



Customer information packet

VEM4106T

20HP, 3520RPM, 3PH, 60HZ, 256TC, 0936M, TEFC, F

ELECTRIC MOTOR WHOLESAL.COM

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	256TC
Frame Material	Iron
Frequency	60.00 Hz
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	208.0 V @ 60 HZ 230.0 V @ 60 HZ 460.0 V @ 60 HZ
XP Class and Group	None
XP Division	Not Applicable
Agency Approvals	UR CSA CSA EEV
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	50.000 A @ 208.0 V 46.000 A @ 230.0 V 23.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part detail

Revision	T
Type	AC
Mech. spec.	09C103
Base	
Status	PRD/A
Elec. spec.	09WGZ601
Layout	09LYC103
Eff. date	01-08-2021
CD Diagram	CD0005
Poles	02
Leads	9#10
Proprietary	False
Created date	04-22-2015

Heater Indicator	No Heater
High Voltage Full Load Amps	23.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0936M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	23.80 IN
Power Factor	89
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3520 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2

None

Nameplate

NP3441LUA

CAT.NO.	VEM4106T							
SPEC	09C103Z601G2							
HP	20							
VOLTS	208-230/460							
AMPS	50-46/23							
RPM	3520							
FRAME	256TC	HZ	60	PH	3			
SF	1.15	CODE	H	DES	A	CLASS	F	
NEMA NOM. EFF	91	PF	89					
RATING	40C AMB-CONT							
CC	010A	USABLE AT 208V						
ENCL	TEFC	SER						
DE	6309	ODE	6208					
VPWM INVERTER READY								
CT6-60H(10:1)VT3-60H(20:1	50Hz 20HP 190/380V 56/28A						SF1.0	

Parts list

Part number	Description	Quantity
SA299745	SA 09C103Z601G2	1.000 ea
RA286775	RA 09C103Z601G2	1.000 ea
37FN3002C02	EXFN, PLASTIC, 6.00 OD, 1.503 ID	1.000 ea
HW1002A63	OASHER, 5/8 HI-COLLAR SPRLCKWASHER	1.000 ea
09CB3002SP	CB W/1.38 LEAD HOLE FOR 37, 39, 307 & 30	1.000 ea
09GS1000SP	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 ea
10XN2520K12	1/4-20 X.75 GRD 5	2.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 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
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
HW4600B44	V-RING SLINGER 1.500 X 1.810 X .28 VITON	1.000 ea
HA3113A02	THRUBOLT 3/8-16 X 16.750	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
09FH4000SP	309 FH - BLACK PRIMER	1.000 ea
HA2081A05	SPACER TUBE, 309 FAN HSG, 2.00 LONG	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
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 ea
09GS1013SP	09 GS FOR 09CB3501 LID - LEXIDE	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
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
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	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
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
40PA1017	PACKAGING GROUP, 09 VERT LARGE FLANGE	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 ea
FE-0000013	ZRTG FE ASSEMBLY	1.000 ea
LD7020D09	LEAD SET, 12AWG, 9 LEAD, 20" LONG LEADS	1.000 ea

AC Induction Motor Performance Data

Record # 57538

Typical performance - not guaranteed values

Winding: 09WGZ601-R004		Type: 0936M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)	20	Full Load Torque	29.6 LB-FT			
Volts	208-230/460	Start Configuration	direct on line			
Full Load Amps	50-46/23	Breakdown Torque	111 LB-FT			
R.P.M.	3520	Pull-up Torque	39.1 LB-FT			
Hz	60 Phase	3	Locked-rotor Torque	49.6 LB-FT		
NEMA Design Code	A KVA Code	H	Starting Current	161 A		
Service Factor (S.F.)	1.15	No-load Current	7.17 A			
NEMA Nom. Eff.	91 Power Factor	89	Line-line Res. @ 25°C	0.47592 Ω		
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	76°C			
S.F. Amps		Temp. Rise @ S.F. Load	95°C			
		Locked-rotor Power Factor	29			
		Rotor inertia	0.92 lb-ft ²			

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	58	78	86	89	90	90	90
Efficiency	88.9	92.2	92.4	91.7	90.7	89.2	91.1
Speed	3579.6	3561.5	3541.3	3519.5	3495.4	3467.8	3505
Line amperes	9	13	17.7	22.9	28.6	35	26.3

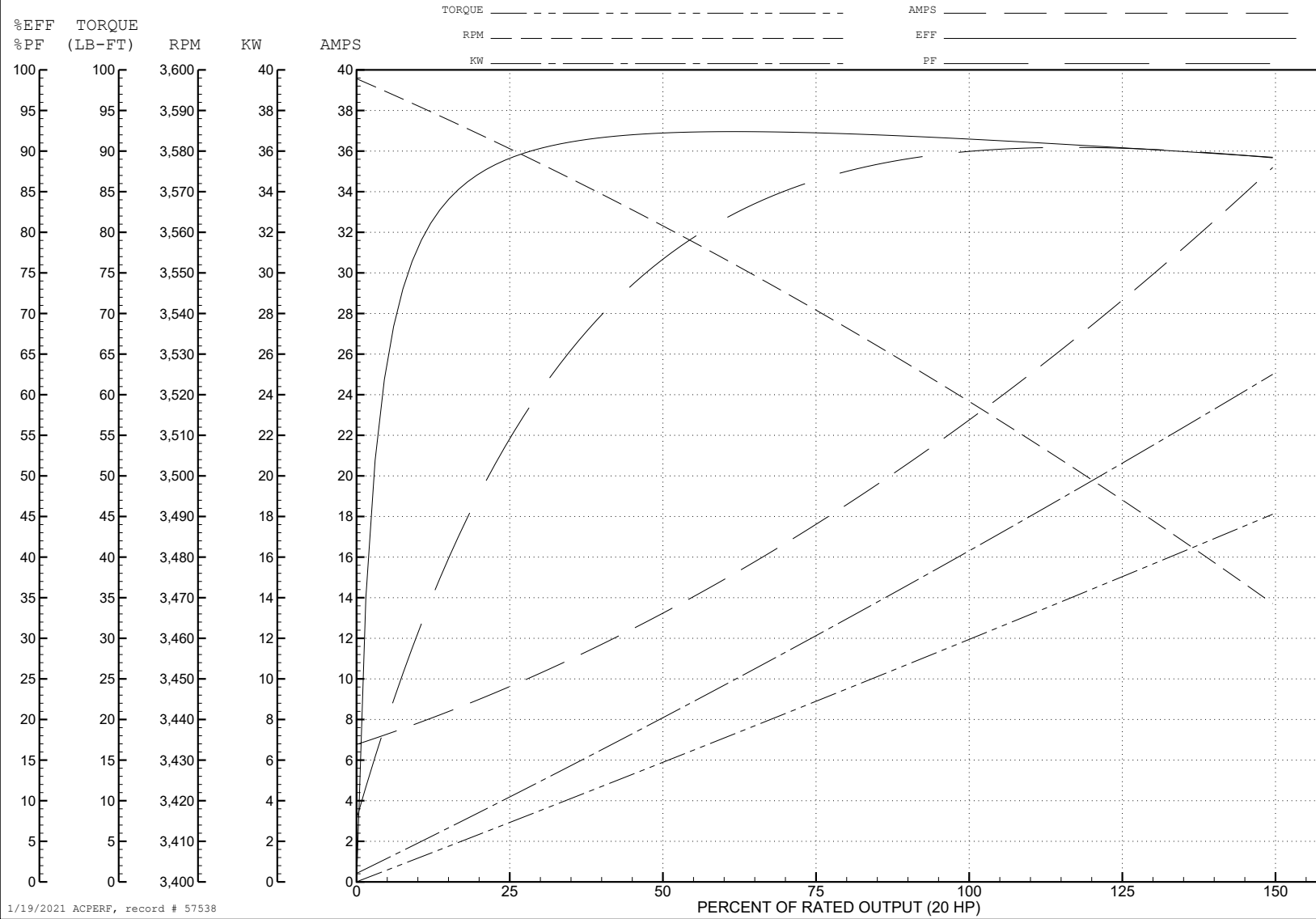
ABB Motors and Mechanical Inc.

WINDING # 09WGZ601

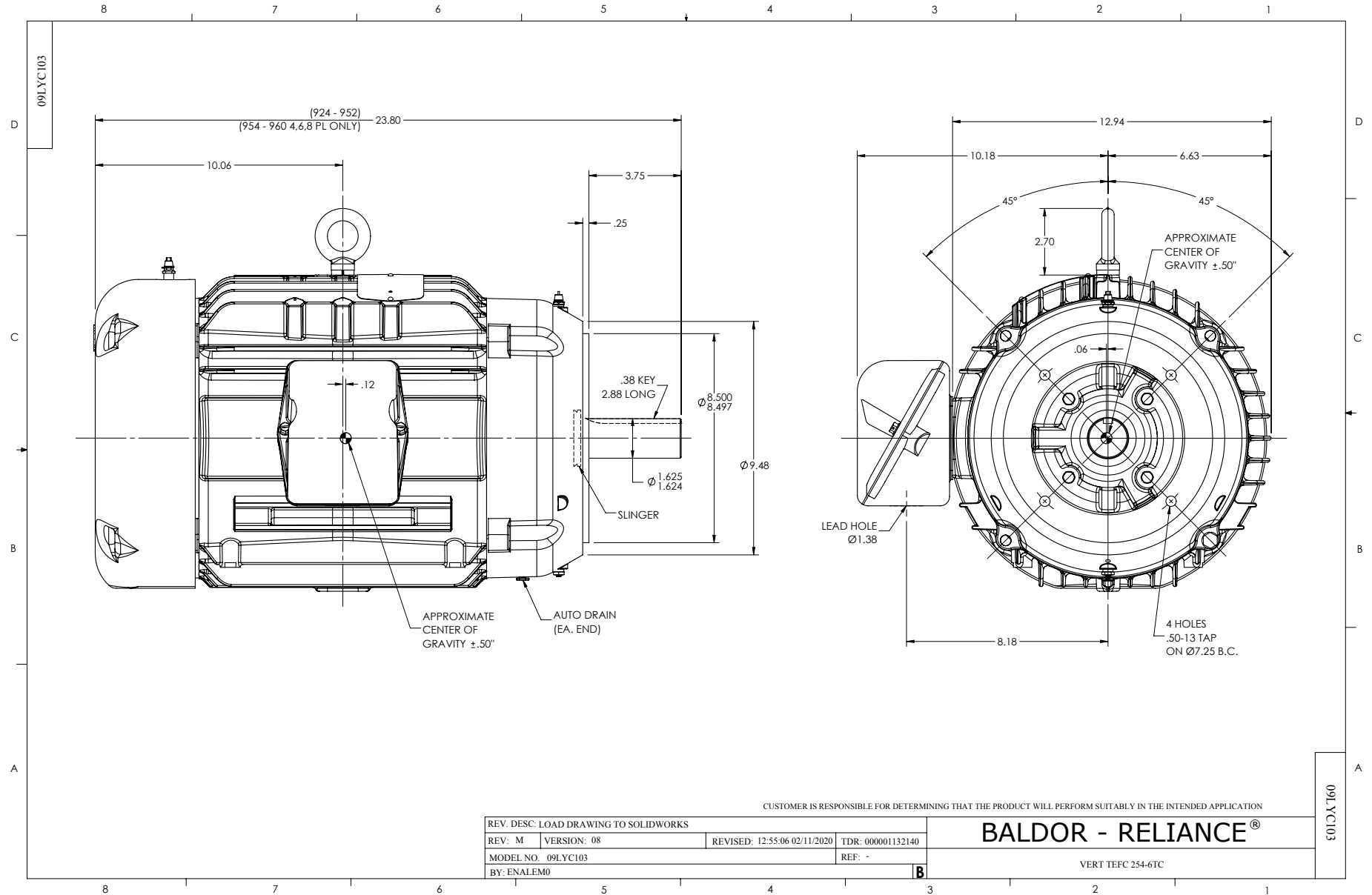
Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 3520 RPM 460 V 0936M

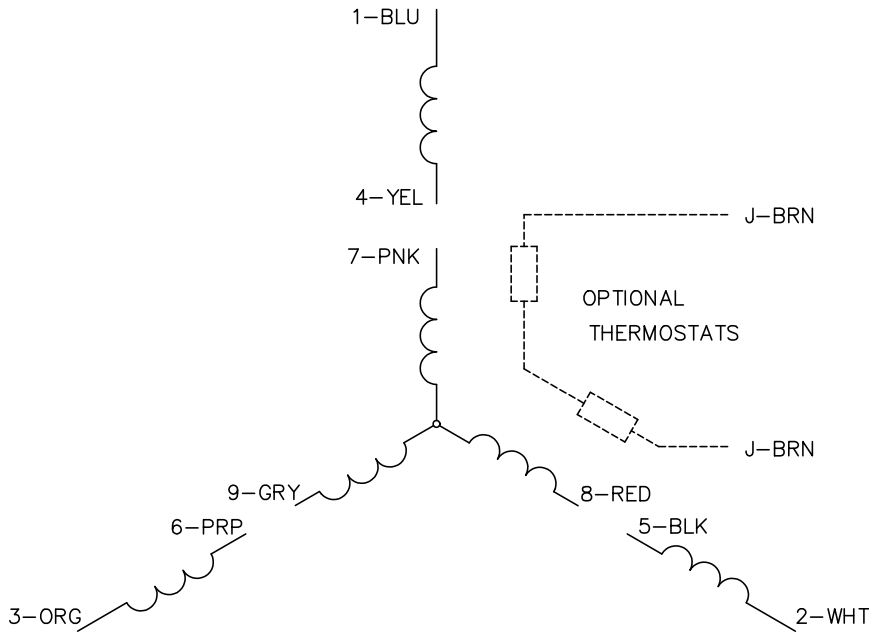
TORQUES (LB-FT): PO=111 PU=39.1 LR=49.6 LRA=161



1/19/2021 ACPERF, record # 57538



CD0005

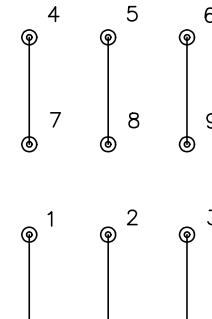


LOW VOLTAGE
(2Y)



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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS