PRODUCT INFORMATION PACKET

Model No: TCM0301A2113GAC011
Catalog No: TCM0301A2113GAC011
TerraMAX® IE3, Mining Duty Motors, 30 kW, 3Ph, 2 Pole, 400/690V, B3, 50Hz, 200L Frame, TEFC

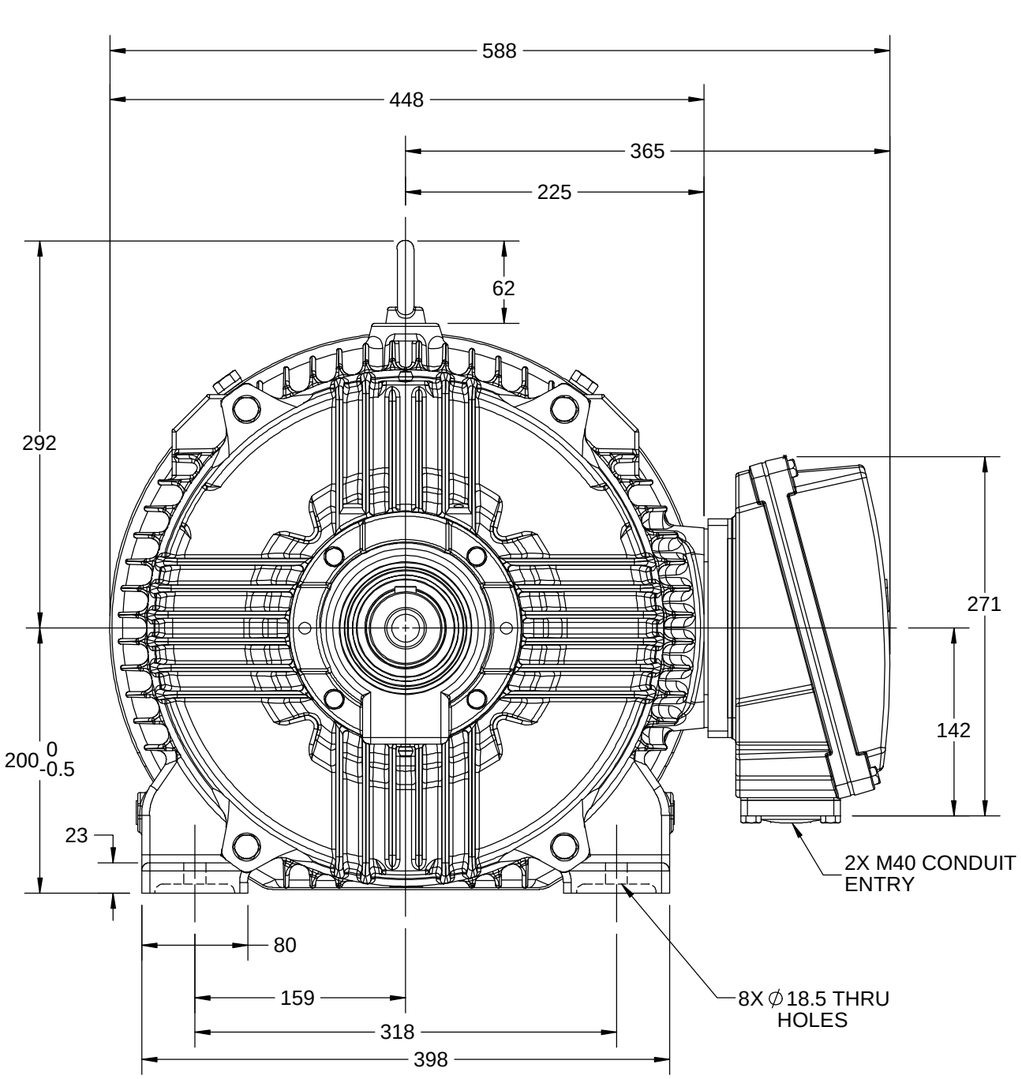
Nameplate Specifications

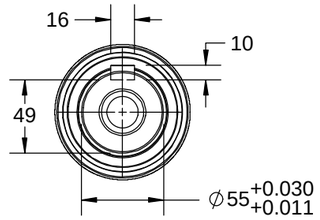
Output HP	40 Hp	Output KW	30.0 kW
Frequency	50 Hz	Voltage	400/690 V
Current	54.6 A	Speed	2973 rpm
Service Factor	1	Phase	3
Efficiency	93.3 %	Power Factor	0.85
Duty	S1	Insulation Class	H
Frame	200L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6312	Opp Drive End Bearing Size	6212
UL	NO	CSA	NO
CE	YES	IP Code	66
Number of Speeds	1	Efficiency Class	IE3

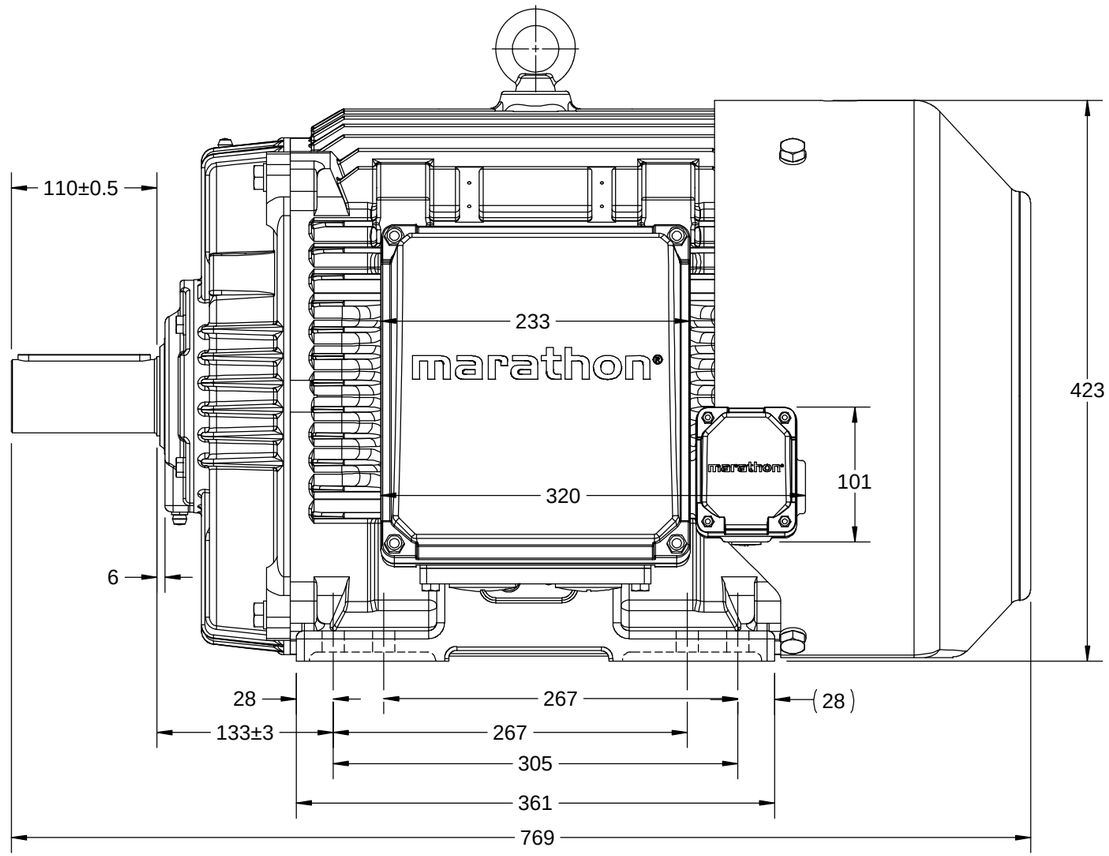
Technical Specifications

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	769 mm	Frame Length	370 mm
Shaft Diameter	55 mm	Shaft Extension	110 mm
Assembly/Box Mounting	RHS		
Outline Drawing	0220000594	Connection Drawing	8442000086

OUTLINE



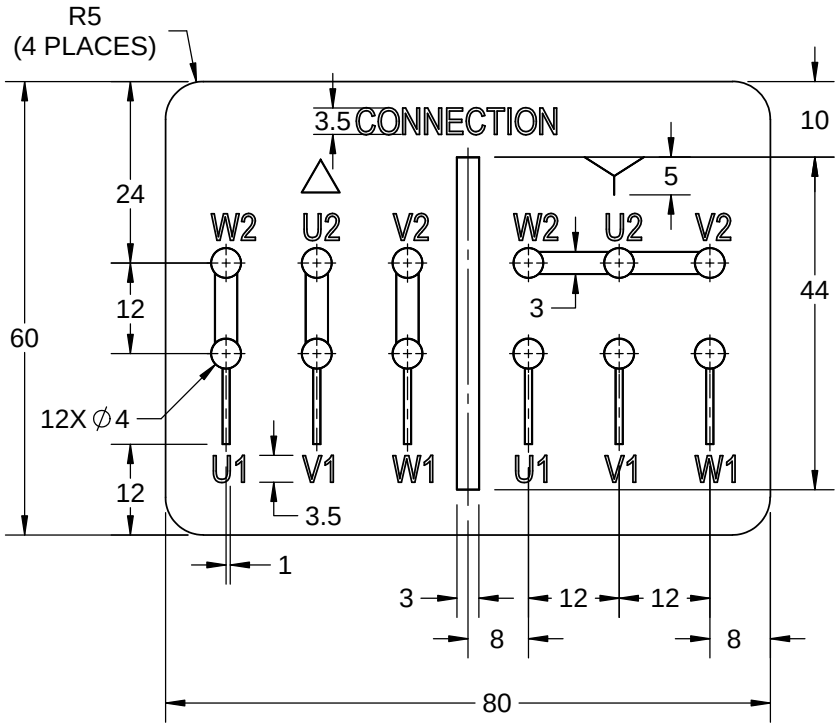




DRAWING REVISION B	REVISION BY BISWA	DATE 10/08/2018		DRAWN BY LK	marathon™ Motors
ECO ECO-0150057	APPROVED BY SBD	DATE 10/08/2018		DATE 21/12/2017	
ECO DESCRIPTION MODEL UPDATED WITH NEW STRUCTURE				APPROVED BY SBD	DESCRIPTION OUTLINE 200FR-B3 MTG. MOTOR TYPE: TCM
				DATE 21/12/2017	
				REFERENCE	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER 0220000594 / SHEET 1 OF 1

DRAWING REVISION	REVISION BY	DATE
A	SN	13/01/2016
ECO	APPROVED BY	DATE
ECO-0116390	SBD	13/01/2016
ECO DESCRIPTION		
NEW DRAWING RELEASE		

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. AT THE END OF YELLOW, WORDS, SYMBOLS, LETTERS ARE BLACK.
3. THE TOLERANCE OF THE LINEAR SIZE OF THE TOLERANCE WITHOUT THE TOLERANCE BY THE TABLE.

8WD.864.1008

DRAWN BY: SN	REGAL™ 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: A / DRAWING NUMBER: 8442000086	SHEET: 1 OF 1

marathon® Motors

TerraMAX®

Model No. TCM0301A2113GAC011

U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [RPM]	T [Nm]	IE Class	% EFF at __ load 5/4FL	FL	3/4FL	1/2FL	PF at __ load FL	3/4FL	1/2FL	I_A/I_N [pu]	T_A/T_N [pu]	T_K/T_N [pu]
400	Δ	50	30	40	54.6	2973	95.82	IE3	-	93.3	93.3	91.6	0.85	0.8	0.7	7.4	2.1	3.7

Motor type	TCM		Degree of protection	IP 66	
Enclosure	TEFC		Mounting type	IM B3	
Frame Material	Cast Iron		Cooling method	IC 411	
Frame size	200L		Motor weight - approx.	269	kg
Duty	S1		Gross weight - approx.	299	kg
Voltage variation *	± 10%		Motor inertia	0.2430	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)	73	dB(A)
Service factor	1.15		No. of starts hot/cold/Equally spread	2/3/4	
Insulation class	H		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)	20/40	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 2008	
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	6312-C3 / 6212-C3		Terminal box position	RHS	
Lubrication method	Regreasable		Maximum cable size/conduit size	1R x 3C x 50mm²/2 x M40 x 1.5	
Type of grease	CHEVRON SRI-2 or Equivalent		Auxiliary terminal box	YES	

I_A/I_N - Locked Rotor Current / Rated Current

T_A/T_N - Locked Rotor Torque / Rated Torque

T_K/T_N - Breakdown 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 slight variations between calculated values in this datasheet and the motor nameplate figures.

Efficiency Standards	Europe	China	India	Aus/Nz	Brazil	Global IEC
	IEC:60034-30-1	-	-	AS/NZ 1359:5:2004	-	IEC:60034-30-1

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marathon® Motors

TerraMAX®

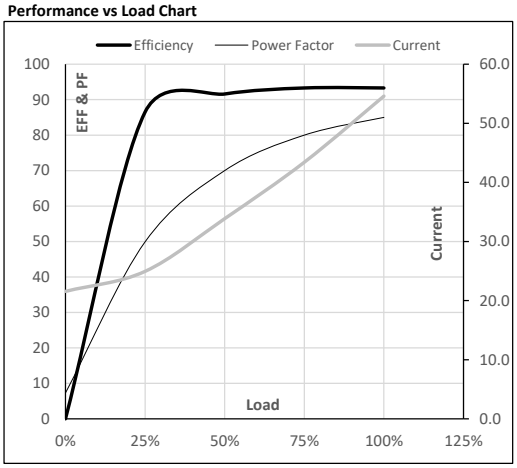
Model No. TCM0301A2113GAC011

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	400	Δ	50	30	40.0	54.6	2973	9.77	95.82	IE3	40	S1	1000	0.243	269

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	21.6	25.0	33.9	43.4	54.6	
Torque	Nm	0.0	23.8	47.7	71.7	95.8	
Speed	r/min	3000	2993	2987	2980	2973	
Efficiency	%	0.0	86.5	91.6	93.3	93.3	
Power Factor	%	7.3	49.9	70.0	80.0	85.0	

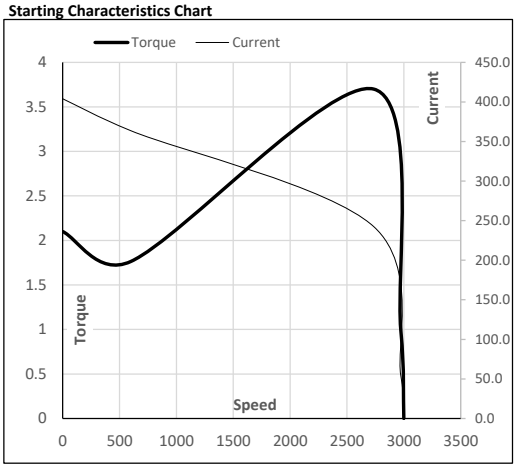
Performance vs Load Chart



Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	600	2735	2973	3000
Current	A	404.0	363.6	242.5	54.6	21.6
Torque	pu	2.1	1.8	3.7	1	0

Starting Characteristics Chart



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

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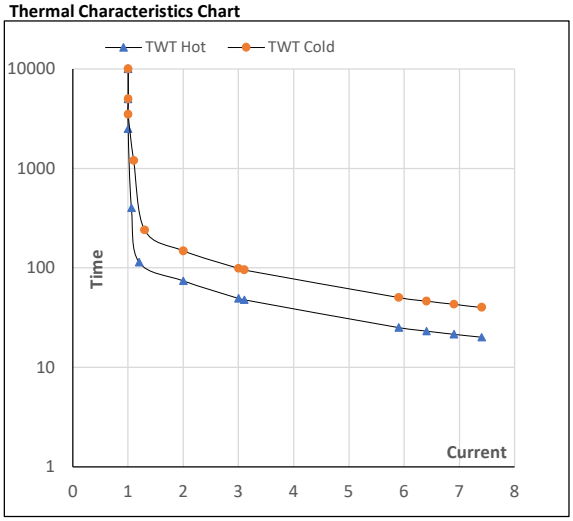
Model No. TCM0301A2113GAC011

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	400	Δ	50	30	40	54.6	2973	9.77	95.82	IE3	40	S1	1000	0.2430	269

Motor Speed Torque Data

Load		FL	I_1	I_2	I_3	I_4	I_5	LR
TWT Hot	s	10000	74	49	40	30	24	20
TWT Cold	s	10000	148	99	75	65	49	40
Current	pu	1	2	3	4	5	6	7.4

Thermal Characteristics Chart



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