

PRODUCT INFORMATION PACKET

Model No: TCA0041AE231GAA009

Catalog No: R824

5.50 Hp, General Purpose Low Voltage IEC Motor, 3 phase, 3600 RPM, 230/460 V, 112M Frame, TEFC
Cast Iron IE3 Efficiency Motors



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REGAL



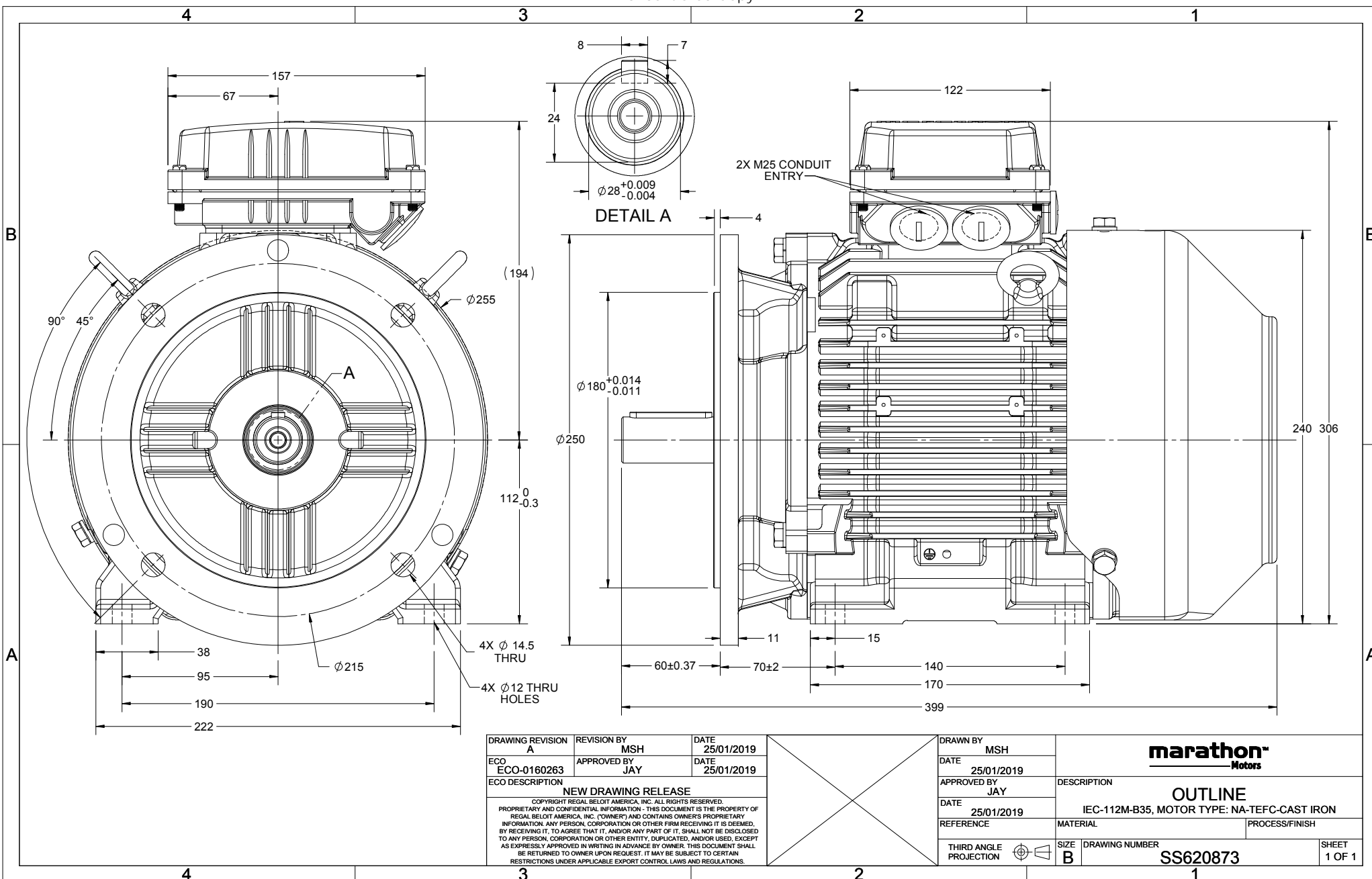
Nameplate Specifications

Output HP	5.50 Hp	Output KW	4.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	12.4/6.2 A	Speed	3520 rpm
Service Factor	1.15	Phase	3
Efficiency	89.5 %	Power Factor	91
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	J
Frame	112M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6306	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	3.17 Ohms	Mounting	B3
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Shaft Diameter	28.000 in
Assembly/Box Mounting	F3		
Connection Drawing	8442000676	Outline Drawing	SS620873

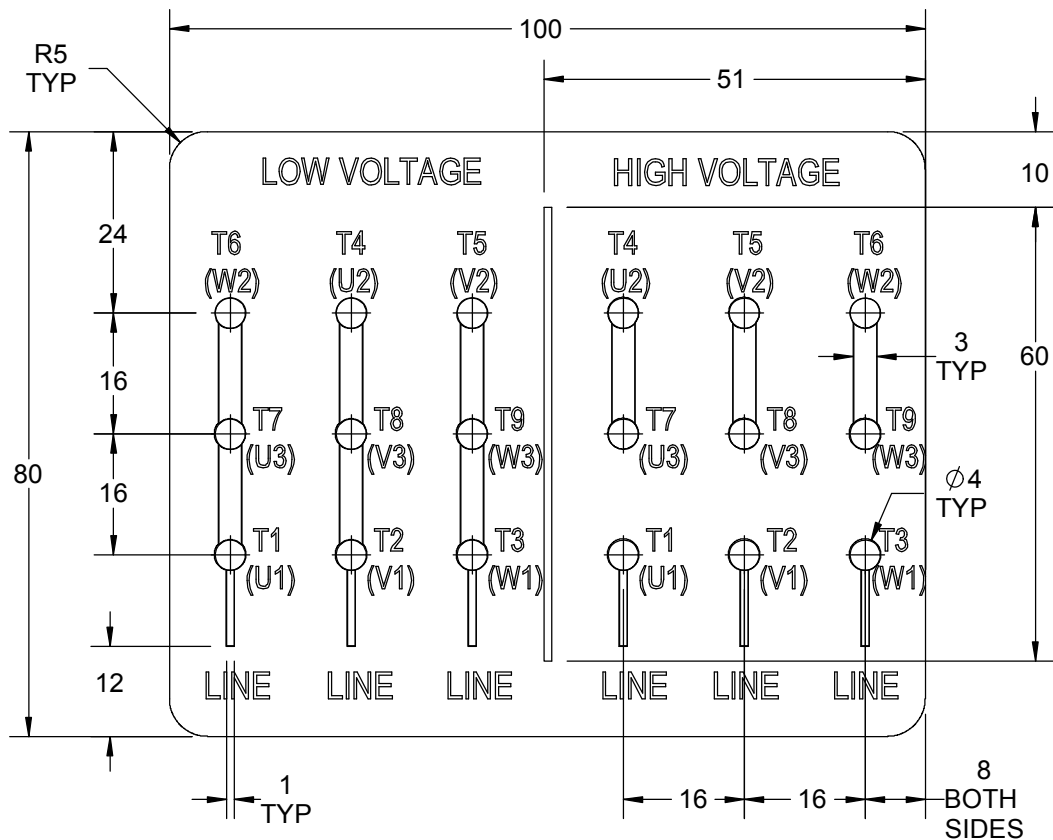
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DRAWING REVISION A	REVISION BY MSH	DATE 25/01/2019
ECO ECO-0160263	APPROVED BY JAY	DATE 25/01/2019
ECO DESCRIPTION NEW DRAWING RELEASE		
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DRAWN BY MSH	
DATE 25/01/2019	
APPROVED BY JAY	
DATE 25/01/2019	
REFERENCE	DESCRIPTION IEC-112M-B35, MOTOR TYPE: NA-TEFC-CAST IRON
THIRD ANGLE PROJECTION	MATERIAL
SIZE B	PROCESS/FINISH
DRAWING NUMBER SS620873	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 31/01/2019		DRAWN BY NIV	Regal Beloit America, Inc.
ECO ECO-0162986	APPROVED BY JAY	DATE 31/01/2019		DATE 29/01/2019	
ECO DESCRIPTION UPDATED DRAWINGS				APPROVED BY JAY	DESCRIPTION CONNECTION DIAGRAM 9 LEAD -DELTA CONNECTION
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				REFERENCE	MATERIAL
			THIRD ANGLE PROJECTION		



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER: _____ CUSTOMER P.O. #: _____
 ORDER #: _____ REFERENCE MODEL #: TCA0041AE231GAA009
 CONN. DIAGRAM: 8442000676 CAT #: R824
 OUTLINE: SS620873 CUSTOMER PART #: _____
 WINDING: IE3L1122201 NONE 1 MOUNTING: F3
 SPEED: _____

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
5.5	4.1	3600	3520	112M	TEFC	TCA 112M02	J	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#200/400	12.4/6.2&11.2/5.6	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	3/4 LD EFF	89.5	1/2 LD EFF	89.2	GTD EFF	ELECT. TYPE
F.L. PF	3/4 LD PF	87.0	1/2 LD PF	80.0	87.9	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
8.2 LB-FT	55.1	17.8 LB-FT 217%	27.9 LB-FT 340%	80

@ 3 FT.	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
68 dBA	77 dBA	0.28 LB-FT²	0.28 LB-FT²	7 SEC.	2	55 LB.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
FF-FLANGE-215	STANDARD	B35	HORIZONTAL	NO	NONE	NO	NONE	BLUE - RAL 5014

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL 6306	BALL 6206						

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
1.908	0.928	3.094	1.599	126.712	0.060	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1 INV. HP SPEED RANGE: NONE					
	ENCODER: NONE					
	NONE					
	NONE					
	NONE PPR					

PREPARED BY: _____	BRAKE: NONE
DATE: 4/8/2020	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE
	UL: V - LI,ME-INS,CONST UL REC
	HZ: _____

FORM: 3531 REV.4 2/27/06





Data Sheet

Date: 4/8/2020 TCA0041AE231GAA009

Customer: _____

Attention: _____ Submittal

Submitted by: _____ Data @ 460 V

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	2.10	2.60	3.6	4.9	6.2	7.2	7.9	55.1
Torque (ft-lb)	0.00	2.00	4.0	6.1	8.2	9.5	10.3	17.8
RPM	3600	3581	3562	3543	3520	3508	3499	0
Efficiency (%)		84.1	89.2	89.5	89.5	88.7	88.1	
P.F. (%)	11.0	58.0	80.0	87.0	91.0	92.0	93.0	63.4

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1200	2902	3520	3600
Current (Amps)	55.1	52.4	33.0	6.2	2.10
Torque (ft-lb)	17.8	16.9	27.9	8.2	0.00

HP	5.5			
Sync. RPM	3600			
Frame	112			
Enclosure	TEFC			
Construction	TCA 112M02			
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	0.28 Lb-Ft ²			
Ref Wdg	IE3L1122201 NONE			
Sound Pressure @ 1M	50 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	SS620873			
Conn. Diag	8442000676			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
1.9080	0.9280	3.0940	1.5990	126.7120

