

PRODUCT INFORMATION PACKET

Model No: SCA0301A3141GAAD01

Catalog No: SCA0301A3141GAAD01

30kW, General Purpose Low Voltage IEC Motor, 3 phase, 2 Pole, 415V, B35, 50Hz, 92.0%, 200L Frame, TEFC
Cast Iron IE2 Efficiency Motors



Nameplate Specifications

Output HP	40 Hp	Output KW	30.0 kW
Frequency	50 Hz	Voltage	415 V
Current	50.8 A	Speed	2956 rpm
Service Factor	1	Phase	3
Efficiency	92 %	Power Factor	0.89
Duty	S1	Insulation Class	F
Frame	200L	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	50 °C	Drive End Bearing Size	6312
Opp Drive End Bearing Size	6212	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	V1	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	878 mm	Frame Length	370 mm
Shaft Diameter	55 mm	Shaft Extension	110 mm
Assembly/Box Mounting	TOP		
Outline Drawing	0220000613	Connection Drawing	8442000085

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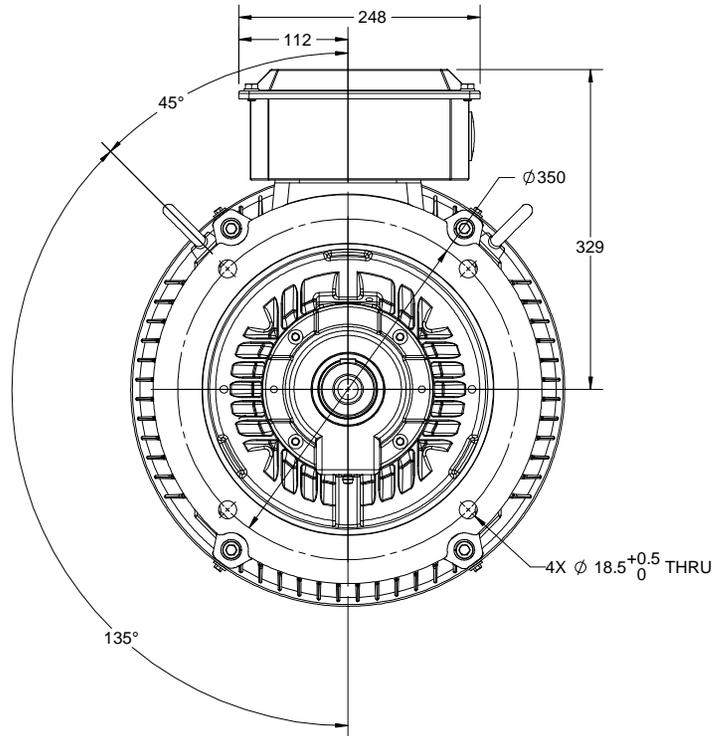
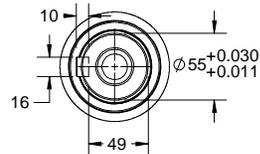
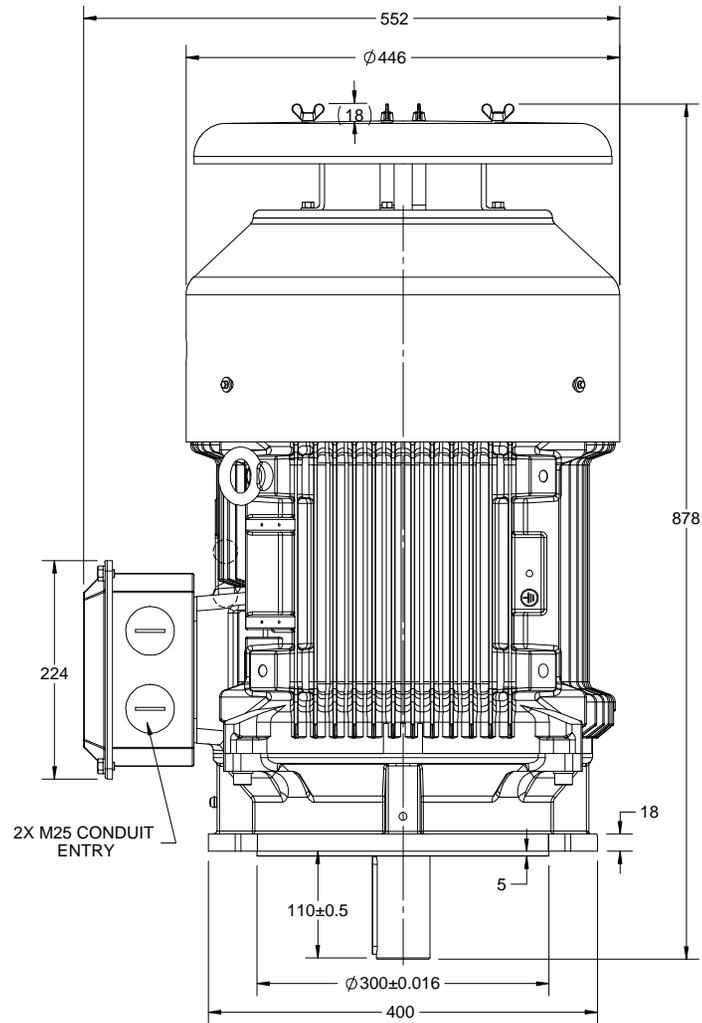
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DRAWING REVISION A	REVISION BY VS	DATE 27/08/2018
ECO ECO-0150628	APPROVED BY JAY	DATE 27/08/2018
ECO DESCRIPTION NEW DRAWING RELEASE		
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DATE 27/08/2018
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REFERENCE

marathon[®] Motors	
DESCRIPTION OUTLINE 200L FR-2P-V1 MTG. TYPE SCA	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER 0220000613
THIRD ANGLE PROJECTION	SHEET 1 OF 1

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Model No. SCA0301A3141GAAD01

U (V)	Δ / Y Conn	f (Hz)	P		I [A]	n [RPM]	T [Nm]	IE Class	% EFF at __ load				PF at __ load			I _w /I _N [pu]	T _k /T _N [pu]	T _k /T _N [pu]
			[kW]	[hp]					S/4FL	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL			
415	Δ	50	30	40	50.8	2956	96.47	IE2	-	92.0	92.0	91.3	0.89	0.86	0.79	6.2	2.1	3.2

Motor type	SCA	Degree of protection	IP 55
Enclosure	TEFC	Mounting type	IM V1
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	200L	Motor weight - approx.	272 kg
Duty	S1	Gross weight - approx.	302 kg
Voltage variation *	± 10%	Motor inertia	0.1687 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)	82 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)	12/25 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	6312 C3 / 6212 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_w/I_N - Locked Rotor Current / Rated Current

T_k/T_N - Breakdown Torque / Rated Torque

T_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 Standards	Europe	China	India	Aus/Nz	Brazil	Global IEC
	-	-	IS 12615 : 2018	-	-	-



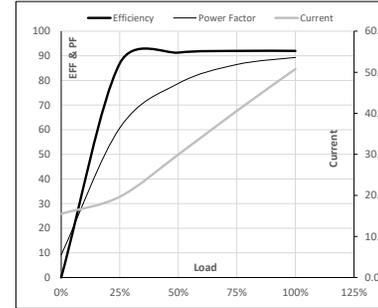
Model No. SCA0301A3141GAAD01

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	30	40	50.8	2956	9.84	96.47	IE2	50	S1	1000	0.1687	272

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	15.5	19.7	29.9	40.6	50.8	
Torque	Nm	0.0	23.8	47.8	72.0	96.5	
Speed	r/min	3000	2989	2979	2968	2956	
Efficiency	%	0.0	86.9	91.3	92.0	92.0	
Power Factor	%	9.2	60.7	78.8	86.5	89.3	

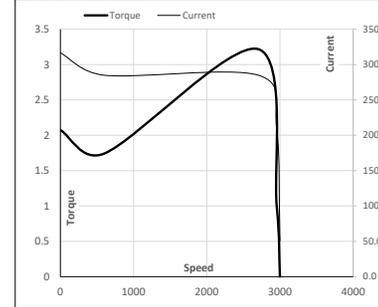
Performance vs Load Chart



Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	600	2705	2956	3000
Current	A	316.6	284.9	209.6	50.8	15.5
Torque	pu	2.1	1.7	3.2	1	0

Starting Characteristics Chart



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

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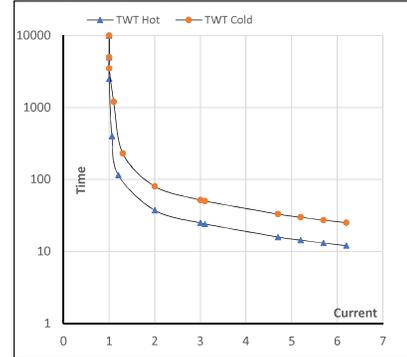
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TEFC	415	Δ	50	30	40	50.8	2956	9.84	96.47	IE2	50	S1	1000	0.1687	272

Motor Speed Torque Data

Load	FL	I ₁	I ₂	I ₃	I ₄	I ₅	LR	
TWT Hot	s 10000	37	25	20	15	14	12	
TWT Cold	s 10000	80	52	45	30	28	25	
Current	pu	1	2	3	4	5	5.5	6.2

Thermal Characteristics Chart



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

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