

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EM2280T**

**52M 8P TEFC HOR 254T**

Part Detail							
Revision:	B	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	09WGT414	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	09P11	Layout:	09LYP011	Poles:	08	Created Date:	12-16-2021
Base:	RG	Eff. Date:	02-28-2022	Leads:	9#12		

Specs			
Catalog Number:	EM2280T	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Not Inverter
Frame:	254T	KVA Code:	J
Frame Material:	Iron	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	5.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	900 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 12 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	0940M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	68
	CSA EEV	Product Family:	General Purpose
	CSA	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	Standard
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	Rigid	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	RoHS Status:	ROHS NON-COMPLIANT
Blower:	None	Shaft Extension Location:	Pulley End

Product Information Packet: EM2280T - 52M 8P TEFC HOR 254T

<b>Current @ Voltage:</b>	15.800 A @ 230.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	16.200 A @ 208.0 V	<b>Shaft Rotation:</b>	Reversible
	7.900 A @ 460.0 V	<b>Shaft Slinger Indicator:</b>	Shaft Slinger
<b>Design Code:</b>	B	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	No Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Direct on line
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	None
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	None
<b>Front Face Code:</b>	Standard	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	None
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3441LUA</b>										
<b>CAT.NO.</b>	EM2280T									
<b>SPEC</b>	09P011T414									
<b>HP</b>	5									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	17.2/8.6									
<b>RPM</b>	880									
<b>FRAME</b>	254T				<b>HZ</b>	60			<b>PH</b>	3
<b>SF</b>	1.15		<b>CODE</b>	K	<b>DES</b>	A		<b>CLASS</b>	F	
<b>NEMA NOM. EFF</b>	86.5		<b>PF</b>	61						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A				<b>USABLE AT 208V</b>			17.8		
<b>ENCL</b>	TEFC		<b>SER</b>							
<b>DE</b>	6309			<b>ODE</b>	6208					
<b>VPWM INVERTER READY</b>	SFA 19/9.5									
<b>CT6-60H(10:1)VT3-60H(20:1)</b>	50HZ 5HP 190/380V 19.6/9.8A									
										SF1.0

Parts List		
Part Number	Description	Quantity
SA400206	SA 09P011T414	1.000 EA
RA391357	RA 09P011T414	1.000 EA
HW1002A63	WASHER, 5/8 HI-COLLAR SPRICKWASHER	1.000 EA
09CB3003	CB W/1.75" DIA LD HL - 37, 39, 307 & 309	1.000 EA
09GS1000SP	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 EA
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 EA
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 EA
HA3400A33	STUD- 3/8-16 X 4.82 HEX WELKER	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
HW5100A08	W3118-035 WVY WSHR (WB)	1.000 EA
09EP1101A136	PU ENDPLATE, MACH	1.000 EA
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
HW4600B44	V-RING SLINGER 1.500 X 1.810 X .28 VITON	1.000 EA
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
09FH4000SP	309 FH - BLACK PRIMER	1.000 EA
XY3816A12	3/8-16 FINISHED NUT	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 EA
09GS1013SP	GS FOR 09CB3501, 12CB1500 & 12CB1503 LID	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 EA
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
09EP1100A208	ENDPLATE, MACH	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 EA
HW4500A05	1669B ALEM/UNIV860 GR FTG X	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.080 LB
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
09FN3001D01SP	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 EA
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.070 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 EA
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA
09PA1000	PACKAGING GROUP COMBINED PRINT	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA
LD7020D09	LEAD SET, 12AWG, 9 LEAD, 20" LONG LEADS	1.000 EA
PE-0000003	ZRTG PE ASSEMBLY	1.000 EA
FE-0000013	ZRTG FE ASSEMBLY	1.000 EA

**AC Induction Motor Performance Data**

Record # 62448

Typical performance - not guaranteed values

<b>Winding: 09WGT414-R001</b>		<b>Type: 0952M</b>		<b>Enclosure: TEFC</b>		
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>			
<b>Rated Output (HP)</b>	5	<b>Full Load Torque</b>	29.55 LB-FT			
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line			
<b>Full Load Amps</b>	17.2/8.6	<b>Breakdown Torque</b>	82 LB-FT			
<b>R.P.M.</b>	880	<b>Pull-up Torque</b>	46.8 LB-FT			
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	72.2 LB-FT		
<b>NEMA Design Code</b>	A <b>KVA Code</b>	K	<b>Starting Current</b>	53.5 A		
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	5.53 A			
<b>NEMA Nom. Eff.</b>	86.5 <b>Power Factor</b>	61	<b>Line-line Res. @ 25°C</b>	1.6349 Ω		
<b>Rating - Duty</b>	40C AMB-CONT	<b>Temp. Rise @ Rated Load</b>	42°C			
<b>S.F. Amps</b>	19/9.5	<b>Temp. Rise @ S.F. Load</b>	50°C			
		<b>Locked-rotor Power Factor</b>	27.3			
		<b>Rotor inertia</b>	4.19 lb-ft <sup>2</sup>			

**Load Characteristics 460 V, 60 Hz, 5 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	26	42	54	61	66	70	64
<b>Efficiency</b>	78.6	86	87.9	88.2	87.6	86.6	87.8
<b>Speed</b>	896.5	893.4	889.8	886	882.1	877.6	884
<b>Line amperes</b>	5.8	6.45	7.42	8.62	10	11.7	9.45

Performance Graph at 460V, 60Hz, 5.0HP Typical performance - Not guaranteed values

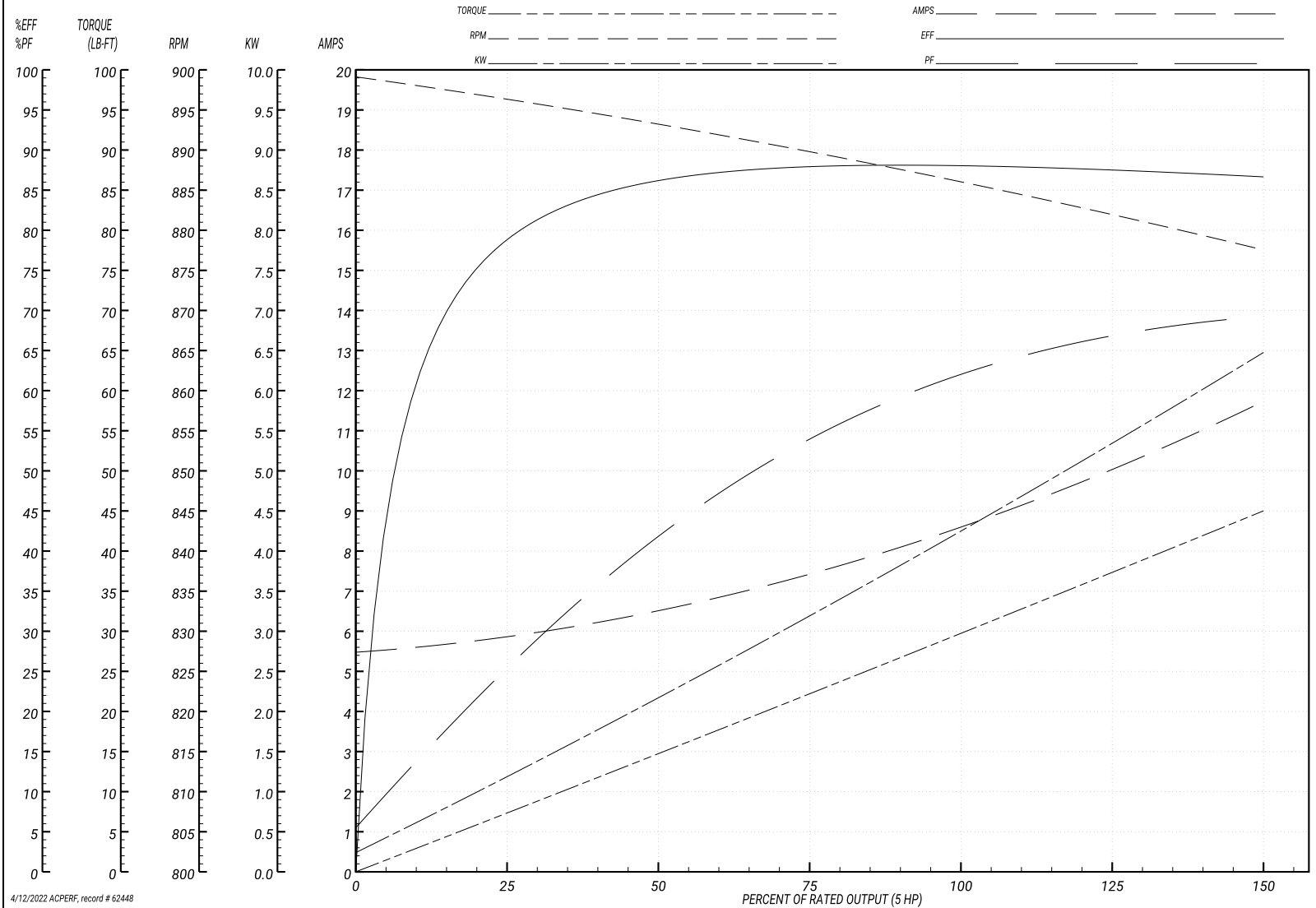
**BALDOR ELECTRIC COMPANY**

WINDING # 09WGT414

Typical performance - not guaranteed values.

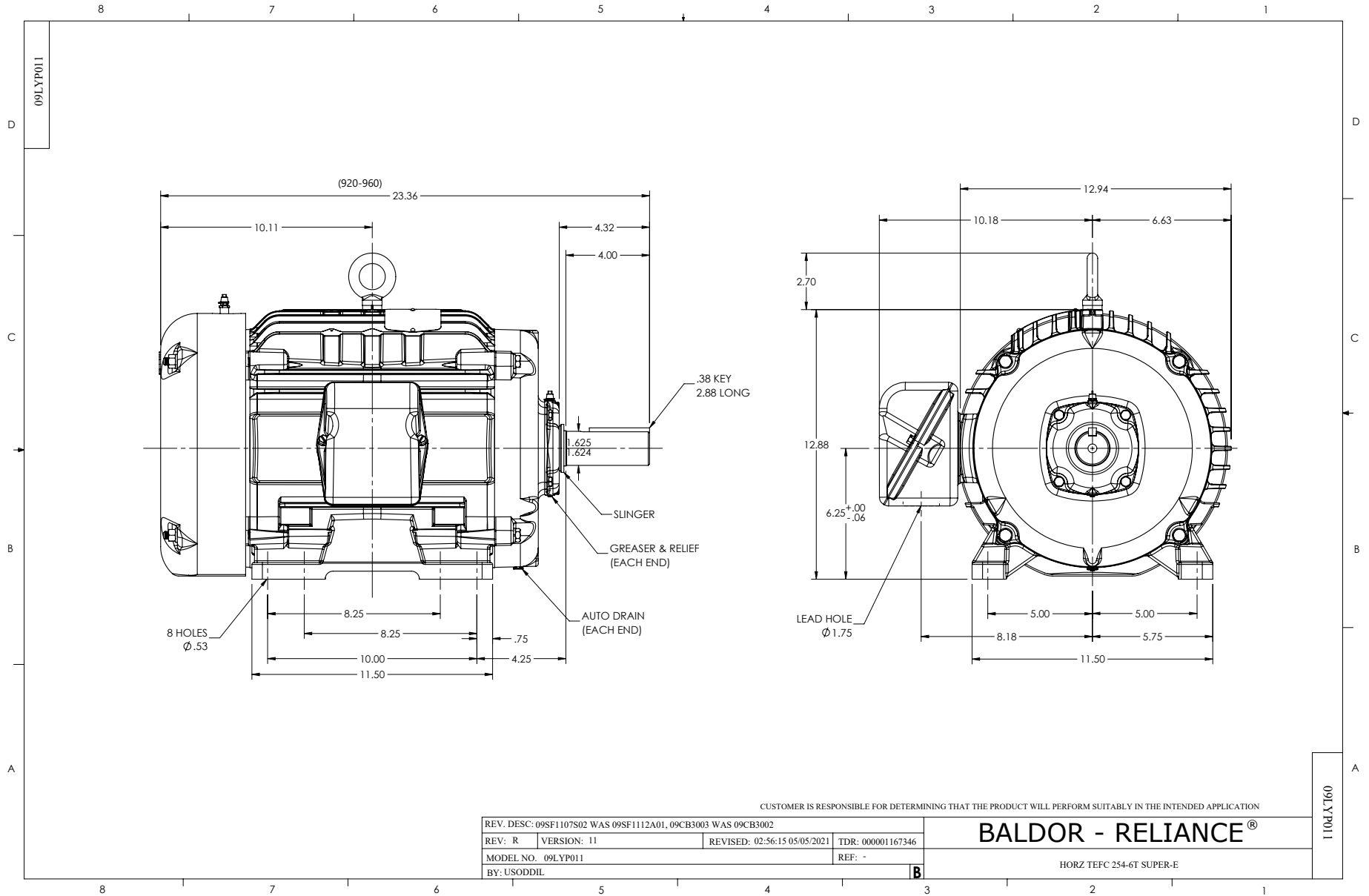
5 HP 3 PH 60 HZ 880 RPM 460 V 0952M

TORQUES(LB-FT): PO=82 PU=46.8 LR=72.2 LRA=53.5



4/12/2022 ACPERF, record # 62448

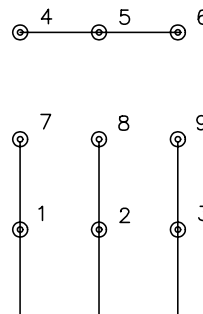




CD0005

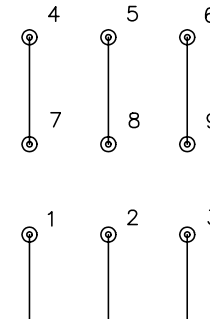


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: E BY: JLP

REVISED: 01/19/99 10:15

TDR: 0171435

9000D

FILE: AAA00005140

MDL: -

MTL: -

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005

Marketing maintained PDF of MN416:

<http://www.baldor.com/support/Literature/Load.ashx/MN416?ManNumber=MN416>