

PRODUCT INFORMATION PACKET

Model No: TCA0111A3171GACD01

Catalog No: TCA0111A3171GACD01

11.0 kW General Purpose Low Voltage IEC Motor, 3 phase, 3000 RPM, 415 V, 160M Frame, TEFC
Cast Iron IE3 Efficiency Motors



Nameplate Specifications

Output HP	15 Hp	Output KW	11.0 kW
Frequency	50 Hz	Voltage	415 V
Current	18.9 A	Speed	2953 rpm
Service Factor	1	Phase	3
Efficiency	91.2 %	Power Factor	0.89
Duty	S1	Insulation Class	F
Frame	160M	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	50 °C	Drive End Bearing Size	6309
Opp Drive End Bearing Size	6209	UL	No
CSA	No	CE	Yes
IP Code	55		

Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	2	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	622 mm	Frame Length	254 mm
Shaft Diameter	42 mm	Shaft Extension	110 mm
Assembly/Box Mounting	Top		
Connection Drawing	8442000085	Outline Drawing	0216000553

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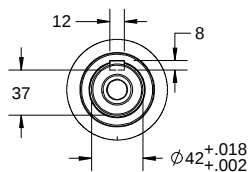
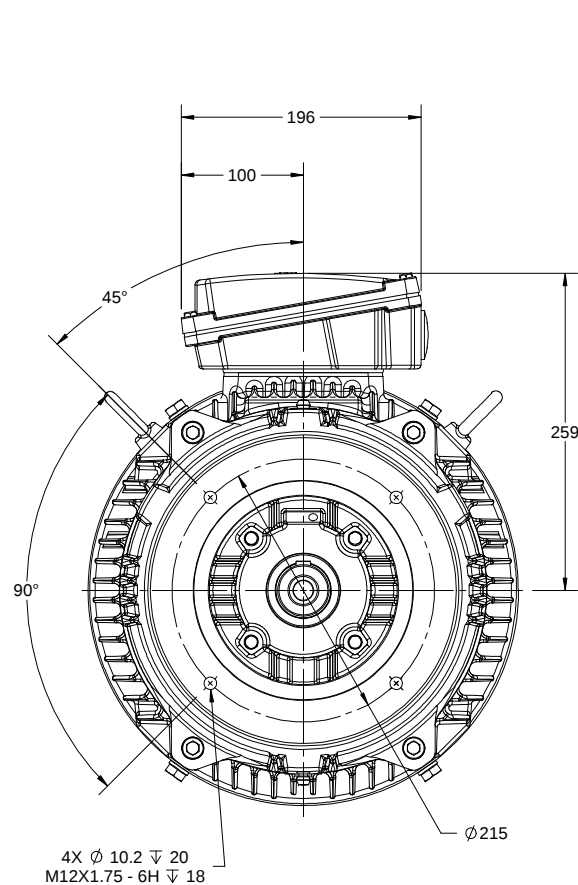
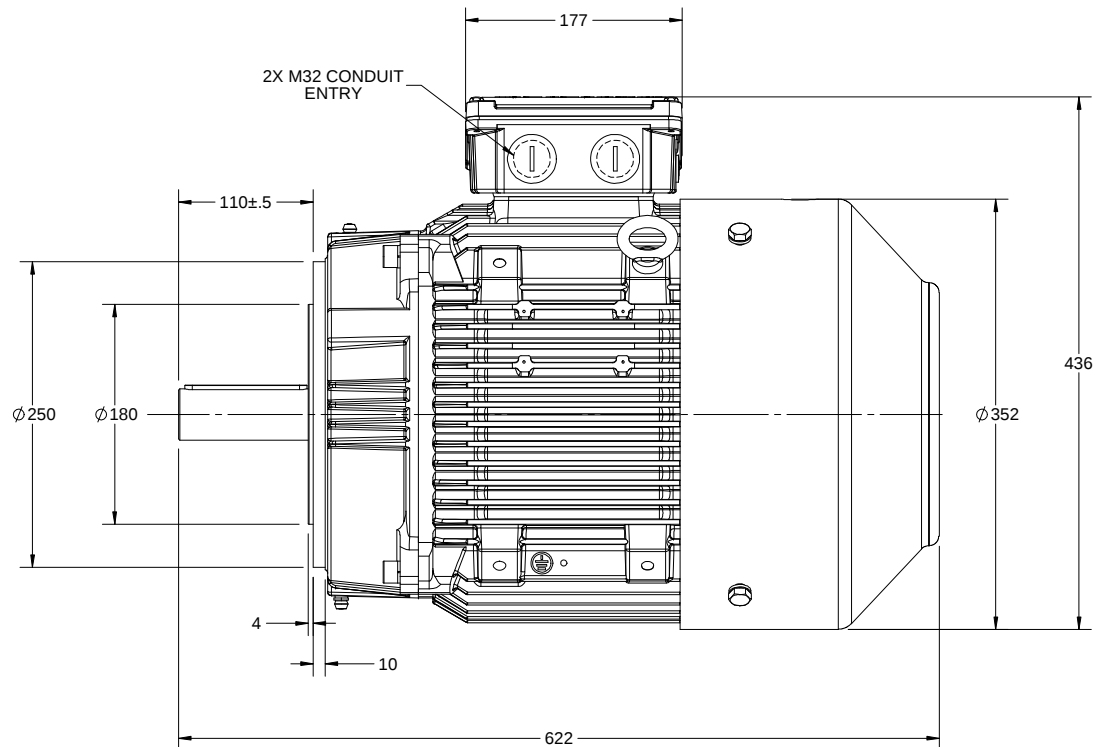
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2X M32 CONDUIT
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DRAWING REVISION B	REVISION BY A. KEETHA	DATE 04/07/2018
ECO ECO-0147359	APPROVED BY JAY	DATE 04/07/2018
ECO DESCRIPTION OUTLINE UPDATED AS PER NEW 3D STRUCTURING		
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DRAWN BY KCS	 Regal Beloit America, Inc.
DATE 26/05/2015	
APPROVED BY SBD	
DATE 26/05/2015	
REFERENCE	DESCRIPTION OUTLINE 160M FR-B14A MTG. MOTOR TYPE TCA
MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
DRAWING NUMBER 0216000553	SHEET 1 OF 1

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

Regal Beloit America, Inc.

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

Model No. TCA0111A3171GACD01

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 _a /T _N [pu]
415	Δ	50	11	15	18.9	2953	36.17	IE3	5/4FL	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	7.6	2.2	3.5

Motor type	TCA	Degree of protection	IP 55
Enclosure	TEFC	Mounting type	IM B14A
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	160M	Motor weight - approx.	136 kg
Duty	S1	Gross weight - approx.	156 kg
Voltage variation *	± 10%	Motor inertia	0.0626 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)	71 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 +50 °C	Type of coupling	Direct
Temperature rise (by resistance)	70 [Class B] K	LR withstand time (hot/cold)	10/20 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 bearing	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 35mm ² /2 X M32 x 1.5
Type of grease	NA	Auxiliary terminal box	NA

I_a/I_N - Locked Rotor Current / Rated CurrentT_a/T_N - Breakdown Torque / Rated TorqueT_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
	-	-	IS 12615 : 2018	-	-	-

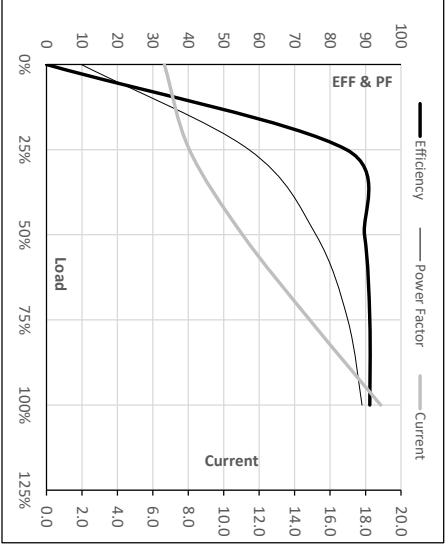
Model No. TCA011A3171GACD01

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	415	Δ	50	11	15.0	18.9	2953	3.69	36.17	IE3	50	S1	1000	0.0626	136

Motor Speed Data

Load Point	NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	6.7	8.1	11.1	14.9	18.9
Torque	Nm	0.0	8.9	17.9	27.0	36.2
Speed	r/min	3000	2988	2977	2965	2953
Efficiency	%	0.0	84.6	89.7	91.2	91.2
Power Factor	%	9.8	57.1	76.0	85.0	89.0

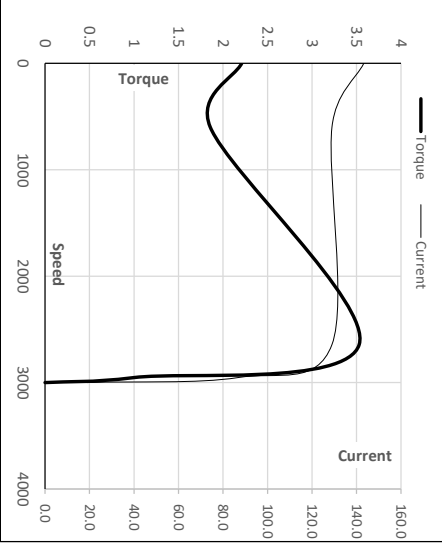
Performance vs Load Chart



Motor Speed Torque Data

Load Point	LR	P-Up	BD	Rated	NL	
Speed	r/min	0	600	2643	2953	3000
Current	A	143.3	129.0	86.7	18.9	6.7
Torque	pu	2.2	1.9	3.5	1	0

Starting Characteristics Chart



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

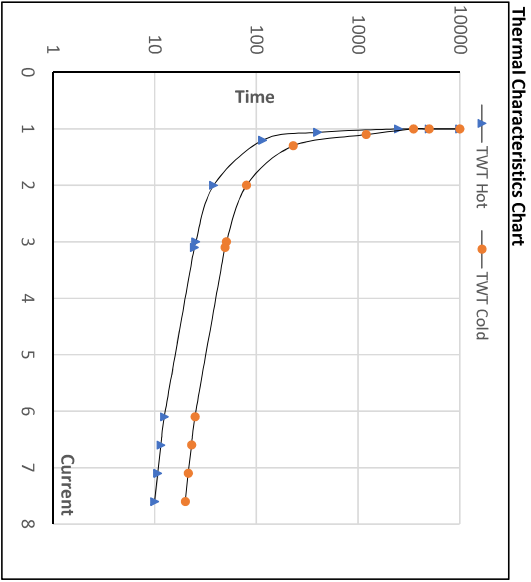
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Enclosure	U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [rpm]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg·m ²]	Weight [kg]
TEFC	415	Δ	50	11	15	18.9	2953	3.69	36.17	IE3	50	S1	1000	0.0626	136

Motor Speed Torque Data

Load	FL	I ₁	I ₂	I ₃	I ₄	I ₅	LR	
TWT Hot	s	10000	38	25	20	16	13	10
TWT Cold	s	10000	80	51	44	36	29	20
Current	pu	1	2	3	4	5	5.5	7.6



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

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