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.	IEEE1.5-18-145T	Item No.		Rev. No.	[ ]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION

Frame Size		145T
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		B3
Bearing	Type	Anti-Friction
	DE/N-DE	6205ZC3 / 6204ZC3
	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

ACCESSORIES

SPARE PARTS

PERFORMANCE DATA

Rated Output		1.1 kW		1.5 HP
Number of Poles		4		
Rotor Type		Squirrel Cage		
Starting Method*		D.O.L		
Rated Voltage		575 V	460 V	230 V
Current	Full Load	1.77 A	2.22 A	4.43 A
	Locked-rotor**	900 %	900 %	900 %
Efficiency				
	50% Load	83.5 %		
	75% Load	85.5 %		
	100% Load	86.5 %		
Power Factor(p.u)				
	50% Load	0.570		
	75% Load	0.670		
	100% Load	0.720		
Speed at Full Load		1750 r.p.m		
Torque				
	Full Load	4.43 lb.ft		
	Locked-rotor**	260 %		
	Breakdown**	290 %		
Moment of Inertia (J)				
	Load(Max.)	11.865 lb.ft2		
	Motor	0.076 lb.ft2		
Sound Pressure Level (No-load & mean value at 1m from motor)		56 dB(A)		
Vibration		2.03 mm/sec (peak)		
Permissible number of consecutive starts		Cold 3 times		
		Hot 2 times		
Paint	Munsell No.	7.5BG6/1.5		

SUBMITTAL DRAWING

Outline Dimension Drawing	\ Motor Weight(Approx.)	
B3	LM-I1145B3PL001	55 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
   -. 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
2025-07-22	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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REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

▣ MAIN NAMEPLATE

4.02

1.81

CROWN TRITON

Premium Efficiency AC 3 Phase Motor

CC038A

1.5HP	4P	460V	Cat. No.	IEEE1.5-18-145T			
Model	HLS145SR238		INS. Class	F HD-F1	Amps	2.22A	
Type	HLS	Duty CONT	Code	L	Hertz	60Hz	NEMA Nom. Eff. 86.5%
Frame	145T	Encl. TEFC	RPM	1750	Amb.	40°C	3/4 Eff. 85.5%
BRGS	Drive 6205ZC3		S.F.	1.15	NEMA Design	B	
	Opp. 6204ZC3		S.F.1.00(10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)				
Usable at	50Hz 1.5HP 380V 2.77A 1440rpm S.F.: 1.15 Eff.: 83.9% Code: J						
	50Hz 1.5HP 400/415V 2.72/2.71A 1445/1450rpm S.F.: 1.15 Eff.: 84.0/84.0% Code: K/L						

CSA Certified for	Model LATER		Type PJP	Temp. Code (sine wave)	Frame 140~320FR
	CLASS I, Div 2, Gr A, B, C & D	CLASS II, Div 2, Gr E, F & G			Amb.40°C T3C (160°C)
	CLASS I, Zone 2, Gr IIA, IIB & IIC				Amb.55°C T3A (180°C)
No. -		Date -		Weight 55 lb	

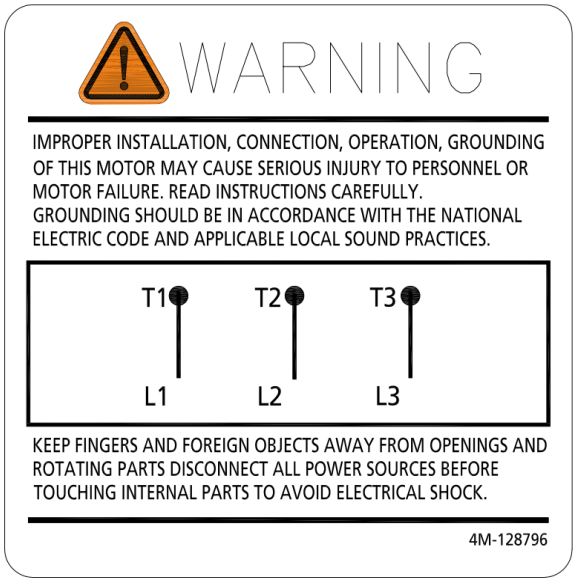
IEEE Std 841-2021 **MARINE DUTY IEEE45**

NP249A7178RCP1

HD HYUNDAI ELECTRIC

Made in Korea H3

▣ 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 (HL, 143-145)		DWG SIZE A4 (1:1)
TITLE	NAMEPLATE DRAWING		
REF. NO	NP249A7178RCP1 / 4M-128796	Sheet No.	of
DWG NO	NP-IEEE1.5-18-145T	Revision No.	0

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HYUNDAI ELECTRIC

PERFORMANCE CURVE

CURVE NO.

PC-IEEE1.5-18-145T

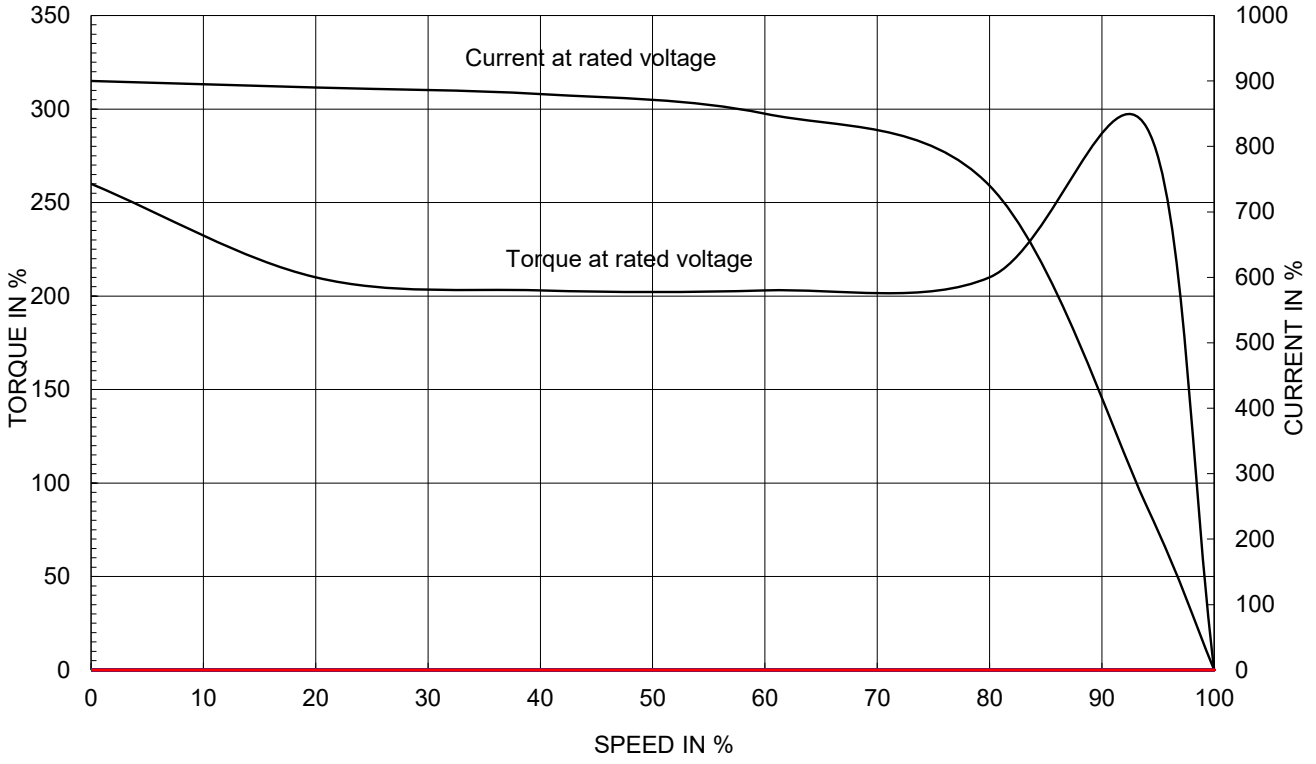
Type :	PJP	
Full Load Torque :	4.43	lb.ft
Load moment of Inertia (J) :	11.865	lb.ft2
Motor moment of Inertia (J) :	0.076	lb.ft2

1.1kW 1.5HP 4 P 60 Hz

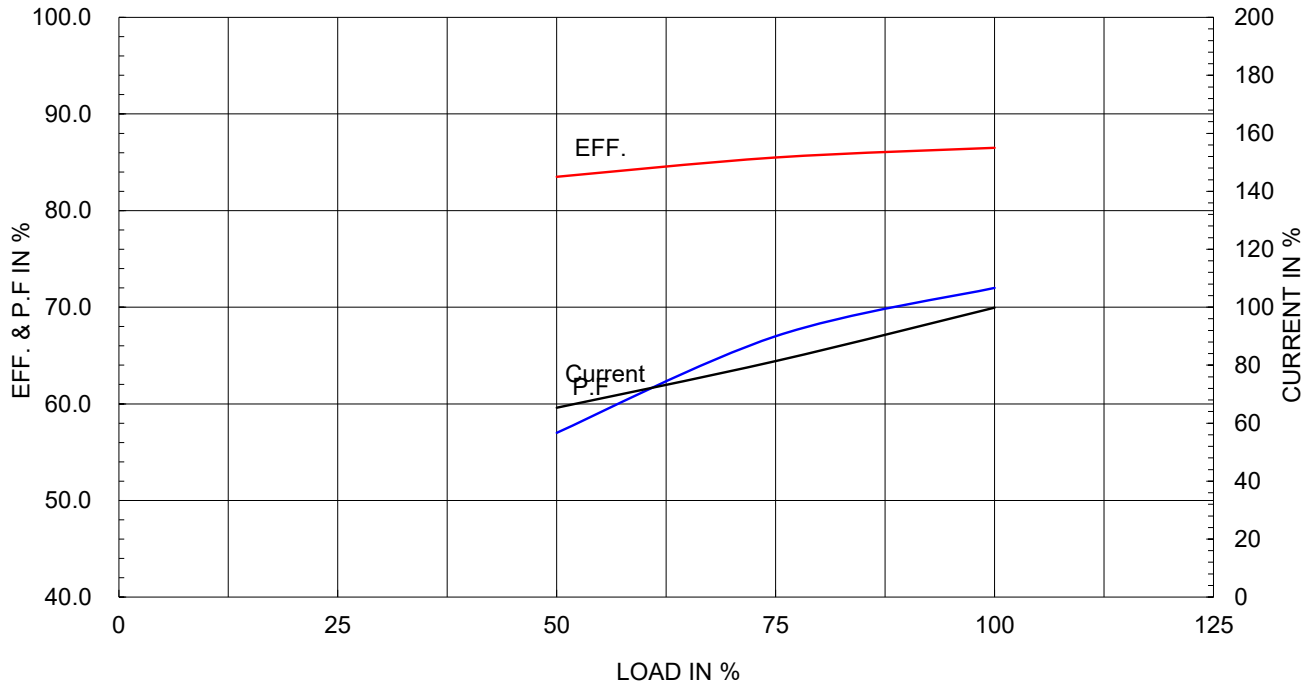
Speed at Full Load : 1750 RPM

Rated Voltage	575V	460V	230V
Full Load Current	1.77A	2.22A	4.43A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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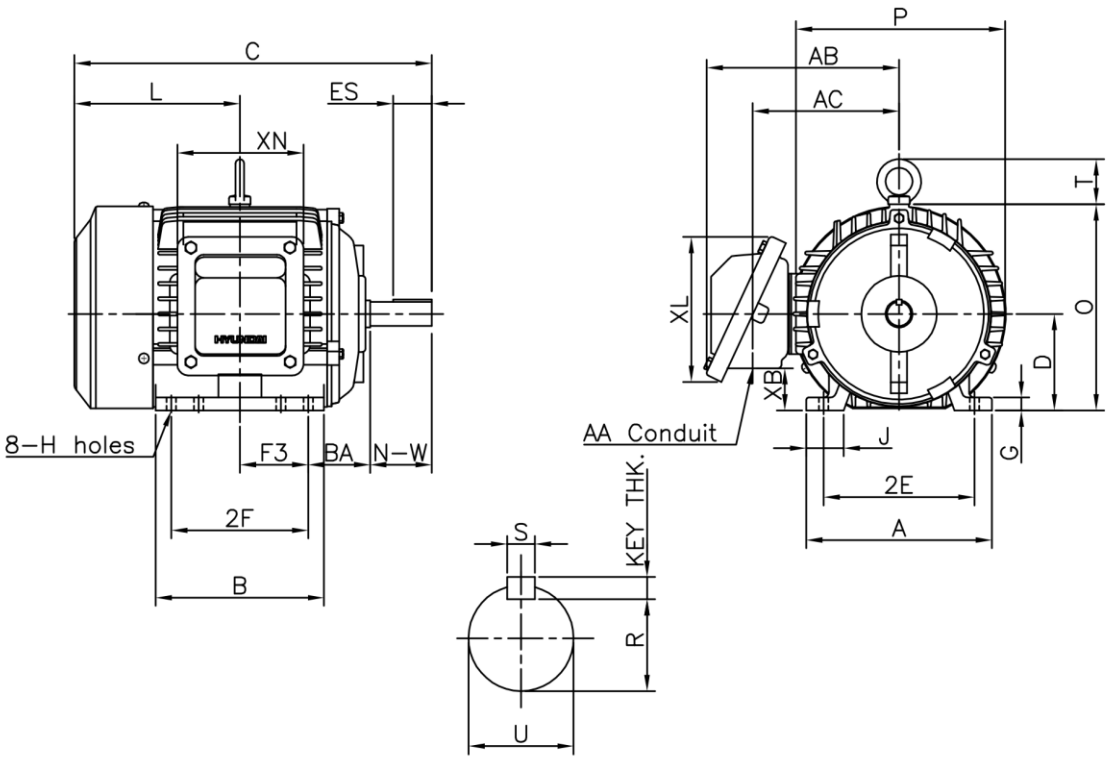
▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							

IEEE841



DIMENSIONS

Unit : inch

MOUNTING									CONDUIT BOX						APPROX. WGT.(LB)
A	11	2E	2F	–	F3	G	J	H	AA	AB	AC	XB	XL	XN	
6.78	6.15	5.50	5.00	–	2.50	0.47	1.36	0.34	0.75	7.02	5.34	1.53	5.71	5.97	55

OVERALL							SHAFT					KEY THK.	BEARING	
BA	C	D	L	O	P	T	U	N–W	KEYWAY				DRIVE END	OPP. DRIVE END
									R	ES	S			
2.25	13.05	3.50	6.05	7.46	7.64	1.63	0.875	2.25	0.771	1.41	0.188	0.188	6205Z	6204Z

NOTE

1.Dimension "D" tolerance : +0.00inch – 0.03inch
2.Dimension "U" tolerance : +0.000inch – 0.0005inch
3.Dimension "R" tolerance : +0.000inch – 0.015inch

APPD BY	S.Y.KIM	UNIT	INCH
CHKD BY	R.G.KIM	SCALE	NONE
CHKD BY	Y.H.BAE	PROJEC'N	3각법(3rd Angle)
DSND BY	H.K.LEE	DATE	2021-04-30

SUBJECT	NEMA 145T	DWG SIZE A4 (1:1)
TITLE	OUTLINE	
REF. NO	350A8102AA	Sheet No. of
DWG NO	LM-I1145B3PL001	Revision No. 0

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Cls. I&II, Div. 2
IEEE 841

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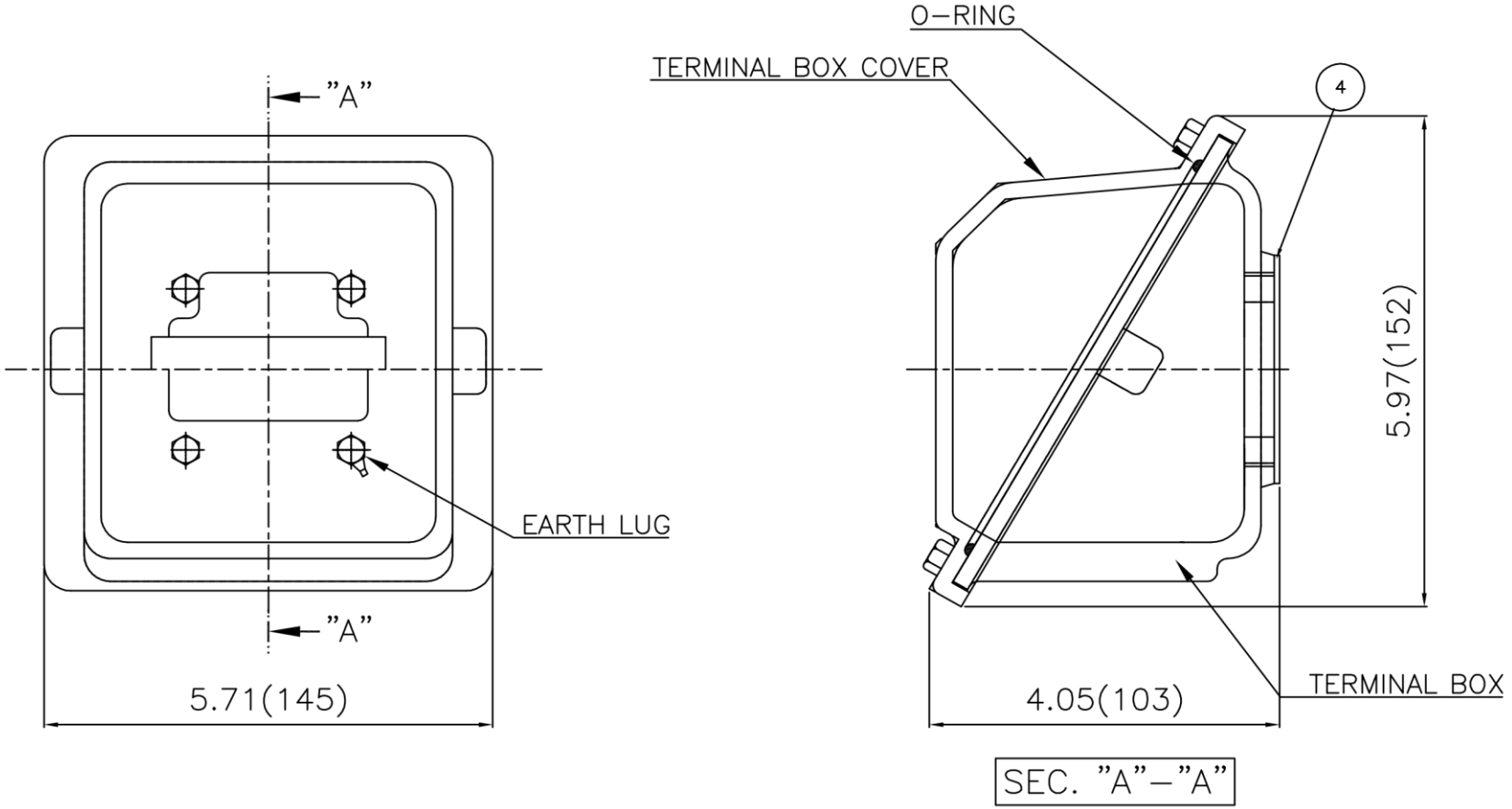

SEC. "A"-"A"

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

일반가공공차		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

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

APPD BY	S.Y.KIM	UNIT	inch(mm)
CHKD BY	I.K.KIM	SCALE	1/2
CHKD BY		PROJEC'N	3rd Angle
DSND BY	E.J.KIM	DATE	2024-02-02

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SUBJECT	FR. 140 (CAST IRON)		DWG SIZE A3 (1:1.5)
TITLE	TERMINAL BOX ASS'Y		
REF. NO		Sheet No.	of
DWG NO	3M-249376	Revision No.	0