

PRODUCT INFORMATION PACKET

Model No: TCA5P52AE271GAA009

Catalog No: R628

5.50 kW General Purpose Low Voltage IEC Motor, 3 phase, 1800 RPM, 230/460 V, 132S Frame, TEFC
Cast Iron IE3 Efficiency Motors



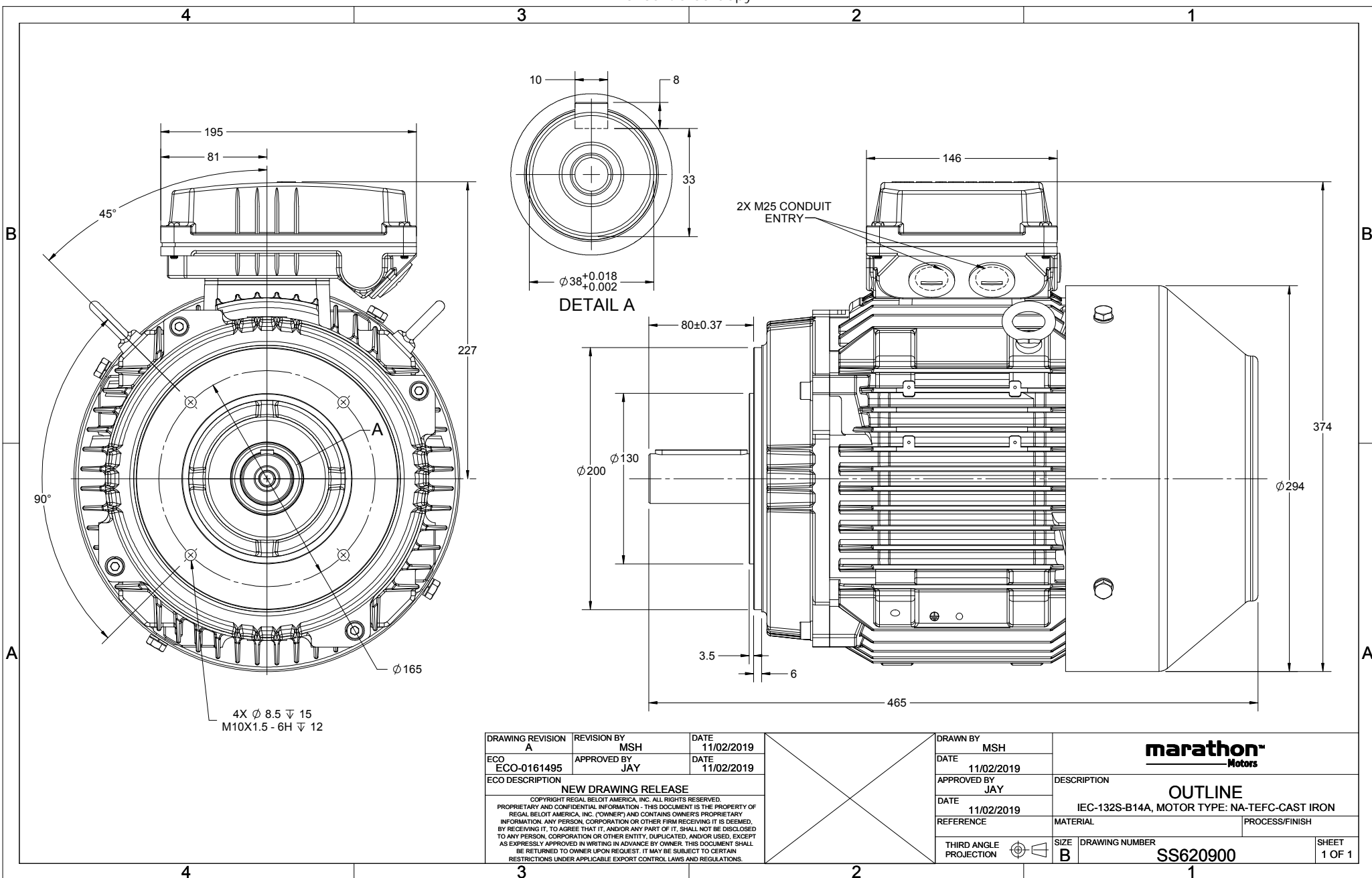
Nameplate Specifications

Output HP	7.50 Hp	Output KW	5.5 kW
Frequency	60 Hz	Voltage	230/460 V
Current	19.6/9.8 A	Speed	1775 rpm
Service Factor	1.15	Phase	3
Efficiency	91.7 %	Power Factor	77
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	J
Frame	132S	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	4	Rotation	Reversible
Resistance Main	1.56 Ohms	Mounting	Round
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	18.31 in
Frame Length	7.95 in	Shaft Diameter	1.496 in
Shaft Extension	3.15 in	Assembly/Box Mounting	F3

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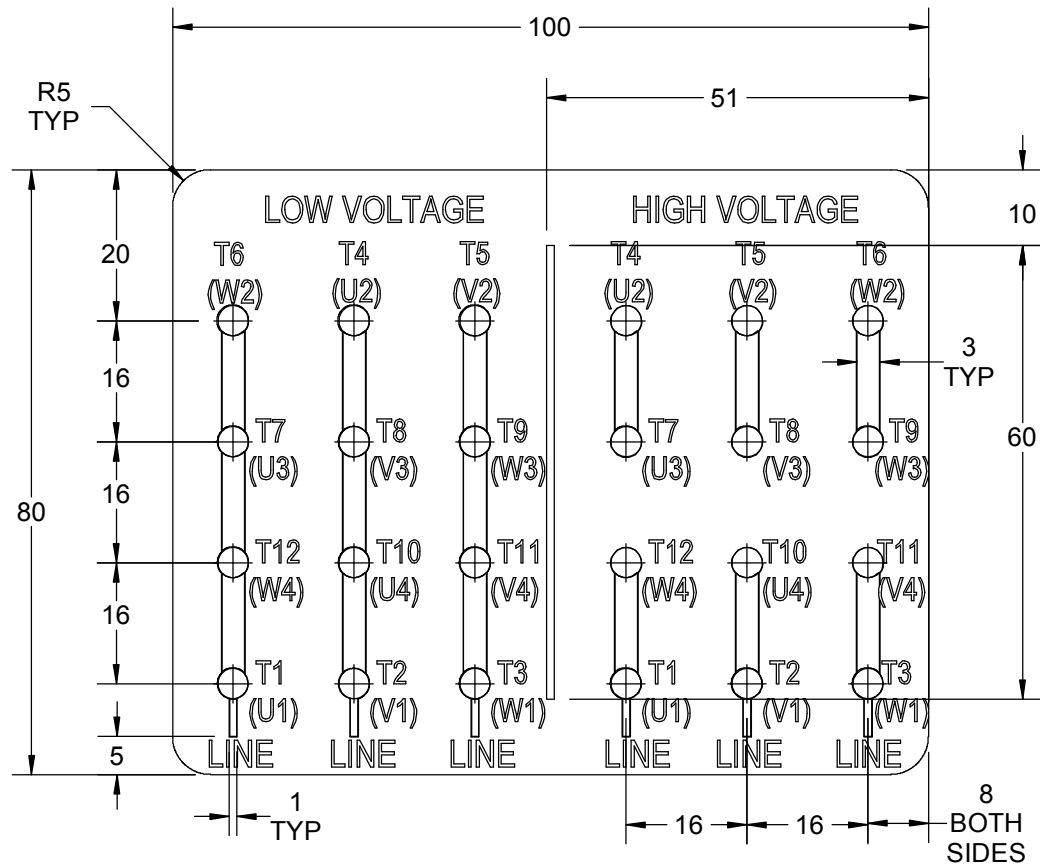


DRAWING REVISION A	REVISION BY MSH	DATE 11/02/2019
ECO ECO-0161495	APPROVED BY JAY	DATE 11/02/2019
ECO DESCRIPTION NEW DRAWING RELEASE		
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DRAWN BY MSH
DATE 11/02/2019
APPROVED BY JAY
DATE 11/02/2019
REFERENCE
THIRD ANGLE PROJECTION

marathon Motors	
OUTLINE	
IEC-132S-B14A, MOTOR TYPE: NA-TEFC-CAST IRON	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS620900
	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 C	REVISION BY NIV	DATE 05/03/2019		DRAWN BY NIV	Regal Beloit America, Inc.
ECO ECO-0162986	APPROVED BY JAY	DATE 05/03/2019		DATE 29/01/2019	
ECO DESCRIPTION UPDATED DRAWING				APPROVED BY JAY	DESCRIPTION CONNECTION DIAGRAM 12 LEAD -DELTA CONNECTION
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			THIRD ANGLE PROJECTION	SIZE A	DRAWING NUMBER 8442000677

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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER: _____
ORDER #: _____
CONN. DIAGRAM: 8442000677
OUTLINE: SS620900
WINDING: IE3L1324201 NONE 1
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: TCA5P52AE271GAA009
CAT #: R628
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN	
7.5	5.6	1800	1775	132S	TEFC	TCA 132S04	J	N	
PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMIB	ELEV.
3	60/50	230/460#200/400	19.6/9.38/17.6/8.8	LINE OR INVERTER	CONT	F	1.15	40	3300
F.L. EFF		91.7	3/4 LD EFF	91.7	1/2 LD EFF	90.3	GTD EFF	ELECT. TYPE	
F.L. PF		77.0	3/4 LD PF	69.0	1/2 LD PF	57.0	90.5	SQ CAGE INV RATED	
F.L. TORQUE		LR AMPS @ 460 V		L.R. TORQUE		B.D. TORQUE		F.L. RISE (°C)	
22.2	LB-FT	73.4	54.2	LB-FT	244%	71.3	LB-FT	321%	80
@ 3 FT.		POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	START/SHOUR	MOTOR WGT		
65	DBA	74	1.10	LB-FT²	1.1	LB-FT²	10	SEC.	2

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
FT-FLANGE-165	STANDARD	ROUND	HORIZONTAL	NO	NONE	NO	NONE	BLUE - RAL 5014
BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT	MATERIAL	FRAME MATERIAL	
DE ODE	BALL	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON	
6308	BALL	6208						

HERMOSTATS	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
0.908	0.454	2.004	2.572	49.242	0.060	ODE

* _____		INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1	
* _____		INV. HP SPEED RANGE: NONE	
* _____		ENCODER: NONE	
* _____		NONE	
* _____		BRAKE: NONE	
* _____		NONE	
* _____		FT-LB: NONE NA NONE	
* _____		VOLTAGE: NONE NONE	
* _____		UL: V - L1ME-INS CONST UL REC	
* _____		HZ:	

PREPARED BY: Fareeda Dudekula
 DATE: 5/30/2019

UL: V - L1ME-INS CONST UL REC



Data Sheet

?

Date: 5/30/2019

TCASP52AE271GA009

Customer: _____
Attention: _____

Submittal

Submitted by: Fareeda Dudekula

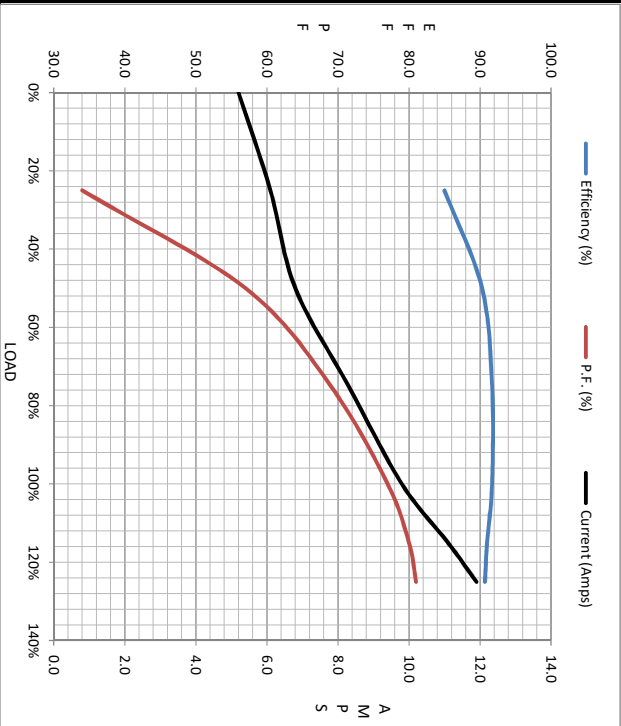
Data @ 460 V

Load	Motor Load Data							LR
	0%	25%	50%	75%	100%	115%	125%	
Current (Amps)	5.2	6.1	6.8	8.3	9.8	11.1	11.9	73.4
Torque (ft-lb)	0.00	5.5	11.0	16.6	22.2	25.6	27.9	54.2
RPM	1800	1794	1788	1781	1775	1770	1767	0
Efficiency (%)		85.0	90.3	91.7	91.7	91.0	90.7	
P.F. (%)		34.0	57.0	69.0	77.0	80.0	81.0	63.4

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1587	1775	1800
Current (Amps)	73.4	69.8	42.7	9.8	5.2
Torque (ft-lb)	54.2	51.5	71.3	22.2	0.00

IEC



Information Block				
HP	7.5			
Sync. RPM	1800			
Frame	132			
Enclosure	TEFC			
Construction	TCOA132S04			
Voltage	230/460#200/400 V			
Frequency	60 Hz			
Design	N			
LR Code letter	J			
Service Factor	1.15			
Temp Rise @ FL	80 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	3,300 feet			
Rotor/Shaft wk ²	1.10 Lb-Ft ²			
Ref Wdg	IE3L1324201 NONE			
Sound Pressure @ 1M	65 dBA			
VFD Rating	CONSTANT 2:1-VARIABLE 10:1			
Outline Dwg	SS620900			
Conn. Diag	8442000677			
Additional Specifications:				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.9080	0.4540	2.0040	2.5720	49.2420

Speed - Torque Curve

