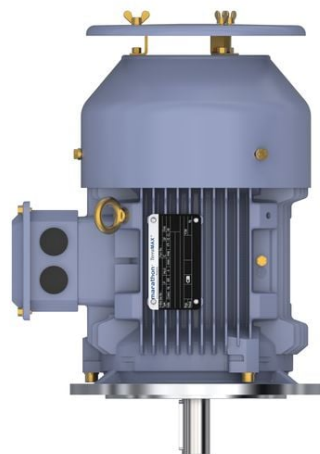


# PRODUCT INFORMATION PACKET

Model No: SCA2P21A1141GAA001

Catalog No: SCA2P21A1141GAA001

TerraMAX® Cast Iron Motor, 3 HP, 3 Ph, 50 Hz, 400 V, 3000 RPM, 90L Frame, TEFC



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### Nameplate Specifications

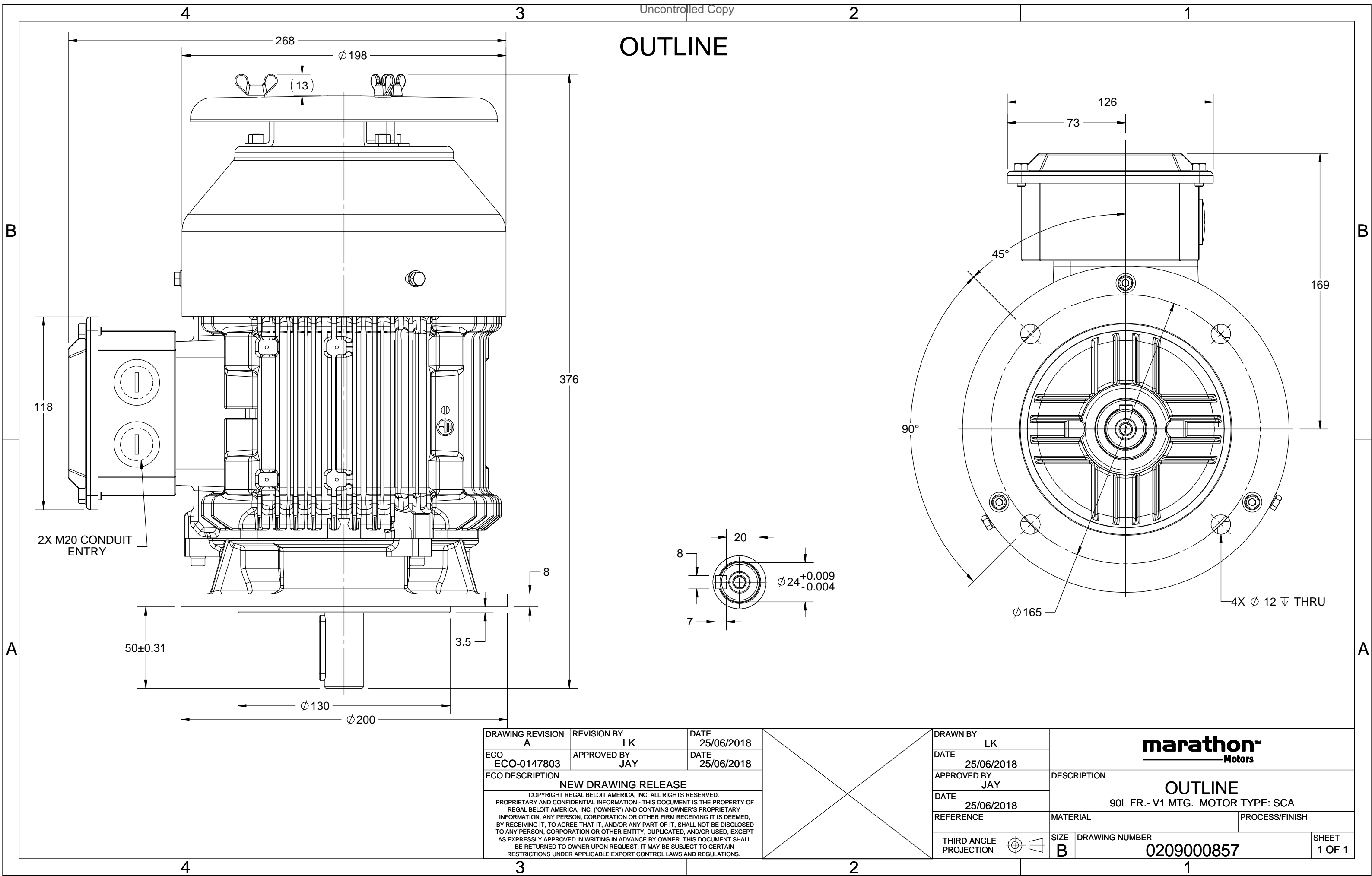
Output HP	<b>3 Hp</b>	Output KW	<b>2.2 kW</b>
Frequency	<b>50 Hz</b>	Voltage	<b>400 V</b>
Current	<b>4.3 A</b>	Speed	<b>2868 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>83.2 %</b>	Power Factor	<b>0.88</b>
Duty	<b>S1</b>	Insulation Class	<b>F</b>
Frame	<b>90L</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6205</b>	Opp Drive End Bearing Size	<b>6205</b>
UL	<b>No</b>	CSA	<b>No</b>
CE	<b>Yes</b>	IP Code	<b>55</b>
Number of Speeds	<b>1</b>	Efficiency Class	<b>IE2</b>

### Technical Specifications

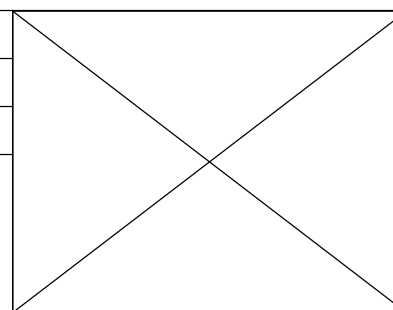
Electrical Type	<b>Squirrel Cage</b>	Starting Method	<b>Direct On Line</b>
Poles	<b>2</b>	Rotation	<b>Bi-Directional</b>
Mounting	<b>V1</b>	Motor Orientation	<b>Shaftdown</b>
Drive End Bearing	<b>2z-C3</b>	Opp Drive End Bearing	<b>2z-C3</b>
Frame Material	<b>Cast Iron</b>	Shaft Type	<b>Keyed</b>
Overall Length	<b>376 mm</b>	Frame Length	<b>153 mm</b>
Shaft Diameter	<b>24 mm</b>	Shaft Extension	<b>50 mm</b>
Assembly/Box Mounting	<b>Top</b>		
Outline Drawing	<b>0209000857</b>	Connection Drawing	<b>8442000085</b>

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# OUTLINE



DRAWING REVISION A	REVISION BY LK	DATE 25/06/2018
ECO ECO-0147803	APPROVED BY JAY	DATE 25/06/2018
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DRAWN BY LK		
DATE 25/06/2018		
APPROVED BY JAY	DESCRIPTION <b>OUTLINE</b> 90L FR.- V1 MTG. MOTOR TYPE: SCA	
DATE 25/06/2018	MATERIAL	PROCESS/FINISH
REFERENCE	SIZE B	DRAWING NUMBER 0209000857
THIRD ANGLE PROJECTION		SHEET 1 OF 1

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DRAWING REVISION <b>A</b>	REVISION BY <b>SN</b>	DATE <b>13/01/2017</b>
ECO <b>ECO-0116390</b>	APPROVED BY <b>SBD</b>	DATE <b>13/01/2017</b>
ECO DESCRIPTION <b>NEW DRAWING RELEASE</b>		

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.

8WD.442.2017



DRAWN BY <b>SN</b>	 Regal Beloit America, Inc.		
			DATE <b>16/12/2016</b>
	APPROVED BY <b>SBD</b>	DESCRIPTION <b>CONN DIAGRAM-NAMEPLATE</b>	
	DATE <b>16/12/2016</b>		
	REFERENCE		MATERIAL
THIRD ANGLE PROJECTION 	SIZE <b>A</b>	DRAWING NUMBER <b>8442000085</b>	SHEET <b>1 OF 1</b>

**Model No.** SCA2P21A1141GAA001

U (V)	Δ / Y Conn	f [Hz]	P		I [A]	n [RPM]	T [Nm]	IE Class	% EFF at __ load				PF at __ load			I <sub>A</sub> /I <sub>N</sub> [pu]	T <sub>A</sub> /T <sub>N</sub> [pu]	T <sub>K</sub> /T <sub>N</sub> [pu]
			[kW]	[hp]					5/4FL	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL			
400	Y	50	2.2	3.0	4.3	2868	7.44	IE2	-	83.2	83.2	83	0.88	0.82	0.7	7.2	3.5	3.2

Motor type	SCA	Degree of protection	IP 55
Enclosure	TEFC	Mounting type	IM V1
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	90L	Motor weight - approx.	27.7 kg
Duty	S1	Gross weight - approx.	28.7 kg
Voltage variation *	± 10%	Motor inertia	0.0023 kgm <sup>2</sup>
Frequency variation *	± 5%	Load inertia	Customer to Provide
Combined variation *	10%	Vibration level	1.6 mm/s
Design	N	Noise level ( 1meter distance from motor)	65 dB(A)
Service factor	1.0	No. of starts hot/cold/Equally spread	2/3/4
Insulation class	F	Starting method	DOL
Ambient temperature	-20 to +40 °C	Type of coupling	Direct
Temperature rise (by resistance)	80 [ Class B ] K	LR withstand time (hot/cold)	10/6 s
Altitude above sea level	1000 meter	Direction of rotation	Bi-directional
Hazardous area classification	NA	Standard rotation	Clockwise form DE
Zone classification	NA	Paint shade	RAL 5014
Gas group	NA	Accessories	
Temperature class	NA	Accessory - 1	PTC 150°C
Rotor type	Aluminum Die cast	Accessory - 2	-
Bearing type	Anti-friction ball	Accessory - 3	-
DE / NDE bearing	6205-2Z / 6205-2Z	Terminal box position	TOP
Lubrication method	Greased for life	Maximum cable size/conduit size	1R x 3C x 10mm <sup>2</sup> /2 x M20 x 1.5
Type of grease	NA	Auxiliary terminal box	Available on Request

I<sub>A</sub>/I<sub>N</sub> - Locked Rotor Current / Rated Current

T<sub>K</sub>/T<sub>N</sub> - Breakdown Torque / Rated Torque

T<sub>A</sub>/T<sub>N</sub> - Locked Rotor Torque / Rated Torque

**NOTE**

All performance values at rated voltage and frequency.

All performance parameters are subjected to standard tolerance as per IEC 60034-1

\* Voltage, Frequency and combine variation are as per IEC60034-1

Technical data are subject to change. There may be discrepancies between calculated and name plate values.

Efficiency Standards	Europe IEC: 60034-30	China -	India -	Aus/Nz AS/NZ 1359:5:2004	Brazil -	Global IEC IEC: 60034-30



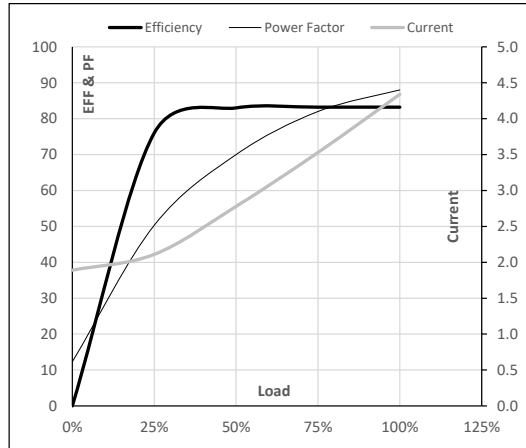
Model No. SCA2P21A1141GAA001

Enclosure	U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [RPM]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg-m <sup>2</sup> ]	Weight [kg]
TEFC	400	Y	50	2.2	3.0	4.3	2868	0.76	7.44	IE2	40	S1	1000	0.0023	27.7

**Motor Load Data**

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	1.9	2.1	2.8	3.5	4.3	
Torque	Nm	0.0	1.8	3.6	5.5	7.4	
Speed	r/min	3000	2968	2939	2905	2868	
Efficiency	%	0.0	76.0	83.0	83.2	83.2	
Power Factor	%	12.3	50.3	70.0	82.0	88.0	

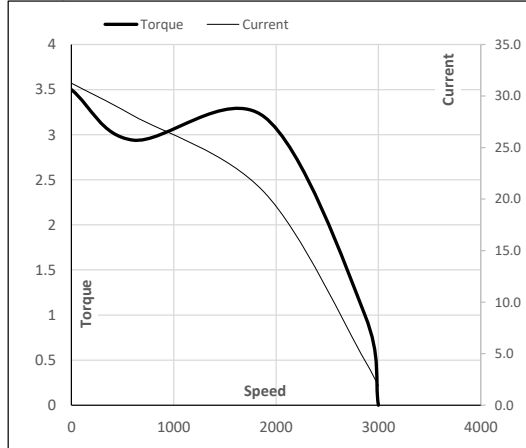
**Performance vs Load Chart**



**Motor Speed Torque Data**

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	600	1882	2868	3000
Current	A	31.2	28.1	20.7	4.3	1.9
Torque	pu	3.5	2.9	3.2	1	0

**Starting Characteristics Chart**



**NOTE** Refer data sheet for applicable standard and tolerances on performance parameters

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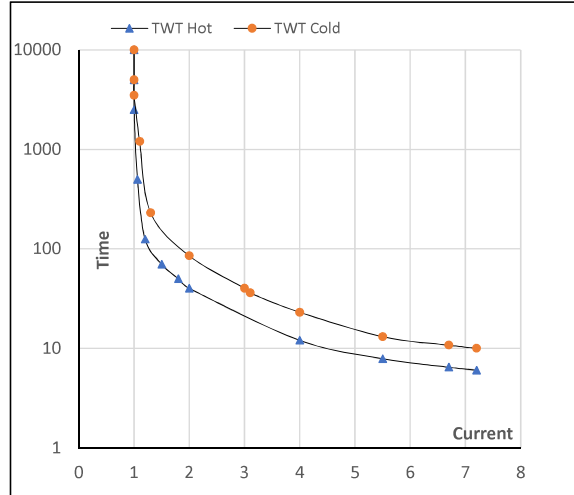
Model No. SCA2P21A1141GAA001

Enclosure	U (V)	$\Delta$ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [rpm]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg-m <sup>2</sup> ]	Weight [kg]
TEFC	400	Y	50	2.2	3.0	4.3	2868	0.76	7.44	IE2	40	S1	1000	0.0023	27.7

**Motor Speed Torque Data**

Load	FL	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>	I <sub>4</sub>	I <sub>5</sub>	LR	
TWT Hot	s 10000	40	35	12	10	8	6	
TWT Cold	s 10000	85	40	23	16	13	10	
Current	pu	1	2	3	4	5	5.5	7.2

**Thermal Characteristics Chart**



**NOTE** Refer data sheet for applicable standard and tolerances on performance parameters

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