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

Catalog No.	HHI125-12-445TC	Item No.		Rev. No.	[ ]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION

Frame Size		445TC
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		B35
Bearing	Type	Anti-Friction
	DE/N-DE	6318C3 / 6316C3
	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		NEMA MG1, CSA C390

PERFORMANCE DATA

Rated Output		93 kW		125 HP
Number of Poles		6		
Rotor Type		Squirrel Cage		
Starting Method*		D.O.L		
Rated Voltage		575 V	460 V	230 V
Current	Full Load	115.6 A	144.6 A	289.1 A
	Locked-rotor**	675 %	675 %	675 %
Efficiency				
	50% Load	92.0 %		
	75% Load	94.0 %		
	100% Load	95.0 %		
Power Factor(p.u)				
	50% Load	0.700		
	75% Load	0.800		
	100% Load	0.850		
Speed at Full Load		1185 r.p.m		
Torque				
	Full Load	552.90 lb.ft		
	Locked-rotor**	140 %		
	Breakdown**	220 %		
Moment of Inertia (J)				
	Load(Max.)	3,090.203 lb.ft2		
	Motor	89.860 lb.ft2		
Sound Pressure Level (No-load & mean value at 1m from motor)		80 dB(A)		
Vibration		3.8 mm/sec (peak)		
Permissible number of consecutive starts		Cold 3 times		
		Hot 2 times		
Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		

ACCESSORIES

SPARE PARTS

SUBMITTAL DRAWING

Outline Dimension Drawing	\ Motor Weight(Approx.)	
B35	LM-T1445C4PL001	1720 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 : T3A(180°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.

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

▣ MAIN NAMEPLATE

4.72

2.36

CROWN TRITON
Premium Efficiency AC 3 Phase Motor
C US Energy Verified
CC038A

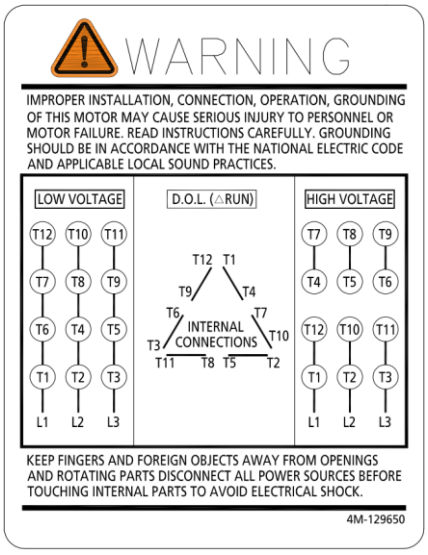
125HP	6P	230/460V		Cat. No.	HHI125-12-445TC		
Model	HLS445PR06U3			INS. Class	F	HD-F1	Amps 289.1/144.6A
Type	HLS	Duty	CONT	Code	G	Amb. 40°C	Hertz 60Hz
Frame	445TC	Encl.	TEFC	S.F.	1.15	RPM 1185	NEMA Nom. Eff. 95.0%
Bearing	Drive 6318C3			S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)			3/4 Eff. 94.0%
	Opp. 6316C3						NEMA Design B
Usable at	50Hz 125HP 380V 175.8A 982rpm S.F.: 1.0 Eff.: 93.8% Code: E						
	50Hz 125HP 400/415V 167.6/162.8A 984/985rpm S.F.: 1.0 Eff.: 94.2/94.4% Code: F/G						

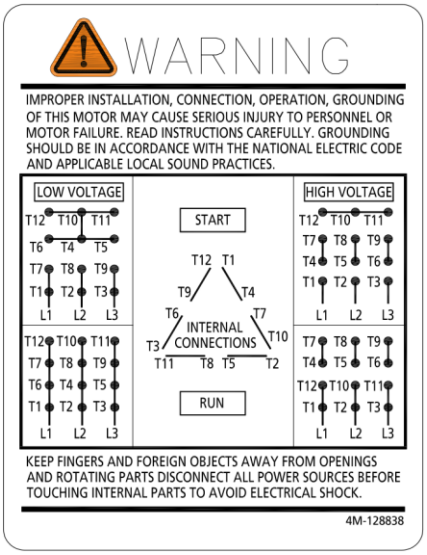
CSA Certified for	Model LATER		Type PJP	Temp. Code (sine wave)	Frame	140~320FR	360~400FR	440FR
	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2 Gr. E, F & G			Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC	(Gr. E : Up to 320FR)			Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)
No. -			Date -			Weight 1720 lb		

4M-135702
MARINE DUTY IEEE45
Made in Korea H1
HD HYUNDAI ELECTRIC

▣ WIRING DIAGRAM

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





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

HD HYUNDAI ELECTRIC

SUBJECT	CSA Class I, Division2 Severe Duty (HHI, 364-449)		DWG SIZE A4 (1:1)
TITLE	NAMEPLATE DRAWING		
REF. NO	4M-135702 / 4M-129650	Sheet No.	of
DWG NO	NP-HHI125-12-445TC	Revision No.	0

HYUNDAI ELECTRIC

PERFORMANCE CURVE

CURVE NO.

PC-HHI125-12-445TC

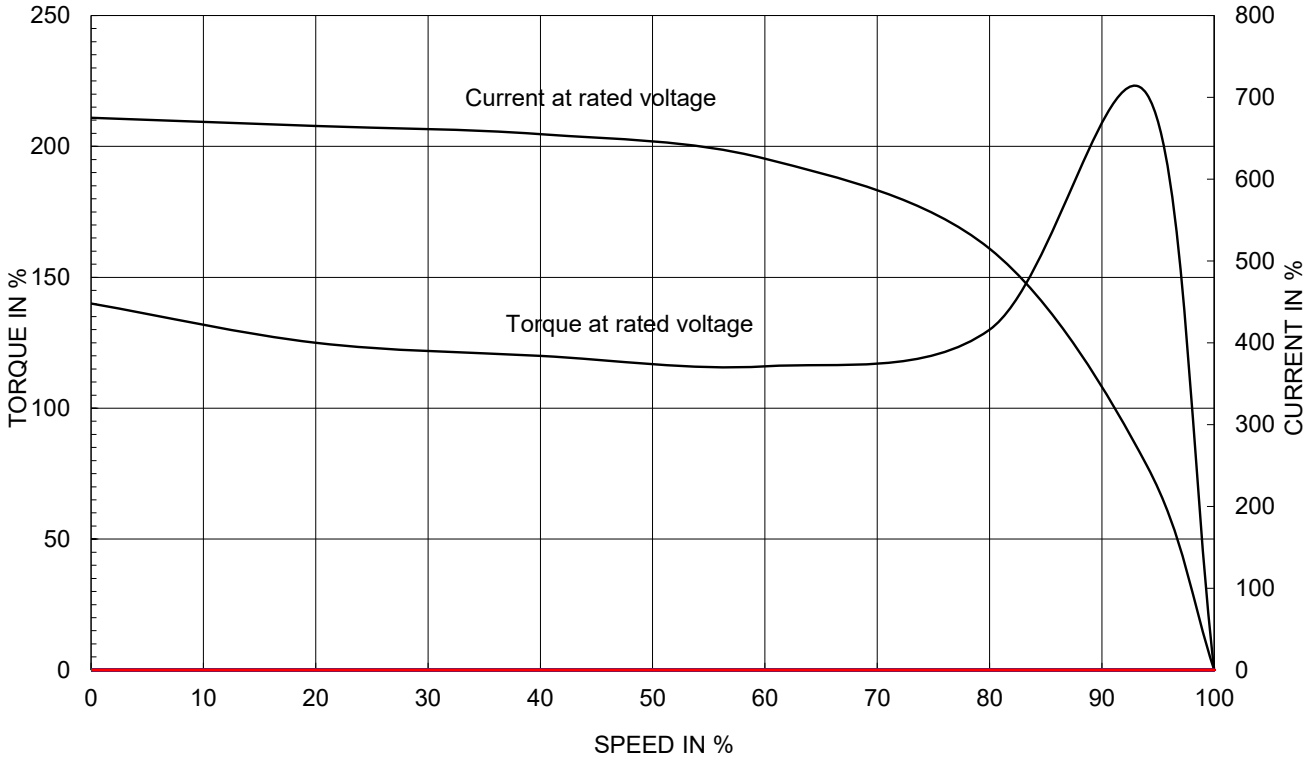
Type :	PJP	
Full Load Torque :	552.90	lb.ft
Load moment of Inertia (J) :	3090.203	lb.ft2
Motor moment of Inertia (J) :	89.860	lb.ft2

93kW 125HP 6 P 60 Hz

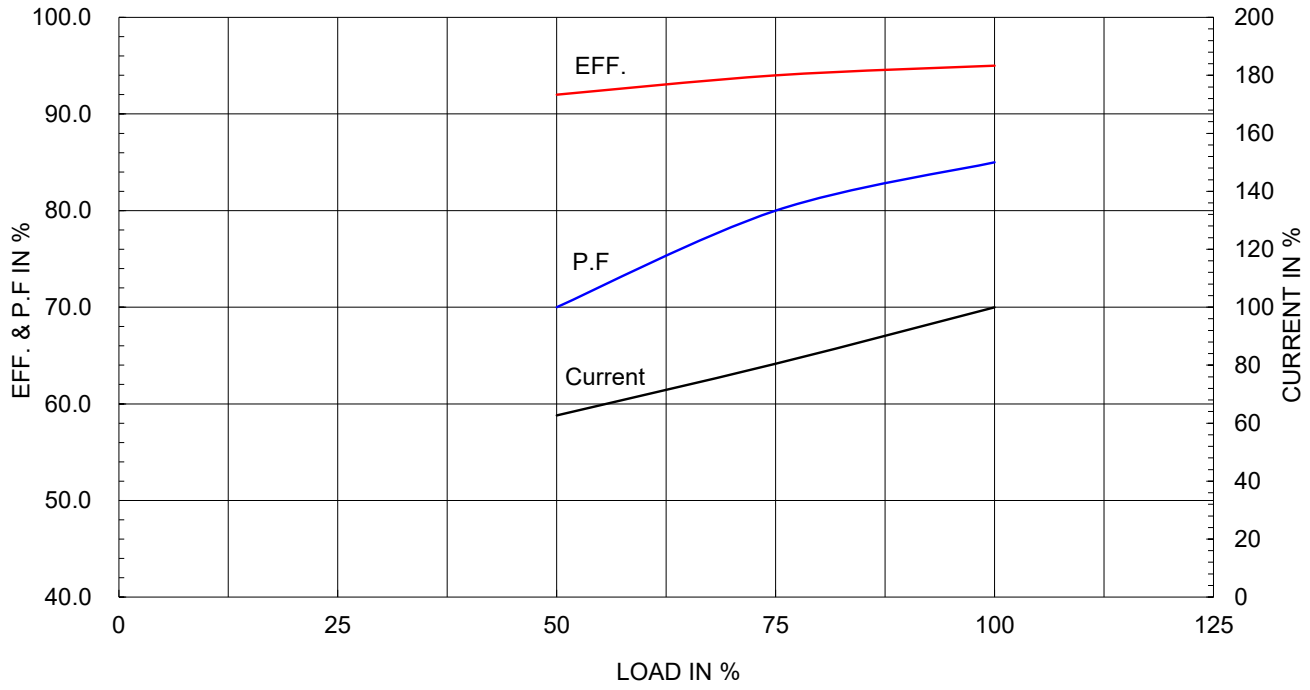
Speed at Full Load : 1185 RPM

Rated Voltage	575V	460V	230V
Full Load Current	115.6A	144.6A	289.1A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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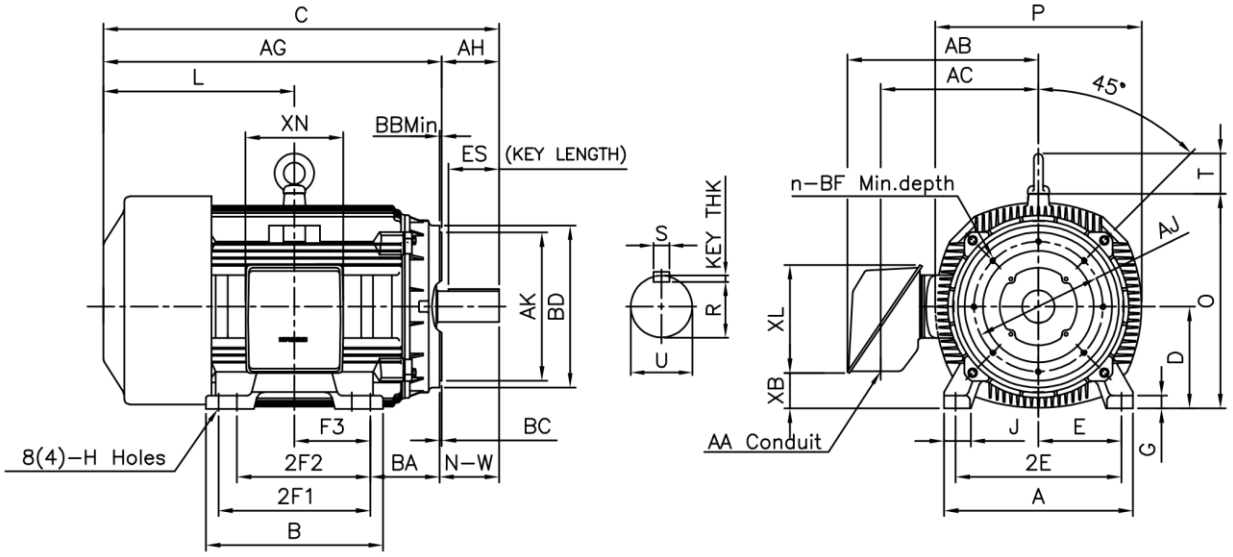
▽▽▽	3.2S							
▽▽▽▽	0.4S							



DIMENSIONS

Unit:inch

MOUNTING									CONDUIT BOX						APPROX. WGT.(LB)
A	B	2E	2F1	2F2	F3	G	J	H	AA	AB	AC	XB	XL	XN	
20.51	19.21	18.00	16.50	(14.50)	8.248	1.42	3.07	0.81	3.00	21.26	18.03	3.83	11.65	10.63	1720

OVERALL								SHAFT					KEY	BEARING	
BA	C	D	L	O	P	T	AG	U	N–W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
										R	ES	S			
7.50	45.21	11.00	20.96	23.19	22.44	4.33	36.71	3.375	8.50	2.880	6.93	0.875	0.875	6318C3	6316C3

C – FACE								
AJ	AK	BB Min	BC	BD	BF	BF depth	n	AH
14.00	16.00	0.25	0.25	17.48	5/8–11	0.94	8	8.25

NOTE

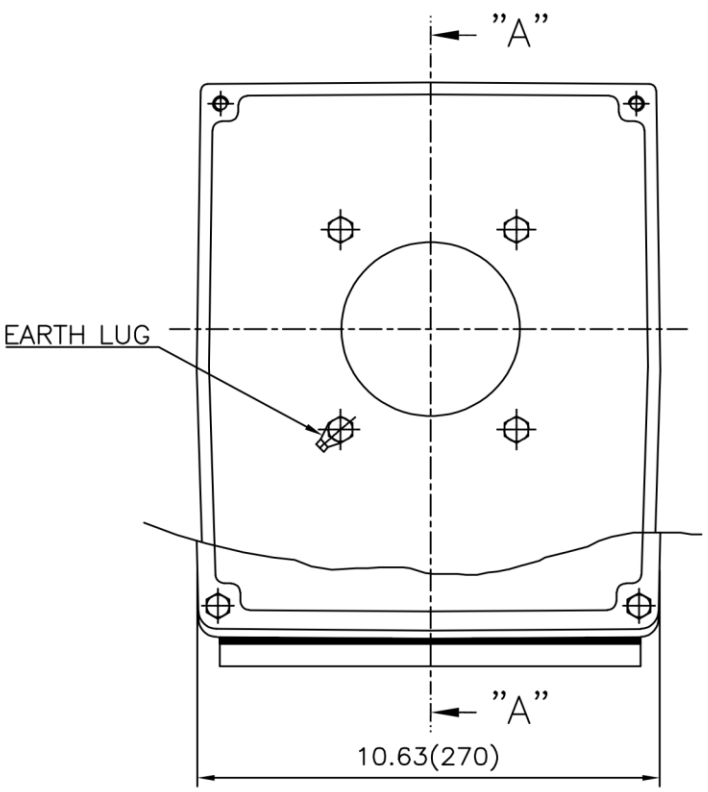
1.Dimension "D" tolerance : +0.00inch ~ −0.03inch (143TC–365TC) : +0.000inch ~ −0.06inch (404TC–449TC)
2.Dimension "U" tolerance : +0.000inch ~ −0.0005inch (143TC–215TC): +0.000inch ~ −0.001inch (254TC–449TC)
3.Dimension "R" tolerance : +0.000inch ~ − 0.015inch
4.Dimension "AK" tolerance : +0.000inch ~ −0.003inch (143TC–286TC): +0.000inch ~ −0.005inch (324TC–449TC)

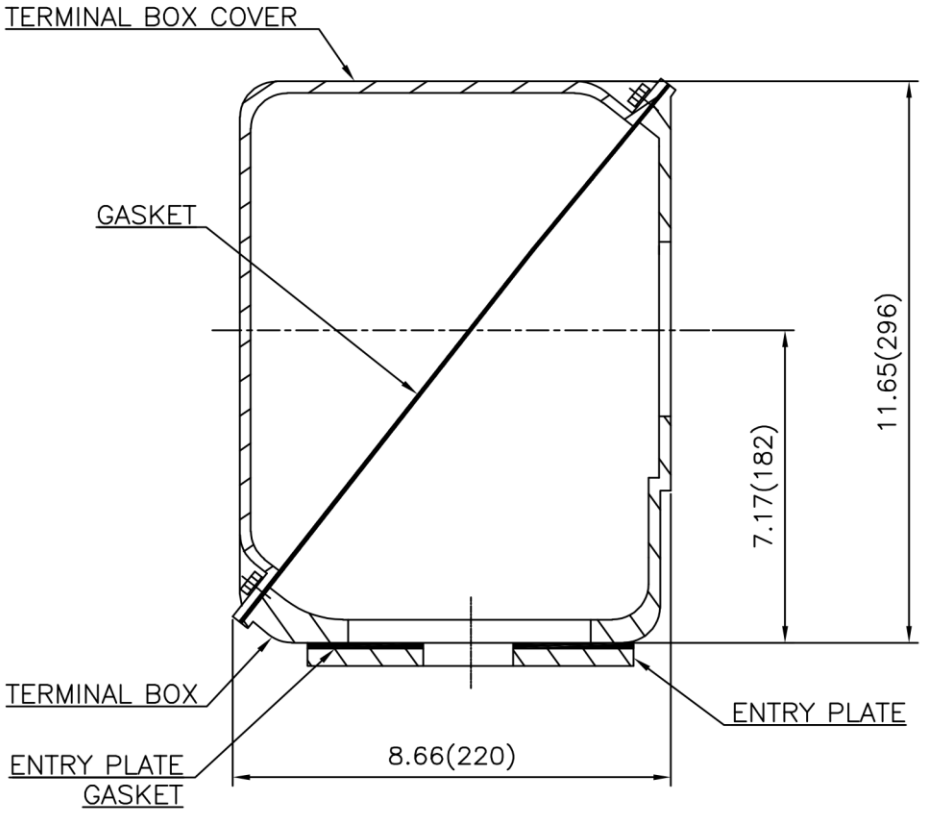
APPD BY	S.K.HAN	UNIT	inch
CHKD BY	S.Y.KIM	SCALE	None
CHKD BY	Y.H.BAE	PROJEC'N	3rd Angle
DSND BY	H.C.LIM	DATE	2019-06-05

HD HYUNDAI ELECTRIC

SUBJECT	NEMA 445TC	DWG SIZE A4 (1:1)
TITLE	OUTLINE	
REF. NO	350A1318AA	Sheet No. of
DWG NO	LM-T1445C4PL001	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		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)	SUBJECT	FR. 400–440 (CAST IRON)
CHKD BY		SCALE	1/1.2	DWG SIZE	A3 (1:1.2)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE	MAIN TERMINAL BOX ASS'Y
DSND BY	배승희	DATE	2023-10-19	REF. NO	
				DWG NO	3M–248451
				Sheet No.	of
				Revision No.	0

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