

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: QCA0551AF111GAA001

Catalog No: QCA0551AF111GAA001

TerraMAX® Cast Iron Motor, 75 HP, 3 Ph, 50 Hz, 380 V, 3000 RPM, 250M Frame, TEFC



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RegalRexnord

Nameplate Specifications

Output HP	75 Hp	Output KW	55.0 kW
Frequency	50 Hz	Voltage	380 V
Current	98.9 A	Speed	2981 rpm
Service Factor	1	Phase	3
Efficiency	95.3 %	Power Factor	0.89
Duty	S1	Insulation Class	F
Frame	250M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6314	Opp Drive End Bearing Size	6314
UL	No	CSA	No
CE	YES	IP Code	55
Number of Speeds	1	Efficiency Class	IE4

Technical Specifications

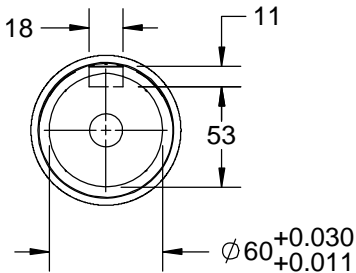
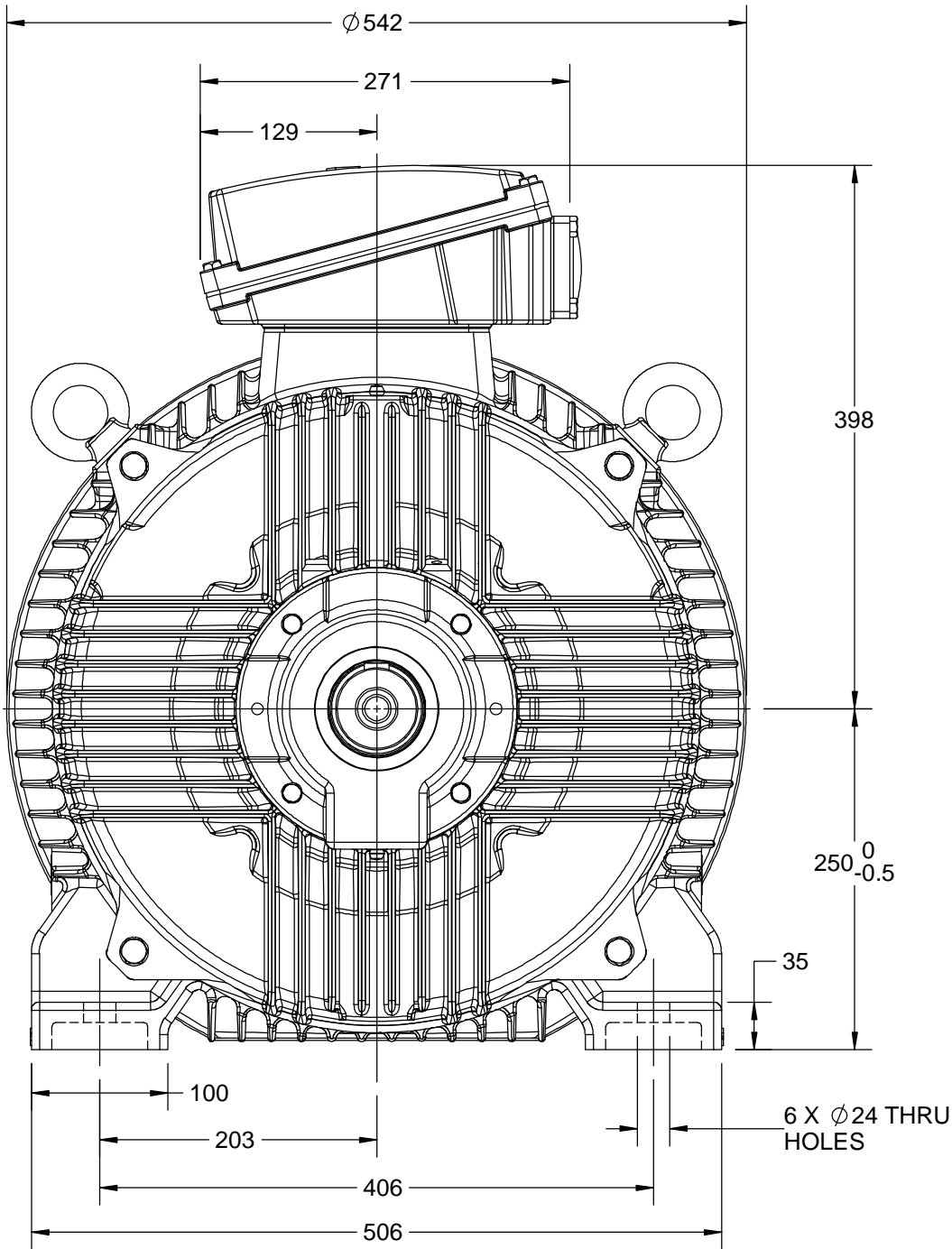
Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	2	Rotation	Bi-Directional
Mounting	B3	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	941 mm	Frame Length	460 mm
Shaft Diameter	60 mm	Shaft Extension	140 mm
Assembly/Box Mounting	Top		
Outline Drawing	0225000374	Connection Drawing	8442000085

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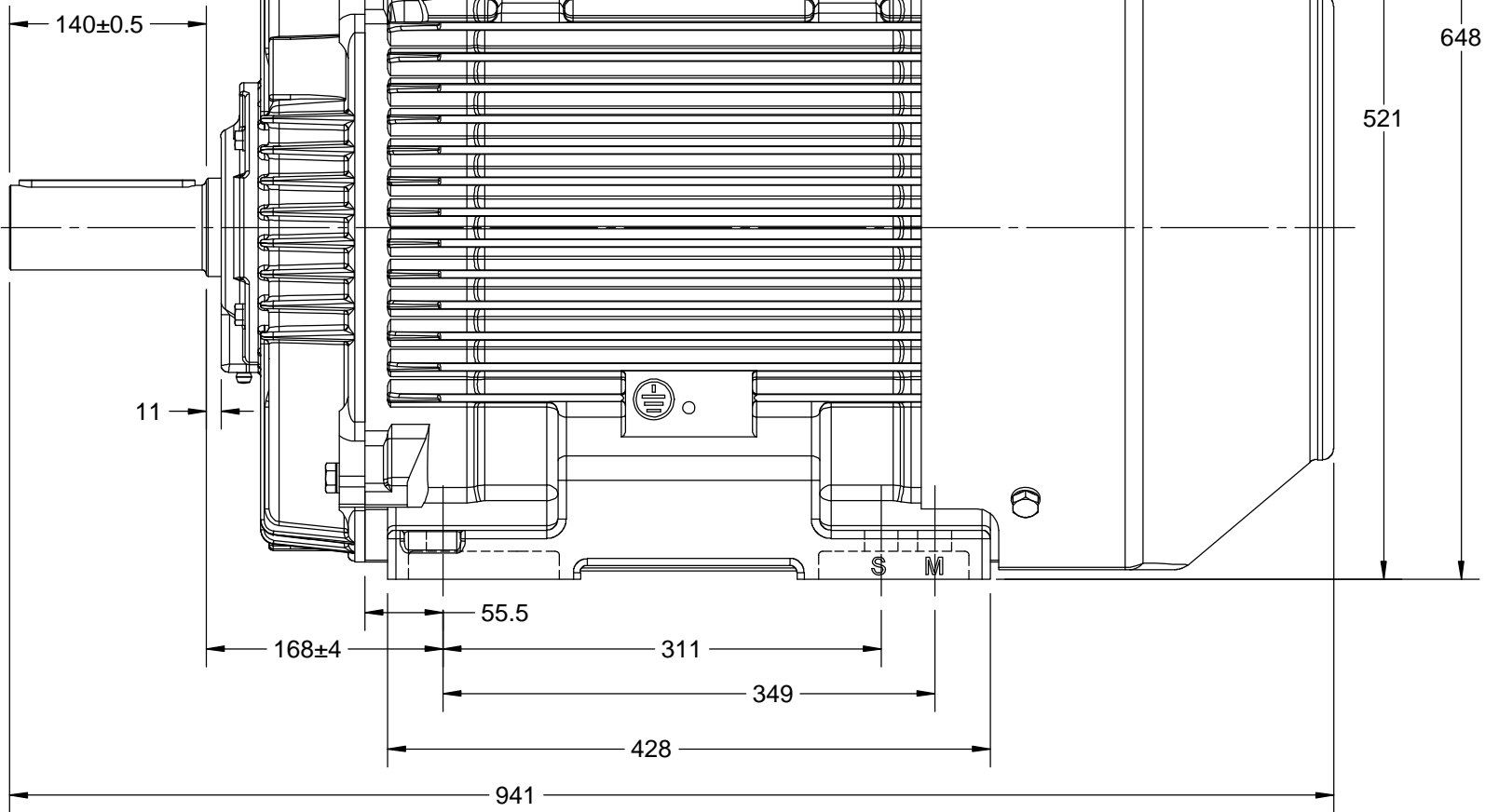
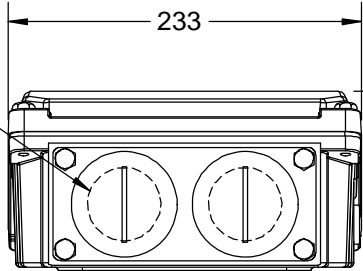
OUTLINE

B

A



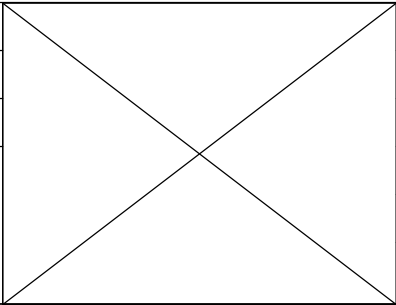
2X M50 CONDUIT PLUG



B

A

DRAWING REVISION B	REVISION BY GNK	DATE 23/08/2017
ECO ECO-0124939	APPROVED BY JAY	DATE 23/08/2017
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DRAWN BY SDV	marathon™ Motors		
DATE 18/07/2014			
APPROVED BY SBD	DESCRIPTION OUTLINE 250FR-2P-B3 MTG. MOTOR TYPE: TCA/QCA		
DATE 18/07/2014			
REFERENCE	MATERIAL		PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER 0225000374	SHEET 1 OF 1

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ECO DESCRIPTION



GEOMETRIC TOLERANCE

LINEAR DIM	>0~6	±0.1
	>6~30	±0.2
	>30~120	±0.3



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

Model No. QCA0551AF111GAA001

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_A/I_N [pu]	T_A/T_N [pu]	T_K/T_N [pu]
									5/4FL	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL			
380	Δ	50	55	75	98.5	2981	179.17	IE4	-	95.3	95.3	93.8	0.89	0.86	0.77	7.9	2.3	3.9

Motor type	QCA	Degree of protection	IP 55
Enclosure	TEFC	Mounting type	IM B3
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	250M	Motor weight - approx.	564 kg
Duty	S1	Gross weight - approx.	599 kg
Voltage variation *	± 10%	Motor inertia	0.7846 kgm ²
Frequency variation *	± 5%	Load inertia	Customer to Provide
Combined variation *	10%	Vibration level	2.2 mm/s
Design	N	Noise level (1meter distance from motor)	75 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)	15/30 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	6314 C3 / 6314 C3	Terminal box position	TOP
Lubrication method	Regreasable	Maximum cable size/conduit size	1R x 3C x 95mm ² /2 x M50 x 1.5
Type of grease	CHEVRON SRI-2 or Equivalent	Auxiliary terminal box	NA

 I_A/I_N - Locked Rotor Current / Rated Current

 T_K/T_N - Breakdown Torque / Rated Torque

 T_A/T_N - 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.

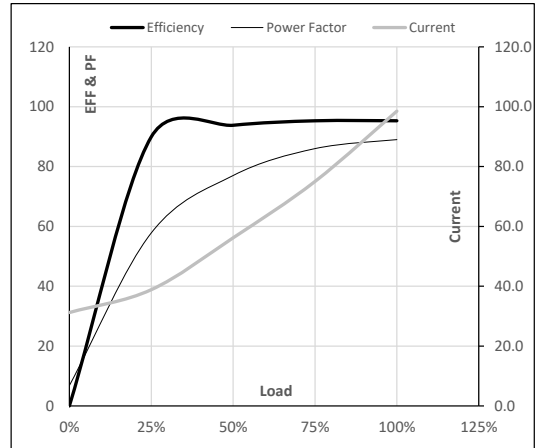
Efficiency	Europe	China	India	Aus/Nz	Brazil	Global IEC
Standards	-	GB 18613-2012 Grade 2	-	-	-	IEC: 60034-30

Model No. QCA0551AF111GAA001

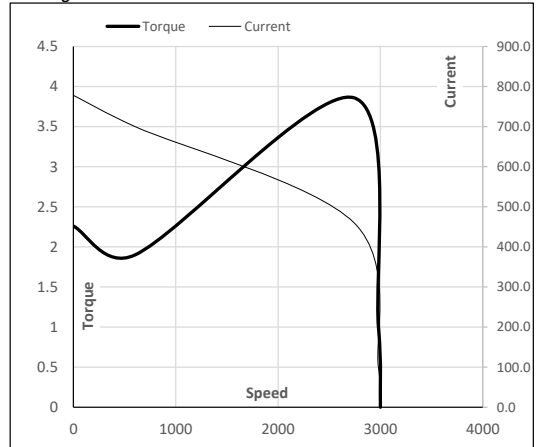
Enclosure	U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [RPM]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg-m ²]	Weight [kg]
TEFC	380	Δ	50	55	75	98.5	2981	18.27	179.17	IE4	40	S1	1000	0.7846	564

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	31.2	38.8	56.2	75.0	98.5	
Torque	Nm	0.0	44.6	89.3	134.2	179.2	
Speed	r/min	3000	2995	2991	2986	2981	
Efficiency	%	0.0	89.9	93.8	95.3	95.3	
Power Factor	%	6.8	57.8	77.0	86.0	89.0	

Performance vs Load Chart

Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	600	2743	2981	3000
Current	A	778.3	700.5	460.3	98.5	31.2
Torque	pu	2.3	1.9	3.9	1	0

Starting Characteristics Chart

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

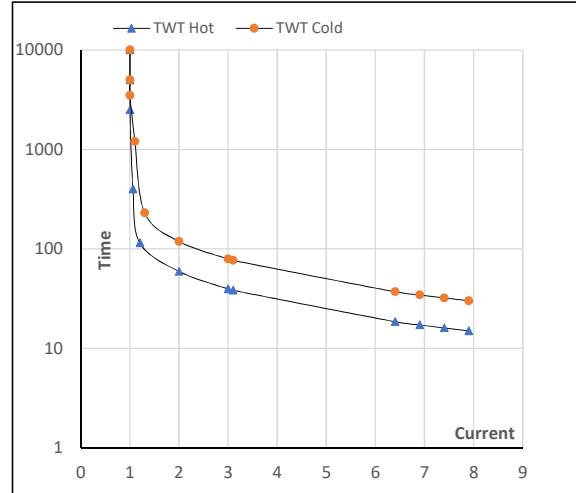
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Model No. QCA0551AF111GAA001

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 ²]	Weight [kg]
TEFC	380	Δ	50	55	75	98.5	2981	18.27	179.17	IE4	40	S1	1000	0.7846	564

Motor Speed Torque Data

Load	FL	I_1	I_2	I_3	I_4	I_5	LR
TWT Hot	s 10000	59	40	30	25	20	15
TWT Cold	s 10000	119	79	65	50	45	30
Current	pu	1	2	4	5	5.5	7.9

Thermal Characteristics Chart

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

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