

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 405TTDS16081

Catalog No: U271

XRI® General Purpose General Purpose Motor, 75 & 60 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,
1200 & 1000 RPM, 405T Frame, DP



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RegalRexnord

Nameplate Specifications

Phase	3	Output HP	75 & 60 Hp
Output KW	56.0 & 45.0 kW	Voltage	230/460 & 190/380 V
Speed	1185 & 985 rpm	Service Factor	1.15 & 1.15
Frame	405T	Enclosure	Drip Proof
Thermal Protection	Thermostat	Efficiency	95 & 94.5 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	180/90 & 174/87 A	Power Factor	82.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	F
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6313
UL	Recognized	CSA	Y
CE	Y	IP Code	12
Number of Speeds	1		


Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Across The Line
Poles	6	Rotation	Reversible
Resistance Main	.096 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	34.31 in
Frame Length	17.00 in	Shaft Diameter	2.875 in
Shaft Extension	7.5 in	Assembly/Box Mounting	F1/F2 CAPABLE
Connection Drawing	A-EE7308T	Outline Drawing	B-SS513937-1700

NOTES:

- 1- BOX CAN BE ROTATED IN 90° STEPS
- 2- BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°
- 3- NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR

DASH	FRAME	B	C	2F	BS
1550	404T	15.00	32.81	12.25	6.12
1700	405T	16.50	34.31	13.75	6.88

						TOLERANCES (UNLESS SPECIFIED)			DRAWN DA 02-06-1991	
						DEC INCHES			CHK TB 02-11-1991	
4	C'BOX LEAD HOLE WAS Ø2.50 NPT 2 HOLES CN 32922	DRS 12-07-2004	ML	X	±.1				APPR ML 02-11-1991	
3	UPDATED C'BOX GEOMETRY CN 28063	DRS 12-07-2004		XX	±.03	TITLE OUTLINE - DR.PR.		SCALE 1:5		
2	ADDED SCREENS TO FRONT & REAR BRACKETS 4041416	DJK 06-18-1993		XXX	±.005	404 & 405T FR. - SCREENS - GRD SCREW		REF		
1	NEW DRAWING CN 13005	DA 02-06-1991		XXXX	±.0005	MATL		FMF		
NO	REVISION	BY & DATE	CHK	ANG	±730"	FINISH		PREV		
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK. ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED. THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT						RFP	CAD FILE SS513937	SIZE B	DRAWING NO SS513937	REV 4

HIGH VOLTAGE



NOTE FOR FACTORY USE ONLY:
 TO SURGE TEST FOR COMMON CONNECT:
 HIGH VOLT: CONNECT P1 TO T1
 THEN P2 TO L1
 LOW VOLT: CONNECT P1 TO T1 & T7,
 THEN P2 TO L1

LOW VOLTAGE

THREE PHASE
DUAL VOLTAGE MOTOR

VIEW OF TERMINAL END

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR MT2 PLANT

DRAWING REVISION T	REVISION BY ZR	DATE 01-14-2019
ECO ECO-0159915	APPROVED BY DR	DATE 01-15-2019

ECO DESCRIPTION
ADDED TERMINAL CONNECTION DIAGRAM

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DRAWN BY
SMC

DATE
05-13-1992

APPROVED BY
TB

DATE
05-13-1992

REFERENCE
EE7308/EE7300

THIRD ANGLE
PROJECTION



Regal Beloit America, Inc.

DESCRIPTION

CONN DIAGRAM-INTERNAL
 3 PHASE - DUAL VOLTAGE MOTOR

MATERIAL

PROCESS/FINISH

SIZE
A

DRAWING NUMBER

EE7308T

SHEET
1 OF 1

CERTIFICATION DATA SHEET

Model#: 405TTDS16081 AN
 CONN. DIAGRAM: A-EE7308T
 OUTLINE: B-SS513937-1700

WINDING#: T405646 NONE 1
 ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
75&60	56&45	1200	1185&985	405T	DP	F	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	180/90&174/8 7	ACROSS THE LINE	CONTINUOU S	F1	1.15/1.15	40	3300

FULL LOAD EFF: 95&94.5	3/4 LOAD EFF: 95.4	1/2 LOAD EFF: 95.4	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 82.5&83	3/4 LOAD PF: 80	1/2 LOAD PF: 72	94.5	SQ CAGE IND RUN	59 / 29.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
332 LB-FT	1000 / 500	550 LB-FT 166	725 LB-FT 218	40

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
73 dBA	83 dBA	38 LB-FT^2	1100 LB-FT^2	20 SEC.	2	1150 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6316	6313						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: NONE
 INV. HP SPEED RANGE: NONE

ENCODER: NONE
 NONE NONE
 NONE NONE PPR

BRAKE: NONE NONE
 NONE P/N NONE
 NONE NONE
 NONE FT-LB NONE V NONE Hz

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DATE: 06/22/2017 12:19:04 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 20-06-2017

Customer:

Attention:

Submitted by: FAREEDA DUDEKULA



405TTDS16081

Submittal

Data @ 460 V

Motor Load Data

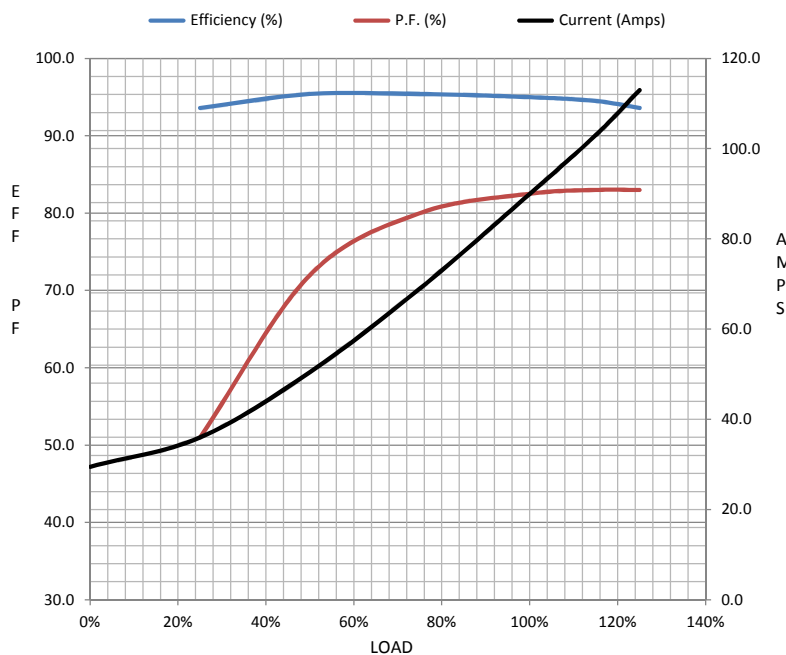
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	29.5	36.0	50.5	69.0	90.0	103	113	500	
Torque (ft-lb)	0.00	83.0	165	250	332	382	418	550	
RPM	1200	1197	1194	1190	1185	1,182	1180	0	
Efficiency (%)		93.6	95.4	95.4	95.0	94.5	93.6		
P.F. (%)	4.0	51.0	72.0	80.0	82.5	83.0	83.0	34.5	

Motor Speed Data

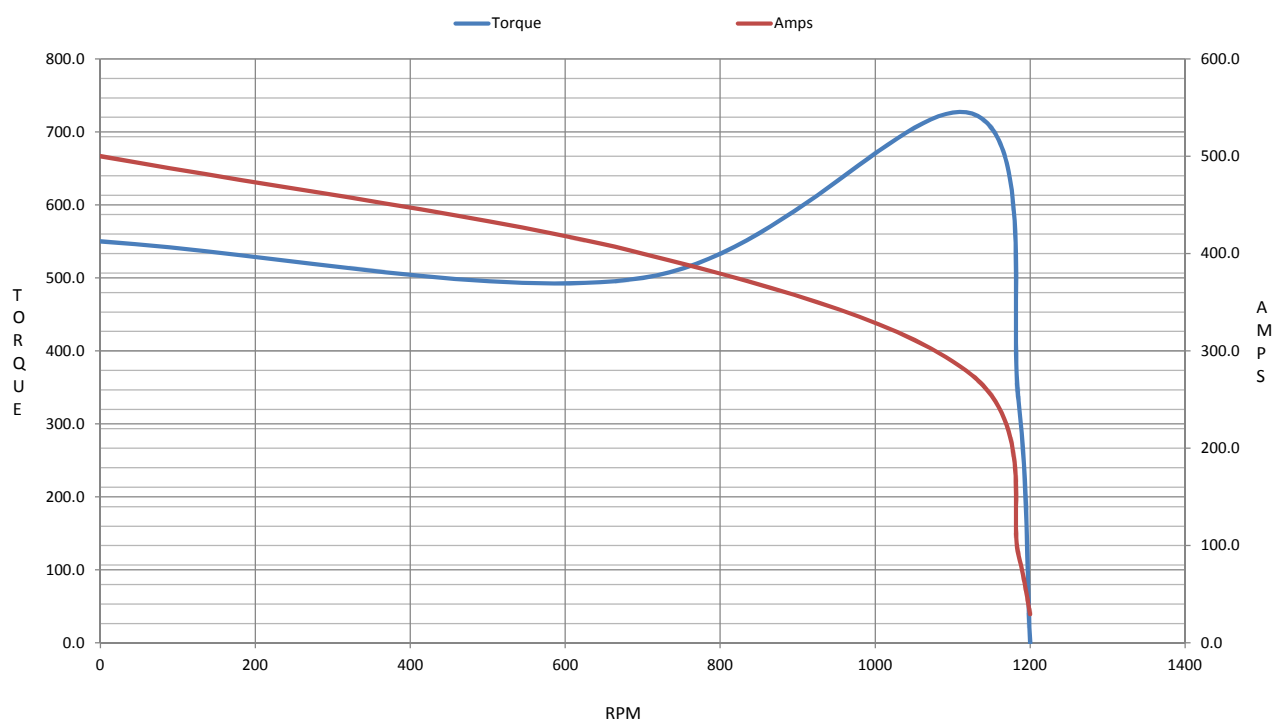
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	700	1125	1185	1200
Current (Amps)	500	400	275	90.0	29.5
Torque (ft-lb)	550	500	725	332	0.00

Information Block

HP	75.0			
Sync. RPM	1200			
Frame	405			
Enclosure	DP			
Construction	TDS			
Voltage	230/460#190/38(V			
Frequency	60 Hz			
Design	B			
LR Code letter	F			
Service Factor	1.15			
Temp Rise @ FL	40 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	38.0 Lb-Ft ²			
Ref Wdg	T405646 NONE			
Sound Pressure @ 1M	73 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS513937-1700			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0640	0.0340	0.0330	0.0470	8.6180



Speed -Torque Curve



EC Declaration of Conformity

The undersigned representing
the manufacturer:

Regal Beloit America
100 East Randolph St.
Wausau, WI 54401

and the authorized representative
established within the Community:

Marathon Electric UK
6F Thistleton Road Ind. Estate
Market Overton
Oakham, Rutland LE15 7PP UK

are committed to providing customers with products that comply with applicable regulations and international protocols to which they are subject, including the requirements of the European Parliament Directive on the Harmonization of the laws relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

Regal Beloit America declares that the following product(s), to which this declaration relates, are in conformity with the relevant sections of the EC standards listed below.

This statement supersedes any statements previously issued pertaining to the product(s) listed below and is subject to change without notice.

Model No : 405TTDS16081

(Model No. may contain prefix and/or suffix characters)

Catalog No : U271

Rework No : N/A

Directives :

Low Voltage Directive 2014/35/EU

Harmonized Standards Used :

EN 60034-1: 2010 (IEC 60034-1: 2010)

EN 60034-5: 2001/A1:2007 (IEC 60034-5: 2000/A1:2006)

Authorized Representative:



Michael A. Logsdon
Vice President, Technology

Authorized Representative in the Community:



Julian Clark
Marketing Engineer

Created on 09/01/2022

CE 22