

# PRODUCT INFORMATION PACKET

Model No: TCA5P53AE271GAA009

Catalog No: R629

5.50 kW General Purpose Low Voltage IEC Motor, 3 phase, 1200 RPM, 230/460 V, 132M Frame, TEFC  
Cast Iron IE3 Efficiency Motors



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**REGAL**

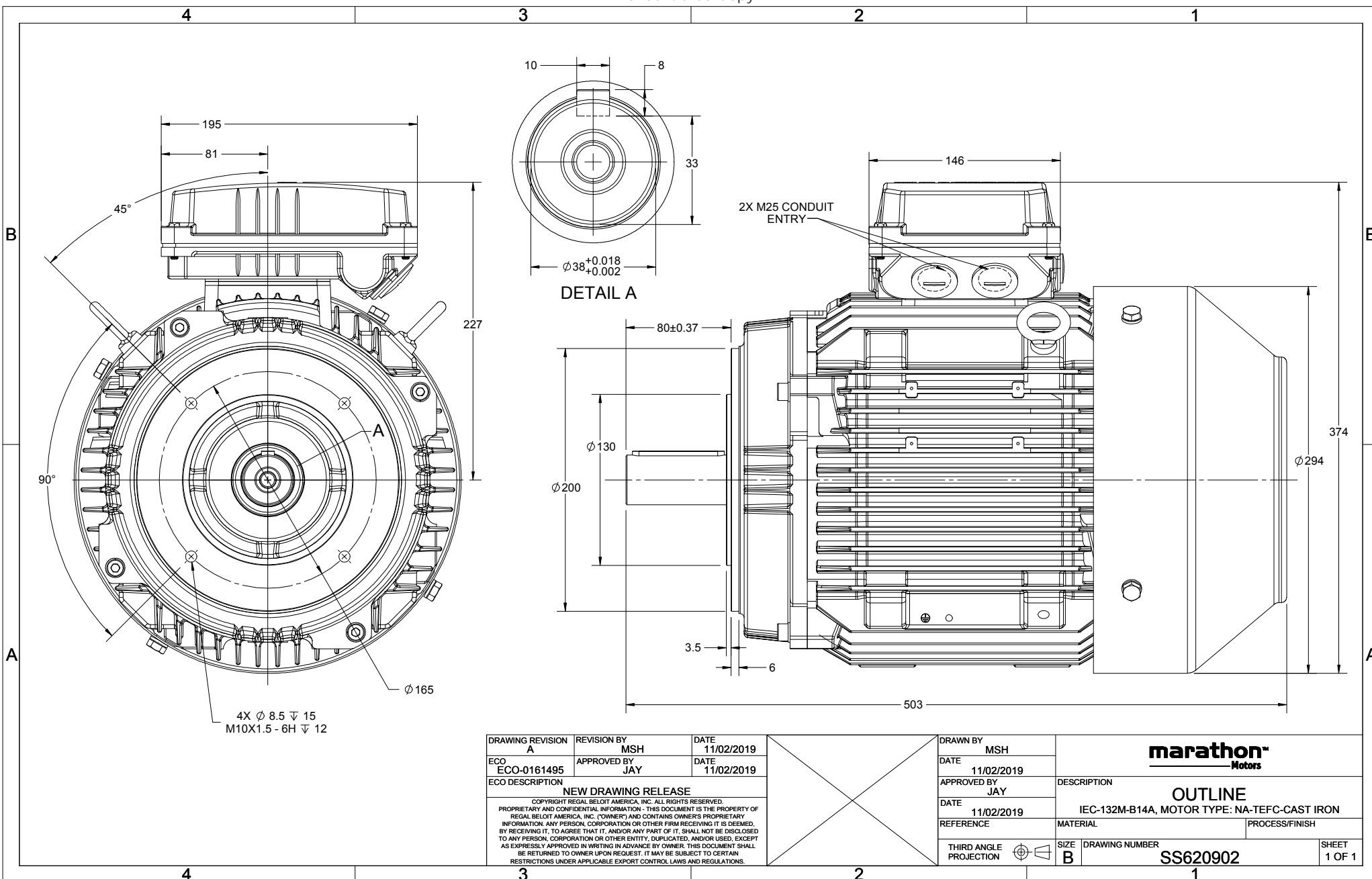
### Nameplate Specifications

Output HP	7.50 Hp	Output KW	5.5 kW
Frequency	60 Hz	Voltage	230/460 V
Current	20.8/10.4 A	Speed	1180 rpm
Service Factor	1.15	Phase	3
Efficiency	91 %	Power Factor	73
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	K
Frame	132M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6308	Opp Drive End Bearing Size	6208
UL	Recognized	CSA	N
CE	Y	IP Code	55

### Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	1.19 Ohms	Mounting	Round
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	19.80 in
Frame Length	9.45 in	Shaft Diameter	1.496 in
Shaft Extension	3.15 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
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DRAWN BY MSH
DATE 11/02/2019
APPROVED BY JAY
DATE 11/02/2019
REFERENCE

**marathon**  
Motors

DESCRIPTION  
**OUTLINE**  
IEC-132M-B14A, MOTOR TYPE: NA-TEFC-CAST IRON

THIRD ANGLE  
PROJECTION

MATERIAL  
PROCESS/FINISH

SIZE  
B

DRAWING NUMBER  
**SS620902**

SHEET  
1 OF 1



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

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

<b>CUSTOMER:</b>		<b>CUSTOMER P.O. #:</b>	
<b>ORDER #:</b>	8442000677	<b>REFERENCE MODEL #:</b>	TCA5P53AE271GAA009
<b>CONN. DIAGRAM:</b>	SS620902	<b>CAT #:</b>	R629
<b>OUTLINE:</b>	IE3L1326203	<b>CUSTOMER PART #:</b>	
<b>WINDING:</b>	NONE	<b>MOUNTING:</b>	F3
<b>SPEED:</b>	1		

**TYPICAL MOTOR PERFORMANCE DATA**

<b>HP</b>	<b>KW</b>	<b>SYNC RPM</b>	<b>FL RPM</b>	<b>FRAME</b>	<b>ENCLOSURE</b>	<b>TYPE</b>	<b>KVA CODE</b>	<b>DESIGN</b>	
7.5	5.6	1200	1180	132M	TEFC	TCA132MB06	K	N	
<b>PH</b>	<b>HZ</b>	<b>VOLTS</b>	<b>AMPS</b>	<b>START TYPE</b>	<b>DUTY</b>	<b>INSL</b>	<b>S.F.</b>	<b>AMB</b>	<b>ELEV.</b>
3	60/50	230/460#200/400	20.8/10.4&19/9.5	LINE OR INVERTER	CONT	F	1.15	40	3300
	<b>F.L. EFF</b>	<b>F.L. PF</b>	<b>3/4 LD EFF</b>	<b>91.0</b>	<b>1/2 LD EFF</b>	<b>88.6</b>	<b>GTD EFF</b>	<b>ELECT. TYPE</b>	
	91.0	73.0	3/4 LD PF	65.0	1/2 LD PF	53.0	89.7	SQ CAGE INV RATED	
	<b>F.L. TORQUE</b>	<b>LR AMPS @ 460 V</b>	<b>L.R. TORQUE</b>	<b>B.D. TORQUE</b>	<b>F.L. RISE (°C)</b>				
	33.5 LB-FT	76.1	86.1 LB-FT	257%	104 LB-FT	310% 80			
	<b>@ 3 FT. DBA</b>	<b>POWER</b>	<b>ROTOR WK²</b>	<b>MAX. LOAD WK²</b>	<b>SAFE STALL TIME</b>	<b>START/SHOUR</b>	<b>MOTOR WGT</b>		
	65 DBA	74 DBA	1.87 LB-FT²	1.1 LB-FT²	15 SEC.	2	100 LB.		

\*\*\* SUPPLEMENTAL INFORMATION \*\*\*

<b>DE BRACKET TYPE</b>	<b>ODE BRACKET TYPE</b>	<b>MOUNT TYPE</b>	<b>MOTOR ORIENTATION</b>	<b>SEVERE DUTY</b>	<b>HAZARDOUS LOCATION</b>	<b>DRIP COVER</b>	<b>SCREENS</b>	<b>PAINT</b>
FT-FLANGE-165	STANDARD	ROUND	HORIZONTAL	NO	NONE	NO	NONE	BLUE - RAL 5014
<b>BEARINGS</b>	<b>GREASE</b>	<b>SHAFT TYPE</b>	<b>SPECIAL DE</b>	<b>SPECIAL ODE</b>	<b>SHAFT</b>	<b>MATERIAL</b>	<b>FRAME MATERIAL</b>	
DE BALL 6308	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)		CAST IRON	

<b>THERMOSTATS</b>	<b>PROTECTORS</b>	<b>WDG RTD's</b>	<b>BRG RTD's</b>	<b>THERMISTORS</b>	<b>CONTROL</b>	<b>SPACE HEATERS</b>
NONE	NOT	NONE	NONE	NONE	FALSE	NA
<b>R1 (ohms/ph)</b>	<b>R2 (ohms/ph)</b>	<b>X1 (ohms/ph)</b>	<b>X2 (ohms/ph)</b>	<b>Xm (ohms/ph)</b>	<b>VIBRATION (in/sec)</b>	<b>FLOAT ODE</b>
0.756	0.492	2.685	2.572	43.606	0.060	ODE

<b>* N O T E S *</b>	<b>INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1</b>	
	<b>INV. HP SPEED RANGE: NONE</b>	
	<b>ENCODER: NONE</b>	<b>NONE PPR</b>
	<b>BRAKE: NONE</b>	<b>NONE</b>
	<b>FT-LB: NONE</b>	<b>NA</b>
	<b>VOLTAGE: NONE</b>	<b>NONE</b>

**PREPARED BY:** Fareeda Dudekula  
**DATE:** 5/30/2019  
**UL: V - LIME-INS CONST UL REC**

**Data Sheet**

?

Date: 5/30/2019

TCASP59AE271GA009

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

**Submittal**

Submitted by: Fareeda Dudekula

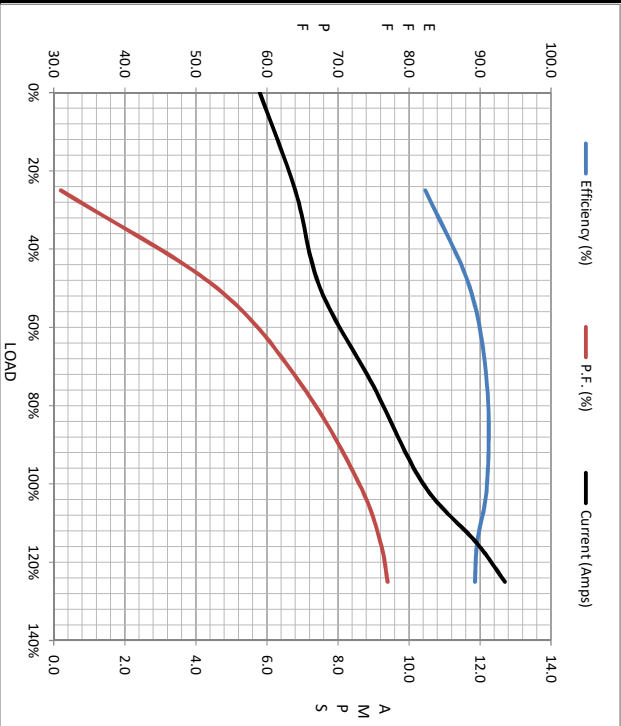
Data @ 460 V

Load	Motor Load Data									
	0%	25%	50%	75%	100%	115%	125%	LR		
Current (Amps)	5.8	6.8	7.5	9.0	10.4	11.9	12.7	76.1		
Torque (ft-lb)	0.00	8.3	16.6	25.0	33.5	38.6	42.0	86.1		
RPM	1200	1195	1190	1185	1180	1,176	1173	0		
Efficiency (%)		82.3	88.6	91.0	91.0	89.6	89.3			
P.F. (%)	6.0	31.0	53.0	65.0	73.0	76.0	77.0	63.4		

**Motor Speed Data**

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	400	1028	1180	1200
Current (Amps)	76.1	72.3	44.7	10.4	5.8
Torque (ft-lb)	86.1	81.8	104	33.5	0.00

IEC



Information Block				
HP	7.5			
Sync. RPM	1200			
Frame	132			
Enclosure	TEFC			
Construction	TCA 132MB06			
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>	1.87 Lb-Ft <sup>2</sup>			
Ref Wdg	IE3L1326203 NONE			
Sound Pressure @ 1M	65 dBA			
VFD Rating	CONSTANT 2:1-VARIABLE 10:1			
Outline Dwg	SS620902			
Conn. Diag	8442000677			
Additional Specifications:				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.7560	0.4920	2.8850	2.5720	43.6060

**Speed - Torque Curve**

