

# PRODUCT INFORMATION PACKET



Model No: 145TBDR5309  
Catalog No: 145TBDR5309

Crop Dryer Motor, 3 & 4.50 HP, 1 Ph, 60 & 60 Hz, 230 & 230 V, 3600 & 3600 RPM, 145TZ Frame, DPAO



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### Nameplate Specifications

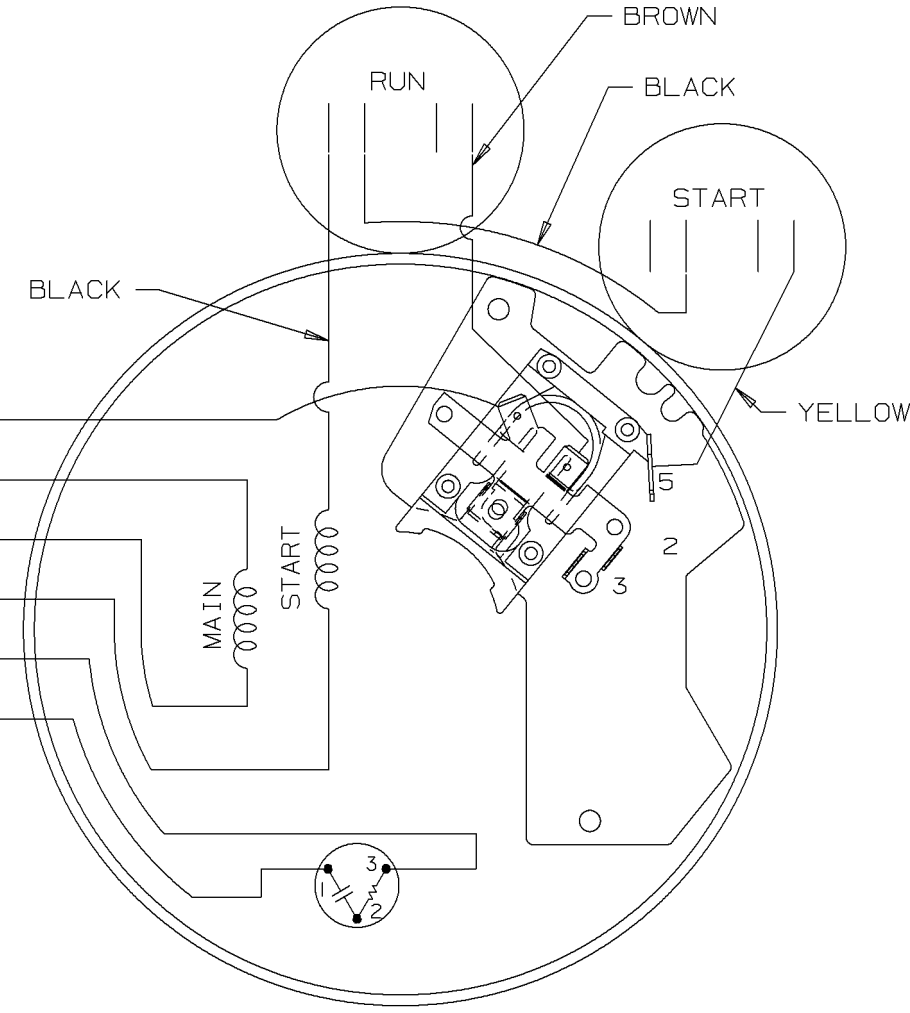
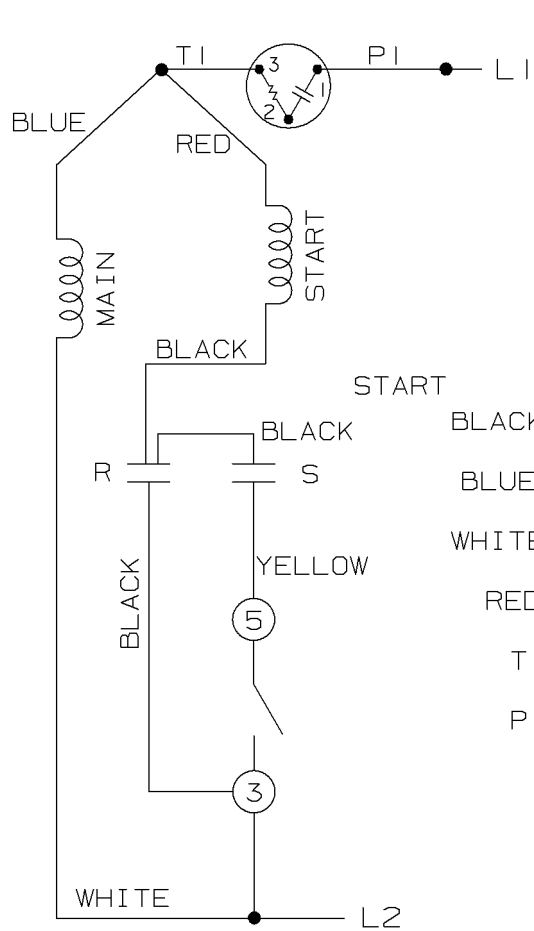
Phase	1	Output HP	3 & 4.50 Hp
Output KW	2.2 & 3.4 kW	Voltage	230 & 230 V
Speed	3510 & 3450 rpm	Service Factor	1.5 & 1.0
Frame	145TZ	Enclosure	Drip Proof Air Over
Thermal Protection	Automatic	Efficiency	81.5 & 80 %
Ambient Temperature	40 °C	Frequency	60 & 60 Hz
Current	12.5 & 19.1 A	Power Factor	97
Duty	Continuous	Insulation Class	F
Design Code	L	KVA Code	E
Drive End Bearing Size	6205	Opp Drive End Bearing Size	6203
UL	No	CSA	Y
CE	N	IP Code	22
Number of Speeds	1		

### Technical Specifications

Electrical Type	Capacitor Start Capacitor Run	Starting Method	Across The Line
Poles	2	Rotation	Selective Counterclockwise
Resistance Main	2.89 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Rolled Steel
Shaft Type	Single Special Extension	Overall Length	13.74 in
Frame Length	9.06 in	Shaft Diameter	0.875 in
Shaft Extension	3.03 in	Assembly/Box Mounting	F1 ONLY
Connection Drawing	102006-74	Outline Drawing	108612-906

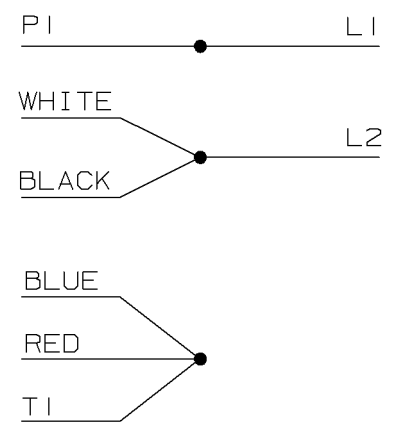


HIGH VOLTAGE C.C.W.



HIGH VOLTAGE CAPACITOR  
START OVERLOAD  
SELECT ROTATION

HIGH VOLTAGE C.C.W. ROT.



FOR C.W. ROTATION  
INTERCHANGE RED WITH  
BLACK LEAD

				✓ MAX. SURFACE ROUGHNESS UNLESS NOTED OTHERWISE		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX± XXX±.005 XXXX±.0005 ANGLES±			
				MATL SPEC				DRAWN BY BLR 09-22-1998	
				FINISH				CHKD BY ML 09-22-1998	
09-24-1998		NEW DRAWING		MU21416		WAUSAU, WISCONSIN 54401		APPD BY ET 09-24-1998	
REV		DATE		CHANGE		PART NAME CONNECTION DIAGRAM		DRWG NO A- 102006-74A	
		SHOP BOOK		PURCHASED		DISTRIBUTION - WA - LB - WP - LM		CADD FILE NO. 102006-74A	

**CERTIFICATION DATA SHEET**

**Model#:** 145TBDR5309 AE  
**CONN. DIAGRAM:** A-102006-74  
**OUTLINE:** A-100383-906

**WINDING#:** ZB227 NONE 4  
**ASSEMBLY:** F1 ONLY

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
3&4 1/2	2.24&3.36	3600	3510&3450	145TZ	DPAO	E	L

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
1	60/60	230#230	13&19	ACROSS THE LINE	CONTINUOUS	F3	1.5/1.0	40	3300

FULL LOAD EFF: 81.5&80	3/4 LOAD EFF: 82	1/2 LOAD EFF: 80.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 97&96.5	3/4 LOAD PF: 97	1/2 LOAD PF: 96	0	CAP START CAP RUN	3.4

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
6.8 LB-FT	94	10.8 LB-FT 0	12.6 LB-FT 0	0

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
0 dBA	10 dBA	0 LB-FT^2	0 LB-FT^2	0 SEC.	0	0 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	GRAY (POWDER)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	SGL SPL EXT	0.875 x 3.00 IN SEK	NONE	1144 STRESSPROOF (C-223)	ROLLED STEEL
6205	6203						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	AUTOMATIC	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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FORM 3531 REV.3 02/07/99

\*\* Subject to change without notice.





**MARATHON ELECTRIC CORPORATION**  
TYPICAL PERFORMANCE CURVE for AC MOTOR

Customer

Curve at

230 Volts  
60 HZ  
4.5 HP

HP 3&4.5

PHASE 1

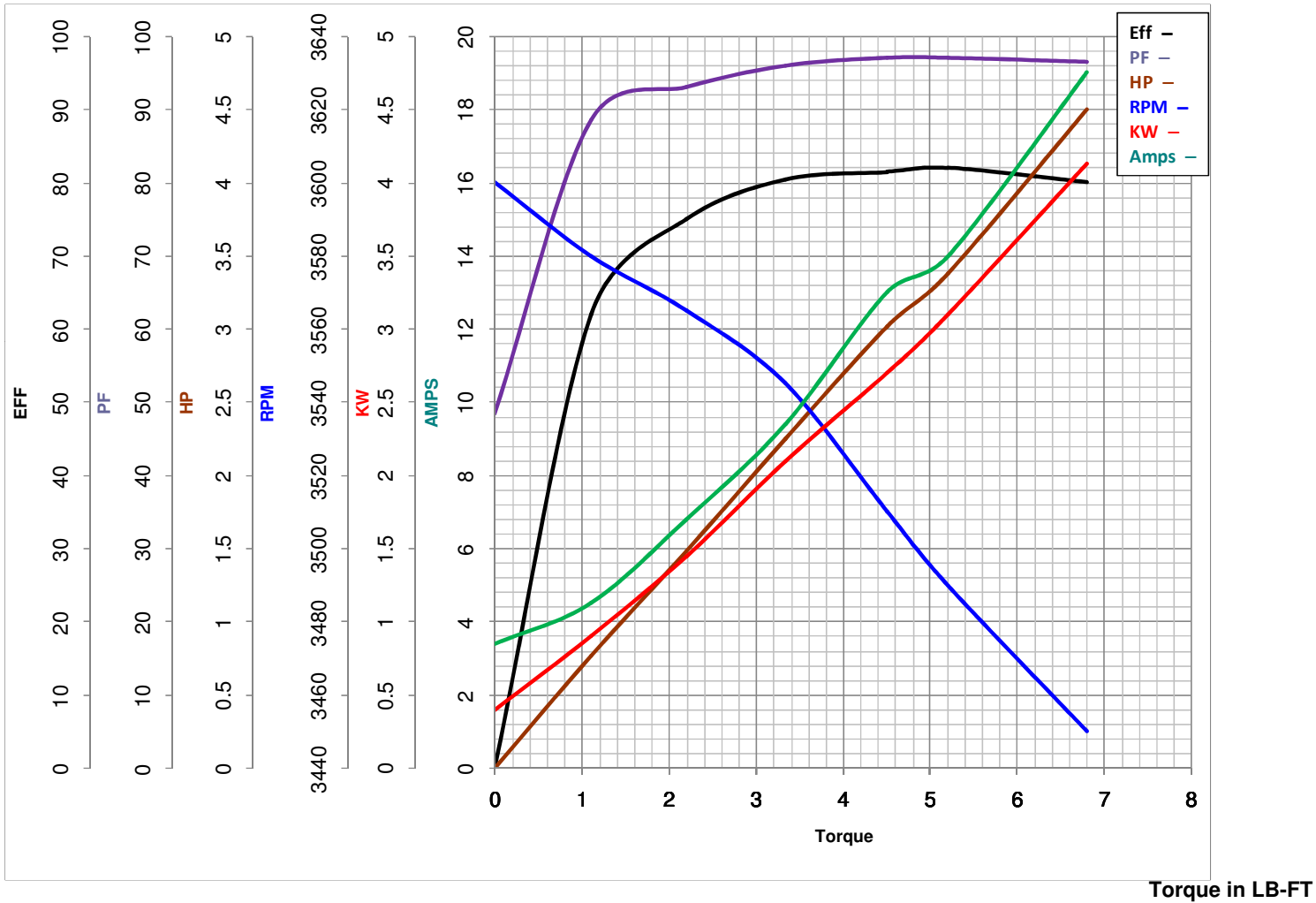
Model No 145TBDR5309

VOLTS 230&230

Catalog No Z304

HZ 60&60

RPM 3510&3450



FL TORQUE	<u>6.8</u>	LB-FT	FL AMPS	<u>13</u>	
BD TORQUE	<u>12.6</u>	LB-FT	PU TORQUE	<u>9.4</u>	LB-FT
LR TORQUE	<u>10.8</u>	LB-FT	LR AMPS	<u>94</u>	
WINDING	ZB227-		Date		