

**BALDOR • RELIANCE**

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# Customer information packet

## VEM31157

2HP, 1760RPM, 3PH, 60HZ, 56C, 3528M, OPEN, F1, N

Class - None

Division - Not Applicable

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## Specifications

Enclosure	OPEN
Frame	56C
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	2.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CURUSEEV
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	5.800 A @ 208.0 V 5.600 A @ 230.0 V 2.800 A @ 460.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	2.8 a
Insulation Class	F

## Part detail

Revision	J
Type	AC
Mech. spec.	35E4017
Base	
Status	PRD/A
Elec. spec.	35WGG073
Layout	35LYE4017
Eff. date	05-16-2024
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	10-01-2021

<b>Inverter Code</b>	Inverter Ready
<b>KVA Code</b>	K
<b>Lifting Lugs</b>	No Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Motor Lead Quantity/Wire Size</b>	9 @ 18 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	3528M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	13.23 IN
<b>Power Factor</b>	77
<b>Product Family</b>	General Purpose
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	C-Face
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	0.625 IN
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	1760 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

<b>NP3155LUA</b>										
<b>CAT.NO.</b>	VEM31157									
<b>SPEC.</b>	35E4017G073G1									
<b>HP</b>	2									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	5.6/2.8									
<b>RPM</b>	1760									
<b>FRAME</b>	56C		<b>HZ</b>	60		<b>PH</b>	3			
<b>SF</b>	1.15	<b>CODE</b>	K	<b>DES</b>	B	<b>CLASS</b>	F			
<b>F.L. AVG. EFF.</b>	86.5	<b>PF</b>	77							
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>										
<b>DE</b>	6205		<b>ODE</b>	6203						
<b>ENCL</b>	OPEN	<b>SN</b>								
<b>USABLE AT</b>	2HP 50HZ 190/380V 6.6/3.3A							SF1.0		

## Parts list

Part number	Description	Quantity
SA398821	SA 35E4017G073G1	1.000 ea
RA389842	RA 35E4017G073G1	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3007	35 CB CASTING W/.88 DIA. LEAD HOLE	1.000 ea
51XB1016A06	10-16X3/8 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
35EP3209F00	MASTER ODE,203 BRG,DRIP CVR	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
35EP3402C00	MASTER DE,205 BRG,OPEN	1.000 ea
35AD2000	AIR BAFFLE - GALVANNEAL	1.000 ea
60XW0632A06	6-32 X 3/8 TORX HEAD SCREW TAPTITE II	4.000 ea
35FH4006A01SP	DRIP COVER,STAMPED,W/ PRIMER	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
35CB4521	35 LIPPED CB LID (GALV & PHOSPH)	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1050Y01	CELEROL BALDOR GOLD *** NLA IN 5 GALLON	0.017 ga
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 ea
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500bx)4/22	1.000 ea
NP3155LUA	ALUM SUPER-E UL CC "SEMS" "USABLE AT" VE	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
35PA1066	PKG GRP, PRINT PK1008A06	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
PE-0000011	ZRTG PE ASSEMBLY	1.000 ea

**AC Induction Motor Performance Data**

Record # 81963

Typical performance - not guaranteed values

<b>Winding: 35WGG073-R009</b>		<b>Type: 3528M</b>		<b>Enclosure: OPEN</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	2		<b>Full Load Torque</b>	5.99 LB-FT	
<b>Volts</b>	230/460		<b>Start Configuration</b>	direct on line	
<b>Full Load Amps</b>	5.6/2.8		<b>Breakdown Torque</b>	20.5 LB-FT	
<b>R.P.M.</b>	1760		<b>Pull-up Torque</b>	13.8 LB-FT	
<b>Hz</b>	<b>60 Phase</b>	3	<b>Locked-rotor Torque</b>	15 LB-FT	
<b>NEMA Design Code</b>	<b>B KVA Code</b>	L	<b>Starting Current</b>	22.5 A	
<b>Service Factor (S.F.)</b>	1.15		<b>No-load Current</b>	1.62 A	
<b>NEMA Nom. Eff.</b>	<b>86.5 Power Factor</b>	74	<b>Line-line Res. @ 25°C</b>	9.54 Ω	
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	64°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	77°C	
			<b>Locked-rotor Power Factor</b>	57.9	
			<b>Rotor inertia</b>	0.202 lb-ft <sup>2</sup>	

**Load Characteristics 460 V, 60 Hz, 2 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>	35	55	68	76	81	84	83
<b>Efficiency</b>	78.2	85.3	86.8	86.5	85.4	83.6	86.3
<b>Speed</b>	1791	1782	1771	1760	1748	1734	1758
<b>Line amperes</b>	1.71	1.97	2.34	2.82	3.36	3.97	3.02

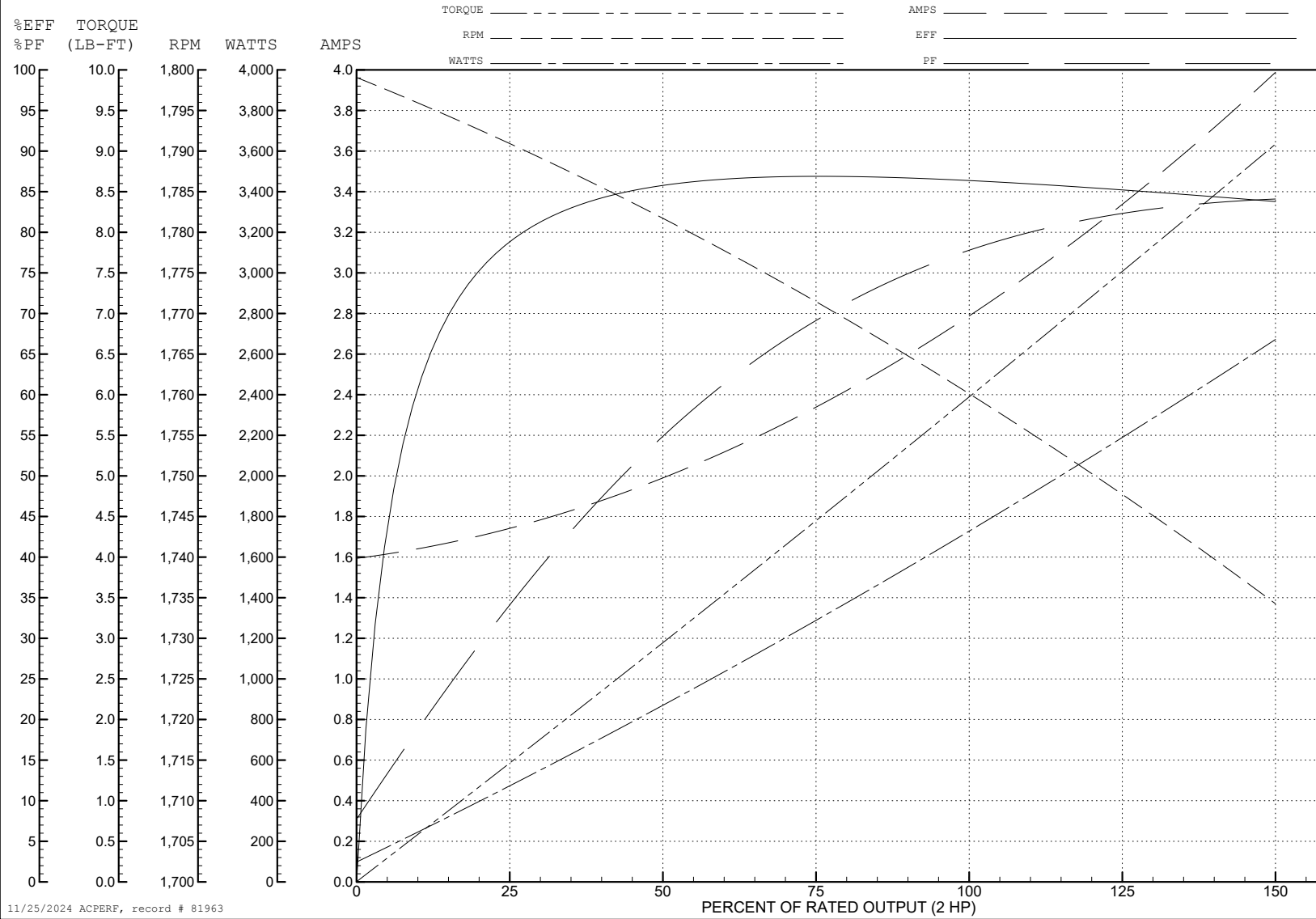
ABB Motors and Mechanical Inc.

WINDING # 35WGG073

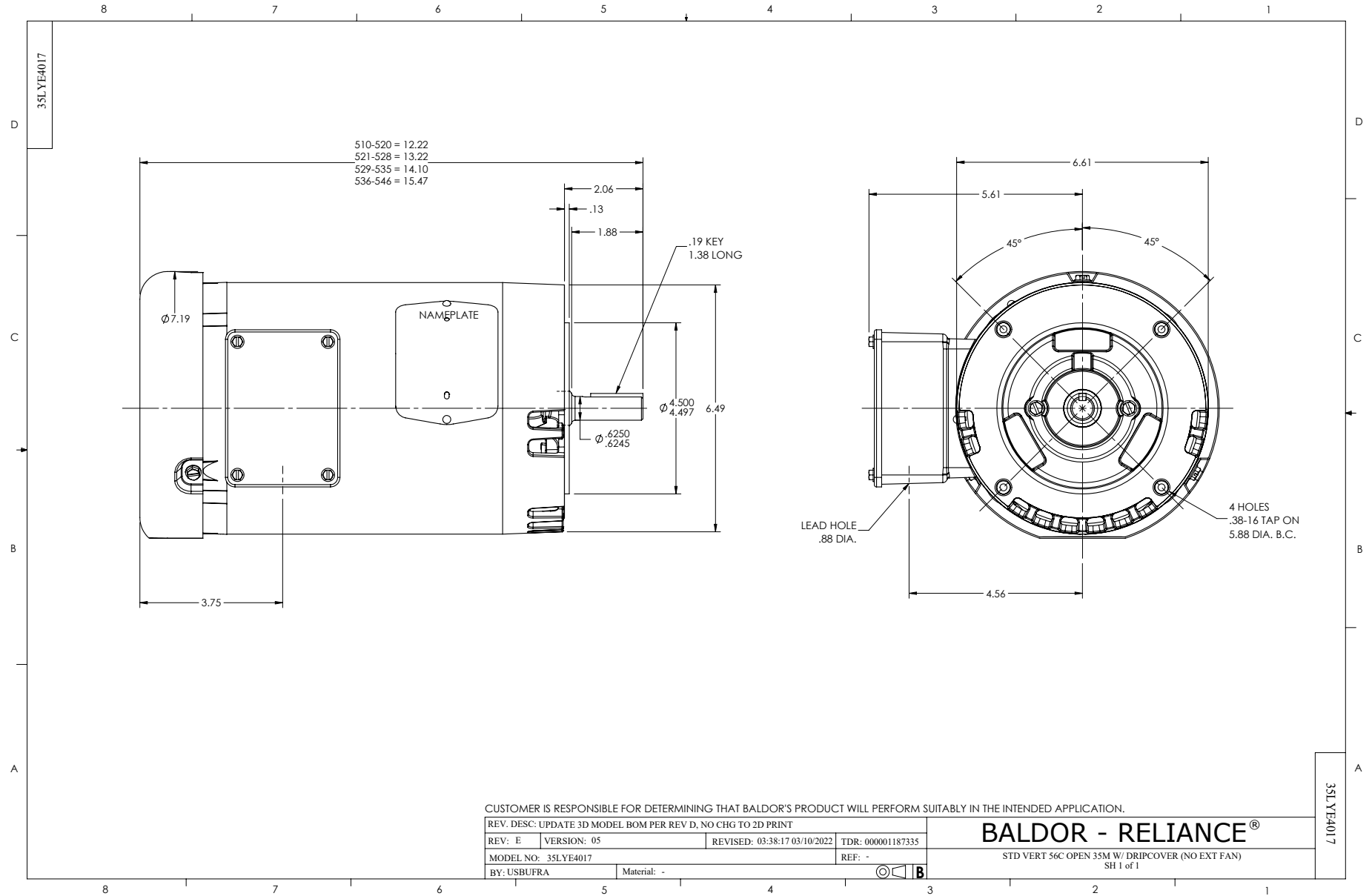
Typical performance - not guaranteed values.

2 HP 3 PH 60 HZ 1760 RPM 460 V 3528M

TORQUES (LB-FT): PO=20.5 PU=13.8 LR=15 LRA=22.5

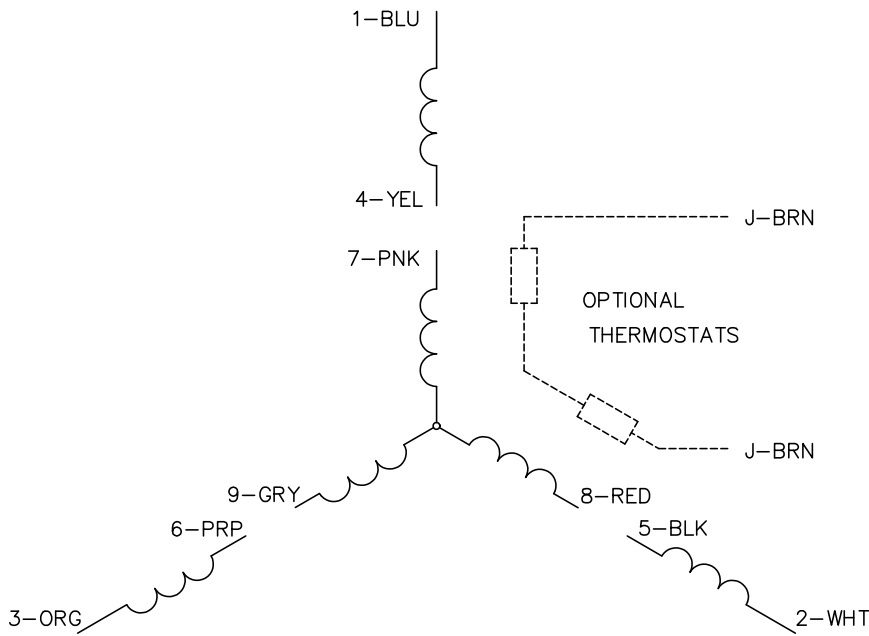


11/25/2024 ACPERF, record # 81963

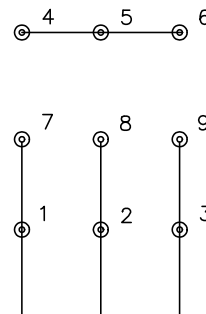




CD0005

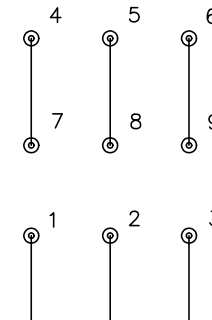


LOW VOLTAGE  
(2Y)



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