

**BALDOR® • RELIANCE** 

**Product Information Packet**

**ECP4106T-4**

**20HP,3540RPM,3PH,60HZ,256T,0944M,TEFC,F1**

Part Detail							
Revision:	AS	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	09WGY640	CD Diagram:	CD0006	Mfg Plant:	
Mech. Spec:	09J371	Layout:	09LYJ371	Poles:	02	Created Date:	08-29-2010
Base:	RG	Eff. Date:	04-05-2022	Leads:	3#10		

Specs			
Catalog Number:	ECP4106T-4	Inverter Code:	Inverter Duty
Enclosure:	TEFC	KVA Code:	J
Frame:	256T	Lifting Lugs:	Standard Lifting Lugs
Frame Material:	Iron	Locked Bearing Indicator:	Locked Bearing
Output @ Frequency:	20.000 HP @ 60 HZ	Motor Lead Quantity/Wire Size:	3 @ 10 AWG
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Exit:	Ko Box
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	CLI GP A,B,C,D	Motor Type:	0944M
XP Division:	Division II	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	89
	CSA EEV	Product Family:	Super-E Chemical Processing
	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)	Shaft Extension Location:	Pulley End
Blower:	None	Shaft Ground Indicator:	No Shaft Grounding
Constant Torque Speed Range:	6	Shaft Rotation:	Reversible

<b>Current @ Voltage:</b>	23.000 A @ 460.0 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>Heater Indicator:</b>	No Heater	<b>Winding Thermal 2:</b>	None
<b>Insulation Class:</b>	F	<b>XP Temp Code:</b>	T3

Nameplate NP3995ABBL											
CAT # ECP4106T-4			SER			CC 010A					
SPEC 09J371Y640G1			RATING 40C AMB-CONT								
HZ	VOLTS		AMPS		RPM	HP	CODE	SF	DES	PF	NEMA NOM. EFF
60	460		23		3540	20	J	1.15	A	89 %	92.4 %
										%	%
PH 3	CL F	MAX RPM 5400		MAX CORR KVAR			USABLE AT 208V				
IP55	FR 256T	ENCL TEFC		DE BRG 6309			ODE BRG 6309				
GREASE POLYREX EM						MTR WT 328			LBS		
USABLE AT 50HZ 15HP 380V 21A											
CL I DIV 2 GRPS A,B,C,D				CL I ZONE 2 GRPS				IIA, IIB, IIC		TEMP T 200 C	
1.0 SF ON PWM INVERTER			POWER			INV TEMP CL 200 C					
CHP 60-90	HZ 1.5:1	CT 6-60		HZ 10:1			VT 3-60		HZ 20:1		
SPACE HEATER LEADS H1-H2:						TIE LIKE NUMBERS TOGETHER					
V	A	W		MAX SPACE HEATER TEMP							

Parts List		
Part Number	Description	Quantity
SA202240	SA 09J371Y640G1	1.000 EA
RA189522	RA 09J371Y640G1	1.000 EA
09CB1002A12P	KOBX W/1.25 NPT LEAD HOLE & 2.38 MTG HOL	1.000 EA
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	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
10XN2520K08	1/4-20 X .50 GRADE #5, STL, ZINC PLATE	1.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	1.000 EA
HA3400A39	STUD- 3/8-16 X 6.44 OAL HEX	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
HW4600B44	V-RING SLINGER 1.500 X 1.810 X .28 VITON	1.000 EA
HA4017A08	.125X3.50 GREASER EXTEN.	1.000 EA
HA4017A02	.125X2.50 GREASER EXTENS.F/S	1.000 EA
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 EA
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 EA
09FH1000P	FAN COVER, CAST W/EPOXY PRIMER	1.000 EA
09EP1118A38P	PUEP MACH,309 BRG,PLS GRSR,RLF,EPOXY PRI	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
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 EA

Parts List (continued)		
Part Number	Description	Quantity
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
XY3816A12	3/8-16 FINISHED NUT	4.000 EA
12CB1503P	CONDUIT BOX LID, CAST W/EPOXY PRIMER	1.000 EA
12GS1002	GASKET, CONDUIT BOX LID, NEOP	1.000 EA
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	2.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 EA
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 EA
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 QT
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.033 EA
09EP1118A37LP5	FREP MACH, 309 BRG. EPOXY PRIMER	1.000 EA
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
NP3995ABB L	SS SUPER-E SD XEX CLI DIV2 UR CSA-C-US E	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA
LD7020E03	LEAD SET, 10AWG, 3 LEAD, 20" LONG LEADS	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
37FN3002C02	EXFN, PLASTIC, 6.00 OD, 1.503 ID	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

HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
MG1025N19	WILKOFEST, 778.50, RELIANCE BLUE-GREEN	0.050 GA
40PA1005	PACKAGING GROUP, 09 STD	1.000 EA

<b>Accessories</b>		
<b>Part Number</b>	<b>Description</b>	<b>Multiplier</b>
09-1309	C FACE KIT	A8



**AC Induction Motor Performance Data**

Record # 47269

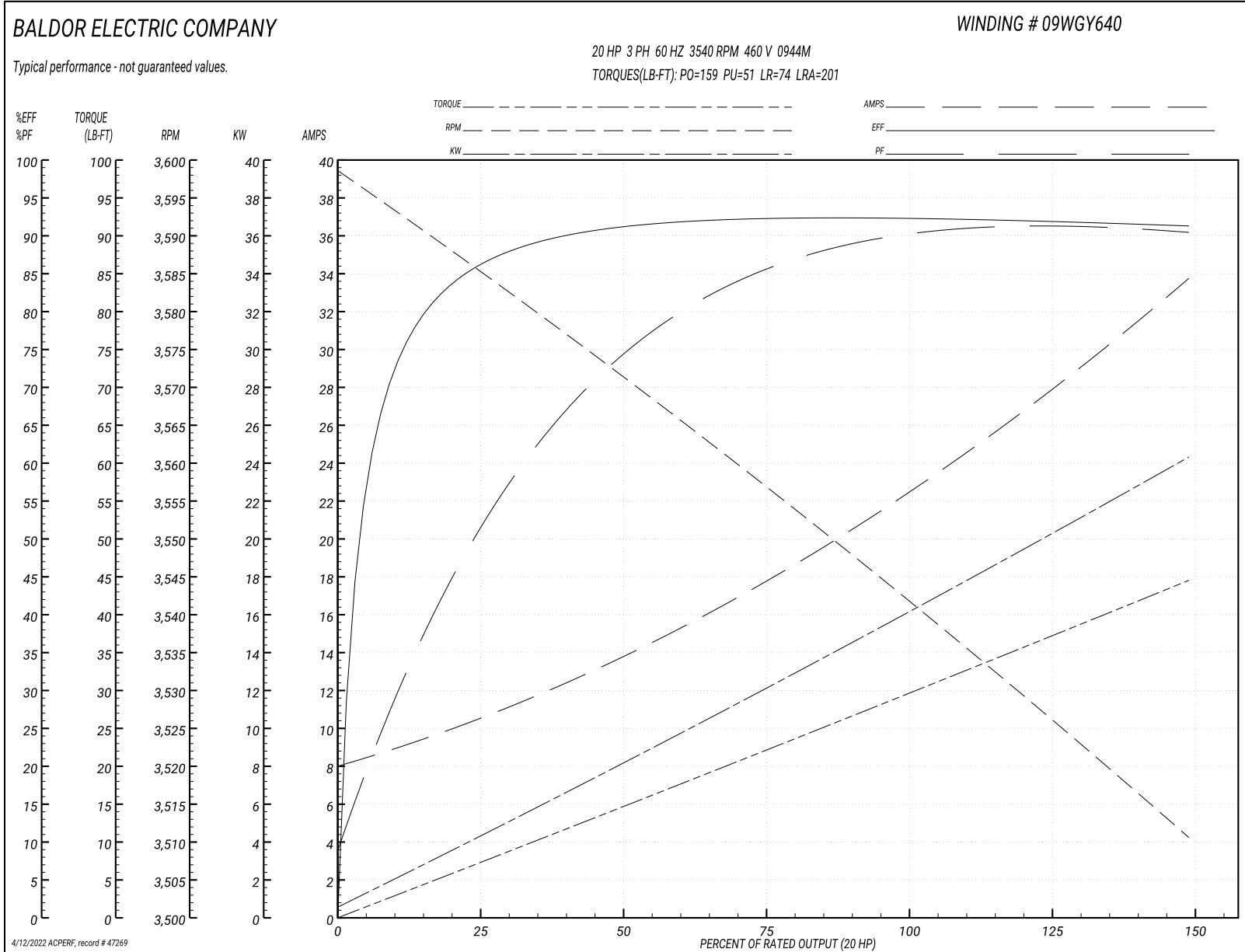
Typical performance - not guaranteed values

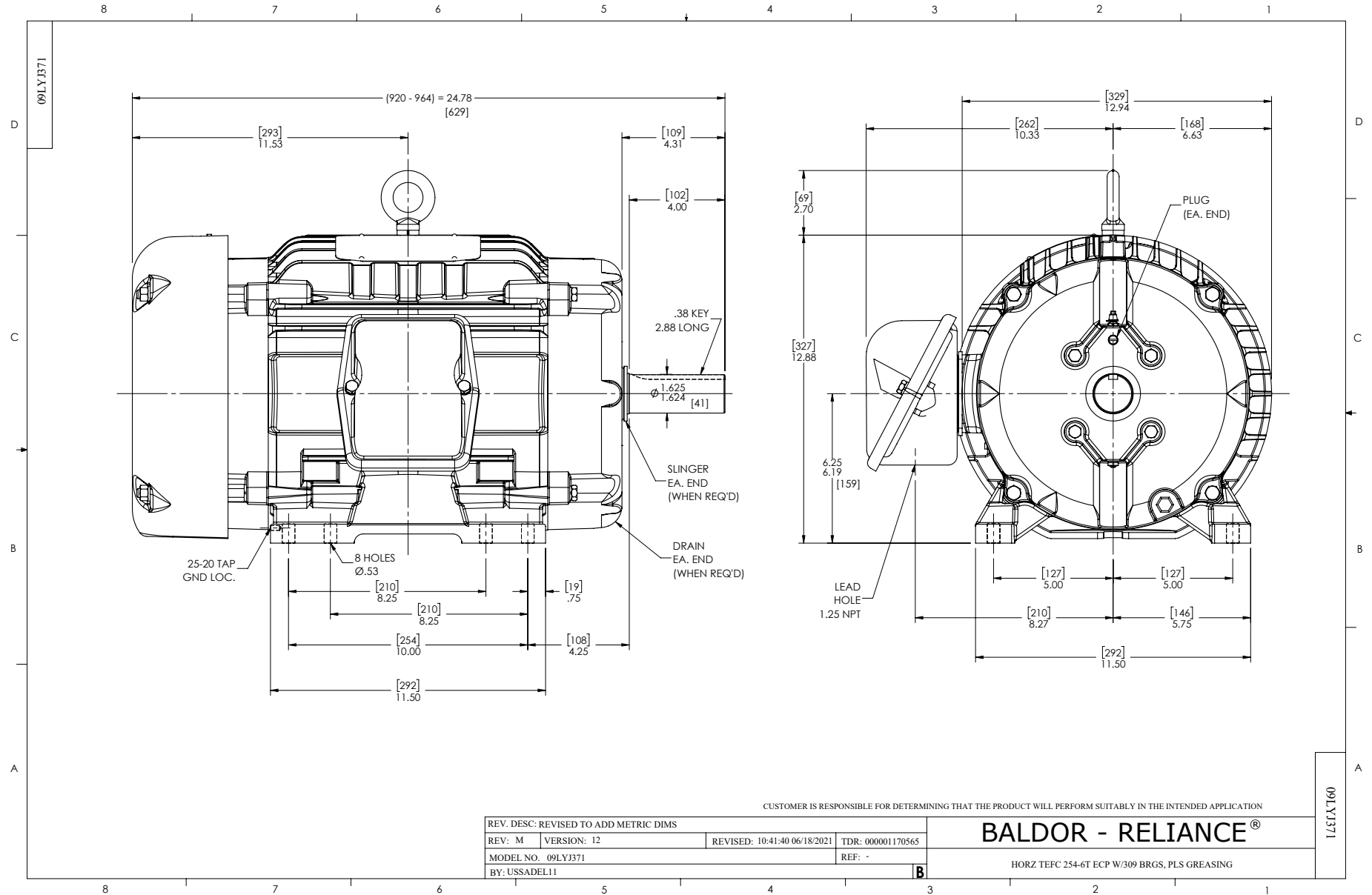
Winding: 09WGY640-R019		Type: 0944M	Enclosure: TEFC
<b>Nameplate Data</b>		<b>460 V, 60 Hz: Single Voltage Motor</b>	
Rated Output (HP)	20	Full Load Torque	29.7 LB-FT
Volts	460	Start Configuration	direct on line
Full Load Amps	23	Breakdown Torque	159 LB-FT
R.P.M.	3540	Pull-up Torque	51 LB-FT
Hz	60 Phase	Locked-rotor Torque	74 LB-FT
NEMA Design Code	A KVA Code	Starting Current	201 A
Service Factor (S.F.)	1.15	No-load Current	8.4 A
NEMA Nom. Eff.	92.4 Power Factor	Line-line Res. @ 25°C	0.313 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	62°C
S.F. Amps		Temp. Rise @ S.F. Load	75°C
		Locked-rotor Power Factor	28
		Rotor inertia	1.12 lb-ft <sup>2</sup>

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

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	56	75	86	89	91	91	90
Efficiency	85.5	91.1	92.3	92.4	92	91.2	92.2
Speed	3585	3570	3557	3542	3527	3510	3533
Line amperes	10	13.8	17.8	22.9	28	33.5	26

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





CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

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**BALDOR - RELIANCE®**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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