

PRODUCT INFORMATION PACKET

Model No: TCA0752A3131GACD01

Catalog No: TCA0752A3131GACD01

75.0 kW General Purpose Low Voltage IEC Motor, 3 phase, 1500 RPM, 415 V, 280S Frame, TEFC
Cast Iron IE3 Efficiency Motors





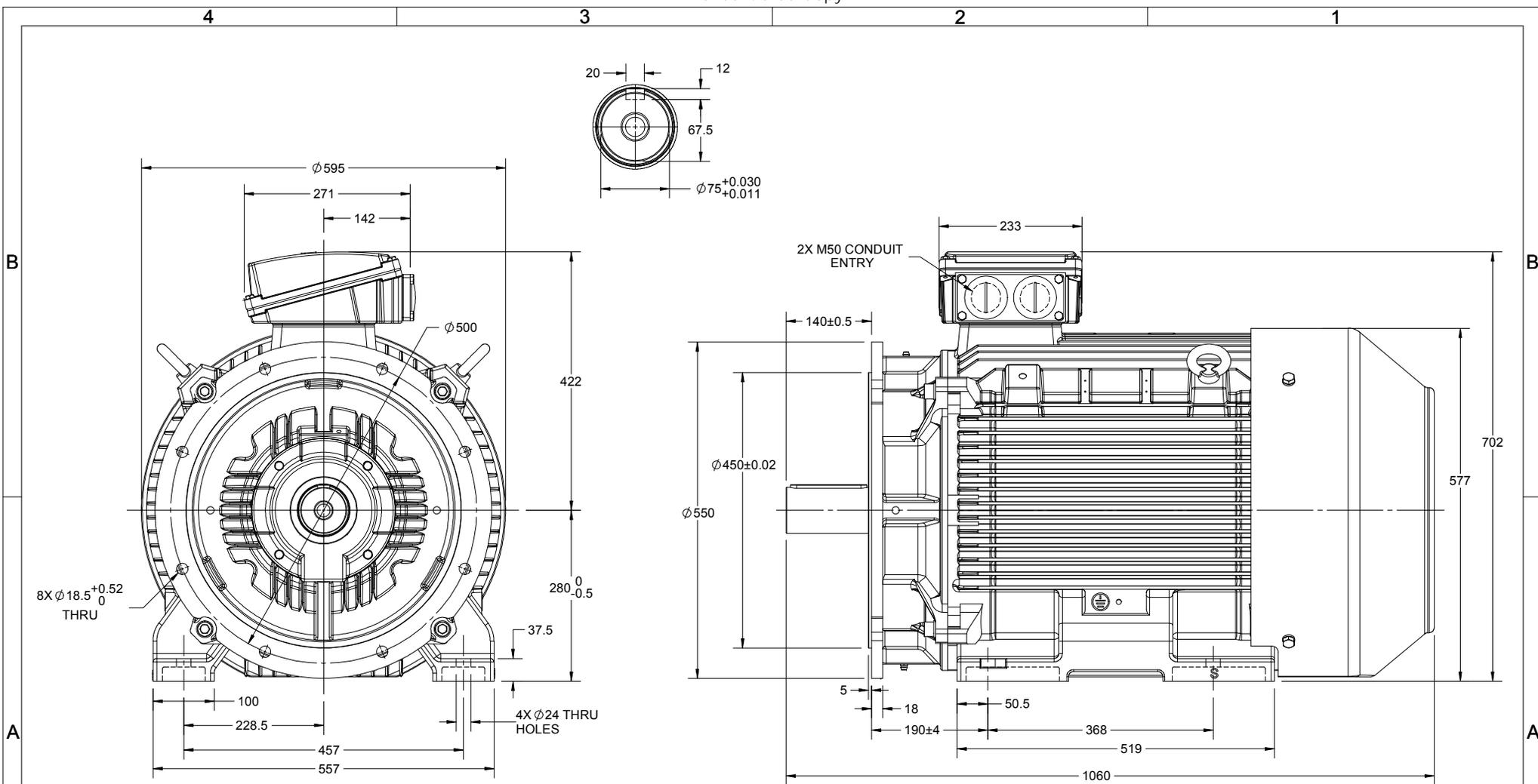
Nameplate Specifications

Output HP	100 Hp	Output KW	75.0 kW
Frequency	50 Hz	Voltage	415 V
Current	126.3 A	Speed	1489 rpm
Service Factor	1	Phase	3
Efficiency	95 %	Power Factor	0.87
Duty	S1	Insulation Class	F
Frame	280S	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	50 °C	Drive End Bearing Size	6317
Opp Drive End Bearing Size	6317	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	B35	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	1060 mm	Frame Length	549 mm
Shaft Diameter	75 mm	Shaft Extension	140 mm
Assembly/Box Mounting	Top		
Outline Drawing	0228000610	Connection Drawing	8442000085

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created:07/01/2020



DRAWING REVISION C	REVISION BY LK	DATE 25/04/2019
ECO ECO-0165600	APPROVED BY SR	DATE 25/04/2019
ECO DESCRIPTION UPDATED MODEL AS PER NEW 3D STRUCTURE		
<small> COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. (OWNER) AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS. </small>		

DRAWN BY KCS
DATE 11/11/2014
APPROVED BY SBD
DATE 11/11/2014
REFERENCE

marathon Motors	
DESCRIPTION OUTLINE 280-S FR-B35 MTG. MOTOR TYPE: TCA	
MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
DRAWING NUMBER 0228000610	SHEET 1 OF 1

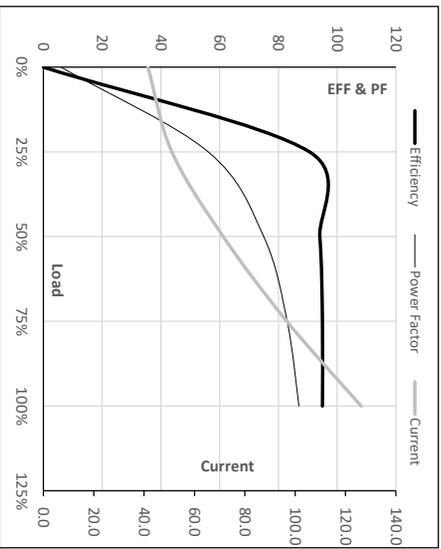
Model No. TCA0752A3131GA CD01

Enclosure	U [V]	Δ /Y	f [Hz]	P [kW]	P [hp]	I [A]	n [RPM]	T [kgm]	T [Nm]	IE Class	Amb Temp [°C]	Duty	Elevation [m]	Inertia [kg·m ²]	Weight [kg]
TFC	415	Δ	50	75	100	126.2	1489	48.75	478.12	IE3	50	S1	1000	2.2302	735

Motor Load Data

Load Point	NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	41.5	51.0	71.4	96.7	126.2
Torque	Nm	0.0	118.9	238.2	357.9	478.1
Speed	r/min	1500	1497	1495	1492	1489
Efficiency	%	0.0	90.6	94.1	95.0	95.0
Power Factor	%	6.0	56.1	75.0	83.0	87.0

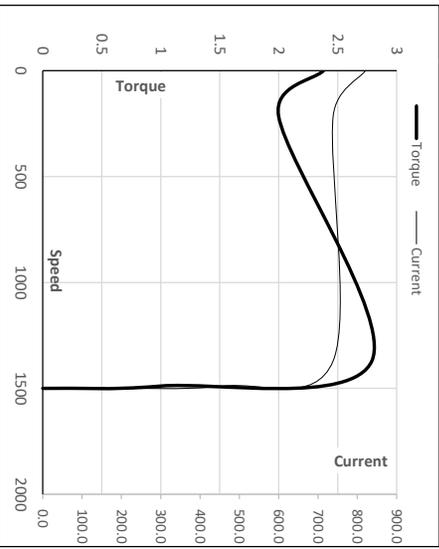
Performance vs Load Chart



Motor Speed Torque Data

Load Point	LR	P-Up	BD	Rated	NL	
Speed	r/min	0	214	1370	1489	1500
Current	A	820.6	738.5	457.4	126.2	41.5
Torque	pu	2.4	2.0	2.8	1	0

Starting Characteristics Chart



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

Issued By
Issued Date

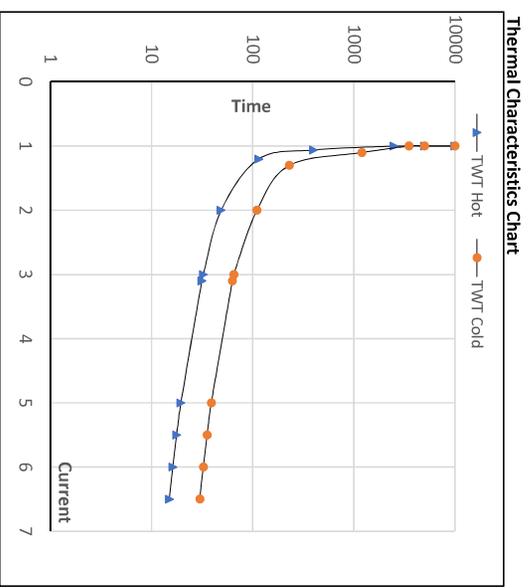


Model No. TCA0752A3131GACD01

Enclosure	U	Δ/Y	f	P	P	I	n	T	T	IE	Amb	Duty	Elevation	Inertia	Weight
(V)	415	Δ	50	[kW]	[hp]	[A]	[rpm]	[kgm]	[Nm]	Class	[°C]	S1	[m]	[kg·m ²]	[kg]
TEFC				75	100	126.2	1489	48.72	478.12	IE3	50	S1	1000	2.2302	735

Motor Speed Torque Data

Load	FL	I ₁	I ₂	I ₃	I ₄	I ₅	LR	
TWT Hot	s	10000	49	33	30	20	18	15
TWT Cold	s	10000	110	65	55	39	36	30
Current	pu	1	2	3	4	5	5.5	6.5



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

Issued By
Issued Date