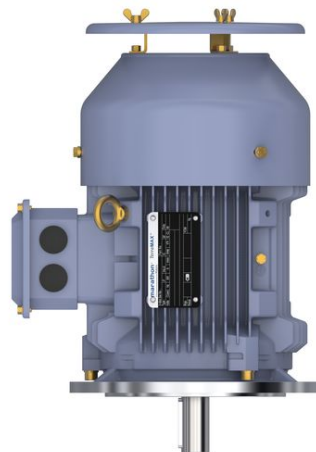


PRODUCT INFORMATION PACKET

Model No: SCA3P72A3141GAAD01
Catalog No: SCA3P72A3141GAAD01

3.7kW, General Purpose Low Voltage IEC Motor, 3 phase, 4 Pole, 415V, B35, 50Hz, 86.3%, 112M Frame, TEFC
Cast Iron IE2 Efficiency Motors





Nameplate Specifications

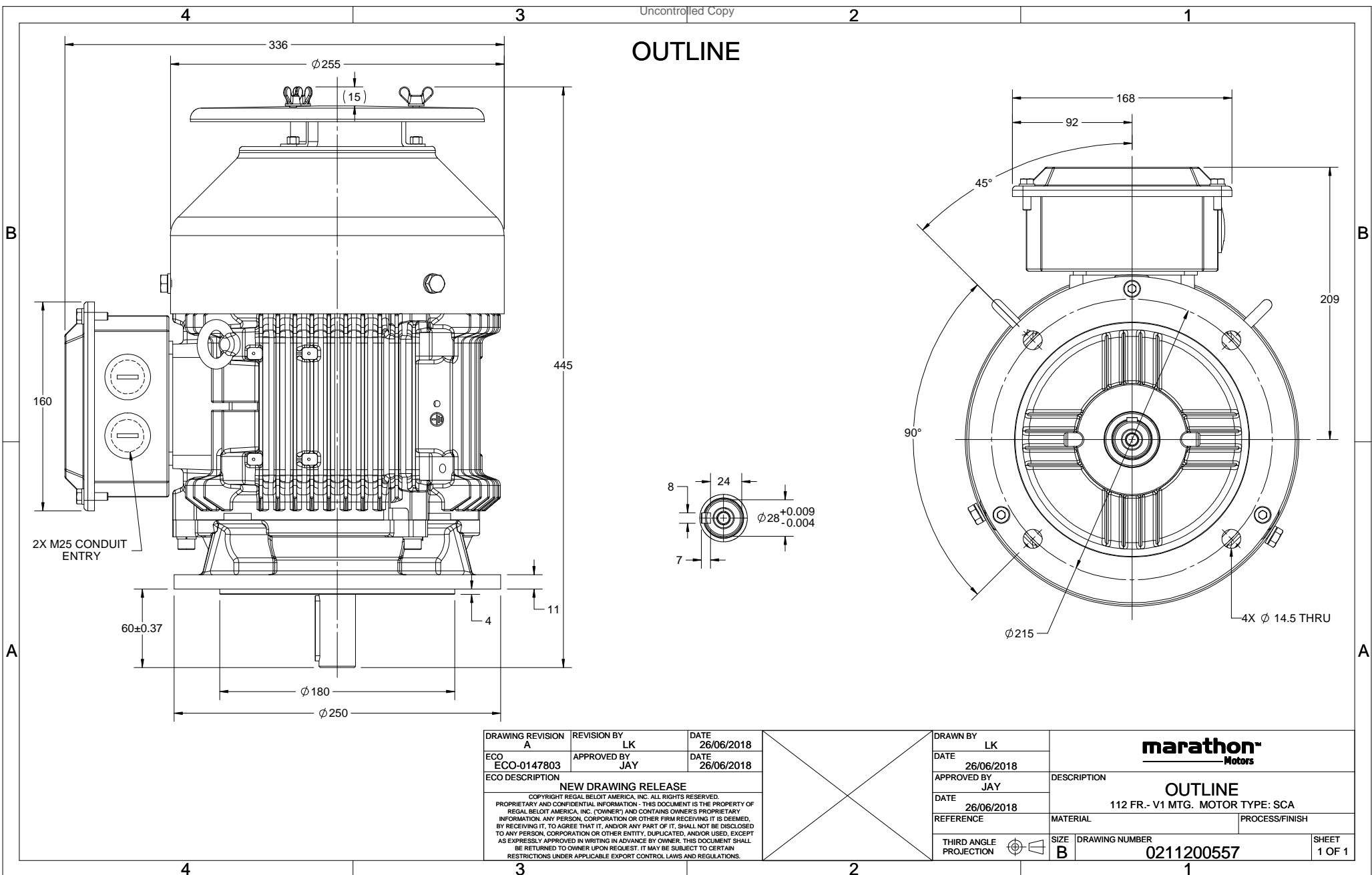
Output HP	5 Hp	Output KW	3.7 kW
Frequency	50 Hz	Voltage	415 V
Current	7.0 A	Speed	1451 rpm
Service Factor	1	Phase	3
Efficiency	86.3 %	Power Factor	0.85
Duty	S1	Insulation Class	F
Frame	112M	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	50 °C	Drive End Bearing Size	6306
Opp Drive End Bearing Size	6206	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	V1	Motor Orientation	Horizontal
Drive End Bearing	2z-C3	Opp Drive End Bearing	2z-C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	445 mm	Frame Length	174 mm
Shaft Diameter	28 mm	Shaft Extension	60 mm
Assembly/Box Mounting	TOP		
Connection Drawing	8442000085	Outline Drawing	0211200557

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OUTLINE



DRAWING REVISION A	REVISION BY LK	DATE 26/06/2018
ECO ECO-0147803	APPROVED BY JAY	DATE 26/06/2018
ECO DESCRIPTION NEW DRAWING RELEASE		
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DRAWN BY LK		
DATE 26/06/2018		
APPROVED BY JAY	DESCRIPTION OUTLINE	
DATE 26/06/2018	112 FR.- V1 MTG. MOTOR TYPE: SCA	
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER 0211200557
		SHEET 1 OF 1



Model No. SCA3P72A3141GAAD01

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	3.7	5.0	7.0	1451	24.64	IE2	-	86.3	86.3	86.5	0.85	0.79	0.66	6.5	2.5	2.9

Motor type	SCA	Degree of protection	IP 55
Enclosure	TEFC	Mounting type	IM V1
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	112M	Motor weight - approx.	50 kg
Duty	S1	Gross weight - approx.	53 kg
Voltage variation *	± 10%	Motor inertia	0.0145 kgm ²
Frequency variation *	± 5%	Load inertia	Customer to Provide
Combined variation *	10%	Vibration level	1.6 mm/s
Design	N	Noise level (1meter distance from motor)	64 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)	6/10 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	6306-2Z / 6206-2Z	Terminal box position	TOP
Lubrication method	Greased for life	Maximum cable size/conduit size	1R x 3C x 16mm ² /2 x M25 x 1.5
Type of grease	NA	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	-	-	-



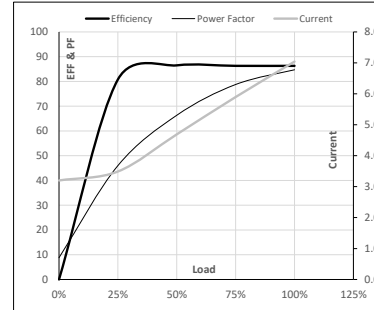
Model No. SCA3P72A3141GAAD01

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	3.7	5.0	7.0	1451	2.51	24.64	IE2	50	S1	1000	0.0145	50

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	3.2	3.5	4.7	5.9	7.0	
Torque	Nm	0.0	6.0	12.1	18.2	24.6	
Speed	r/min	1500	1489	1477	1465	1451	
Efficiency	%	0.0	80.8	86.5	86.3	86.3	
Power Factor	%	8.8	46.0	66.3	78.8	84.7	

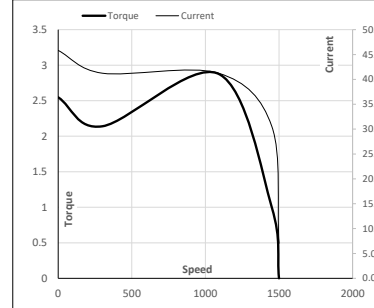
Performance vs Load Chart



Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	300	1090	1451	1500
Current	A	45.8	41.2	30.6	7.0	3.2
Torque	pu	2.5	2.1	2.9	1	0

Starting Characteristics Chart



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

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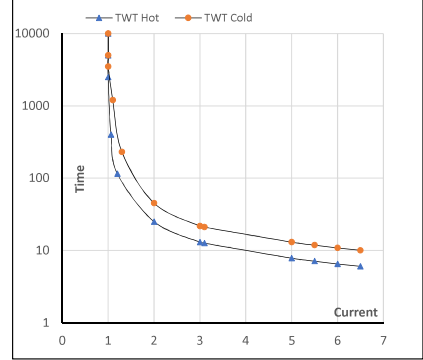
Model No. SCA3P72A3141GAAD01

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	3.7	5.0	7.0	1451	2.51	24.64	IE2	50	S1	1000	0.0145	50

Motor Speed Torque Data

Load	FL	I ₁	I ₂	I ₃	I ₄	I ₅	LR	
TWT Hot	s 10000	25	13	11	10	8	6	
TWT Cold	s 10000	45	22	18	15	13	10	
Current	pu	1	2	3	4	4.5	5	6.5

Thermal Characteristics Chart



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

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