

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: SCA2803A3133GAAD01

Catalog No: SCA2803A3133GAAD01

280kW, General Purpose Low Voltage IEC Motor, 3 phase, 6 Pole, 415V, B35, 50Hz, 95.0%, 355L Frame, TEFC
Cast Iron IE2 Efficiency Motors



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Nameplate Specifications

Output HP	375 Hp	Output KW	280.0 kW
Frequency	50 Hz	Voltage	415 V
Current	476.6 A	Speed	990 rpm
Service Factor	1	Phase	3
Efficiency	95 %	Power Factor	0.86
Duty	S1	Insulation Class	F
Frame	355L	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	50 °C	Drive End Bearing Size	6322
Opp Drive End Bearing Size	6322	UL	No
CSA	No	CE	Yes
IP Code	55		

Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	6	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	1542 mm	Frame Length	1010 mm
Shaft Diameter	95 mm	Shaft Extension	170 mm
Assembly/Box Mounting	SIDE		
Connection Drawing	8442000085	Outline Drawing	0235502296

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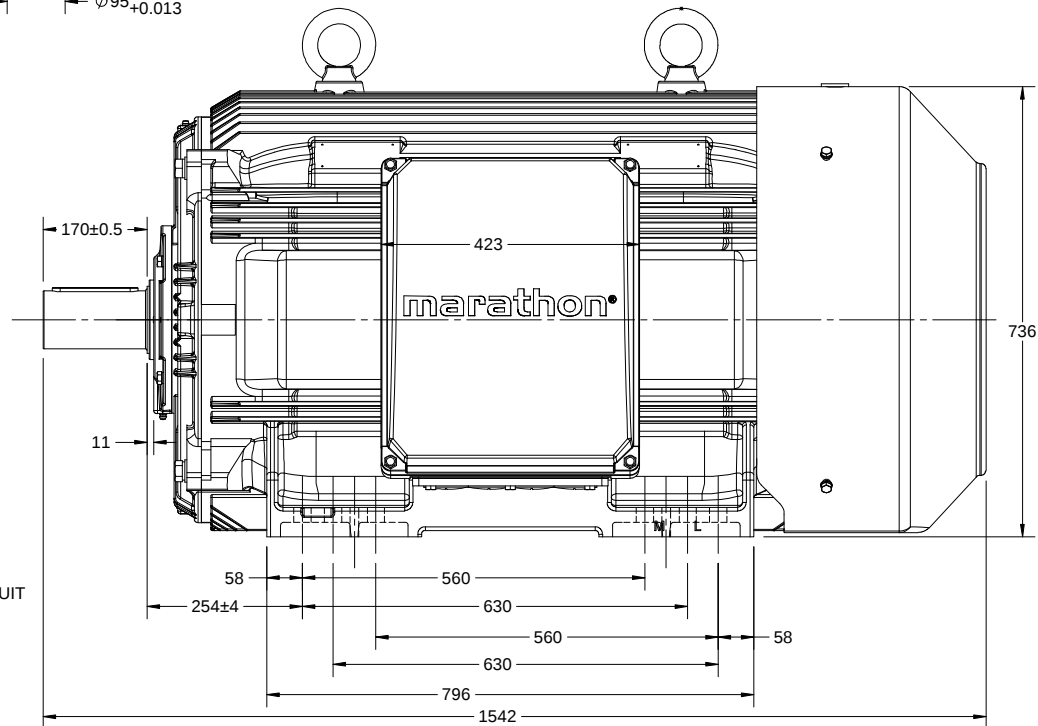
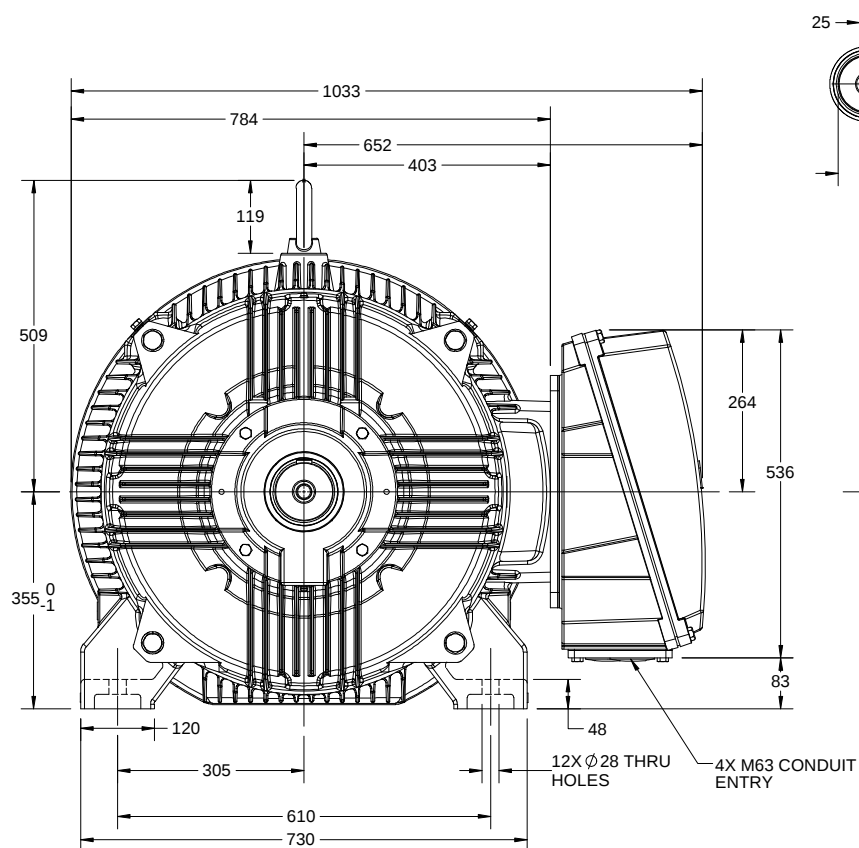
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A

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DRAWING REVISION B	REVISION BY VS	DATE 09/07/2018
ECO ECO-0148344	APPROVED BY SBD	DATE 09/07/2018
ECO DESCRIPTION MODEL UPDATED		
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DRAWN BY SKM		
DATE 11/08/2017		
APPROVED BY JAY	DESCRIPTION OUTLINE 355L FR-4-8P-B3 MTG. TCA/QCA-RHS TB	
DATE 11/08/2017		
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER 0235502296
		SHEET 1 OF 1

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DRAWING REVISION	REVISION BY	DATE
A	SN	13/01/2017
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.

8WD.442.2017

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

Model No. SCA2803A3133GAAD01

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	280	375	476.6	990	2697.7	IE2	5/4FL	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	5.3	1.9	2.3
									-	95.0	95.0	95.8	0.86	0.84	0.76			

Motor type	SCA	Degree of protection	IP 55
Enclosure	TEFC	Mounting type	IM B35
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	355L	Motor weight - approx.	2008 kg
Duty	S1	Gross weight - approx.	2053 kg
Voltage variation *	± 10%	Motor inertia	12.7166 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)	70 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	6322 C3 / 6322 C3	Terminal box position	RHS
Lubrication method	Regreaseable	Maximum cable size/conduit size	1R x 3C x 300mm ² /4 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	-	-	-



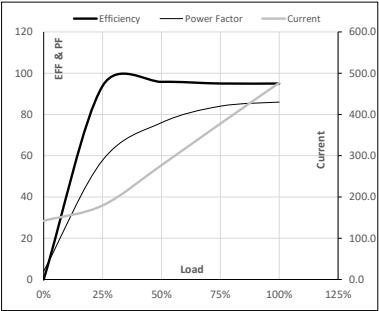
Model No. SCA2803A3133GAAD01

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	280	375	476.6	990	275.09	2697.73	IE2	50	S1	1000	12.7166	2008

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	142.4	179.4	277.0	377.7	476.6	
Torque	Nm	0.0	669.3	1341.7	2017.7	2697.7	
Speed	r/min	1000	998	995	993	990	
Efficiency	%	0.0	93.8	95.8	95.0	95.0	
Power Factor	%	4.0	57.8	76.0	84.0	86.0	

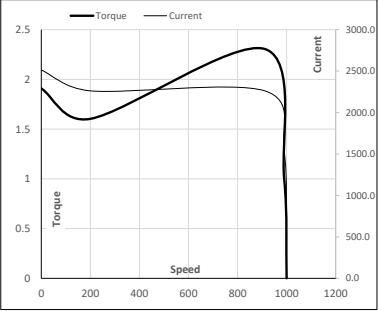
Performance vs Load Chart



Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	200	911	990	1000
Current	A	2513.1	2261.8	1526.4	476.6	142.4
Torque	pu	1.9	1.6	2.3	1	0

Starting Characteristics Chart



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

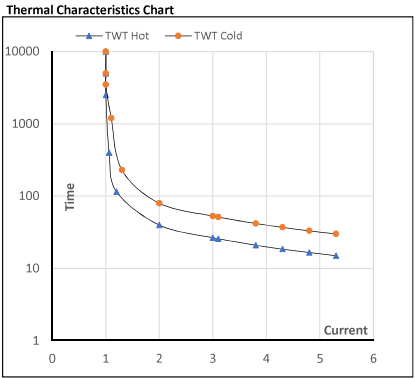
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Enclosure	U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [rpm]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg·m ²]	Weight [kg]
TEFC	415	Δ	50	280	375	476.6	990	275.09	2697.73	IE2	50	S1	1000	12.7166	2008

Motor Speed Torque Data								
Load	FL	I ₁	I ₂	I ₃	I ₄	I ₅	LR	
TWT Hot	s 10000	40	27	20	17	16	15	
TWT Cold	s 10000	80	53	40	36	32	30	
Current	pu	1	2	3	4	4.5	5	5.3



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

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