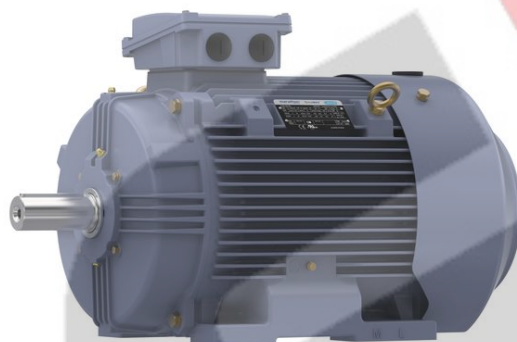


PRODUCT INFORMATION PACKET

Model No: TCA0221AE211GAA009

Catalog No: R342B

22.0 kW General Purpose Low Voltage IEC Motor, 3 phase, 3600 RPM, 230/460 V, 180M Frame, TEFC



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Nameplate Specifications

Output HP	30 Hp	Output KW	22.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	68.0/34.0 A	Speed	3550 rpm
Service Factor	1.15	Phase	3
Efficiency	91.7 %	Power Factor	88
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	F
Frame	180M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6211
UL	Recognized	CSA	N
CE	Y	IP Code	55
Number of Speeds	1	Efficiency Class	IE3

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	.37 Ohms	Mounting	B3
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	28.03 in
Frame Length	12.91 in	Shaft Diameter	1.890 in
Shaft Extension	4.33 in	Assembly/Box Mounting	F3
Inverter Load	CONSTANT 2:1/VARIABLE 10:1		
Outline Drawing	SS312997	Connection Drawing	8442000715



4

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Uncontrolled Copy

2

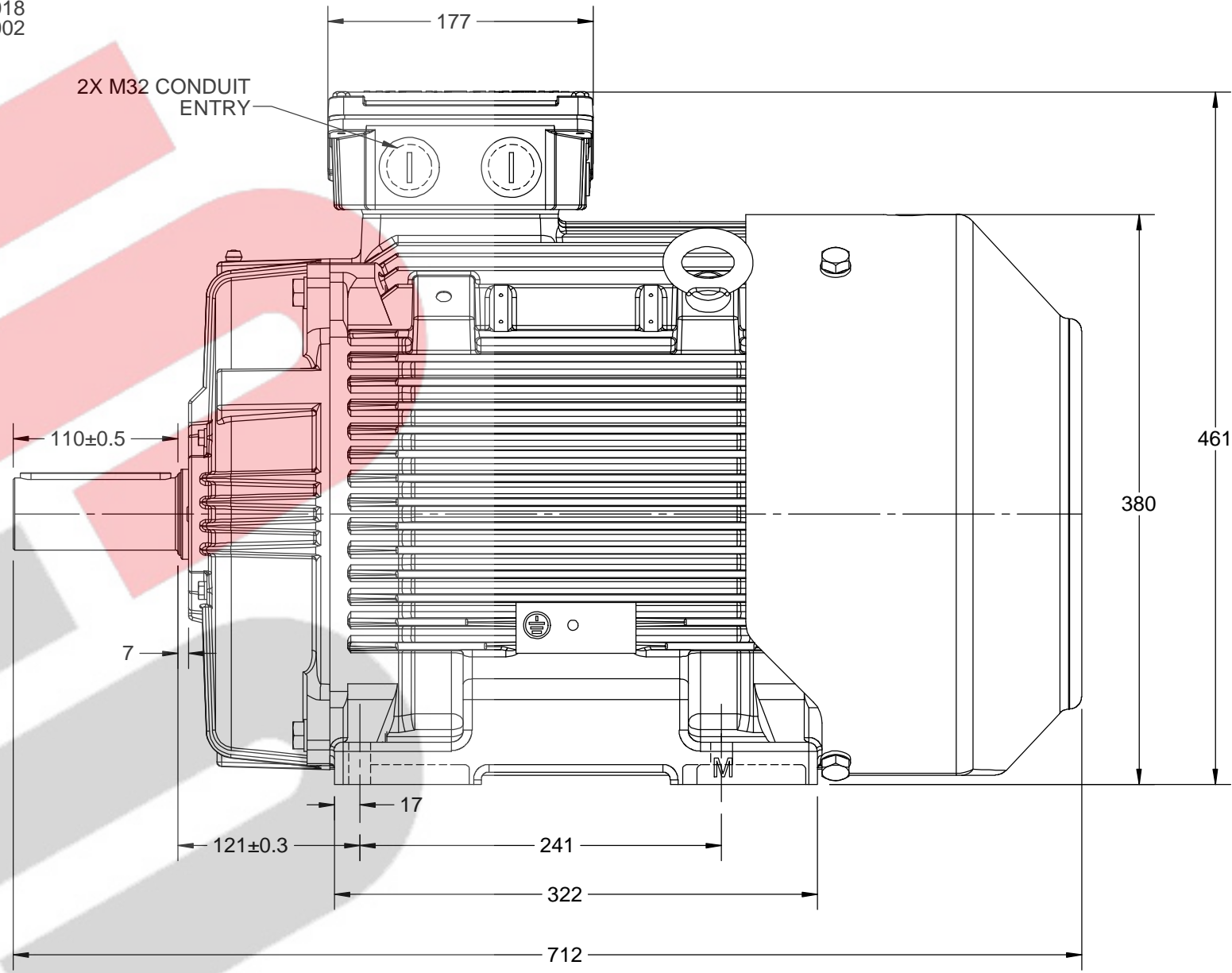
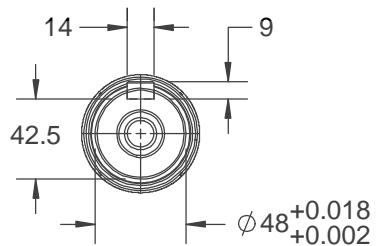
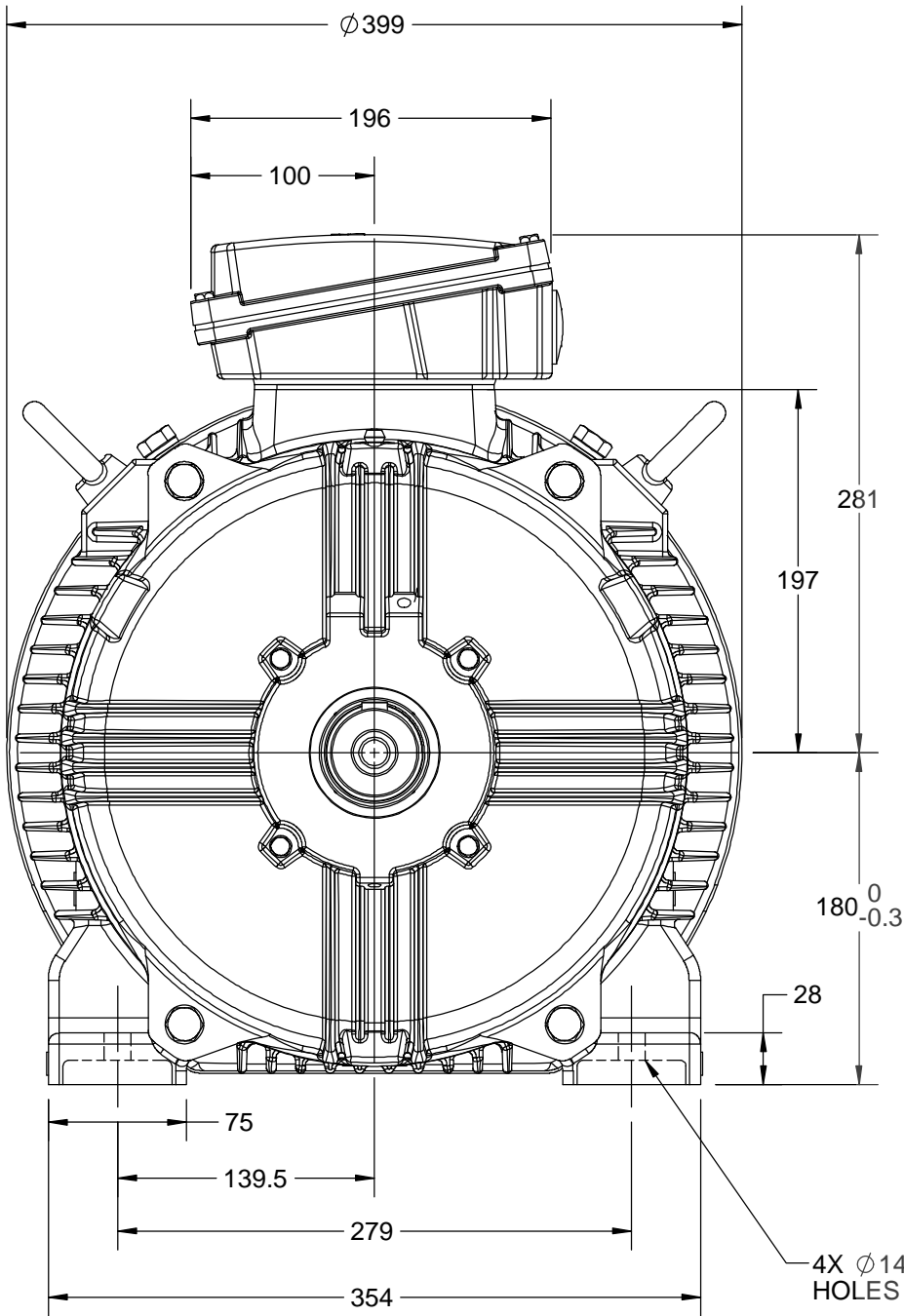
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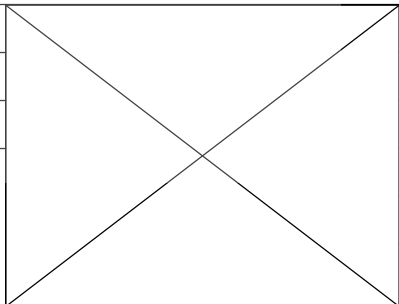
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DRAWING REVISION A	REVISION BY LK	DATE 05/12/2018
ECO ECO-0157830	APPROVED BY JAY	DATE 05/12/2018
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DRAWN BY LK	marathon™ Motors		
DATE 05/12/2018			
APPROVED BY JAY	DESCRIPTION OUTLINE		
DATE 05/12/2018	IEC-180M-B3 MOTOR TYPE: TEFC-CAST IRON		
REFERENCE	MATERIAL	PROCESS/FINISH	
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER SS312997	SHEET 1 OF 1

4

3

2

1

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 ECO
ECO-0194685
 ECO DESCRIPTION

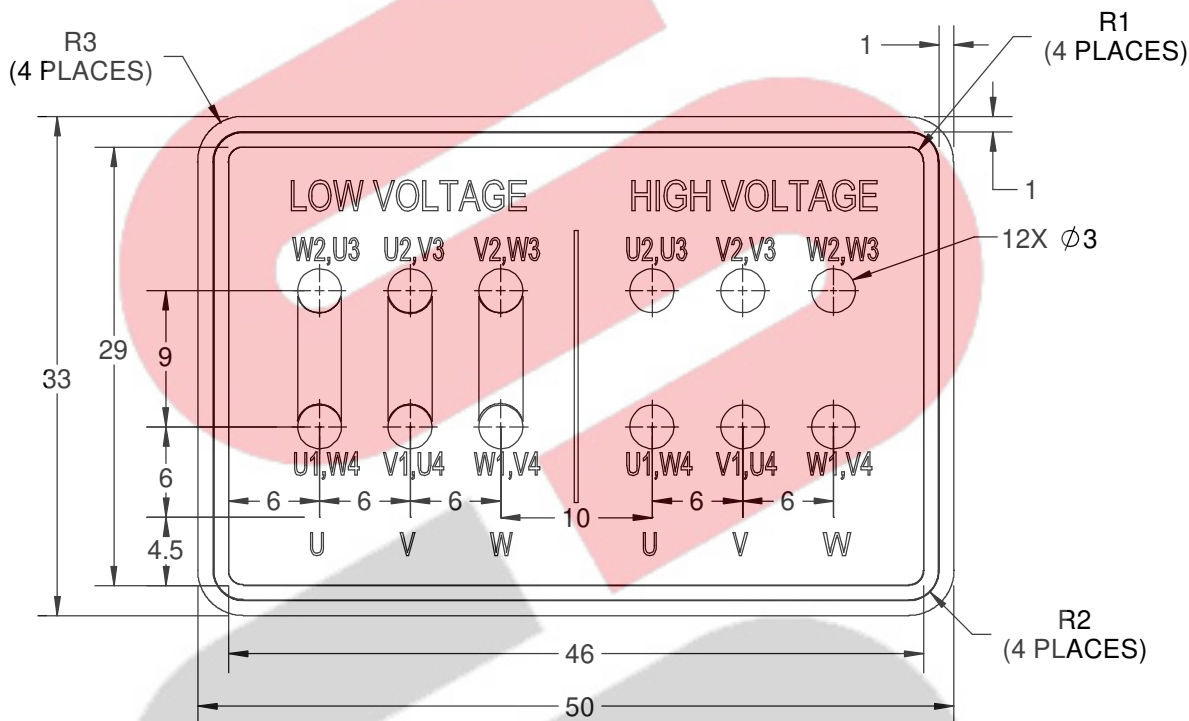
REVISION BY
S.MUDDA
 APPROVED BY
SUMANTA

DATE
16/11/2020
 DATE
16/11/2020

NEW DRAWING

GEOMETRIC TOLERANCE

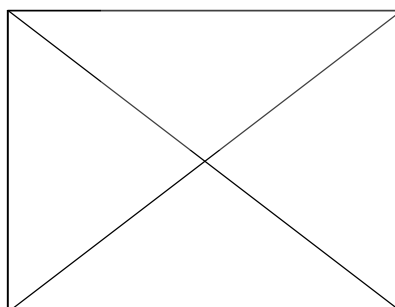
LINEAR DIM	>0~6	±0.1
	>6~30	±0.2
	>30~120	±0.3



NOTES:

1. PRESSURE-SENSITIVE ADHESIVE COATED PAPER ON THE BACK OF SELF-ADHESIVE.
2. AT THE END OF YELLOW, WORDS, SYMBOLS, LETTERS ARE BLACK, BORDER IS BLACK.
3. THE TOLERANCE OF THE LINEAR SIZE OF THE TOLERANCE WITHOUT THE TOLERANCE BY THE TABLE.
4. LEAD TERMINAL MARKINGS FONT SIZE : T1-T12 & U1-U4,V1-V4& W1-W4 OF ARIAL WITH 3mm SIZE
5. OTHER LETTER FONT SIZE SHOULD BE 3.5mm.

8WD.442.2017



DRAWN BY
S.MUDDA
 DATE
16/11/2020
 APPROVED BY
SUMANTA
 DATE
16/11/2020
 REFERENCE
 THIRD ANGLE PROJECTION

REGAL™ Regal Beloit America, Inc.
 DESCRIPTION
CONN DIAGRAM-NAMEPLATE
 MATERIAL
 PROCESS/FINISH
 SIZE
A
 DRAWING NUMBER
8442000715
 SHEET
1 OF 1



P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER: _____
ORDER #: _____
CONN. DIAGRAM: 8442000677
OUTLINE: SS312997
WINDING: IE3L1802201 NONE 1
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: TCA0221AE211GAA009
CAT #: R342B
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
30	22.4	3600	3550	180M	TEFC	TCA 180MA02	F	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (* C)	ELEV.(Ft.)
3	60/50	230/460#200/400	68/34&68/34	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	91.4	GTD EFF	ELECT. TYPE
F.L. PF	88.0	3/4 LD PF	84.0	1/2 LD PF	77.0	90.5	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (* C)		
44.4 LB-FT	207	65.0 LB-FT	146%	113 LB-FT	255%	80

SOUND PRESSURE @ 3 FT.	SOUND	POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
76 dBA	85 dBA		2.81 LB-FT ²	2.81 LB-FT ²	15 SEC.	2	199	KG.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	B3	HORIZONTAL	NO	NONE	NO	NONE	BLUE (ENAMEL)

BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE ODE						
BALL BALL	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6311 6211						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
0.236	0.113	0.662	0.766	23.146	0.150	ODE

* N O T E S *		INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1 INV. HP SPEED RANGE: NONE
		ENCODER: NONE NONE NONE
		BRAKE: NONE NONE NONE
		FT-LB: NA VOLTAGE: NONE
		UL: V - LI,ME-INS,CONST UL REC

PREPARED BY:	DATE:	HZ:
	11/10/2020	

FORM: 3531 REV_4 2/27/06

REGAL®

Data Sheet

TCA0221AE211GAA009

Date: 5/29/2019
Customer:
Attention:

Submitted by: Fareeda Dudekula

Submittal

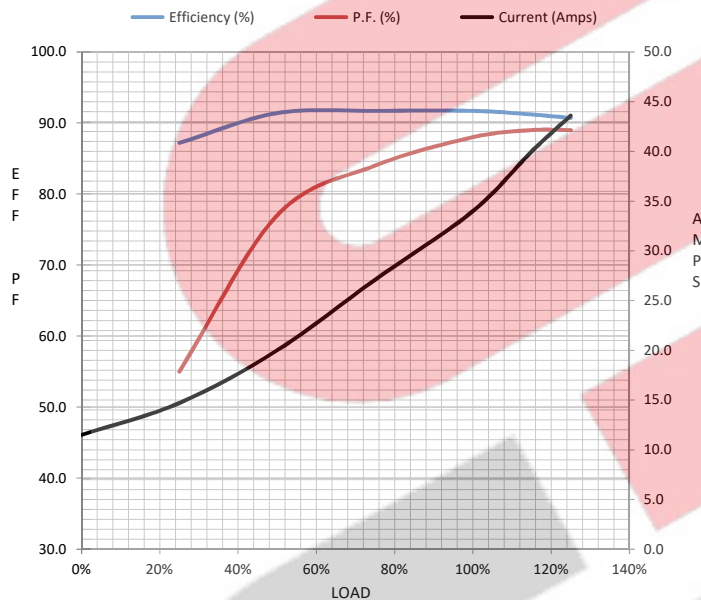
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	11.5	14.7	20.0	27.1	34.0	40.0	43.6	207	
Torque (ft-lb)	0.00	11.0	22.0	33.2	44.4	51.2	55.7	65.0	
RPM	3600	3588	3576	3563	3550	3,541	3535	0	
Efficiency (%)		87.2	91.4	91.7	91.7	91.2	90.7		
P.F. (%)	8.0	55.0	77.0	84.0	88.0	89.0	89.0	63.4	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1200	3308	3550	3600
Current (Amps)	207	196	126	34.0	11.5
Torque (ft-lb)	65.0	61.7	113	44.4	0.00



Information Block					
HP		30.0			
Sync. RPM		3600			
Frame		180			
Enclosure		TEFC			
Construction		TCA 180M02			
Voltage		230/460#200/400 V			
Frequency		60 Hz			
Design		N			
LR Code letter		F			
Service Factor		1.15			
Temp Rise @ FL		80 °C			
Duty		CONT			
Ambient		40 °C			
Elevation		3,300 feet			
Rotor/Shaft wk²		2.81 Lb-Ft²			
Ref Wdg		IE3L1802201 NONE			
Sound Pressure @ 1M		76 dBA			
VFD Rating		CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg		SS312997			
Conn. Diag		8442000677			
Additional Specifications:					
0					
0					
EQUIV CKT (OHMS / PHASE)					
R1		R2	X1	X2	Xm
0.2360		0.1130	0.6620	0.7660	23.1460

IEC

Speed -Torque Curve

