

# PRODUCT INFORMATION PACKET

Model No: TCA0751A3133GACD01

Catalog No: TCA0751A3133GACD01

75.0 kW General Purpose Low Voltage IEC Motor, 3 phase, 3000 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	122.4 A	Speed	2982 rpm
Service Factor	1	Phase	3
Efficiency	94.7 %	Power Factor	0.9
Duty	S1	Insulation Class	F
Frame	280S	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	50 °C	Drive End Bearing Size	6314
Opp Drive End Bearing Size	6314	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	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	65 mm	Shaft Extension	140 mm
Assembly/Box Mounting	R Side		
Connection Drawing	8442000085	Outline Drawing	0228001176

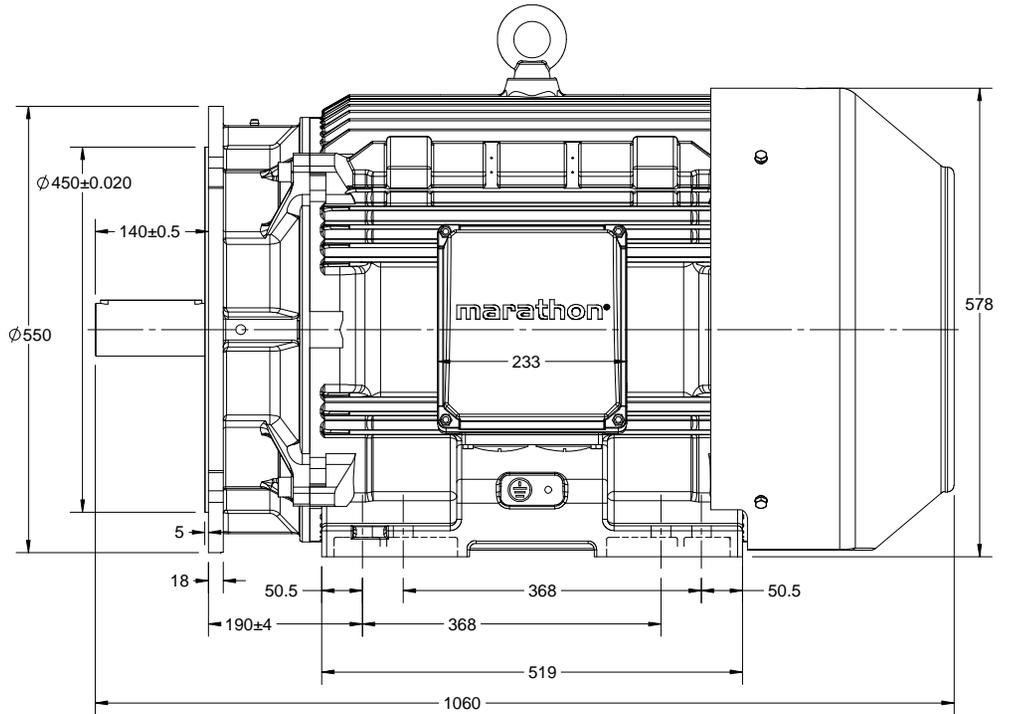
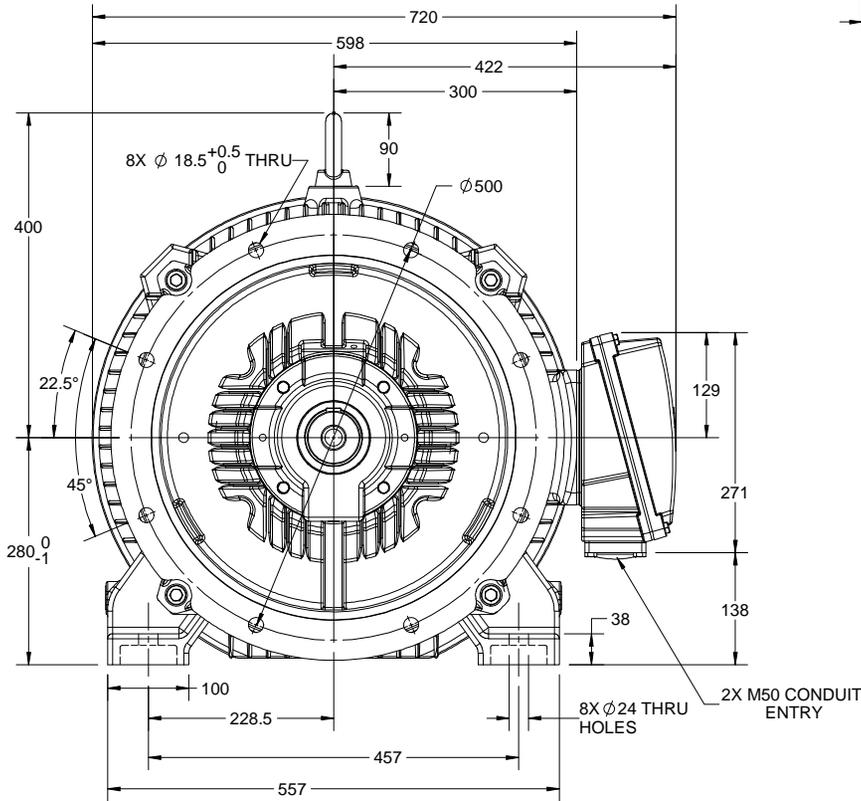
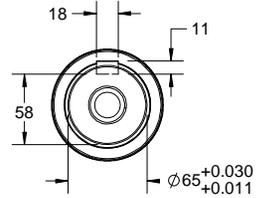
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DRAWING REVISION A	REVISION BY VS	DATE 27/07/2018
ECO ECO-0148344	APPROVED BY SBD	DATE 27/07/2018
ECO DESCRIPTION NEW DRAWING RELEASE		
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DRAWN BY VS		
DATE 27/07/2018		
APPROVED BY SBD	DESCRIPTION OUTLINE	
DATE 27/07/2018	280 S FR-2P-B35 MTG. TYPE: TCA/QCA RHS-TB	
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER 0228001176
		SHEET 1 OF 1

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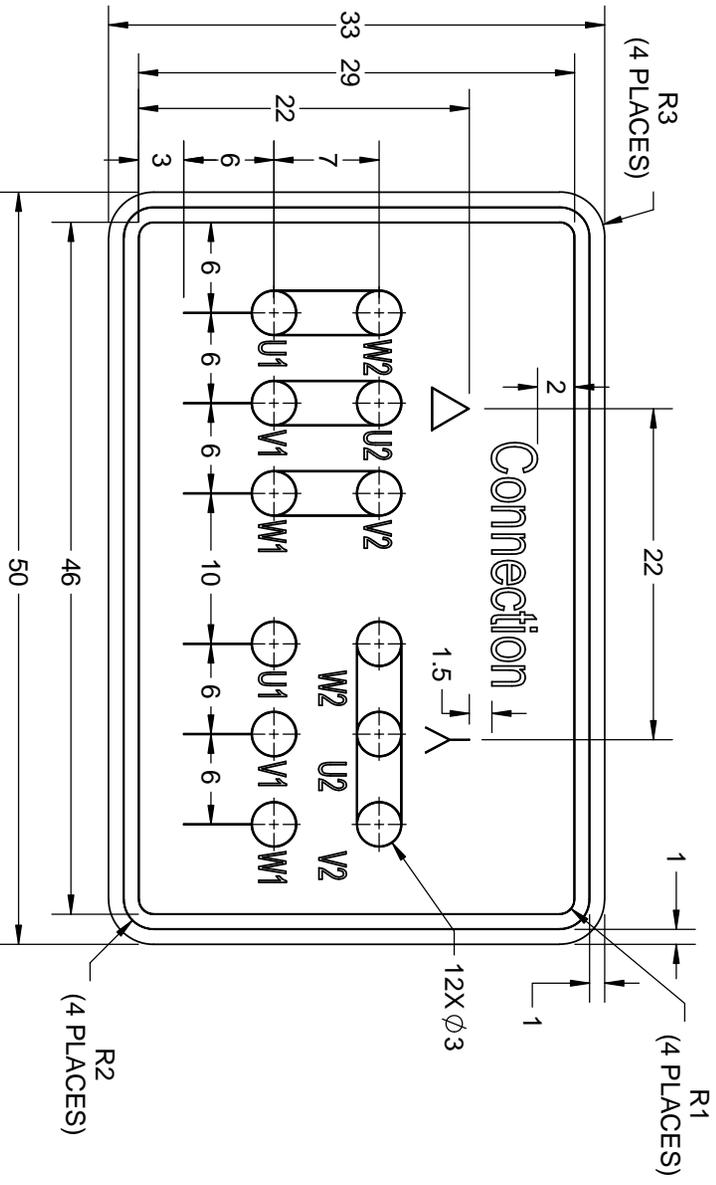
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A	SN	13/01/2017
ECO-0116390	APPROVED BY SBD	DATE 13/01/2017
ECO DESCRIPTION NEW DRAWING RELEASE		

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	
MATERIAL	PROCESS/FINISH	SIZE A	DRAWING NUMBER 8442000085
THIRD ANGLE PROJECTION		SHEET 1 OF 1	

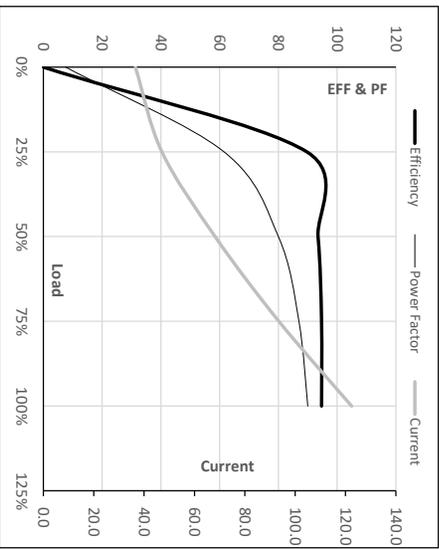
Model No. TCA0751A3133GACD01

Enclosure	U [V]	$\Delta$ /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 <sup>2</sup> ]	Weight [kg]
TFC	415	$\Delta$	50	75	100	122.4	2982	24.35	238.80	IE3	50	S1	1000	1.275	756

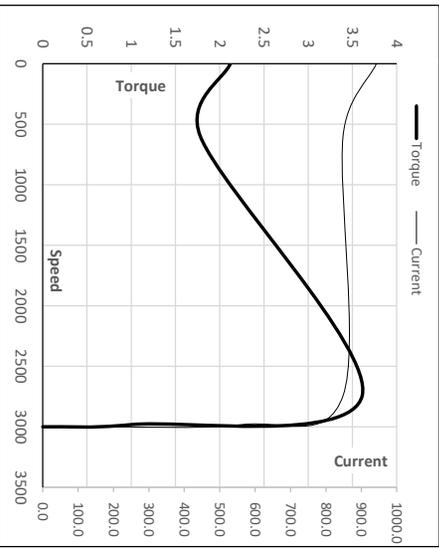
**Motor Load Data**

Load Point	NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A 36.5	47.1	68.2	93.5	122.4	
Torque	Nm 0.0	59.4	119.0	178.8	238.8	
Speed	r/min 3000	2996	2991	2987	2982	
Efficiency	% 0.0	89.7	93.5	94.7	94.7	
Power Factor	% 7.6	61.5	80.0	87.0	90.0	

**Performance vs Load Chart**



**Starting Characteristics Chart**



**Motor Speed Torque Data**

Load Point	LR	P-Up	BD	Rated	NL
Speed	r/min 0	600	2743	2982	3000
Current	A 942.7	848.4	562.0	122.4	36.5
Torque	pu 2.1	1.8	3.6	1	0

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

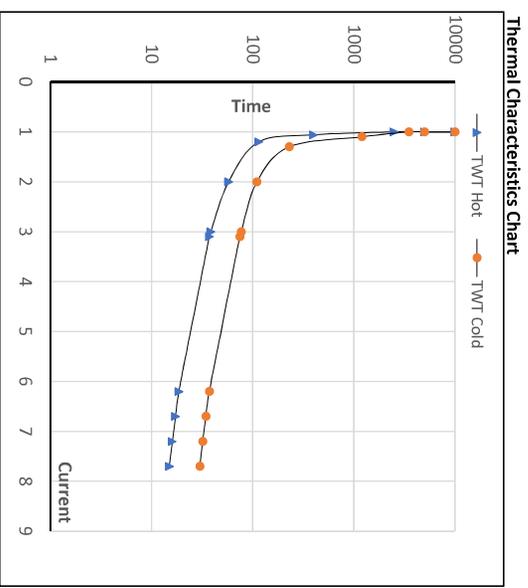
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Issued Date

Model No. TCA0751A3133GACD01

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 <sup>2</sup> ]	[kg]
TEFC				75	100	122.4	2982	24.33	238.80	IE3	50	S1	1000	1.2750	756

**Motor Speed Torque Data**

Load	FL	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>	I <sub>4</sub>	I <sub>5</sub>	LR	
TWT Hot	s	10000	58	39	30	25	20	15
TWT Cold	s	10000	110	77	60	45	40	30
Current	pu	1	2	3	4	5	5.5	7.7



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

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