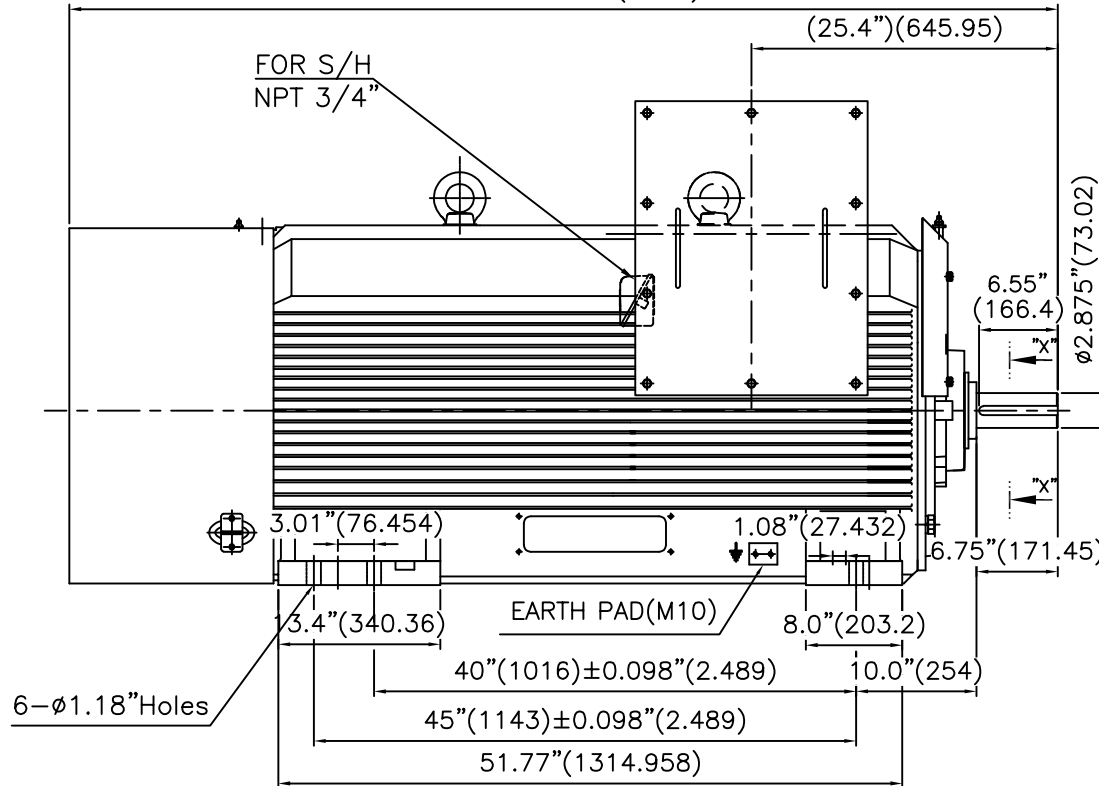


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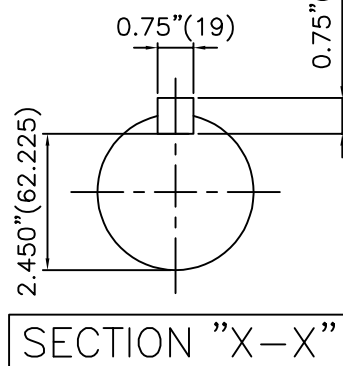
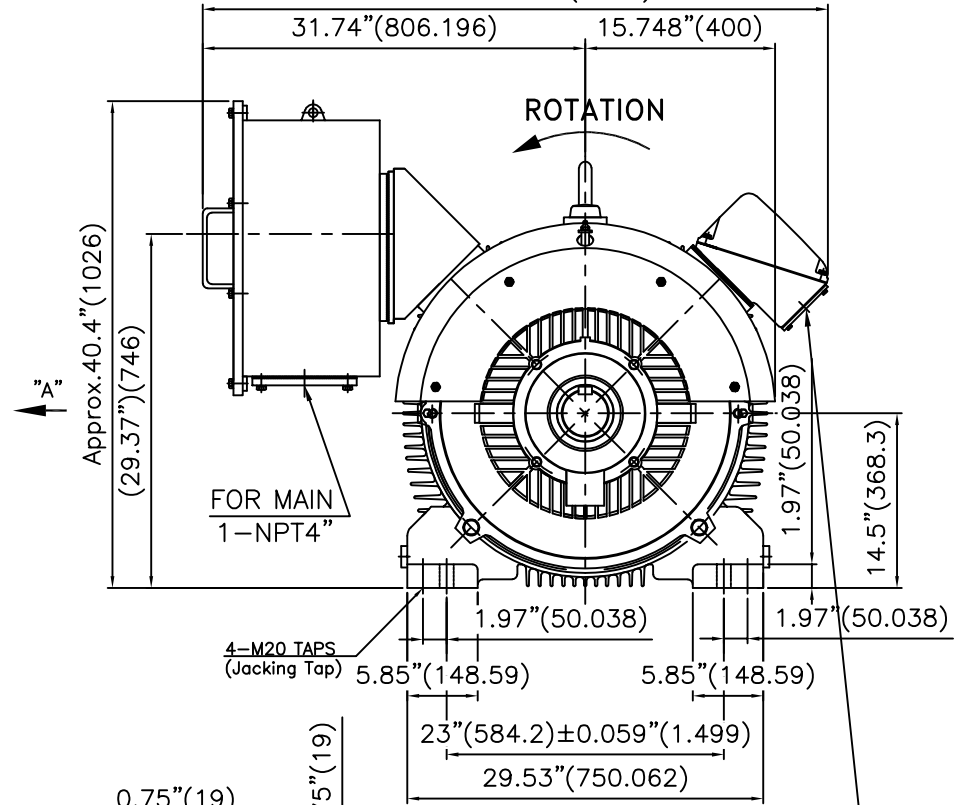
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# IEEE841

APPROX.82.04"(2084)



APPROX.51.87"(1318)



VIEW "A"

### TECHNICAL INFORMATION

#### 1) BEARING & LUBRICANT LIST

BEARING	Drive End	Non-Drive End
Bearing Type	6316C3	6316C3
Lubricant Type	GREASE	GREASE
Grease Type	Mobil(Polyrex-EM)	Mobil(Polyrex-EM)
Initial Charge Quantity	200 g	200 g
Mark-Up	Quantity	33 g
	Interval	2 MONTHS

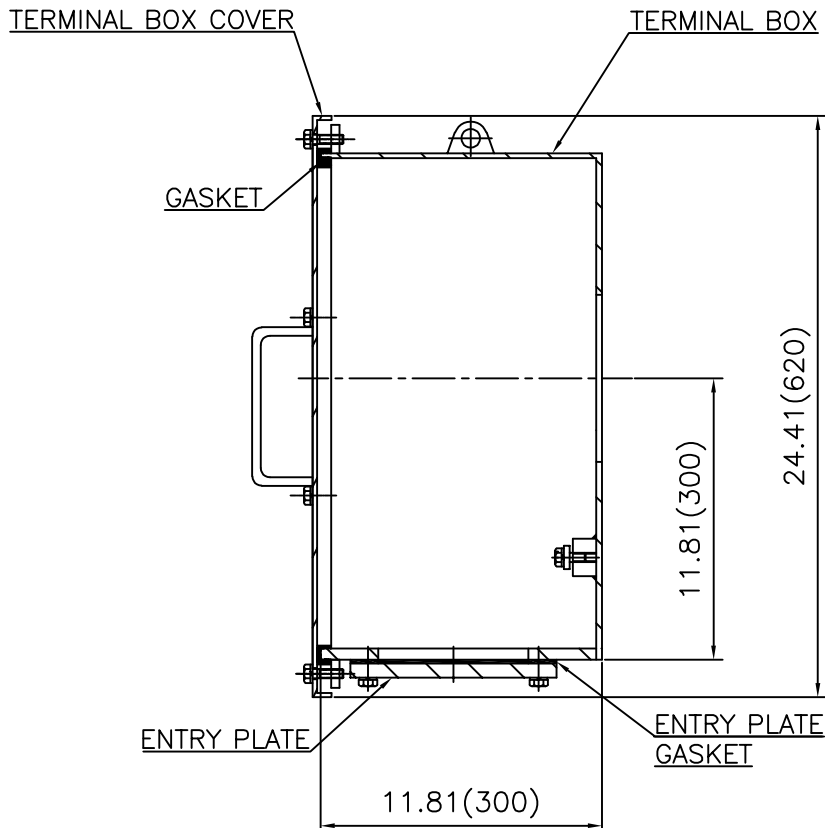
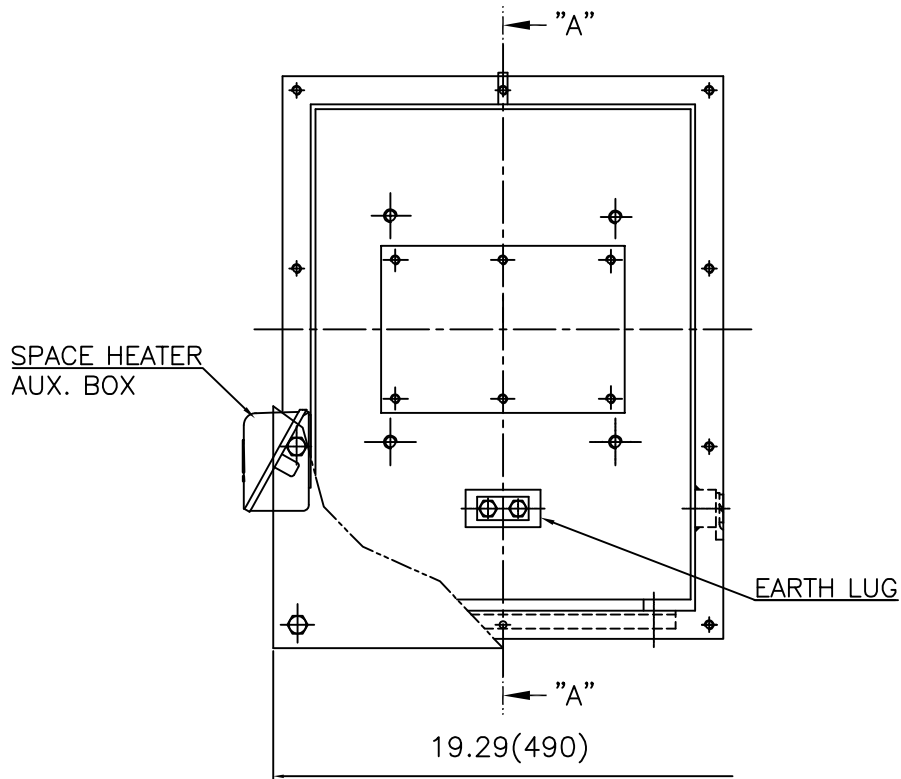
#### 2) TOLERANCE :

CENTER HEIGHT	14.5	+0.000	-0.060
SHAFT DIAMETER	ø2.875	+0.000	-0.001
KEYWAY WIDTH	0.75	+0.003	-0.000

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK
APPD BY	S.K.HAN	UNIT	INCH(MM)	SUBJECT Fr.5812-2P		
CHKD BY	S.Y.KIM	SCALE	1/12	TITLE		
CHKD BY	R.G.KIM	PROJEC'N	3각법 (3rd Angle)	OUTLINE		
DSND BY	M.S.HA	DATE	2019.05.16	REF. NO		
				DWG NO		LM-I5812B3C7001
				Sheet No. of		Revision No.

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IEEE 841**



SEC. "A" - "A"

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APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.580 (STEEL)	DWG SIZE	A3 (1:6)
CHKD BY		SCALE	1/6	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	배승희	DATE	2023-10-25	DWG NO	3M-248512	Revision No.	0



# Cls. I&II, Div. 2 IEEE 841

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REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.360 (CAST IRON)	DWG SIZE	A3 (1:2.2)
CHKD BY		SCALE	1/1	TITLE	AUX. TERMINAL BOX ASS'Y	REF. NO	Sheet No. of
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	DWG NO		3M-165277	Revision No.
DSND BY	배승희	DATE	2024-01-18				

**Cls. I&II, Div. 2  
IEEE 841**



REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.180 (CAST IRON)	DWG SIZE	A3 (1:1.1)
CHKD BY		SCALE	1/1	TITLE	SUB. TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	배승희	DATE	2024-01-18	DWG NO	3M-165278	Revision No.	0

