PRODUCT INFORMATION PACKET

Model No: TCA0224A3111GACD01 Catalog No: TCA0224A3111GACD01 Cast Iron Motor, 30 HP, 3 Ph, 50 Hz, 415 V, 750 RPM, 225M Frame, TEFC



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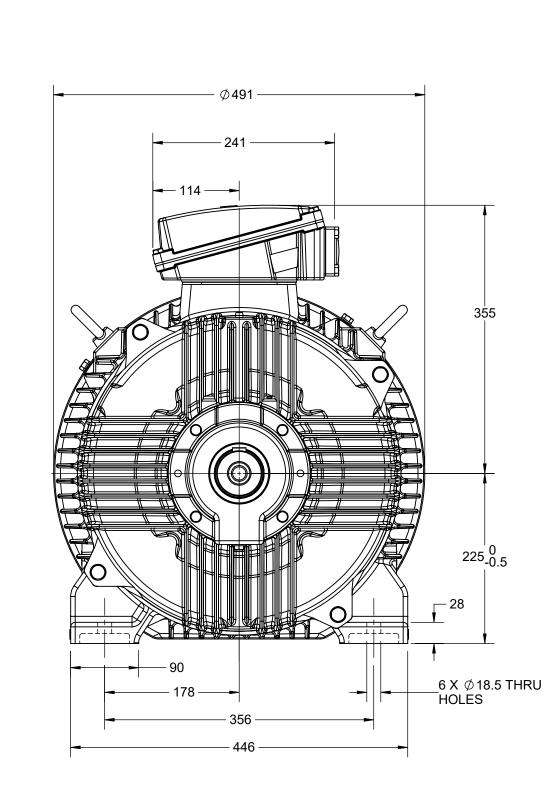
Nameplate Specifications

Output HP	30 Hp	Output KW	22.0 kW
Frequency	50 Hz	Voltage	415 V
Current	43.3 A	Speed	738 rpm
Service Factor	1	Phase	3
Efficiency	90.6 %	Power Factor	0.78
Duty	S1	Insulation Class	F
Frame	225M	Enclosure	Totally Enclosed Fan Cooled
Frame Thermal Protection	225M No Protection	Enclosure Ambient Temperature	Totally Enclosed Fan Cooled 50 °C
Thermal Protection	No Protection	Ambient Temperature	50 °C
Thermal Protection Drive End Bearing Size	No Protection 6313	Ambient Temperature Opp Drive End Bearing Size	50 °C 6213

Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	8	Rotation	Bi-Directional
Mounting	B3	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	СЗ
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	862 mm	Frame Length	425 mm
Shaft Diameter	60 mm	Shaft Extension	140 mm
Assembly/Box Mounting	Тор		
Connection Drawing	8442000085	Outline Drawing	0222500462

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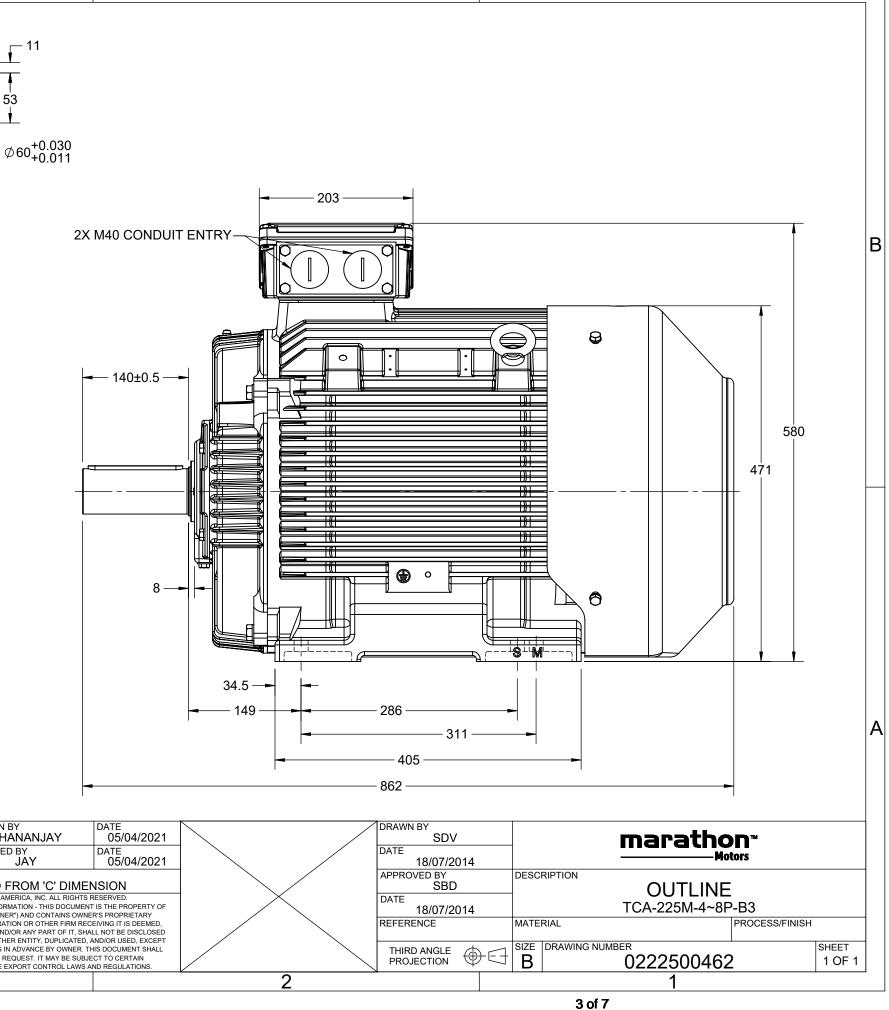
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Model No. TCA0224A3111GACD01

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	DE / NI	DE beari	ng		63	13 C3/6	213 C3			Т	erminal b	ox posit	ion				TOP		
Type of grease Shell Gadus S5 V100 or Equivalent Auxiliary terminal box NA	Lubrica	ation me	thod			Regrease	able			N	laximum	cable si	ze/cond	uit size	1R	x 3C x 5	50mm²/2 x M4	0 x 1.5	
	Type o	f grease		Sh	nell Gadu	us S5 V10) or Equiv	alent		A	uxiliary t	erminal	box				NA		

 I_A/I_N - Locked Rotor Current / Rated Current

 T_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	-	-	-



 $T_{\rm K}/T_{\rm N}$ - Breakdown Torque / Rated Torque

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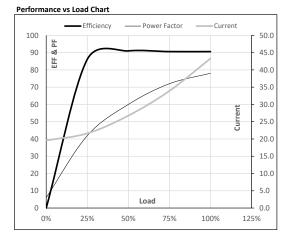


Model No. TCA0224A3111GACD01

Enclosure	U	Δ / Y	f	Р	Р	I	n	Т	Т	IE	Amb	Duty	Elevation	Inertia	Weight
	(V)	Conn	[Hz]	[kW]	[hp]	[A]	[RPM]	[kgm]	[Nm]	Class	[°C]		[m]	[kg-m ²]	[kg]
TEFC	415	Δ	50	22	30.0	43.3	738	29.51	289.41	IE3	50	S1	1000	1.0453	378.6

Motor Load Data

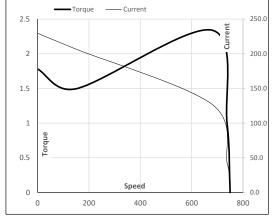
Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	Α	19.6	21.6	26.8	33.9	43.3	
Torque	Nm	0.0	71.5	143.5	216.1	289.4	
Speed	r/min	750	747	745	742	738	
Efficiency	%	0.0	86.1	91.0	90.6	90.6	
Power Factor	%	6.0	41.9	60.0	72.0	78.0	



Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL	
Speed	r/min	0	150	679	738	750	
Current	А	229.6	206.6	127.3	43.3	19.6	
Torque	pu	1.8	1.5	2.3	1	0	

Starting Characteristics Chart



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

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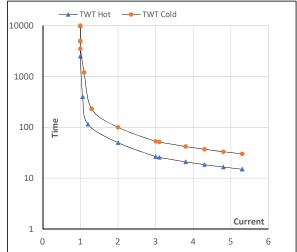
Model No. TCA0224A3111GACD01

Enclosure	U	Δ / Y	f	Р	Р	Ι	n	Т	Т	IE	Amb	Duty	Elevation	Inertia	Weight
	(V)	Conn	[Hz]	[kW]	[hp]	[A]	[rpm]	[kgm]	[Nm]	Class	[°C]		[m]	[kg-m ²]	[kg]
TEFC	415	Δ	50	22	30	43.3	738	29.49	289.41	IE3	50	S1	1000	1.0453	379

Motor Speed Torque Data

Load		FL	I_1	l ₂	I_3	I_4	I_5	LR
TWT Hot	s	10000	50	27	20	18	16	15
TWT Cold	s	10000	100	53	40	36	31	30
Current	pu	1	2	3	4	4.5	5	5.3

Thermal Characteristics Chart



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

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