

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VEM2334T**

**20HP, 1770RPM, 3PH, 60HZ, 256TC, 0960M, TEFC, F**

Part Detail							
Revision:	M	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	09WGT459	CD Diagram:	CD0180	Mfg Plant:	
Mech. Spec:	09C103	Layout:	09LYC103	Poles:	04	Created Date:	11-17-2017
Base:	N	Eff. Date:	03-15-2022	Leads:	9#10		

Specs			
Catalog Number:	VEM2334T	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	256TC	Inverter Code:	Inverter Ready
Frame Material:	Iron	KVA Code:	J
Output @ Frequency:	20.000 HP @ 60 HZ	Lifting Lugs:	Standard Lifting Lugs
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 10 AWG
	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	None	Motor Lead Termination:	Flying Leads
XP Division:	Not Applicable	Motor Type:	0960M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	83
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	C-Face
Base Indicator:	No Mounting	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End

<b>Current @ Voltage:</b>	24.000 A @ 460.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	48.000 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
	52.000 A @ 208.0 V	<b>Shaft Slinger Indicator:</b>	Shaft Slinger
<b>Design Code:</b>	A	<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>Winding Thermal 2:</b>	None

<b>Nameplate NP3441LUA</b>										
<b>CAT.NO.</b>	VEM2334T									
<b>SPEC</b>	09C103T459G1									
<b>HP</b>	20									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	48/24									
<b>RPM</b>	1770									
<b>FRAME</b>	256TC				<b>HZ</b>	60			<b>PH</b>	3
<b>SF</b>	1.15		<b>CODE</b>	J	<b>DES</b>	A		<b>CLASS</b>	F	
<b>NEMA NOM. EFF</b>	93		<b>PF</b>	83						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A				<b>USABLE AT 208V</b>					52
<b>ENCL</b>	TEFC		<b>SER</b>							
<b>DE</b>	6309			<b>ODE</b>	6208					
<b>VPWM INVERTER READY</b>	SFA 54.4/27.2									
<b>CT6-60H(10:1)VT3-60H(20:1)</b>	50Hz 20HP 190/380V 58/29A									
										SF1.0

Parts List		
Part Number	Description	Quantity
SA347952	SA 09C103T459G1	1.000 EA
RA336511	RA 09C103T459G1	1.000 EA
09FN3001D01SP	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 EA
HW1002A63	WASHER, 5/8 HI-COLLAR SPRLCKWASHER	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
09EP1100A208	ENDPLATE, MACH	1.000 EA
HA3400A33	STUD- 3/8-16 X 4.82 HEX WELKER	4.000 EA
XY3816A12	3/8-16 FINISHED NUT	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
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
09EP1300A155	PUEP MACH W/309 BRG & "O" DRAIN, SLINGER	1.000 EA
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 EA
HW4600B44	V-RING SLINGER 1.500 X 1.810 X .28 VITON	1.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
09FH4000SP	309 FH - BLACK PRIMER	1.000 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

Parts List (continued)		
Part Number	Description	Quantity
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 EA
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
PK6014	STEEL STRAP FOR 309-312 BASELESS MOTORS	3.000 EA
19XW3118A08	.31-18 X .50 HEX WASHER HEAD TAPTITE II	3.000 EA
HW4500A05	1669B ALEM/UNIV860 GR FTG X	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.080 LB
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 EA
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.050 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA
40PA1017	PACKAGING GROUP, 09 VERT LARGE FLANGE	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA
FE-0000013	ZRTG FE ASSEMBLY	1.000 EA
LD7020E09	LEAD SET, 10AWG, 9 LEAD, 20" LONG LEADS	1.000 EA

**AC Induction Motor Performance Data**

Record # 67948

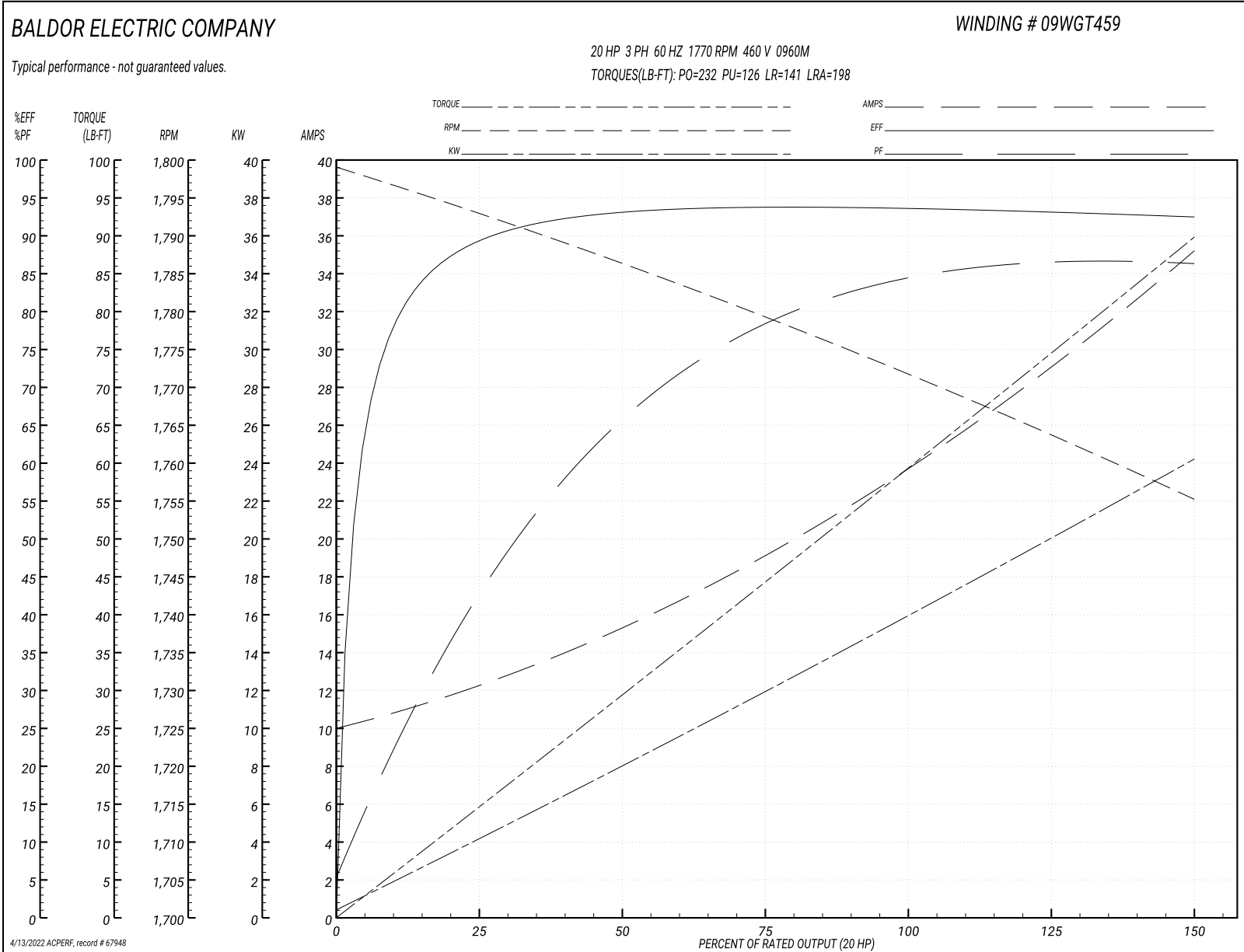
Typical performance - not guaranteed values

Winding: 09WGT459-R001			Type: 0960M			Enclosure: TEFC		
<b>Nameplate Data</b>				<b>460 V, 60 Hz: High Voltage Connection</b>				
Rated Output (HP)	20		Full Load Torque	59.27 LB-FT				
Volts	230/460		Start Configuration	direct on line				
Full Load Amps	48/24		Breakdown Torque	232 LB-FT				
R.P.M.	1770		Pull-up Torque	126 LB-FT				
Hz	60 Phase	3	Locked-rotor Torque	141 LB-FT				
NEMA Design Code	A	KVA Code	J	Starting Current	198 A			
Service Factor (S.F.)	1.15		No-load Current	10.4 A				
NEMA Nom. Eff.	93	Power Factor	83	Line-line Res. @ 25°C	0.33814 Ω			
Rating - Duty	40C AMB-CONT		Temp. Rise @ Rated Load	58°C				
S.F. Amps			Temp. Rise @ S.F. Load	70°C				
			Locked-rotor Power Factor	26.9				

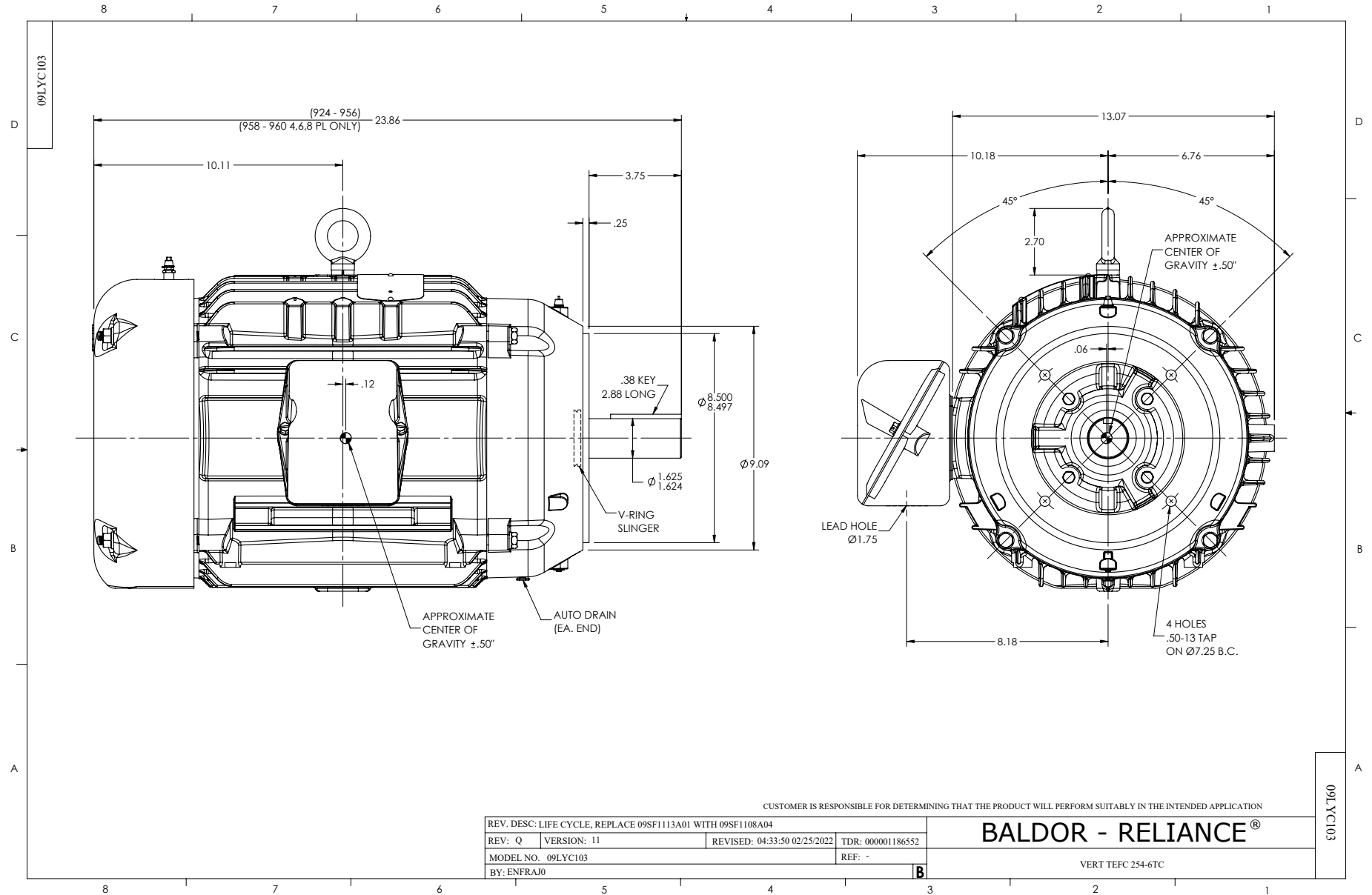
**Load Characteristics 460 V, 60 Hz, 20 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	67	78	83	86	87	85
Efficiency	89.2	93	93.7	93.6	93.1	92.4	93.3
Speed	1793.2	1786.4	1779.1	1771.9	1763.7	1755.3	1767
Line amperes	11.8	15	19.2	24	29.3	34.9	27.2

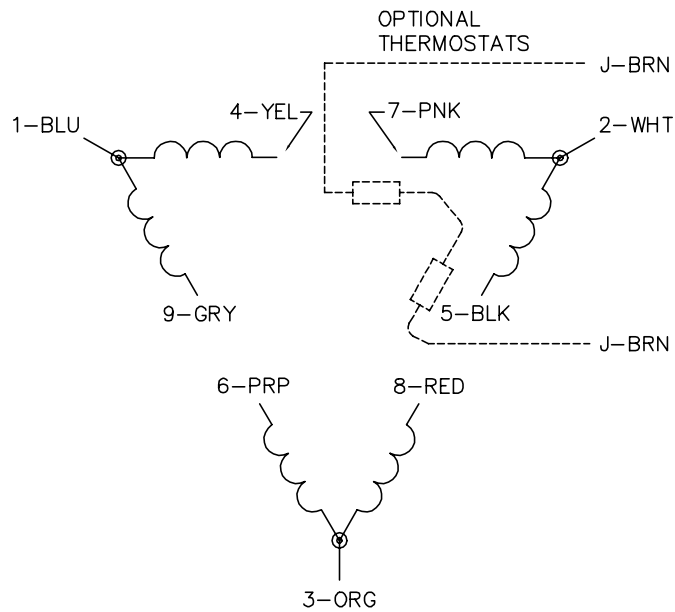
Performance Graph at 460V, 60Hz, 20.0HP Typical performance - Not guaranteed values







CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



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.

CD0180

REV. DESC: ADD CLASS CONN00000007		
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**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

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