

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: SCA0372A3131GAAD01

Catalog No: SCA0372A3131GAAD01

37kW, General Purpose Low Voltage IEC Motor, 3 phase, 4 Pole, 415V, B5, 50Hz, 92.7%, 225S Frame, TEFC
Cast Iron IE2 Efficiency Motors



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REGAL

Nameplate Specifications

Output HP	50 Hp	Output KW	37.0 kW
Frequency	50 Hz	Voltage	415 V
Current	64.4 A	Speed	1479 rpm
Service Factor	1	Phase	3
Efficiency	92.7 %	Power Factor	0.86
Duty	S1	Insulation Class	F
Frame	225S	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	50 °C	Drive End Bearing Size	6313
Opp Drive End Bearing Size	6213	UL	No
CSA	No	CE	Yes
IP Code	55		

Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	4	Rotation	Bi-Directional
Mounting	B35	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	837 mm	Frame Length	400 mm
Shaft Diameter	60 mm	Shaft Extension	140 mm
Assembly/Box Mounting	TOP		
Connection Drawing	8442000085	Outline Drawing	0222500910

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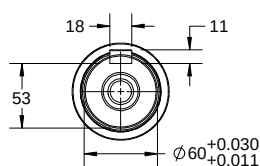
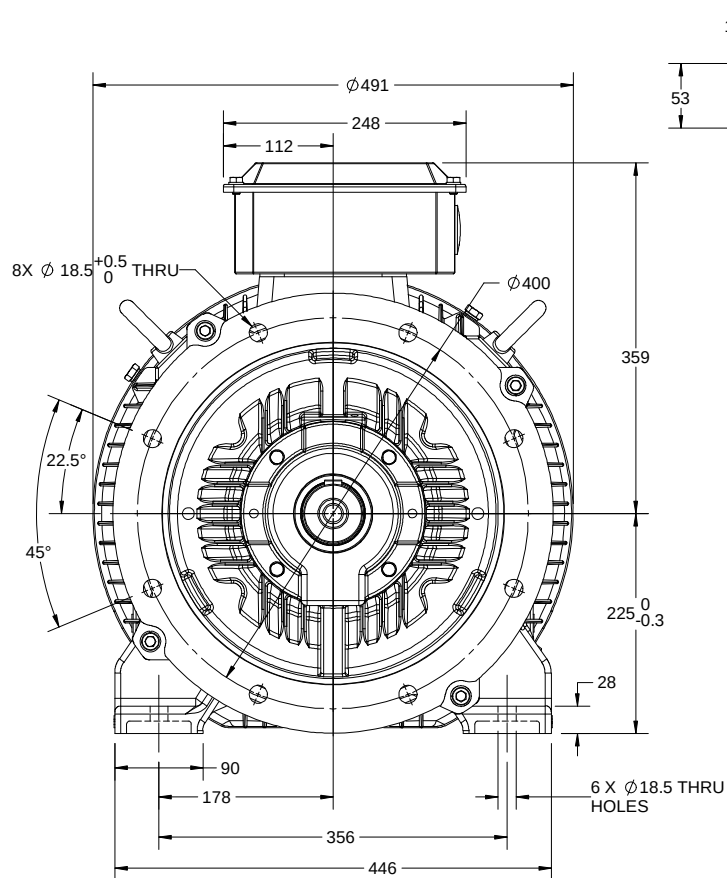
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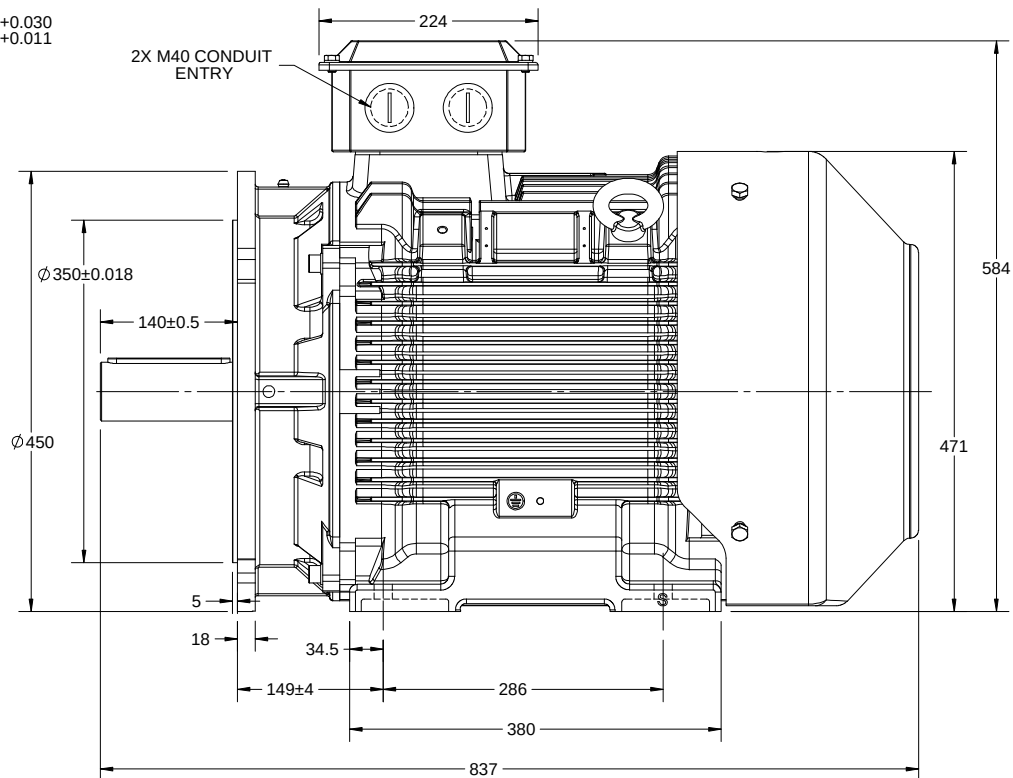
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B

B



2X M40 CONDUIT ENTRY



A

A

DRAWING REVISION B	REVISION BY VS	DATE 21/08/2018
ECO ECO-0150628	APPROVED BY JAY	DATE 21/08/2018
ECO DESCRIPTION MODEL UPDATED		
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DRAWN BY GSR		
DATE 02/04/2018		
APPROVED BY JAY	DESCRIPTION OUTLINE 225S-FR-B35-4P MTG MOTOR TYPE: SCA	
DATE 02/04/2018		
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER 0222500910
		SHEET 1 OF 1

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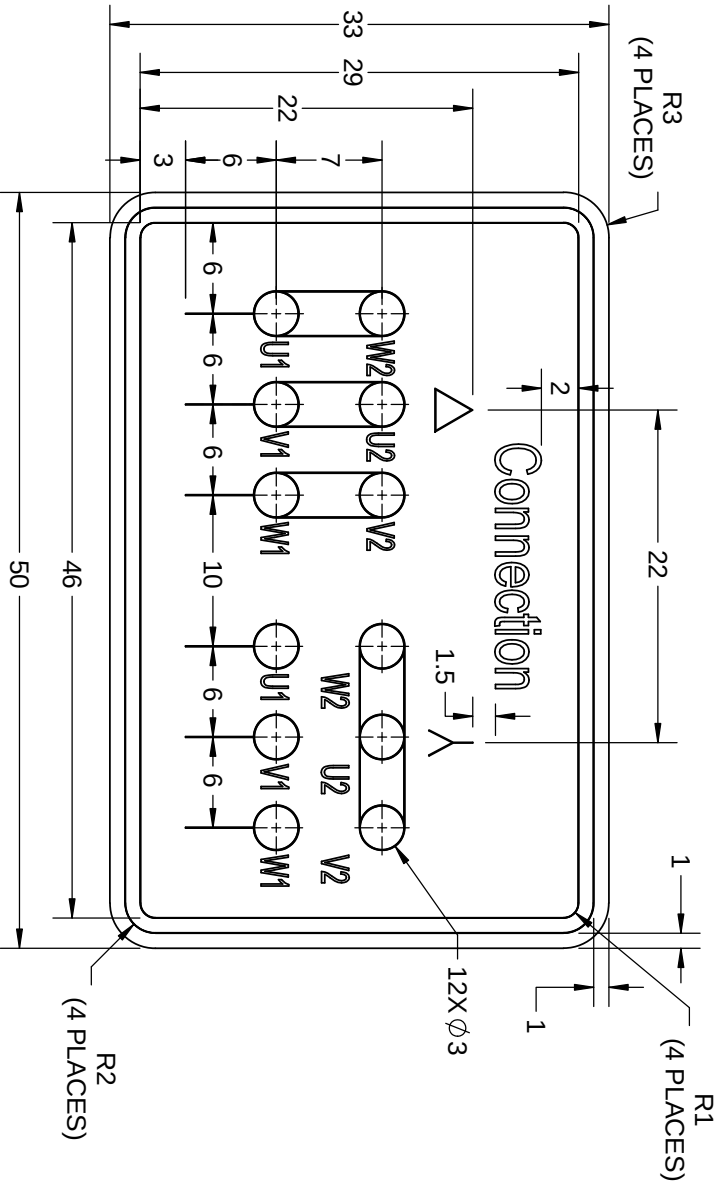
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DRAWING REVISION A		REVISION BY SN	DATE 13/01/2017
ECO ECO-0116390	APPROVED BY SBD	DATE 13/01/2017	
ECO DESCRIPTION			
NEW DRAWING RELEASE			

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.

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

Model No. SCA0372A3131GAAD01

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 _k /T _N [pu]	T _k /T _N [pu]
415	Δ	50	37	50	64.4	1479	241.02	IE2	S/4FL	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	6.2	2.3	2.9

Motor type	SCA	Degree of protection	IP 55
Enclosure	TEFC	Mounting type	IM B35
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	225S	Motor weight - approx.	367 kg
Duty	S1	Gross weight - approx.	397 kg
Voltage variation *	± 10%	Motor inertia	0.5292 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)	76 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	Accessory - 3	-
DE / NDE bearing	6313 C3 / 6213 C3	Terminal box position	TOP
Lubrication method	Regreasable	Maximum cable size/conduit size	1R x 3C x 50mm ² /2 x M40 x 1.5
Type of grease	Shell Gadus S5 V100 or Equivalent	Auxiliary terminal box	NA

I_a/I_N - Locked Rotor Current / Rated CurrentT_k/T_N - Breakdown Torque / Rated TorqueT_k/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	-	-	IS 12615 : 2018	-	-	-



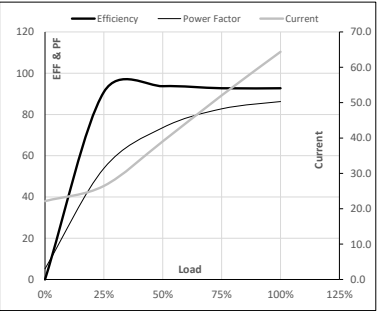
Model No. SCA0372A3131GAAD01

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	37	50	64.4	1479	24.58	241.02	IE2	50	S1	1000	0.5292	367

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	22.2	26.5	39.1	52.1	64.4	
Torque	Nm	0.0	59.5	119.5	179.9	241.0	
Speed	r/min	1500	1495	1490	1485	1479	
Efficiency	%	0.0	90.9	93.7	92.7	92.7	
Power Factor	%	5.2	53.9	73.6	82.7	86.3	

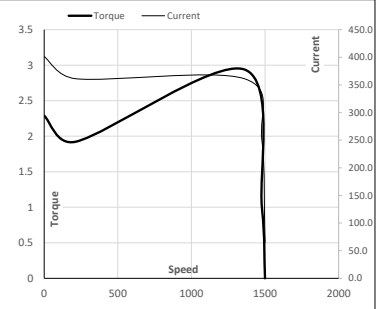
Performance vs Load Chart



Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	214	1361	1479	1500
Current	A	401.3	361.2	249.3	64.4	22.2
Torque	pu	2.3	1.9	2.9	1	0

Starting Characteristics Chart



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

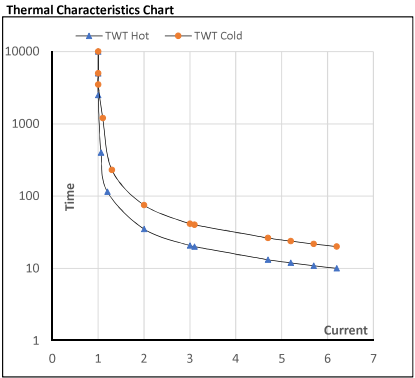
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Enclosure	U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [rpm]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg·m ²]	Weight [kg]
TEFC	415	Δ	50	37	50	64.4	1479	24.58	241.02	IE2	50	S1	1000	0.5292	367

Motor Speed Torque Data								
Load		FL	I ₁	I ₂	I ₃	I ₄	I ₅	LR
TWT Hot	s	10000	35	21	18	12	11	10
TWT Cold	s	10000	75	41	38	25	22	20
Current	pu	1	2	3	4	5	5.5	6.2



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

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