

PRODUCT INFORMATION PACKET



Model No: 170098.60

Catalog No: 170098.60

WATTSaver® General Purpose Motor, 60 & 50 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V,
1200 & 1000 RPM, 404T Frame, TEFC



Regal and Leeson are trademarks of Regal Rexnord Corporation or one of its affiliated companies.

©2023 Regal Rexnord Corporation, All Rights Reserved. MC017097E



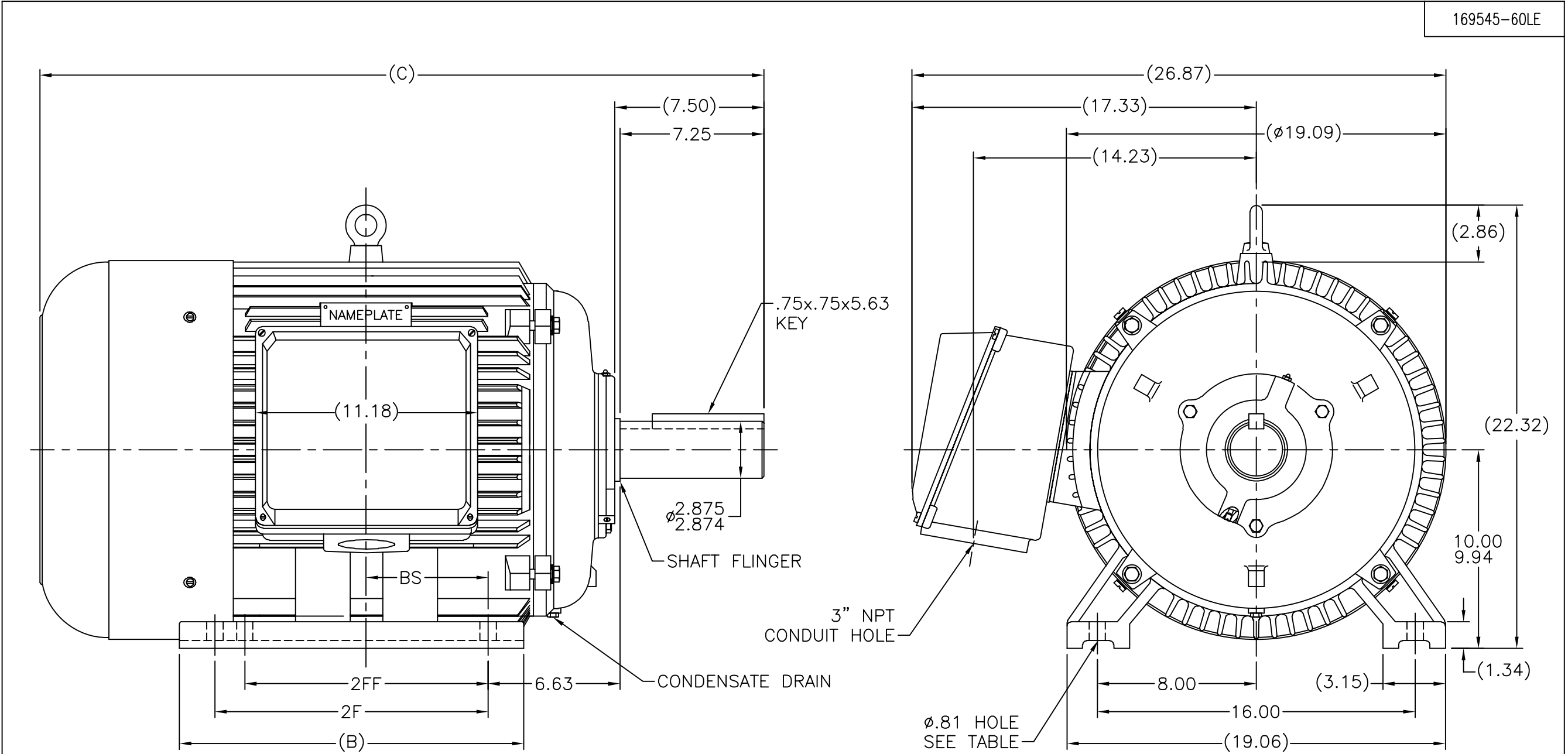



Nameplate Specifications

Phase	3	Output HP	60 & 50 Hp
Output KW	45.0 & 37.0 kW	Voltage	208-230/460 & 190/380 V
Speed	1190 & 990 rpm	Service Factor	1.15 & 1.15
Frame	404T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Efficiency	94.5 & 94.1 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	154-142/71 & 140/70 A	Power Factor	83.4
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6314
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Wye Start Delta Run Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	.089 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	36.42 in
Shaft Diameter	2.875 in	Shaft Extension	7.25 in
Assembly/Box Mounting	F1 ONLY	Inverter Load	CONSTANT 10:1
Connection Drawing	004172.01	Outline Drawing	16954560le



											TOLERANCES UNLESS SPECIFIED		 REGAL - BELOIT CORPORATION				DRAWN CTO 08/21/2002						
											DEC.	INCHES					CHK ML 08/29/2002						
											.X	±.1					APPD SB 08/30/2002						
								3	REVISED BS DIM. UPDATED TITLE BLOCK ECO--0048910							RFH 04/07/2014	EH	.XX	±.03	TITLE OUTLINE -- RIGID			
2	CORRECTED FOOT MOUNTING HOLES DISCRIPTION							MOL 10/21/2011		.XXX	±.005	400T RF. -- TEFC				REF							
1	NEW DRAWING							CTO 06/30/2002	SB	.XXXX	±.0005	MAT'L.				FMF							
	1681	404T	36.42	15.83	12.25	-	5.39	4	NO.	REVISION			BY & DATE	CHK	ANG	±7°30"	FINISH		PREV				
	1831	405T	37.91	17.32	13.75	12.25	6.90	6	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 169545601e		SIZE	DRAWING NO. PAGE 1 OF 1		REV.
																DIST		A		169545-60LE		3	
	DASH	FRAME	C	B	2F	2FF	BS	HOLE QTY															

WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

HIGH VOLTAGE CONNECTION



REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLY

REFER TO THE PART WINDING STARTER INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

REFER TO THE CUTLER - HAMMER OR EQUIV. FOR PROPER SELECTION OF OVERLOAD HEATER COILS.

LINE LEADS



ROTATION CAN BE REVERSED BY INTERCHANGING ANY TWO LINE LEADS
 ● RED LEADS OR P1, P2, FOR N/C THERMOSTAT

ACROSS THE LINE START & RUN

	LINE 1	LINE 2	LINE 3	JOIN & INSULATE SEPARATELY
HIGH VOLT	T1,T12	T2,T10	T3,T11	(T4,T7) (T5,T8) (T6,T9)
LOW VOLT	T1,T6 T7,T12	T2,T4 T8,T10	T3,T5 T9,T11	

TOLERANCES
UNLESS SPECIFIED

DEC. INCHES

.X ±.1

.XX ±.01

.XXX ±.005

.XXXX ±.0005

ANG ±1/2"



ELECTRIC MOTORS
GEARMOTORS
AND DRIVES

DRAWN WLW 09/08/77

CHK RPB 09/12/77

APPD JCW 09/12/77

SCALE 1=1

REF

FMF

PREV

NO.	REVISION	BY & DATE	CHK	ANG
03	REV'D LOW VOLTAGE CONN. LEADS PER ELEC.	BJB 06/07/00	.XX	±.01
02	ADDED T-STAT. NOTES PER ELECTRICAL	KMM 06/02/98	.XXX	±.005
01	REDRAWN TO CAD	DBT 06/02/97	.XXXX	±.0005

TITLE DELTA - WYE CONNECTION DIAGRAM

MAT'L.

FINISH

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

DIST

CAD FILE 00417201

SIZE

A

DRAWING NO.

004172-01

REV.

03

CATALOG #: 170098.60

CONN. DIAGRAM: 004172.01

OUTLINE: 16954560

MOUNTING: F1 ONLY

WINDING #: T19606012 FR 3 A

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
60&50	45.0&37.0	1200	1190&990	404T	TEFC	G	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/50	208-230/460&190/380	154-142/71&140/70	Y START D RUN OR INV	CONTINUOUS	F5	1.15/1.15	40

FULL LOAD EFF:	94.5	3/4 LOAD EFF:	94.5	1/2 LOAD EFF:	94	GTD. EFF		ELEC. TYPE
FULL LOAD PF:	84.8	3/4 LOAD PF:	79.8	1/2 LOAD PF:	71.2	93.6		SQ CAGE INV RATED

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
265 LB-FT	940 / 470	502 LB-FT 189 %	678 LB-FT 256 %	56

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
58 dBA	68 dBA	26.3 LB-FT^2	- LB-FT^2	15 SEC.	2	1040 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	ODE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6316	6314						

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

*

N

O

T

E

S

INVERTER TORQUE: CONSTANT 10:1

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

Data Sheet

Date: 1/17/2018

170098.60



Data @ 460 V

Motor Load Data

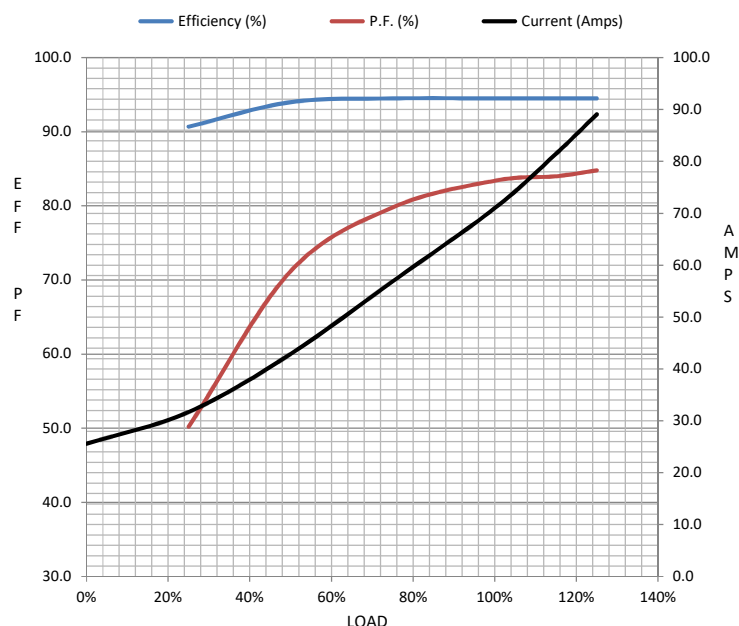
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	25.6	31.7	42.9	56.9	71.0	81.5	89.1	470	
Torque (ft-lb)	0.00	67.5	135	203	265	291	337	502	
RPM	1200	1198	1196	1193	1190	1,189	1188	0	
Efficiency (%)		90.7	94.0	94.5	94.5	94.5	94.5		
P.F. (%)	5.3	50.2	71.2	79.8	83.4	84.0	84.8	0.0	

Motor Speed Data

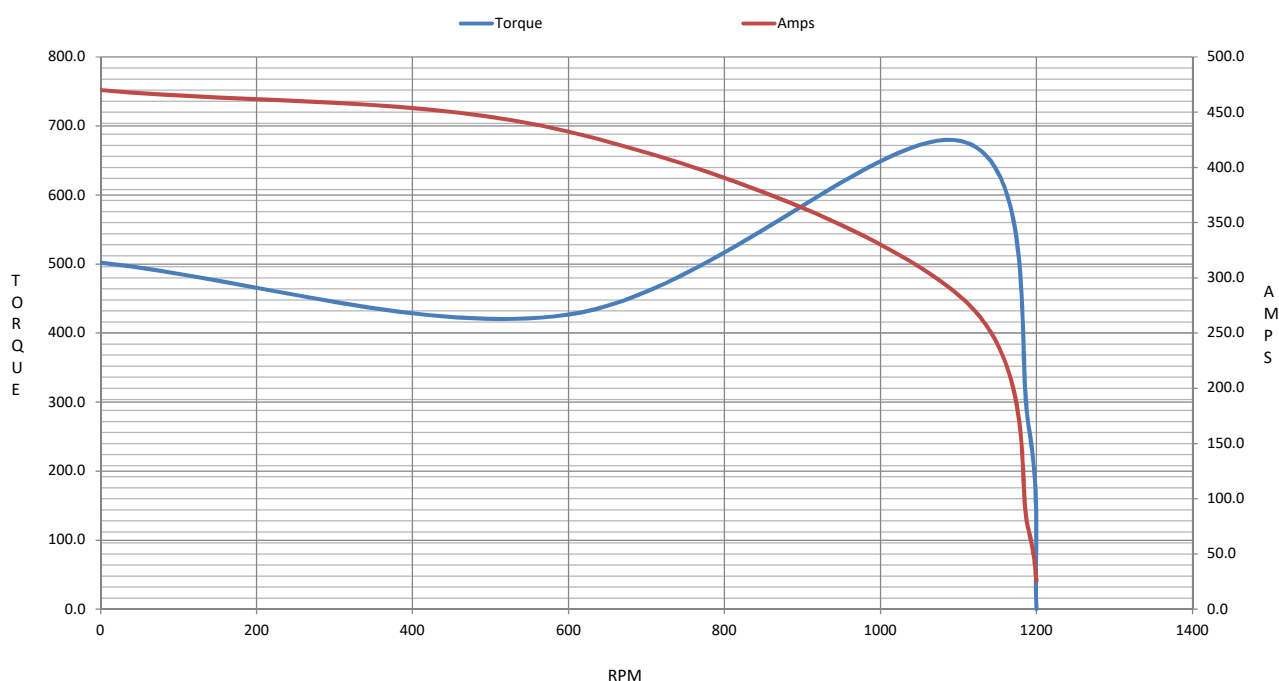
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1104	1190	1200
Current (Amps)	470	432	282	71.0	25.6
Torque (ft-lb)	502	427	678	265	0.00

Information Block

HP	60.0			
Sync. RPM	1200			
Frame	404			
Enclosure	TEFC			
Construction	TFC			
Voltage	208-230/460#190/380	V		
Frequency	60	Hz		
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	55	° C		
Duty	CONT			
Ambient	40	° C		
Elevation	1,000	feet		
Rotor/Shaft wk²	26.3	Lb-Ft²		
Ref Wdg	T19606012 FR			
Sound Pressure @ 1M	58	dBA		
VFD Rating	CONSTANT 10:1			
Outline Dwg	16954560			
Conn. Diag	004172.01			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0000	0.0000	0.0000	0.0000	0.0000



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 : 170098.60

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

Catalog No : 170098.60

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