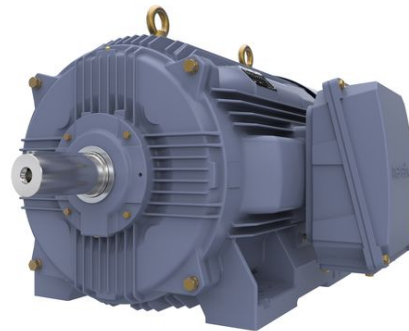


PRODUCT INFORMATION PACKET

Model No: SCA1321A3113GAAD01

Catalog No: SCA1321A3113GAAD01

132kW, General Purpose Low Voltage IEC Motor, 3 phase, 2 Pole, 415V, B3, 50Hz, 94.6%, 315M Frame, TEFC
Cast Iron IE2 Efficiency Motors



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Nameplate Specifications

Output HP	175 Hp	Output KW	132.0 kW
Frequency	50 Hz	Voltage	415 V
Current	213.1 A	Speed	2981 rpm
Service Factor	1	Phase	3
Efficiency	94.6 %	Power Factor	0.91
Duty	S1	Insulation Class	F
Frame	315M	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	50 °C	Drive End Bearing Size	6316
Opp Drive End Bearing Size	6316	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	B3	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	1176 mm	Frame Length	729 mm
Shaft Diameter	65 mm	Shaft Extension	140 mm
Assembly/Box Mounting	SIDE		
Outline Drawing	0231501360	Connection Drawing	8442000085

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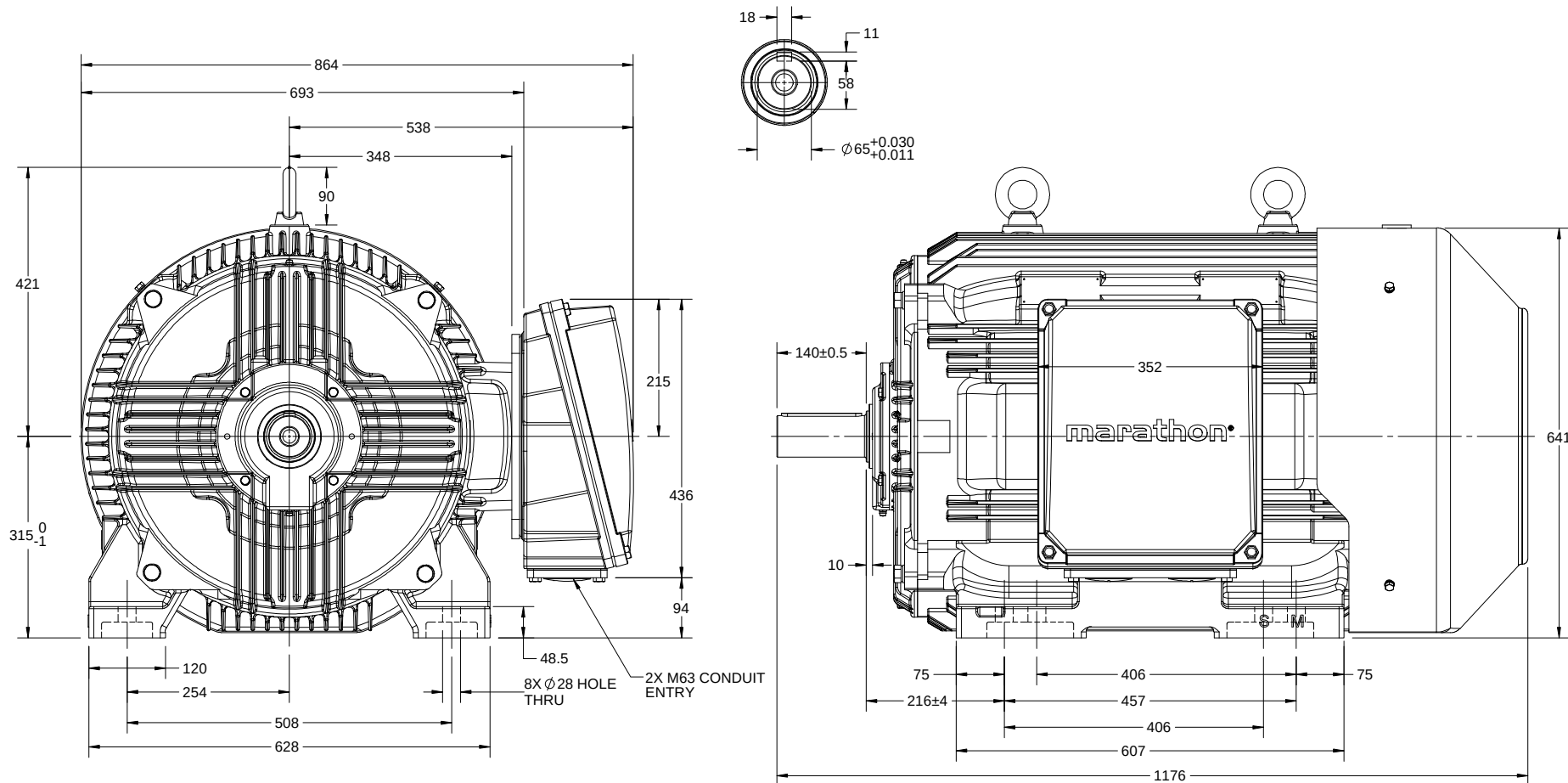
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DRAWING REVISION B	REVISION BY VS	DATE 10/07/2018
ECO ECO-0148344	APPROVED BY SBD	DATE 10/07/2018
ECO DESCRIPTION MODEL UPDATED		
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DRAWN BY SKM		
DATE 08/11/2017		
APPROVED BY JAY	DESCRIPTION OUTLINE 315S/M-2P-B3 MTG. TCA/QCA-RHS TB	
DATE 08/11/2017		
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER 0231501360
		SHEET 1 OF 1

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Model No. SCA1321A3113GAAD01

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 _d /T _N [pu]
415	Δ	50	132	175	213.1	2981	418.05	IE2	5/4FL	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	5.8	1.9	3.1
									-	94.6	94.6	93.1	0.91	0.90	0.85			

Motor type	SCA	Degree of protection	IP 55
Enclosure	TEFC	Mounting type	IM B3
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	315M	Motor weight - approx.	1006 kg
Duty	S1	Gross weight - approx.	1051 kg
Voltage variation *	± 10%	Motor inertia	2.3582 kgm ²
Frequency variation *	± 5%	Load inertia	Customer to Provide
Combined variation *	10%	Vibration level	2.8 mm/s
Design	N	Noise level (1meter distance from motor)	83 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)	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	-
Rotor type	Aluminum Die cast	Accessory - 2	-
Bearing type	Anti-friction ball	Accessory - 3	-
DE / NDE bearing	6316 C3 / 6316 C3	Terminal box position	RHS
Lubrication method	Regreaseable	Maximum cable size/conduit size	1R x 3C x 240mm ² /2 x M63 x 1.5
Type of grease	Shell Gadus S5 V100 or Equivalent	Auxiliary terminal box	Available on Request

I_A/I_N - Locked Rotor Current / Rated CurrentT_d/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	Europe	China	India	Aus/Nz	Brazil	Global IEC
Standards	-	-	IS 12615 : 2018	-	-	-



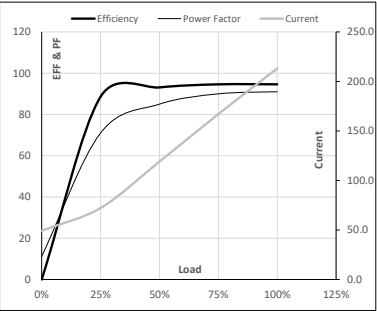
Model No. SCA1321A3113GAAD01

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	132	175	213.1	2981	42.63	418.05	IE2	50	S1	1000	2.3582	1006

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	49.2	72.2	119.0	167.0	213.1	
Torque	Nm	0.0	104.0	208.3	313.0	418.1	
Speed	r/min	3000	2995	2991	2986	2981	
Efficiency	%	0.0	88.6	93.1	94.6	94.6	
Power Factor	%	11.2	71.0	85.0	90.0	91.0	

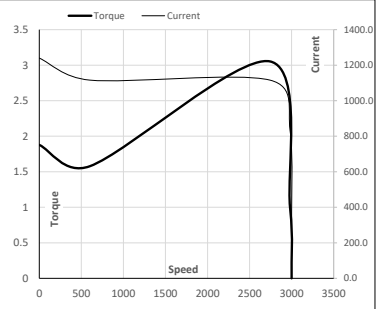
Performance vs Load Chart



Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	600	2743	2981	3000
Current	A	1239.9	1115.9	834.2	213.1	49.2
Torque	pu	1.9	1.6	3.1	1	0

Starting Characteristics Chart



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

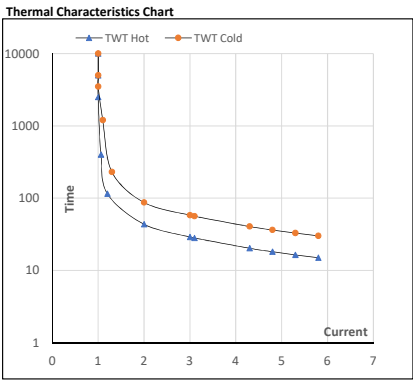
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Model No. SCA1321A3113GAAD01

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	132	175	213.1	2981	42.63	418.05	IE2	50	S1	1000	2.3582	1006

Motor Speed Torque Data								
Load	FL	I ₁	I ₂	I ₃	I ₄	I ₅	LR	
TWT Hot	s 10000	44	29	25	17	16	15	
TWT Cold	s 10000	87	58	45	35	31	30	
Current	pu	1	2	3	4	5	5.5	5.8



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

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