

# PRODUCT INFORMATION PACKET

Model No: 143TTGN14011

Catalog No: C301B

1.50 HP Explosion Proof Motor, 3 phase, 3600 RPM, 230/460 V, 143TC Frame, EPFC  
Explosion Proof NEMA Motors





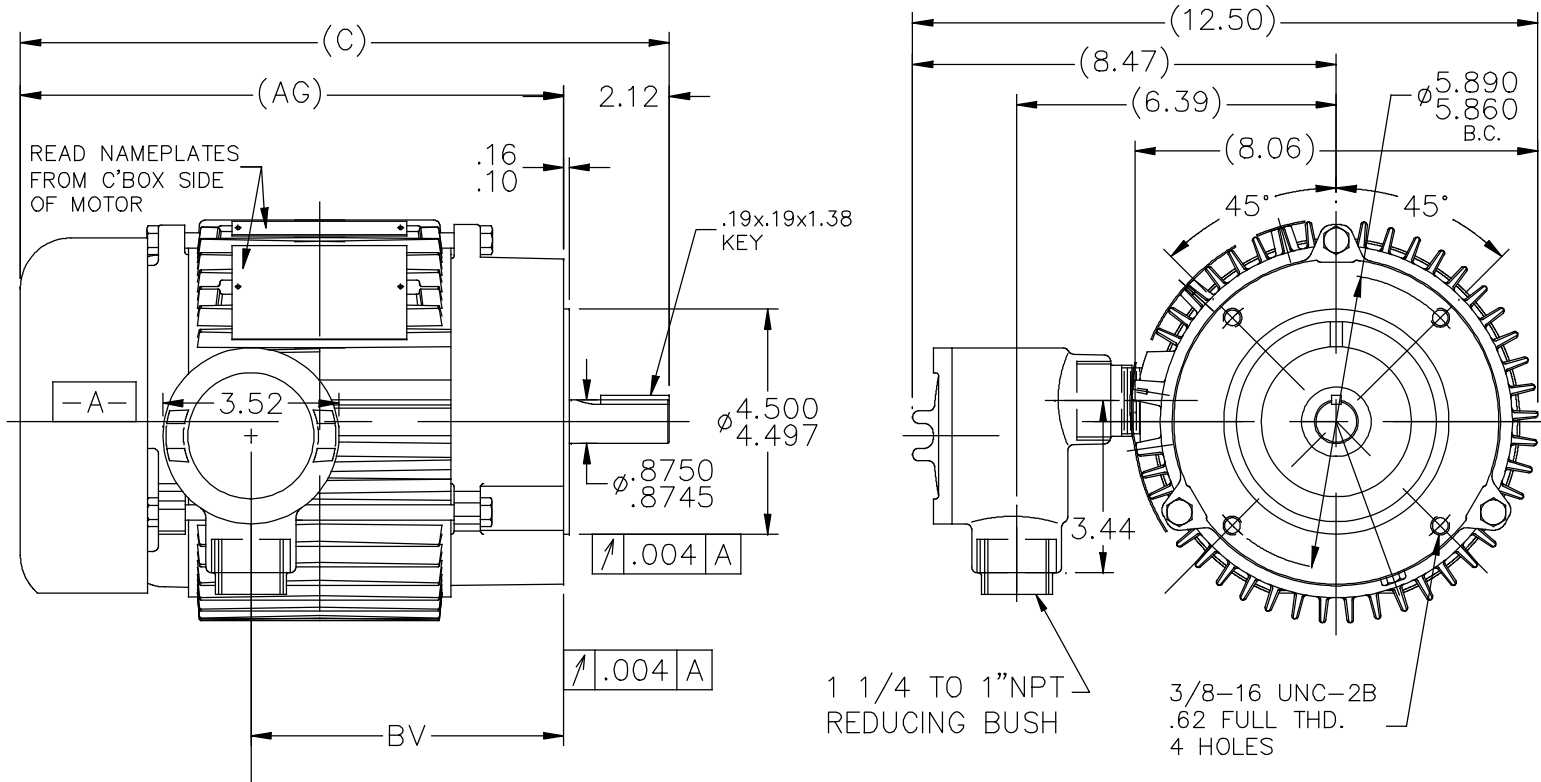
**Nameplate Specifications**

Output HP	1.50 Hp	Output KW	1.1 kW
Frequency	60 Hz	Voltage	230/460 V
Current	4.0/2.0 A	Speed	3515 rpm
Service Factor	1.15	Phase	3
Efficiency	85.5 %	Power Factor	85.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	M
Frame	143TC	Enclosure	Explosion Proof Fan cooled
Thermal Protection	Thermostats (N/C)	Ambient Temperature	40 °C
Drive End Bearing Size	6205	Opp Drive End Bearing Size	6203
UL	UL Listed And CSA Certified	CSA	Y
CE	N	IP Code	54
Hazardous Location	EXP PROOF CL I GR D CL II GR F&G T3B		

**Technical Specifications**

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	9.27 Ohms	Mounting	Round
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	13.95 in
Frame Length	6.25 in	Shaft Diameter	0.875 in
Shaft Extension	2.13 in	Assembly/Box Mounting	F1 ONLY
Connection Drawing	EE7308T	Outline Drawing	A-108514-625

108514



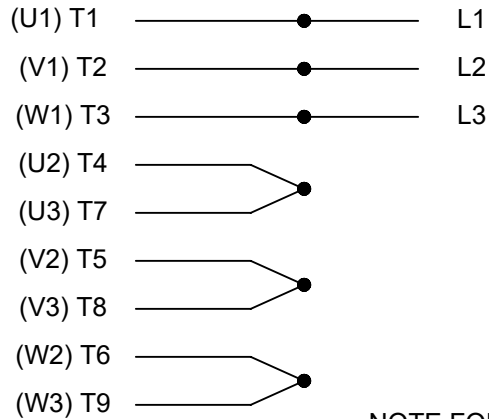
NOTE:

1. BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.

DASH	FR.	C	AG	BV
525	143	12.98	10.86	6.25
625	145	13.98	11.86	7.25
750	145	15.18	13.06	8.50

		TOLERANCES UNLESS SPECIFIED		REGAL Regal Beloit America, Inc.		DRAWN AS 01/18/17
		DEC.	INCHES			CHK SM 01/18/17
		.X	±.1			APPD SM 01/18/17
		.XX	±.03	TITLE OUTLINE 140 FR. BB-EXP. PR. -TS-'C'FACE (629 NEW DESIGN)		SCALE 5=16
B	SHOWN REDUCER IN LEFT SIDE VIEW	.XXX	±.005			REF 100617
A	NEW DRAWING	SM	.XXXX ±.0005	MAT'L.	FMF	
NO.	REVISION	BY & DATE	CHK ANG ±7'30"	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 108514	SIZE A
				DIST WP		DRAWING NO. 108514
						PAGE OF REV. B

**HIGH VOLTAGE**



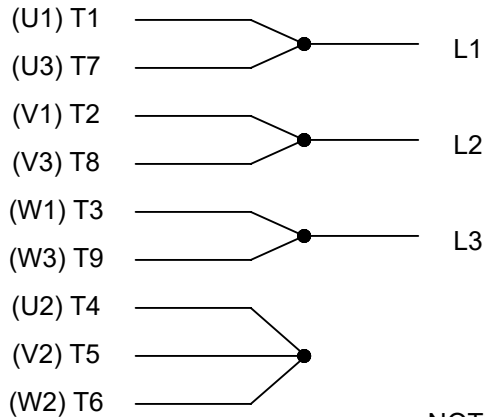
**THREE PHASE  
DUAL VOLTAGE MOTOR**

THERMO-PROTECTORS  
CONNECTED IN SERIES



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**



**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		DRAWN BY SMC	Regal Beloit America, Inc.
ECO ECO-0159915	APPROVED BY DR	DATE 01-15-2019		DATE 05-13-1992	
ECO DESCRIPTION <b>ADDED TERMINAL CONNECTION DIAGRAM</b>				APPROVED BY TB	DESCRIPTION <b>CONN DIAGRAM-INTERNAL</b> 3 PHASE - DUAL VOLTAGE MOTOR
<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>				DATE 05-13-1992	MATERIAL
			REFERENCE EE7308/EE7300	SIZE A	DRAWING NUMBER EE7308T



P.O. BOX 8003  
WAUSAU, WI 54401-8003  
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER P.O. #:   
 ORDER #: A-EE7308T  
 REFERENCE MODEL #: 143TTGN14011  
 CONN. DIAGRAM: A-100617-625  
 CAT #: C301B  
 OUTLINE: A-100617-625  
 CUSTOMER PART #:   
 WINDING: ZT2141 NONE 1  
 MOUNTING: F1 ONLY  
 SPEED:   
 TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
1.5	1.1	3600	3515	143TC	TEFC	TEN	M	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#190/380	4/2&3.4/1.7	LINE OR INVERTER	CONT	F	1.15	40	3300
	F.L. EFF	85.5	3/4 LD EFF	84.0	1/2 LD EFF	81.5	GTD EFF	ELECT. TYPE	
	F.L. PF	85.5	3/4 LD PF	81.0	1/2 LD PF	71.0	82.5	SO CAGE INV BATED	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
2.20 LB-FT	19.0	7.0 LB-FT	318%	9.3 LB-FT
@ 3 FT.	POWER	ROTOR WK <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	SAFE STALL TIME
69 DBA	78 DBA	0.05 LB-FT <sup>2</sup>	3 LB-FT <sup>2</sup>	20 SEC.
				START/SHOUR
				2
				MOTOR WGT
				58 LB.

\*\*\* SUPPLEMENTAL INFORMATION \*\*\*

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	ROUND	HORIZONTAL	NO	DOF CL I GR D CL II GR	NO	NONE	BLUE (POWDER)

BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE BALL 6205	POLYREX EM	T	NONE	NONE	1144 STRESSPROOF (C-223)	CAST IRON

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
1.419	0.946	2.318	2.129	79.937	0.150	ODE

* N		INVERTER TORQUE: CONSTANT 10:1	
O		INV. HP SPEED RANGE: NONE	
T		ENCODER: NONE	
E		NONE	
S		BRAKE: NONE	
		NONE	
		FT-LB: NA	
		VOLTAGE: NONE	
		NONE	
		HZ:	

PREPARED BY: FAREEDA DUDEKULA  
 DATE: 9/10/2018  
 FORM: 3531 REV 4 2/27/06  
 UL: NONE

Data Sheet

143TGN14011



Submital

Data @ 460 V

Date: 11/29/2018  
 Customer:   
 Attention:   
 Submitted by: FAREEDA DUDEKULA

Motor Load Data

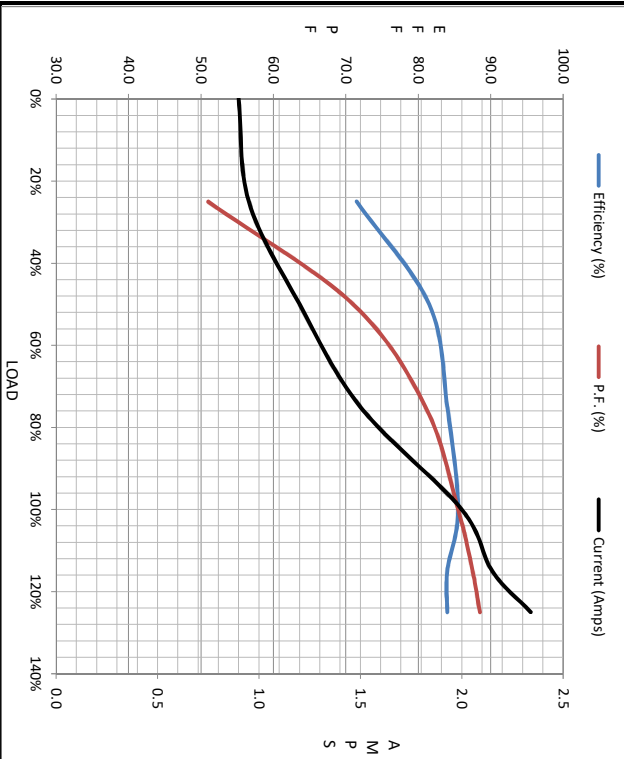
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	0.90	0.95	1.20	1.50	2.00	2.15	2.34	19.0
Torque (ft-lb)	0.00	0.60	1.10	1.70	2.20	2.60	2.80	7.0
RPM	3600	3575	3550	3530	3515	3,485	3475	0
Efficiency (%)		71.5	81.5	84.0	85.5	84.0	84.0	
P.F. (%)	15.0	51.0	71.0	81.0	85.5	87.5	88.5	60.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	2875	3515	3600
Current (Amps)	19.0	16.5	12.0	2.00	0.90
Torque (ft-lb)	7.0	6.3	9.3	2.20	0.00

Information Block

HP	1.5				
Sync. RPM	3600				
Frame	143				
Enclosure	EPFC				
Construction	TS				
Voltage	230/460#190/380 V				
Frequency	60 HZ				
Design	A				
LR Code letter	M				
Service Factor	1.15				
Temp Rise @ FL	25 °C				
Duty	CONT				
Ambient	40 °C				
Elevation	1,000 feet				
Motor/Shaft wk <sup>2</sup>	0.05 Lb-Ft <sup>2</sup>				
Ret Wdg	ZT12141 NONE				
Sound Pressure @ 1M	69 DBA				
VFD Rating	CONSTANT 10:1				
Outline Dwg	A-100617-625				
Conn. Diag	A-EE7308T				
Additional Specifications:					
0					
0					
	EQUIV CKT (OHMS / PHASE)				
	R1	R2	X1	X2	Xm
	1.4190	0.9460	2.3180	2.1290	79.9370



Speed - Torque Curve

