

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: SCA0042A4141GAA001

Catalog No: SCA0042A4141GAA001

TerraMAX® Cast Iron Motor, 5.50 HP, 3 Ph, 50 Hz, 380/660 V, 1500 RPM, 112M Frame, TEFC



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**RegalRexnord**

### Nameplate Specifications

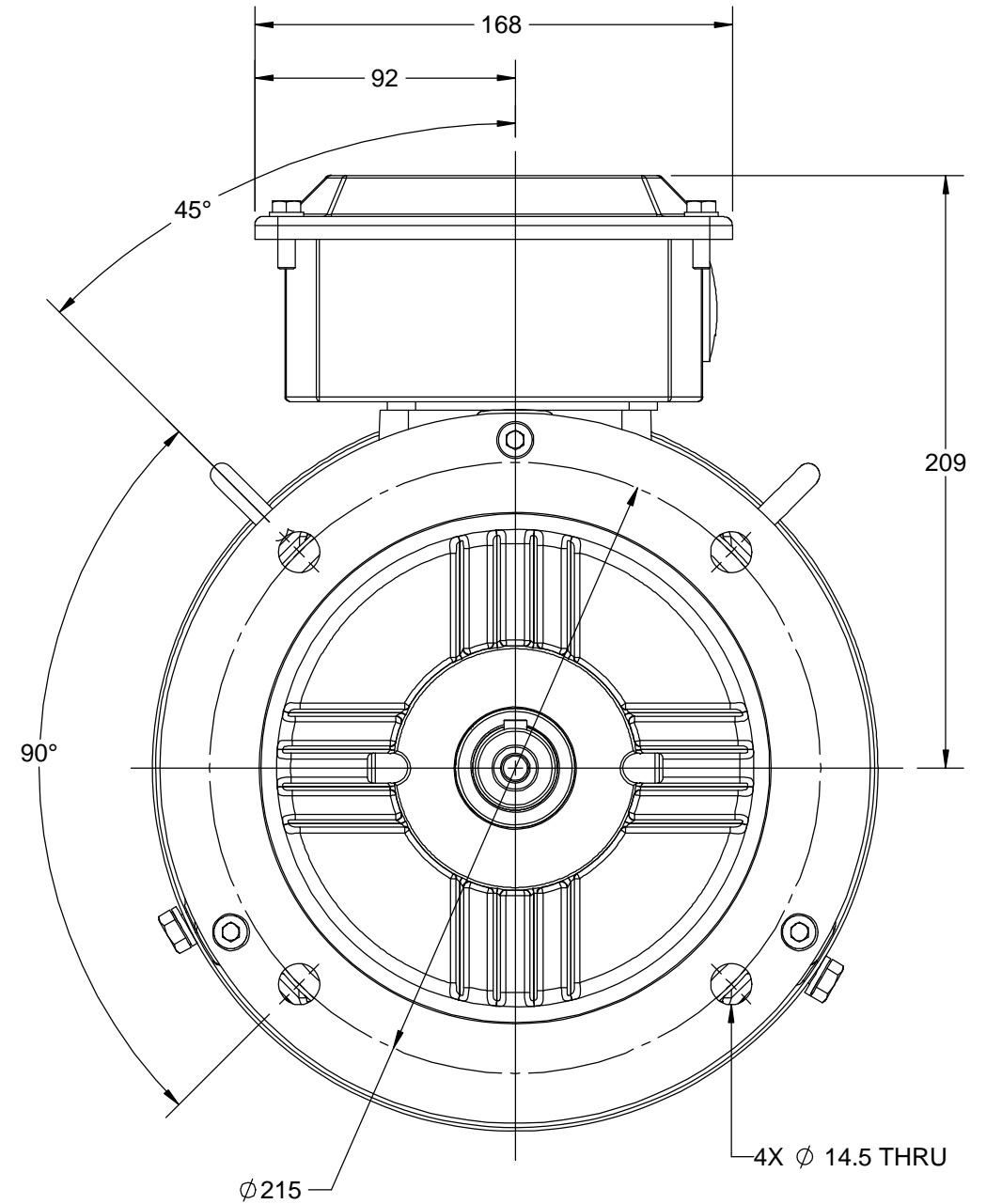
Output HP	5.50 Hp	Output KW	4.0 kW
Frequency	50 Hz	Voltage	380/660 V
Current	8.4 A	Speed	1450 rpm
Service Factor	1	Phase	3
Efficiency	86.6 %	Power Factor	0.84
Duty	S1	Insulation Class	F
Frame	112M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6306	Opp Drive End Bearing Size	6206
UL	No	CSA	No
CE	Yes	IP Code	55
Number of Speeds	1	Efficiency Class	IE2

### Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	4	Rotation	Bi-Directional
Mounting	V1	Motor Orientation	Shaftdown
Drive End Bearing	2z-C3	Opp Drive End Bearing	2z-C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	445 mm	Frame Length	174 mm
Shaft Diameter	28 mm	Shaft Extension	60 mm
Assembly/Box Mounting	Top		
Outline Drawing	0211200557	Connection Drawing	8442000085

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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>	 <b>Regal Beloit America, Inc.</b>		
	DESCRIPTION <b>CONN DIAGRAM-NAMEPLATE</b>		
	MATERIAL		PROCESS/FINISH
	SIZE <b>A</b>	DRAWING NUMBER <b>8442000085</b>	SHEET <b>1 OF 1</b>

**Model No.** SCA0042A4141GAA001

U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	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]
									5/4FL	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL			
380/660	Δ	50	4	5.5	8.4	1450	27.01	IE2	-	86.6	86.6	86.5	0.84	0.77	0.64	7.3	2.7	3.0

Motor type	SCA	Degree of protection	IP 55
Enclosure	TEFC	Mounting type	IM V1
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	112M	Motor weight - approx.	51 kg
Duty	S1	Gross weight - approx.	54 kg
Voltage variation *	± 10%	Motor inertia	0.0145 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)	61 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)	15/7 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	-
Rotor type	Aluminum Die cast	Accessory - 2	-
Bearing type	Anti-friction ball	Accessory - 3	-
DE / NDE bearing	6306-2Z / 6206-2Z	Terminal box position	TOP
Lubrication method	Greased for life	Maximum cable size/conduit size	1R x 3C x 16mm <sup>2</sup> /2 x M25 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 CurrentT<sub>K</sub>/T<sub>N</sub> - Breakdown Torque / Rated TorqueT<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.

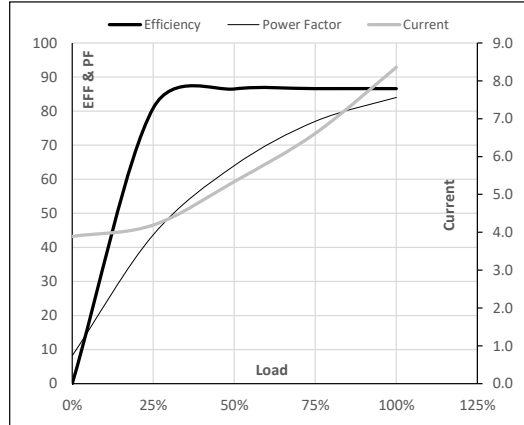
Efficiency	Europe	China	India	Aus/Nz	Brazil	Global IEC
Standards	-	GB 18613-2012 Grade 2	-	-	-	IEC: 60034-30

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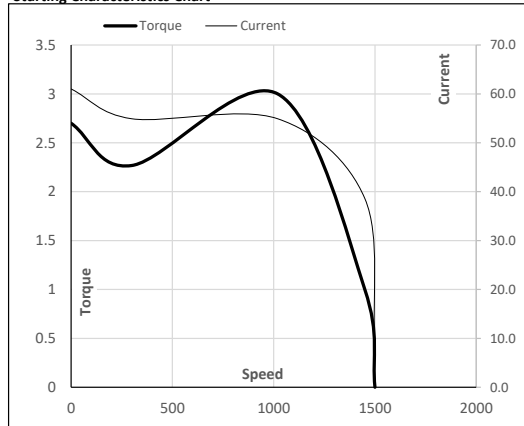
Enclosure	U (V)	$\Delta$ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [RPM]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg-m <sup>2</sup> ]	Weight [kg]
TEFC	380/660	$\Delta$	50	4	5.5	8.4	1450	2.75	27.01	IE2	40	S1	1000	0.0145	51

**Motor Load Data**

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	3.9	4.2	5.3	6.6	8.4	
Torque	Nm	0.0	6.6	13.3	20.1	27.0	
Speed	r/min	1500	1488	1477	1464	1450	
Efficiency	%	0.0	80.9	86.5	86.6	86.6	
Power Factor	%	8.2	43.7	64.0	77.0	84.0	

**Performance vs Load Chart**

**Motor Speed Torque Data**

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	300	1020	1450	1500
Current	A	61.0	54.9	38.6	8.4	3.9
Torque	pu	2.7	2.3	3.0	1	0

**Starting Characteristics Chart**

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

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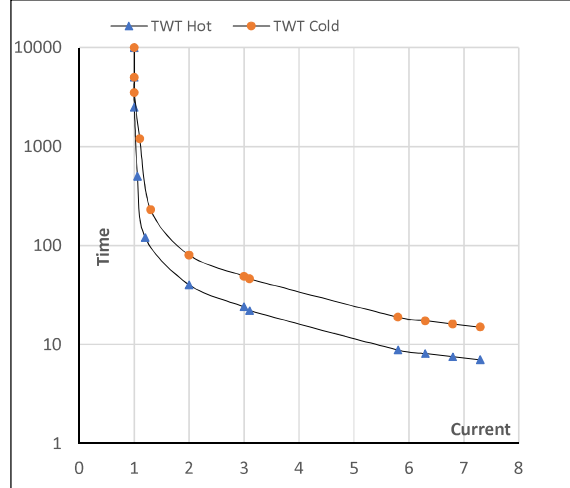
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Enclosure	U (V)	$\Delta$ / Y Conn	f (Hz)	P [kW]	P [hp]	I [A]	n [rpm]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg·m <sup>2</sup> ]	Weight [kg]
TEFC	380/660	$\Delta$	50	4	5.5	8.4	1450	2.75	27.01	IE2	40	S1	1000	0.0145	51

**Motor Speed Torque Data**

Load		FL	$I_1$	$I_2$	$I_3$	$I_4$	$I_5$	LR
TWT Hot	s	10000	39	26	17	13	11	7
TWT Cold	s	10000	75	49	35	26	23	15
Current	pu	1	2	3	4	5	5.5	7.3

**Thermal Characteristics Chart**

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

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