

BALDOR • RELIANCE

Customer information packet

ZDVSNM2238T

10HP, 1770RPM, 3PH, 60HZ, 254TC, 0948M, TENV, F

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	254TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	10.000 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	UR CSA
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	13.000 A @ 460.0 V 26.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	ENCODER
Front Face Code	Encoder/Feedback Device
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	13.0 a

Part detail

Revision	AA
Type	AC
Mech. spec.	09K345
Base	
Status	PRD/A
Elec. spec.	09WGY402
Layout	09LYK345
Eff. date	11-14-2023
CD Diagram	CD0005
Poles	04
Leads	9#12
Proprietary	False
Created date	07-16-2012

Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0948M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	24.05 IN
Power Factor	78
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
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	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3304L			
CAT NO	ZDVSNM2238T		
SPEC.	09K345Y402Z1		
FRAME	254TC	HP	10 TE
VOLTS	230/460		
MAG CUR	11.2/5.6	FLA	26/13
RPM	1770	RPM MAX	2700
HZ	60	PH	3 CLASS F
SER.F.	1.00	SL HZ	0.9
NEMA-NOM-EFF	91.7	WK2	2.1
RATING	40C AMB-CONT		
DE BRG	6309	ODE BRG	6208
CC	010A	SER.NO	
	1.5:1 CHP PWM		

REL S.O.	ZDVSNM2238T	VOLTS	460	ENCLOSURE	TEFC	WYE CONN	EQ	CKT	OHMS	PER PHASE
FRAME	254TC	AMPS	13	MAX SAFE RPM	5400					(AT BASE RATING, 25°C)
HP	10	DUTY		In (AMPS)	5.6	R1	0.3390	X1	0.1364	
BASE SPEED	1770	S.F.	1.00	P.F. @NL/FL	6/78	R2	0.2730	X2	1.6460	
PHASE/HZ	3/60	AMB°C/INSUL	40/F	WK ² (lb-ft ²)	2.1			XMI	45.2050	

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1773	10.1	29.8	460	60	13.0
Max Speed	2659	10.0	19.8	460	90	11.6
Min Speed	0	0.0	29.7	18.46	0.90	13.0

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.0	460	60	5.6
1/4	1793	2.5	7.5	460	60	6.6
1/2	1787	5.1	14.9	460	60	8.1
3/4	1780	7.6	22.4	460	60	10.4
Full Load	1773	10.1	29.8	460	60	13.0
O/L	1707	27.5	84.6	460	60	34.2

Blower Data

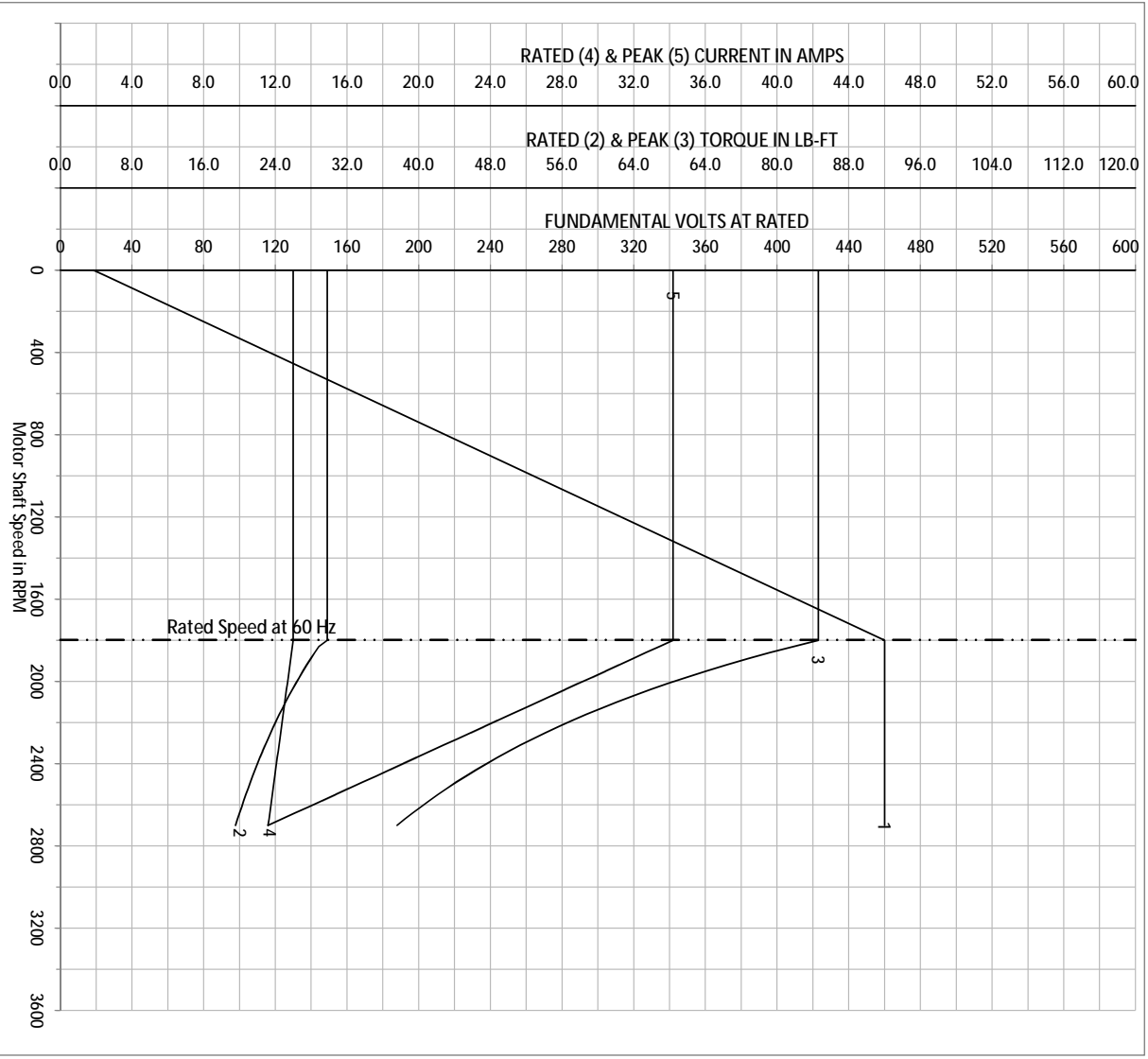
	Volts	Ph/Hz	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data
Vector PWM Inverter Duty

 <p>A MEMBER OF THE ABB GROUP</p>	DR BY	E Rowan	<p>A-C MOTOR</p> <p>PERFORMANCE CURVES</p> <p>09K345Y40Z21</p>
	CK BY	E Rowan	
	APP BY	E Rowan	
	DATE	1/24/2013	
ISSUE DATE		1/24/2013	

REL S.O.	ZDVSNM2238T	VOLTS	460	ENCLOSURE		TEFC	WVE	CONN EQ CKT OHMS PER PHASE
FRAME	254TC	AMPS	13	MAX SAFE RPM	5400			(AT BASE RATING, 25°C)
HP	10	DUTY	CONT	In (AMPS)	5.6	R1		X1 0.1364
BASE SPEED	1770	S.F.	1.00	P.F. @NL/FL	6/78	R2		X2 0.2730
PHASE/HZ	3/60	AMB ⁰ /C/NSUL	40/F	WK ² (lb-ft ²)	2.1			XN 1.6460
								XN 45.2050

Vector PWM Inverter Duty
Variable Speed AC Motor Curves

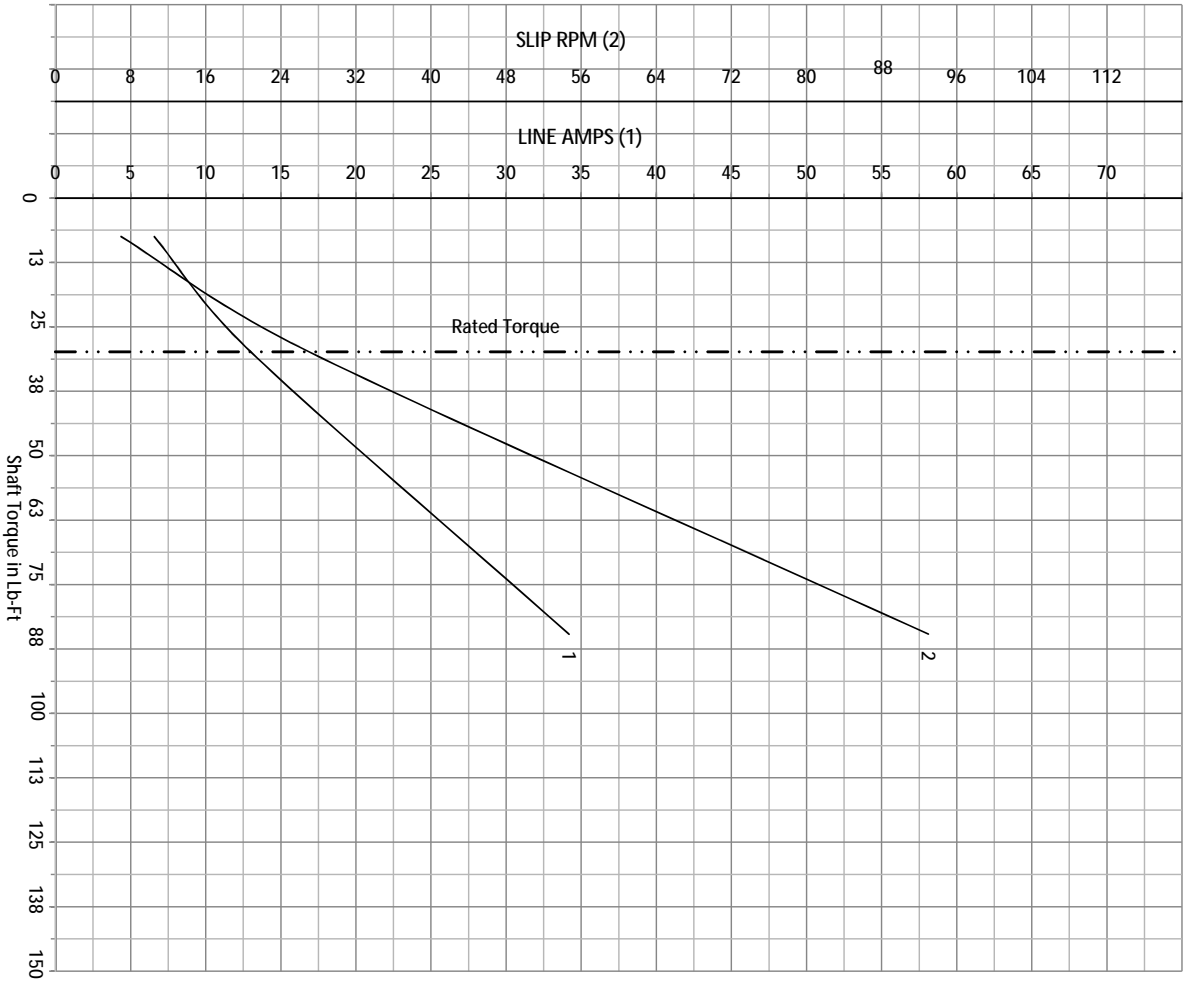


Calculated Data
Data Valid For Nameplate Speed Range only

<p>BALDOR A MEMBER OF THE ABB GROUP</p>	DR BY	E. Rowan	A-C MOTOR PERFORMANCE	09K345Y402Z1
	CK BY	E. Rowan	CURVES	SH 1 of 2
	APP BY	E. Rowan		ISSUE DATE 1/24/2013
	DATE	1/24/2013		

REL S.O.	ZDVSNM2238T	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE
FRAME	254TC	AMPS	13	MAX SAFE RPM	5400	(AT BASE RATING, 25°C)
HP	10	DUTY	CONT	In (AMPS)	5.6	R1 0.3390 X1 0.1364
BASE SPEED	1770	S.F.	1.00	P.F. @NL/FL	6/78	R2 0.2730 X2 1.6460
PHASE/HZ	3/60	AMB ⁰ /INSUL.	40/F	WK ² (LB-FT ²)	2.1	XM 45.2050

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data

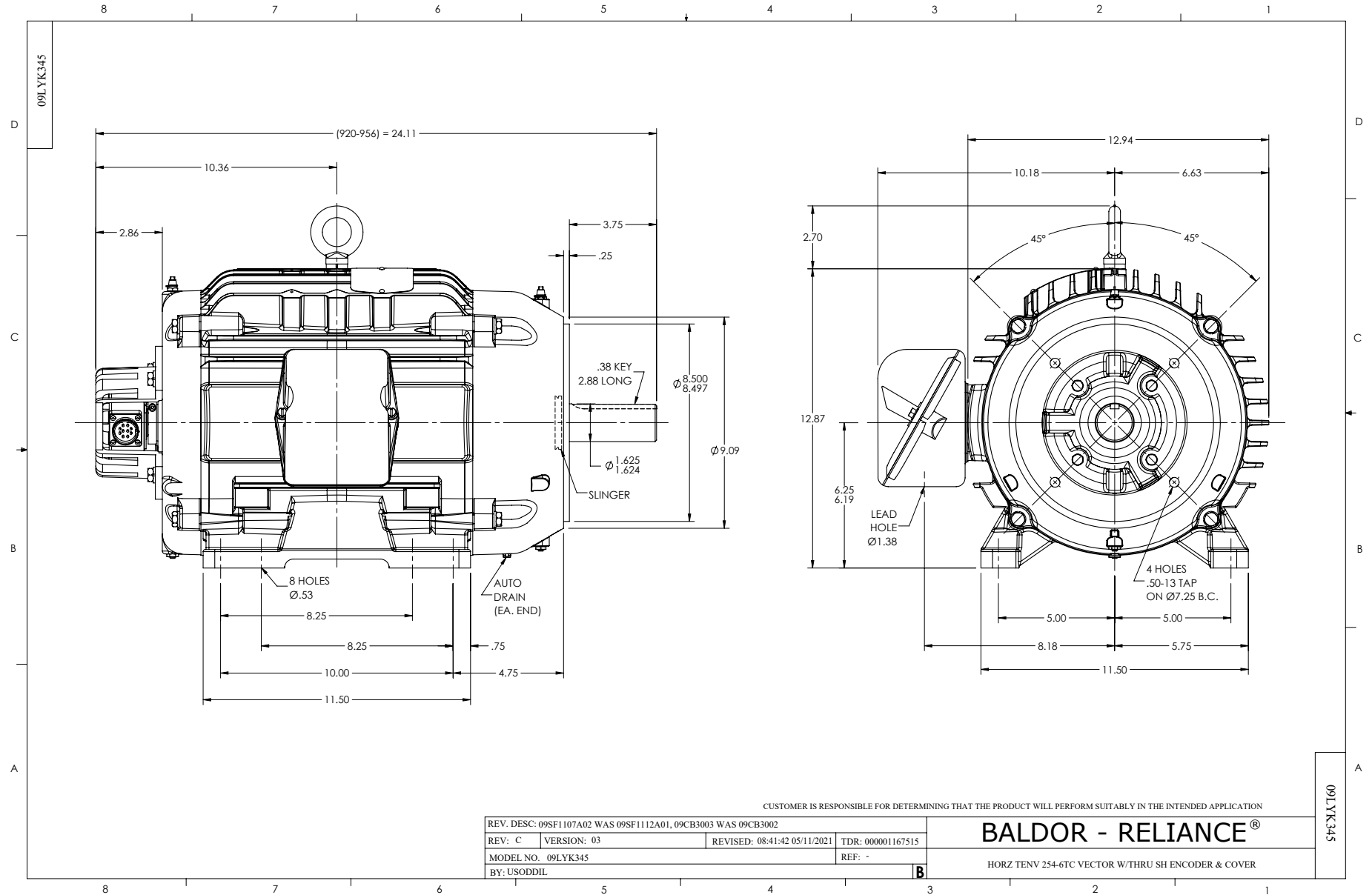
Data Valid For Nameplate Speed Range only



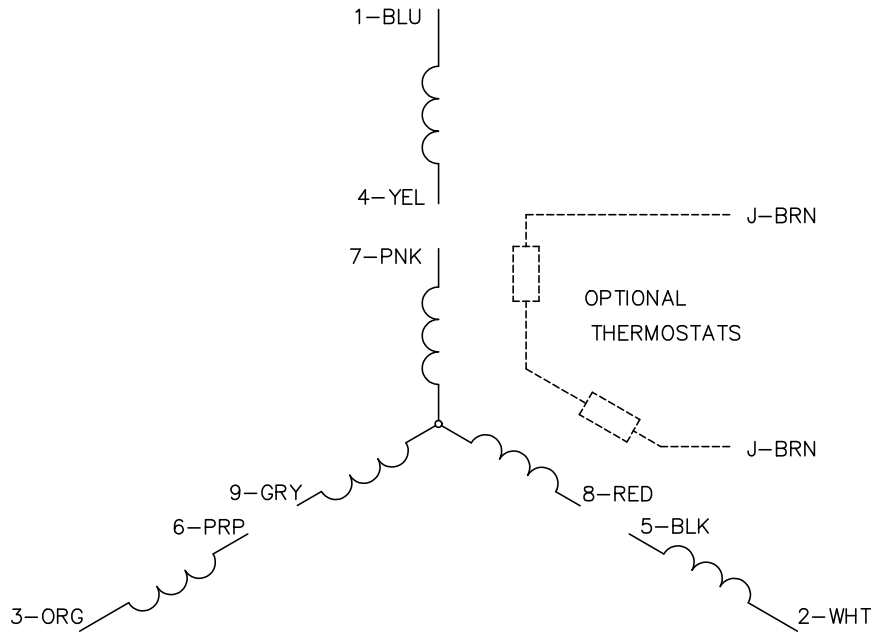
DR BY E Rowan
 CK BY E Rowan
 APP BY E Rowan
 DATE 1/24/2013

A-C MOTOR PERFORMANCE
CURVES

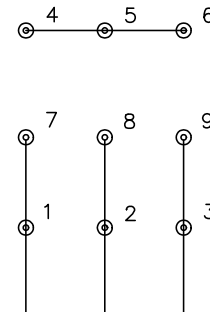
09K345Y402Z1
 SH 1 of 2
 ISSUE DATE 1/24/2013



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