

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: QCA0043AF171GAA001

Catalog No: QCA0043AF171GAA001

TerraMAX® Cast Iron Motor, 5.50 HP, 3 Ph, 50 Hz, 380 V, 1000 RPM, 132M Frame, TEFC



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RegalRexnord

Nameplate Specifications

Output HP	5.50 Hp	Output KW	4.0 kW
Frequency	50 Hz	Voltage	380 V
Current	9.3 A	Speed	978 rpm
Service Factor	1	Phase	3
Efficiency	89.5 %	Power Factor	0.74
Duty	S1	Insulation Class	F
Frame	132M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6308	Opp Drive End Bearing Size	6208
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	6	Rotation	Bi-Directional
Mounting	B14A	Motor Orientation	Horizontal
Drive End Bearing	2z-C3	Opp Drive End Bearing	2z-C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	503 mm	Frame Length	240 mm
Shaft Diameter	38 mm	Shaft Extension	80 mm
Assembly/Box Mounting	Top		
Outline Drawing	0213200590	Connection Drawing	8442000085

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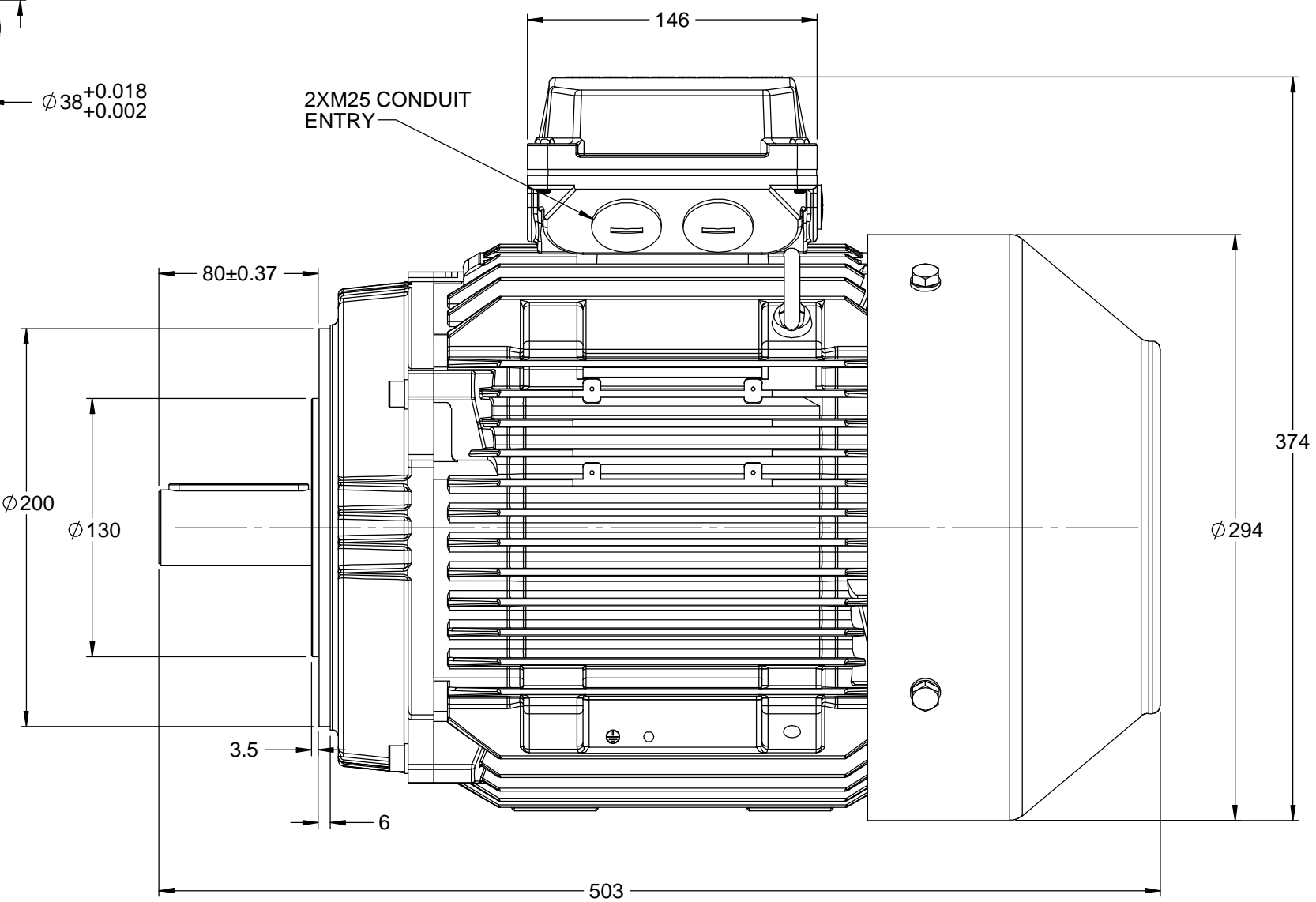
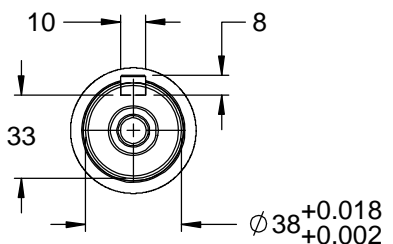
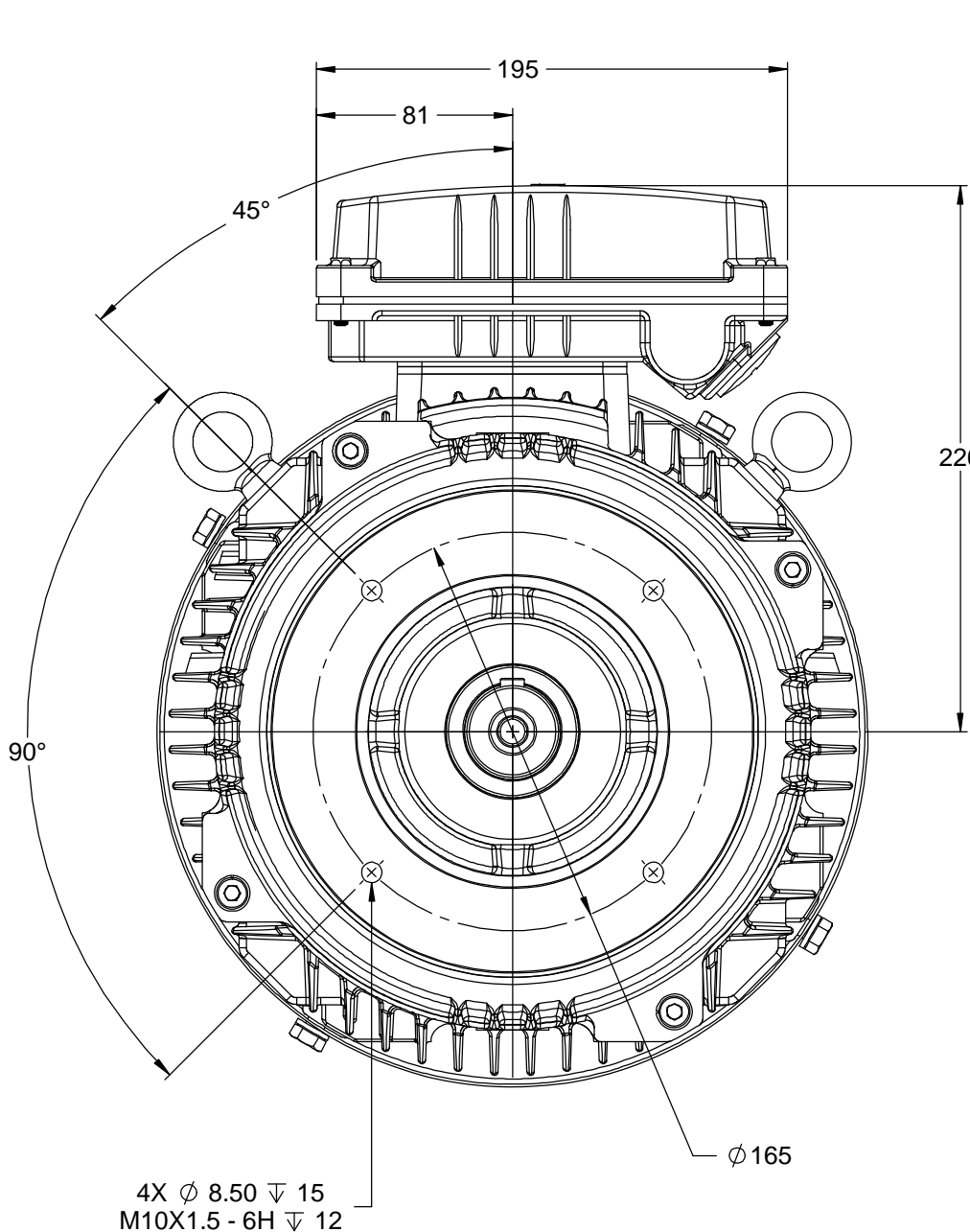
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A

A



DRAWING REVISION B	REVISION BY S.MUDDA	DATE 11/7/2018	TOLERANCES UNLESS OTHERWISE SPECIFIED: DEC. mm INCH ANGLE .X ±2.5 [±0.10] .XX ±0.25 [±0.010] .XXX ±0.130 [±0.0051] .XXXX ±0.0130 [±0.00051] REMOVE BURRS & BREAK SHARP EDGES: .08/.38 [.003/.015] X 45° CORNER FILLETS: R.50 [.020] MACHINED SURFACES: 125 3.2 INCH mm INCH SHOWN IN [BRACKETS]		DRAWN BY SMAR	marathon™ Motors		
ECO ECO-0147359	APPROVED BY JAY	DATE 11/7/2018			DATE 05/09/13			
ECO DESCRIPTION OUTLINE UPDATED AS PER NEW 3D STRUCTURING			DESCRIPTION 132 FR- B14A MTG. MOTOR TYPE: TCA			PROCESS/FINISH		
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DRAWING REVISION A	REVISION BY SN	DATE 13/01/2017
ECO ECO-0116390	APPROVED BY SBD	DATE 13/01/2017
ECO DESCRIPTION NEW DRAWING RELEASE		

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

Model No. QCA0043AF171GAA001

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	4	5.5	9.3	978	40.12	IE4	-	89.5	89.5	88	0.74	0.66	0.51	6.6	2.4	3.0

Motor type	QCA	Degree of protection	IP 55
Enclosure	TEFC	Mounting type	IM B14A
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	132M	Motor weight - approx.	87 kg
Duty	S1	Gross weight - approx.	90 kg
Voltage variation *	± 10%	Motor inertia	0.0660 kgm ²
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)	59 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	6308-2Z / 6208-2Z	Terminal box position	TOP
Lubrication method	Greased for life	Maximum cable size/conduit size	1R x 3C x 16mm ² /2 x M25 x 1.5
Type of grease	NA	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.

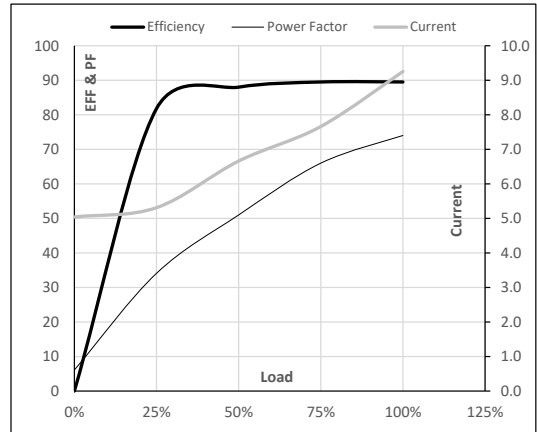
Efficiency Standards	Europe	China	India	Aus/Nz	Brazil	Global IEC
	-	GB 18613-2012 Grade 2	-	-	-	IEC: 60034-30

Model No. QCA0043AF171GAA001

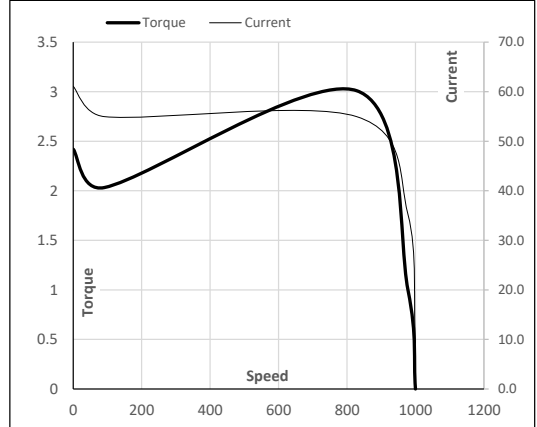
Enclosure	U (V)	Δ / Y Conn	f (Hz)	P [kW]	P [hp]	I [A]	n [RPM]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg-m ²]	Weight [kg]
TEFC	380	Δ	50	4	5.5	9.3	978	4.09	40.12	IE4	40	S1	1000	0.0660	87

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	5.0	5.3	6.7	7.7	9.3	
Torque	Nm	0.0	9.9	19.8	29.9	40.1	
Speed	r/min	1000	995	989	984	978	
Efficiency	%	0.0	81.8	88.0	89.5	89.5	
Power Factor	%	6.1	34.1	51.0	66.0	74.0	

Performance vs Load Chart

Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	91	828	978	1000
Current	A	61.1	55.0	35.3	9.3	5.0
Torque	pu	2.4	2.0	3.0	1	0

Starting Characteristics Chart

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

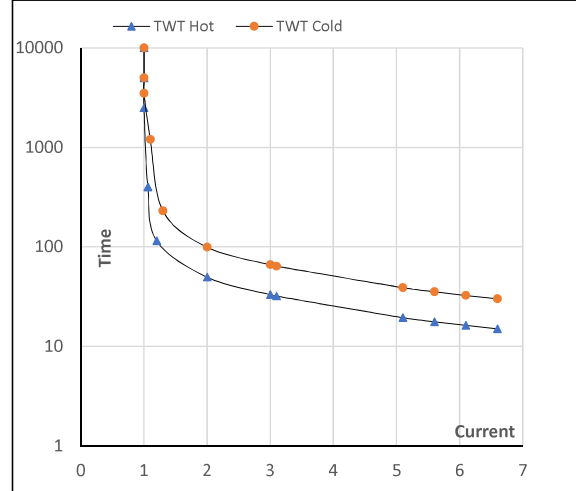
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Enclosure	U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [rpm]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg-m ²]	Weight [kg]
TEFC	380	Y	50	4.0	5.5	9.3	978	4.09	40.12	IE4	40	S1	1000	0.0660	87

Motor Speed Torque Data

Load	FL	I ₁	I ₂	I ₃	I ₄	I ₅	LR	
TWT Hot	s 10000	50	33	27	20	17	15	
TWT Cold	s 10000	99	66	50	40	36	30	
Current	pu	1	2	3	4	5	5.5	6.6

Thermal Characteristics Chart

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

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