

# PRODUCT INFORMATION PACKET

Model No: 256TPFSA10087

Catalog No: SY011

20 HP, Permanent Magnet (PMAC) Motors, 3 phase, 1800 RPM, 460 V, 256TC Frame, TEFC  
Permanent Magnet (PMAC) Motors



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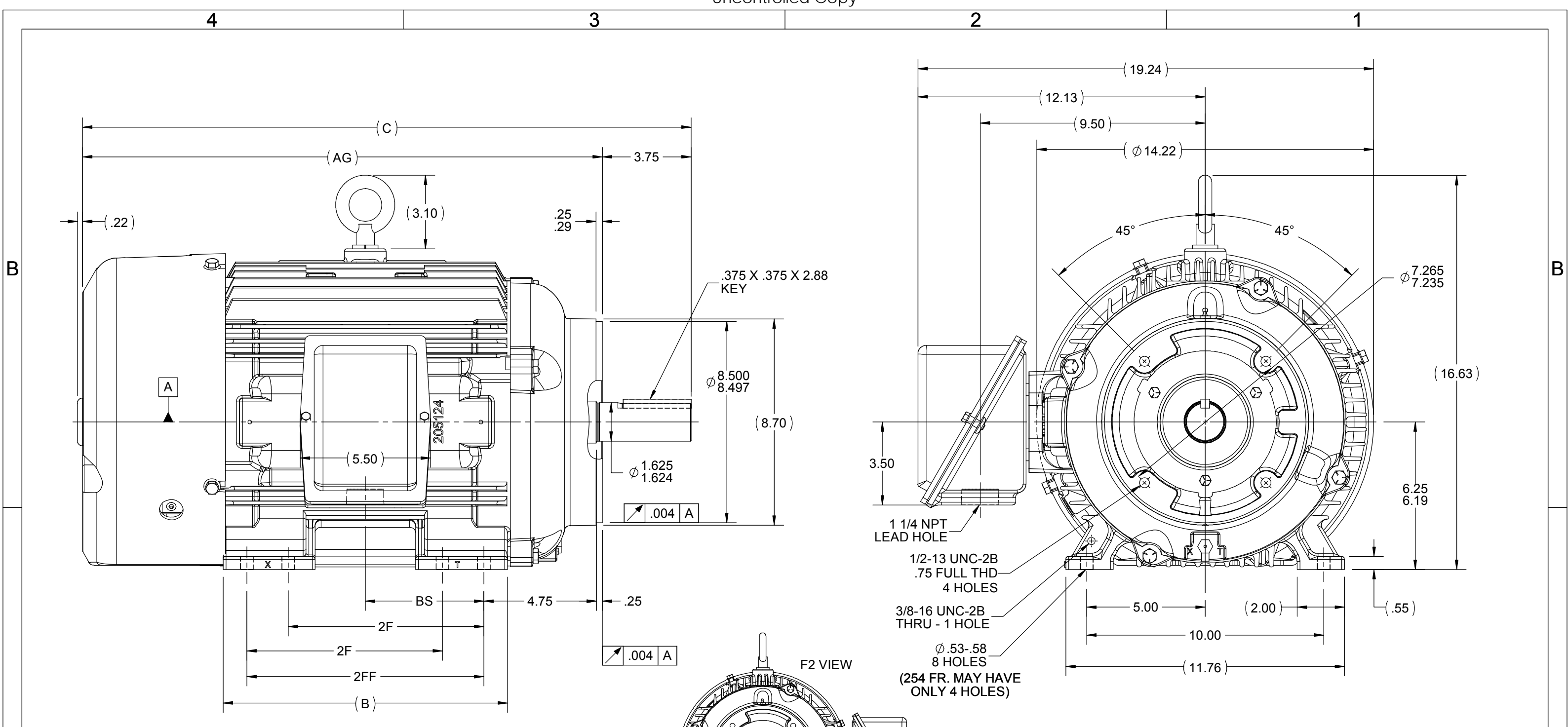
### Nameplate Specifications

Output HP	<b>20 Hp</b>	Output KW	<b>14.9 kW</b>
Frequency	<b>120 Hz</b>	Voltage	<b>460 V</b>
Current	<b>24.0 A</b>	Speed	<b>1800 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>94.5 %</b>	Power Factor	<b>80</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>No Design Code</b>	KVA Code	<b>NO KVA CODE</b>
Frame	<b>256TC</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>Thermostats 140 deg. C (N/C)</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6309</b>	Opp Drive End Bearing Size	<b>6210</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>54</b>
Number of Speeds	<b>1</b>		

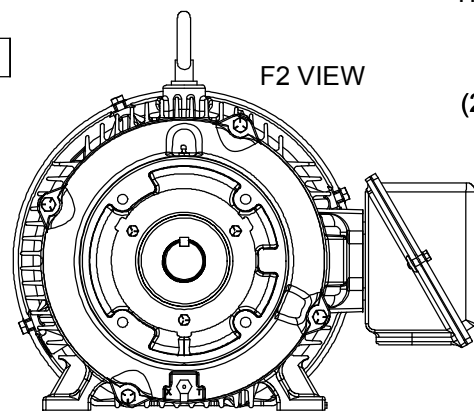
### Technical Specifications

Electrical Type	<b>AC Permanent Magnet</b>	Starting Method	<b>Inverter Only</b>
Poles	<b>8</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>0 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>T</b>	Overall Length	<b>25.68 in</b>
Frame Length	<b>12.25 in</b>	Shaft Diameter	<b>1.625 in</b>
Shaft Extension	<b>3.75 in</b>	Assembly/Box Mounting	<b>F1 ONLY</b>
Inverter Load	<b>CONSTANT 20:1</b>		
Connection Drawing	<b>A-EE7300T</b>	Outline Drawing	<b>B-SS203152-1225</b>

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- NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
  2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°. (NOT FIELD MODIFIABLE ON PMAC MOTORS)
  3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.



DASH	FRAME	B	C	AG	2F	2FF	BS
1050	254TC	10.25	23.93	20.18	8.25	-----	4.12
1225	254/256TC	12.00	25.68	21.93	8.25	10.00	5.00

DRAWING REVISION H	REVISION BY W. JOERGER	DATE 04-25-2019
ECO ECO-0166058	APPROVED BY T. BROWN	DATE 04-25-2019
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TOLERANCES UNLESS OTHERWISE SPECIFIED:

DEC.	INCH	mm	ANGLE
X	±0.1	[±2.5]	±7° 30"
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 INCH/mm 5.1

mm SHOWN IN [BRACKETS]

DRAWN BY PKG	DATE 09-03-1996
APPROVED BY BW	DATE 09-06-1996
REFERENCE	
THIRD ANGLE PROJECTION	

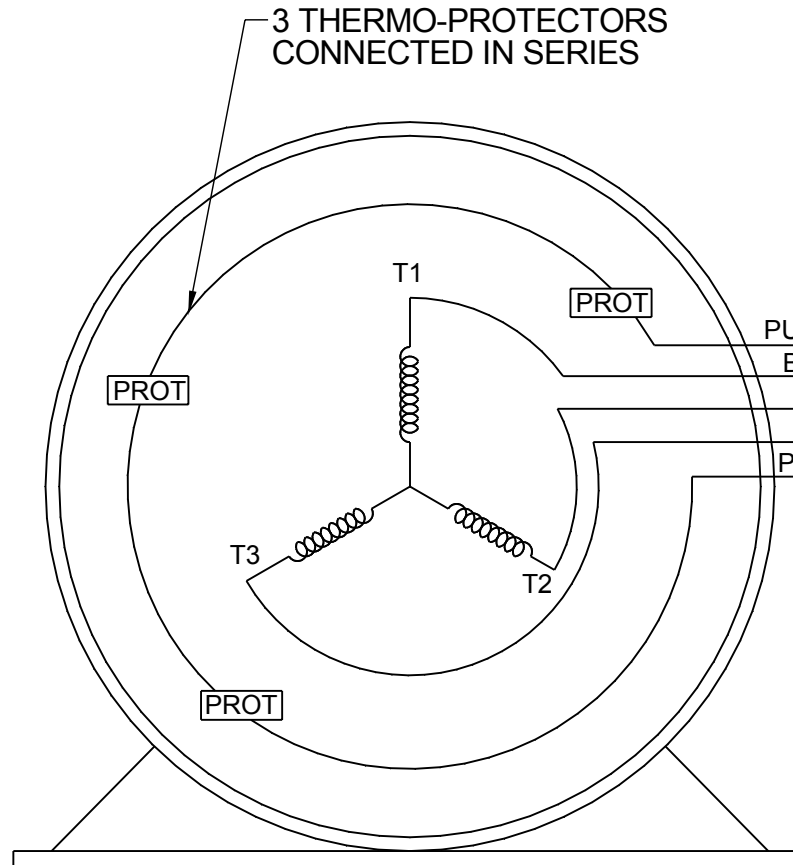
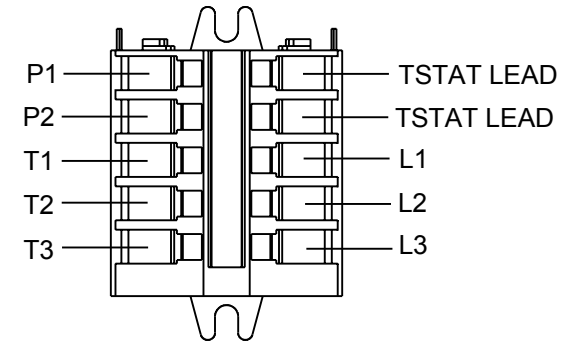
Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b>	
250TC FR - TEFC - BB - TS - C'FACE - TFNA - CAST C'BOX	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS203152
	SHEET 1 OF 1

**THREE PHASE - SINGLE VOLTAGE  
MOTOR - CONDUIT BOX @ 'A'**

**TO REVERSE ROTATION:  
INTERCHANGE ANY TWO LINE  
LEAD CONNECTIONS**

**NOTE FOR FACTORY USE ONLY:  
TO SURGE TEST:  
FOR 3 LEAD COMMON CONNECT:  
CONNECT P1 TO T1 THEN P2 TO L1  
FOR 6 LEAD COMMON CONNECT:  
CONNECT P1 TO BOTH T1  
THEN P2 TO L1**

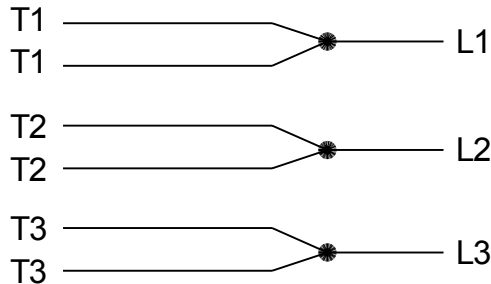
TERMINAL BLOCK WHEN SPECIFIED



- PURPLE P1 (TB1)
- BLACK T1 (U1)
- RED T2 (V1)
- BLUE T3 (W1)
- PURPLE P2 (TB2)

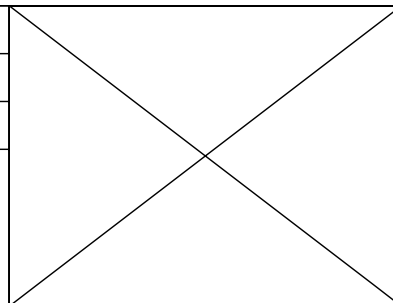
- T2BM
- T6AW
- T6AL
- T6Z
- T4EG
- T4BF
- T8A
- T6H
- T6A
- T4AX
- T4A
- T2A
- T2F

**IF MOTOR HAS MULTIPLE  
T'S PER LEAD CONNECT  
TOGETHER LIKE T'S**



**A-9806 DECAL**

DRAWING REVISION AB	REVISION BY AJW	DATE 07-17-2015
ECO ECO-0081632	APPROVED BY T.VUE	DATE 07-17-2015
ECO DESCRIPTION REV'D IEC MARKINGS PER IEC-60034-8		
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DRAWN BY LZ
DATE 01-04-1994
APPROVED BY GK
DATE 01-20-1994
REFERENCE
THIRD ANGLE PROJECTION

<b>REGAL</b> ™ Regal Beloit America, Inc.	
<b>DESCRIPTION</b> CONN DIAGRAM-EXTERNAL 3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR	
MATERIAL	PROCESS/FINISH
SIZE <b>A</b>	DRAWING NUMBER <b>EE7300T</b>
SHEET 1 OF 1	

**CERTIFICATION DATA SHEET**

**Model#:** 256TPFSA10087 A      **WINDING#:** PM25608011 NONE 1  
**CONN. DIAGRAM:** A-EE7300T      **ASSEMBLY:** F1/F2 CAPABLE  
**OUTLINE:** B-SS203152-1225

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
20	14.9	1800	1800	256TC	TEFC	NO KVA CODE	PM

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	120	460	24	INVERTER ONLY	CONTINUOUS	H1	1.0	40	3300

FULL LOAD EFF: 94.5	3/4 LOAD EFF: 94.6	1/2 LOAD EFF: 94	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 80	3/4 LOAD PF: 80.5	1/2 LOAD PF: 80	94.5	AC PERMANENT MAGNET	2

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
58.4 LB-FT	-	- LB-FT -	- LB-FT -	50

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
65 dBA	75 dBA	2.53 LB-FT^2	0 LB-FT^2	0 SEC.	0	322 LBS.

**EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)**

R1	R2	X1	X2	XM
0	0.18	6.9	11.3	224

RM	ZREF	XR	TD	TD0
0	1	0	0	0

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	NONE	FALSE	NONE	BLACK (EPOXY)

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
6309	6210						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS 140(N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 20:1
INV. HP SPEED RANGE: 1.2 X BASE SPEED
ENCODER: NONE
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE

\*  
N  
O  
T  
E  
S  
\*

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

DATE: 06/23/2017 05:00:27 AM  
FORM 3531 REV.3 02/07/99  
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