

# PRODUCT INFORMATION PACKET

Model No: TCA0031AE271GAA009

Catalog No: R651

3.00 kW General Purpose Low Voltage IEC Motor, 3 phase, 3600 RPM, 230/460 V, 100L Frame, TEFC  
Cast Iron IE3 Efficiency Motors



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**REGAL**



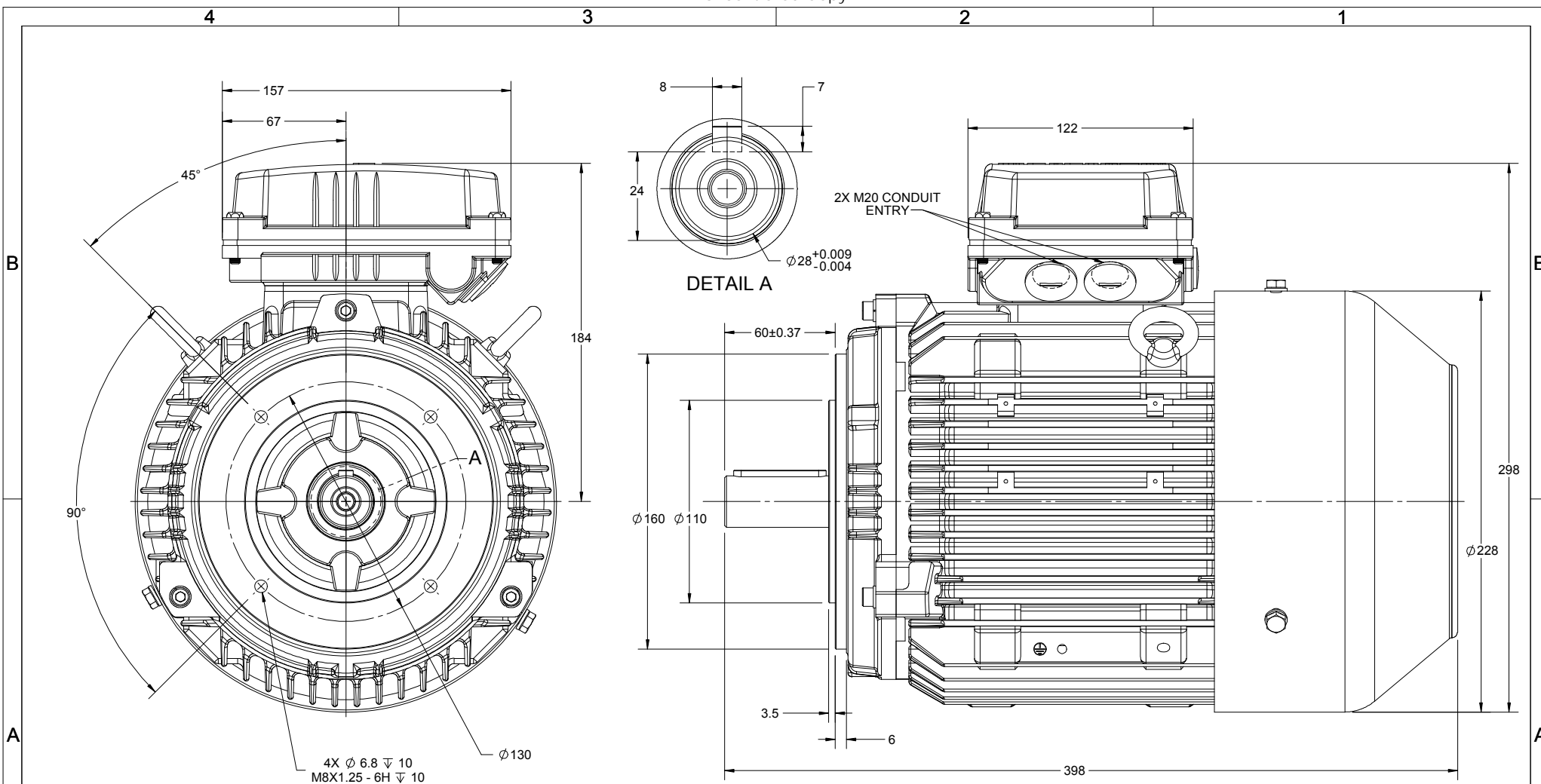
### Nameplate Specifications

Output HP	4 Hp	Output KW	3.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	9.8/4.9 A	Speed	3500 rpm
Service Factor	1.15	Phase	3
Efficiency	86.5 %	Power Factor	89
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	K
Frame	100L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6206	Opp Drive End Bearing Size	6206
UL	Recognized	CSA	N
CE	Y	IP Code	55

### Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	3.74 Ohms	Mounting	Round
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	15.67 in
Frame Length	7.87 in	Shaft Diameter	1.102 in
Shaft Extension	2.36 in	Assembly/Box Mounting	F3

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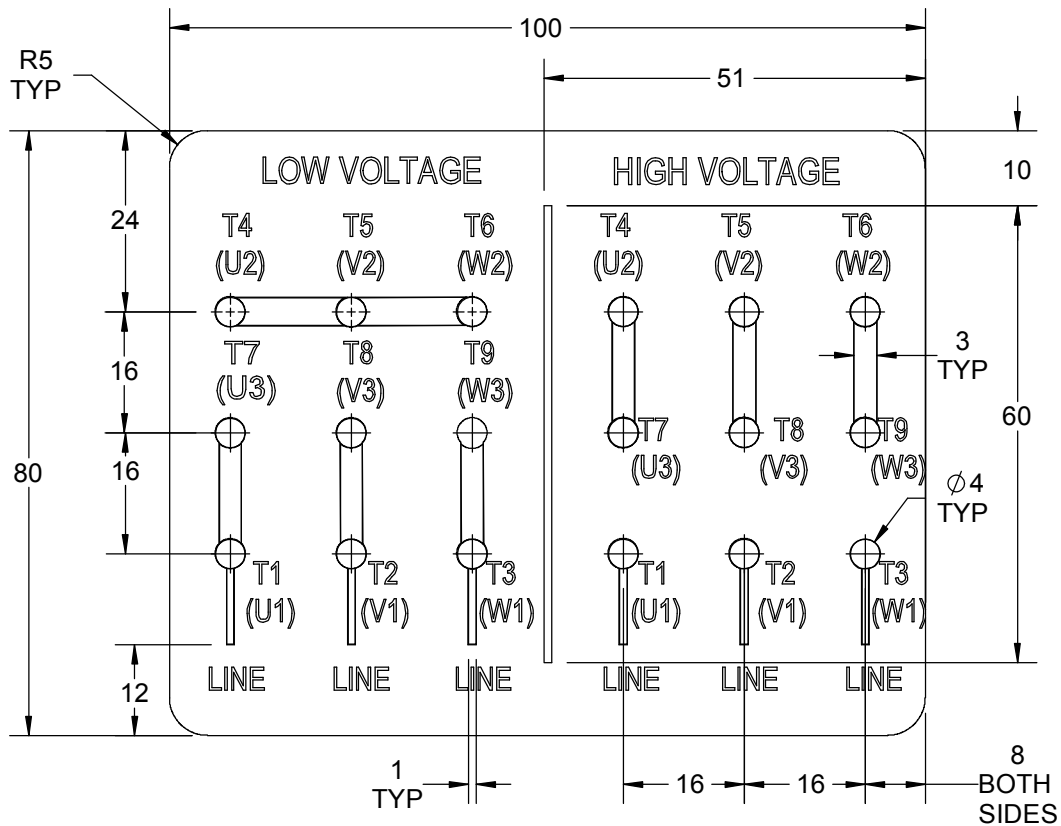


DRAWING REVISION A	REVISION BY MSH	DATE 11/02/2019
ECO ECO-0161495	APPROVED BY JAY	DATE 11/02/2019
ECO DESCRIPTION NEW DRAWING RELEASE		
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DRAWN BY MSH
DATE 11/02/2019
APPROVED BY JAY
DATE 11/02/2019
REFERENCE

<b>marathon</b> Motors	
<b>OUTLINE</b>	
IEC-100L-B14A, MOTOR TYPE: NA-TEFC-CAST IRON	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS620896
THIRD ANGLE PROJECTION	SHEET 1 OF 1

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



**NOTES:**

1. PRESSURE-SENSITIVE ADHESIVE TAPE COATED WITH ANTI-ADHESIVE.
2. YELLOW COLOR BACK GROUND LETTERS WILL BE 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.

DRAWING REVISION <b>B</b>	REVISION BY <b>NIV</b>	DATE <b>05/03/2019</b>		DRAWN BY <b>NIV</b>	Regal Beloit America, Inc.
ECO <b>ECO-0162986</b>	APPROVED BY <b>JAY</b>	DATE <b>05/03/2019</b>		DATE <b>29/01/2019</b>	
ECO DESCRIPTION <b>UPDATED DRAWING</b>				APPROVED BY <b>JAY</b>	DESCRIPTION <b>CONNECTION DIAGRAM</b> 9 LEADS- STAR CONNECTOR
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			REFERENCE	SIZE <b>A</b>	DRAWING NUMBER <b>8442000675</b>

Data Sheet

Date: 5/30/2019

TCAM031AE27GA009

Customer: \_\_\_\_\_  
Attention: \_\_\_\_\_

Submital

Submitted by: Fareeda Dudekula

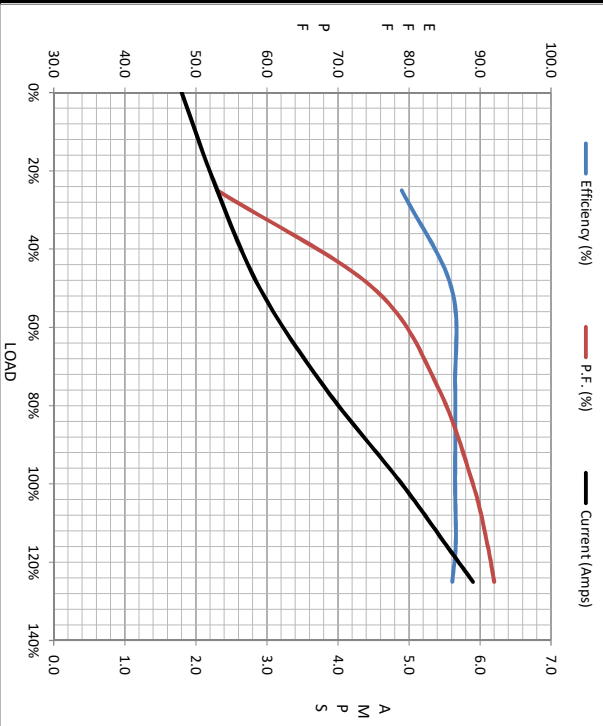
Data @ 460 V

Load	Motor Load Data						
	0%	25%	50%	75%	100%	115%	125%
Current (Amps)	1.80	2.30	2.90	3.8	4.9	5.5	5.9
Torque (ft-lb)	0.00	1.50	3.0	4.5	6.0	6.9	7.6
RPM	3600	3574	3551	3526	3500	3482	3470
Efficiency (%)		79.0	86.0	86.5	86.5	86.6	86.1
P.F. (%)		53.0	75.0	84.0	89.0	91.0	92.0
							63.4

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1200	2623	3500	3600
Current (Amps)	45.0	42.8	27.1	4.9	1.80
Torque (ft-lb)	19.1	18.1	22.1	6.0	0.00

IEC



Information Block				
HP	4.0			
Sync. RPM	3600			
Frame	100			
Enclosure	TEFC			
Construction	TCA 100LQA2			
Voltage	230/460#200/400 V			
Frequency	60 Hz			
Design	N			
LR Code letter	K			
Service Factor	1.15			
Temp Rise @ FL	80 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	0.11 Lb-Ft <sup>2</sup>			
Ref Wdg	IE3L1002201 NONE			
Sound Pressure @ 1M	63 dbA			
VFD Rating	CONSTANT 2-1/VARIABLE 10:1			
Outline Dwg	SS620896			
Conn. Diag	8442000675			
Additional Specifications:				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
2.3400	1.5600	3.9710	1.3470	143.4550

Speed - Torque Curve

