PRODUCT INFORMATION PACKET

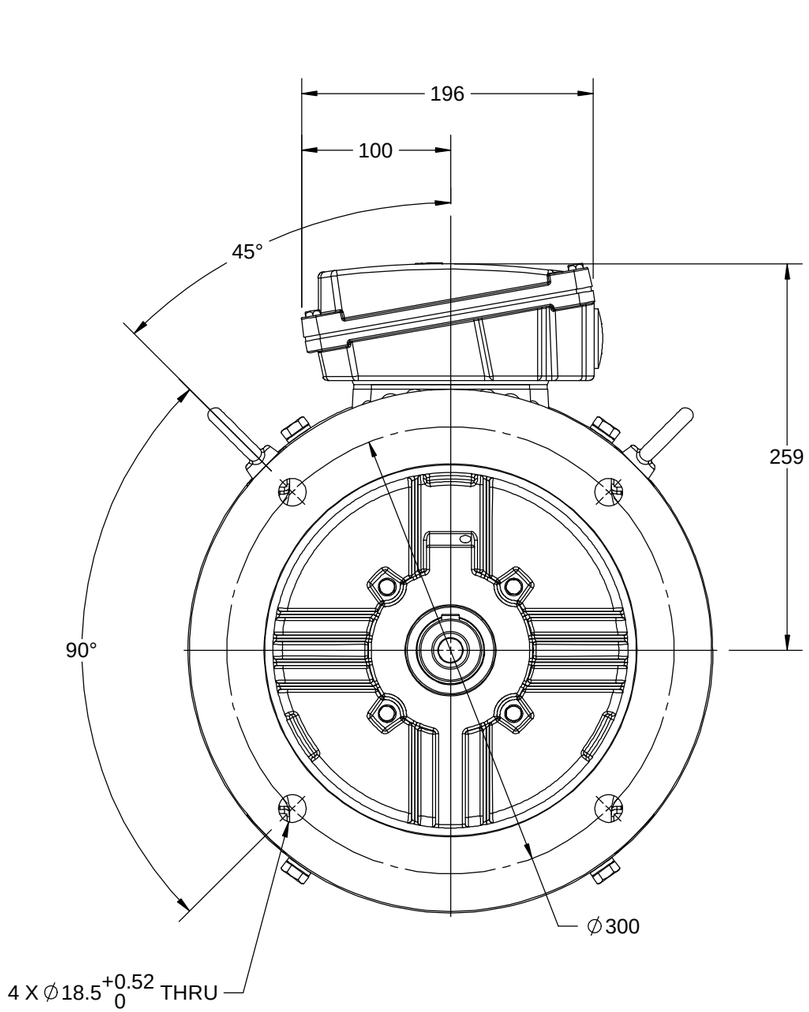
Model No: TCE0113A2121GAA001
Catalog No: TCE0113A2121GAA001
TerraMAX® Increased Safety Motors Ex eb, Totally Enclosed Fan Cooled, 15 HP, 3 Ph, 50 Hz, 400 V, 984 RPM, 160L Frame

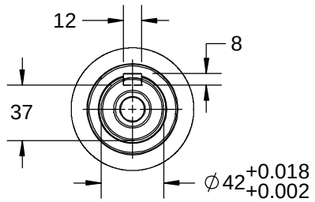
Nameplate Specifications

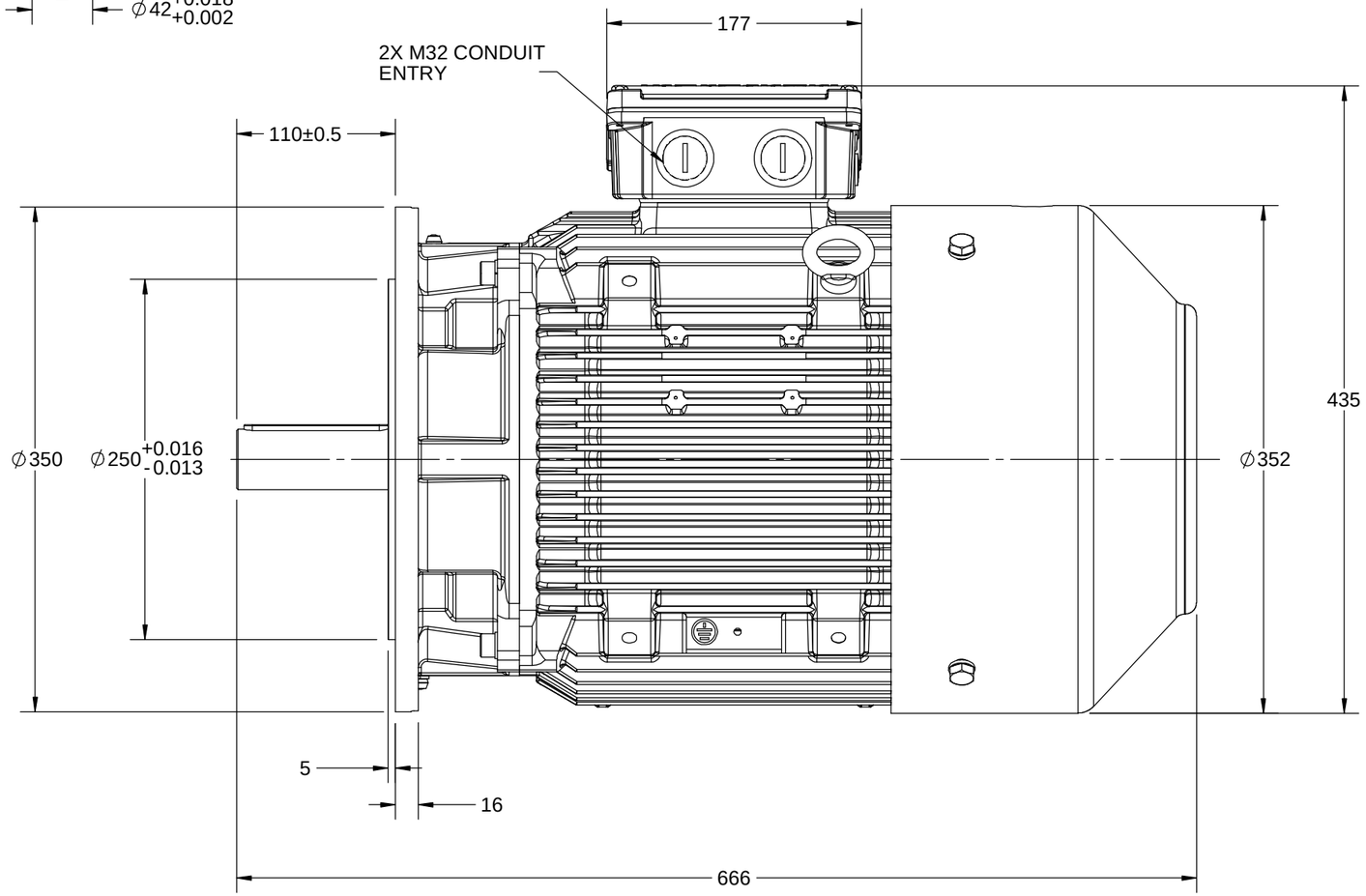
Output HP	**15 Hp**	Output KW	**11.0 kW**
Frequency	**50 Hz**	Voltage	**400 V**
Current	**31.0 A**	Speed	**984 rpm**
Service Factor	**1**	Phase	**3**
Efficiency	**91.2 %**	Power Factor	**0.8**
Duty	**S1**	Insulation Class	**F**
Frame	**160L**	Enclosure	**Totally Enclosed Fan Cooled**
Thermal Protection	**No Protection**	Ambient Temperature	**40 °C**
Drive End Bearing Size	**6309**	Opp Drive End Bearing Size	**6209**
UL	**No**	CSA	**No**
CE	**Yes**	IP Code	**IP55**
Number of Speeds	**3**		

Technical Specifications

Electrical Type	**Squirrel Cage**	Starting Method	**Direct On Line**
Poles	**6**	Rotation	**Bi-Directional**
Mounting	**B5**	Motor Orientation	**Horizontal**
Drive End Bearing	**2z-C3**	Opp Drive End Bearing	**2z-C3**
Frame Material	**Cast Iron**	Shaft Type	**Keyed**
Overall Length	**666 mm**	Frame Length	**298 mm**
Shaft Diameter	**42.000 mm**	Shaft Extension	**110 mm**
Assembly/Box Mounting	**Top**		
Outline Drawing	**0216000443**	Connection Drawing	**8442000085**



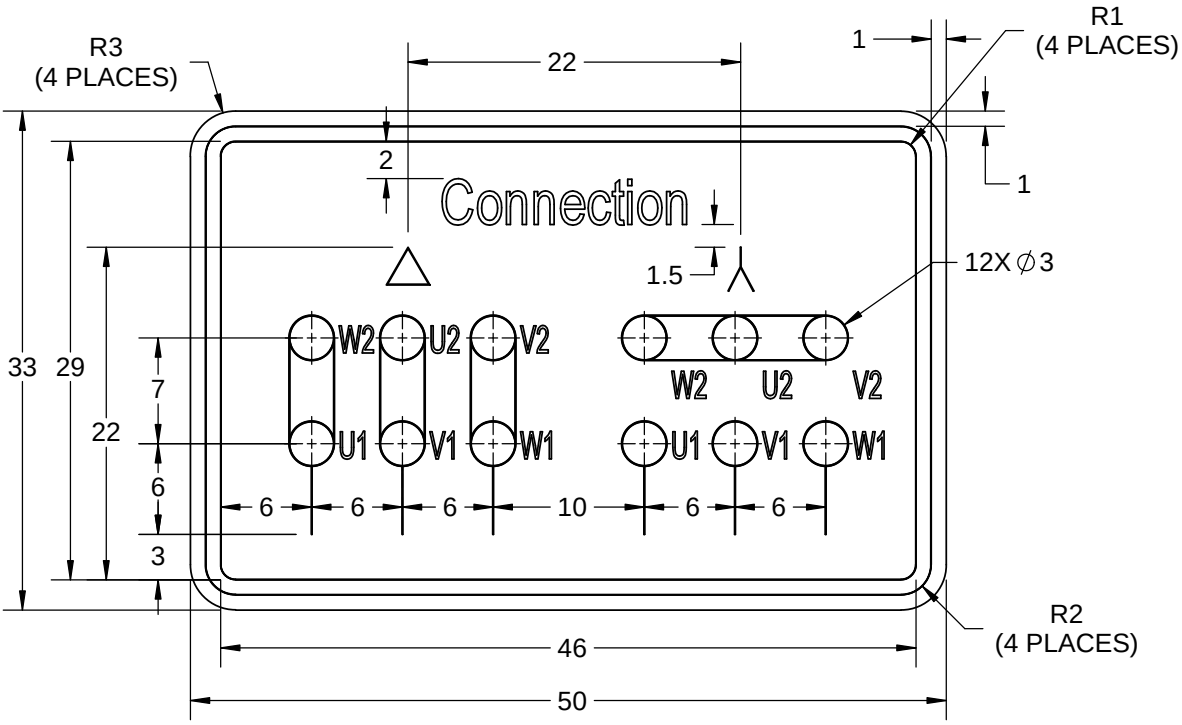




DRAWING REVISION C	REVISION BY S.MUDDA	DATE 3/9/2020		DRAWN BY SDV	Regal Beloit America, Inc.
ECO ECO-0190270	APPROVED BY JAY	DATE 3/9/2020		DATE 15/04/2014	
ECO DESCRIPTION CONFIGURATIONS ADDED IN THE 3D MODEL				APPROVED BY SBD	DESCRIPTION OUTLINE 160L-2~8P-B5
				DATE 15/04/2014	
				REFERENCE	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER 0216000443 / SHEET 1 OF 1

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

GEOMENTRIC 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™ 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: 8442000085	SHEET: 1 OF 1

marathon® Motors

TerraMAX®

Model No. TCE0113A2121GAA001

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	11	15.0	22.2	980	109.05	IE3	-	90.3	90.3	90.2	0.79	0.73	0.60	6.2	2.2	2.8

Motor type	TCE		Degree of protection	IP 55	
Enclosure	TEFC		Mounting type	IM B5	
Frame Material	Cast Iron		Cooling method	IC 411	
Frame size	160L		Motor weight - approx.	178	kg
Duty	S1		Gross weight - approx.	198	kg
Voltage variation *	± 10%		Motor inertia	0.2127	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)	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	-15 to +40	°C	Type of coupling	Direct	
Temperature rise (by resistance)	70 [Class B]	K	tE time	20	s
Altitude above sea level	1000	meter	Direction of rotation	Bi-directional	
Hazardous area classification	Ex eb		Standard rotation	Clockwise form DE	
Zone classification	Zone 2		Paint shade	RAL 7016	
Gas group	IIC		Accessories		
Temperature class	T3		Accessory - 1	PTC 150°C	
Rotor type	Aluminum Die cast		Accessory - 2	-	
Bearing type	Anti-friction ball		Accessory - 3	-	
DE / NDE bearing	6309-2Z / 6209-2Z		Terminal box position	TOP	
Lubrication method	Greased for life		Maximum cable size/conduit size	1R x 3C x 35mm²/2 X M32 x 1.5	
Type of grease	NA		Auxiliary terminal box	NA	

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

ATEX/IEC Ex certified as per IEC/EN 60079-0; IEC/EN 60079-7

All performance values at rated voltage and frequency.

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

* Voltage, Frequency and combined 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		-	-	-	IEC:60034-30-1

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marathon® Motors

TerraMAX®

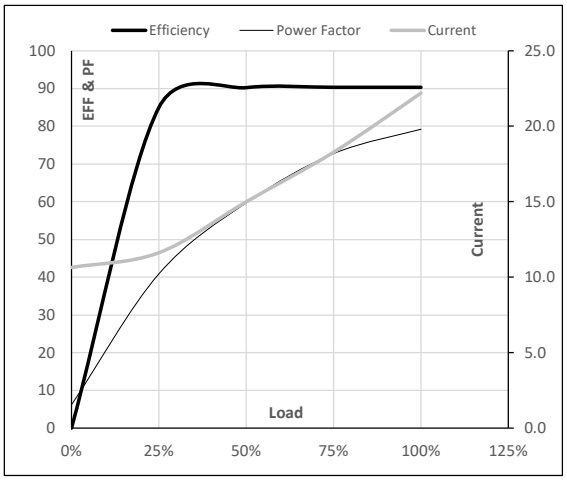
Model No. TCE0113A2121GAA001

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	11	15	22.2	980	11.12	109.05	IE3	40	S1	1000	0.2127	178

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	10.6	11.6	15.0	18.3	22.2	
Torque	Nm	0.0	36.4	73.1	110.3	109.0	
Speed	r/min	1000	995	990	985	980	
Efficiency	%	0.0	85.0	90.2	90.3	90.3	
Power Factor	%	6.2	40.9	59.7	72.7	79.2	

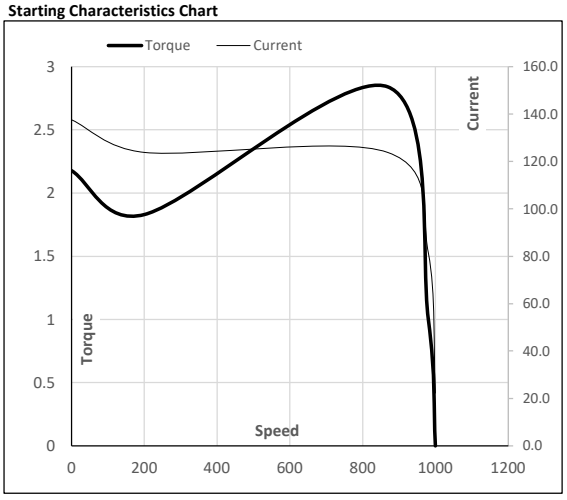
Performance vs Load Chart



Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	200	869	980	1000
Current	A	137.6	123.9	81.4	22.2	10.6
Torque	pu	2.2	1.8	2.8	1	0

Starting Characteristics Chart



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

Issued By
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