

**BALDOR® • RELIANCE** 

**Product Information Packet**

**ECP4102T-4**

**20HP,1180RPM,3PH,60HZ,286T,1054M,TEFC,F1**

Part Detail							
Revision:	E	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	10WGY837	CD Diagram:	CD0006	Mfg Plant:	
Mech. Spec:	10H292	Layout:	10LYH292	Poles:	06	Created Date:	08-11-2017
Base:	RG	Eff. Date:	12-21-2020	Leads:	3#10		

Specs			
Catalog Number:	ECP4102T-4	Inverter Code:	Inverter Duty
Enclosure:	TEFC	KVA Code:	H
Frame:	286T	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:	1200 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:	1054M
XP Division:	Division II	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	77
	CSA EEV	Product Family:	Super-E Chemical Processing
	UR	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)	RoHS Status:	ROHS NON-COMPLIANT
Blower:	None	Shaft Extension Location:	Pulley End
Constant Torque Speed Range:	1.0	Shaft Ground Indicator:	No Shaft Grounding

<b>Current @ Voltage:</b>	27.000 A @ 460.0 V	<b>Shaft Rotation:</b>	Reversible
<b>Design Code:</b>	A	<b>Shaft Slinger Indicator:</b>	Shaft Slinger
<b>Drip Cover:</b>	No Drip Cover	<b>Speed Code:</b>	Single Speed
<b>Duty Rating:</b>	CONT	<b>Motor Standards:</b>	NEMA
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Starting Method:</b>	Direct on line
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Bearing:</b>	None
<b>Front Face Code:</b>	Standard	<b>Thermal Device - Winding:</b>	None
<b>Front Shaft Indicator:</b>	None	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 1:</b>	None
<b>Insulation Class:</b>	F	<b>Winding Thermal 2:</b>	None
		<b>XP Temp Code:</b>	T3C

Nameplate NP3241											
CAT.NO.	ECP4102T-4	P/N		ENCLOSURE	TEFC						
SPEC.	10H292Y837G2	CC	010A	FRAME	286T	S/N					
HP	20	CLASS	F	HZ	60	DES	A				
RPM	1180	RPM MAX	1800	PH	3	KVA-CODE	H				
VOLT	460	MOTOR WEIGHT	437								
AMP	27	SER.F.	1.15	PF	77	ODE BRG	6311	DE BRG	6311		
RATING	40C AMB-CONT	NEMA-NOM-EFF	91.7	GREASE	POLYREX EM						
				INV.TYPE	PWM						
TEMP CODE	T3C	INVERTER-TEMP-CODE	180								
TEMP =	160	C HP FR	60	C HP TO	90						
CT HZ FROM	1.0	CT HZ TO	60								
HTR-VOLTS		HTR-AMPS		HTR-WATTS		MAX. SPACE HEATER TEMP.		VT HZ FROM	0	VT HZ TO	60

Parts List		
Part Number	Description	Quantity
SA343149	SA 10H292Y837G2	1.000 EA
RA331594	RA 10H292Y837G2	1.000 EA
09FN3001C02	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 EA
10CB1000A09P	KOBX, MACH W/1.50 NPT & PRIMER	1.000 EA
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 EA
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 EA
10XN2520K06	1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P	1.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	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
HA4017A11	1/8 X 2.75 GREASE EXT (F/S)	1.000 EA
HA4017A03	.125 X 1.75 GREASE EXT (F/S)	1.000 EA
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 EA
HW4600B40	V-RING SLINGER 2.000 X 2.680 X .28 VITON	1.000 EA
HW5100A13	W4627-047 WVY WSHER	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 EA
10EP1110A47P	PU ENDPLATE, MACH W/PRIMER	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
HW4600B40	V-RING SLINGER 2.000 X 2.680 X .28 VITON	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 EA
10FH1007P	FAN COVER, CAST W/EPOXY PRIMER	1.000 EA
10XN3118K20	5/16-18 X 1 1/4 GRADE 5 STEEL ZC PLATED	3.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	3.000 EA
10CB1503A01P	CONDUIT BOX LIPPED LID, MACH W/EPXY PRMR	1.000 EA
14GS1003	GASKET CONDUIT BOX LID, NEOP	1.000 EA
10XN2520K16	1/4-20 X 1" HX HD SCRW GRADE 5, ZINC P	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
HW2501H29	KEY, 1/2 SQ X 3.375	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
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
10EP1110A44LP5	FREP, MACH W/PRIMER & MG1025L14	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.130 LB
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA

Product Information Packet: ECP4102T-4 - 20HP,1180RPM,3PH,60HZ,286T,1054M,TEFC,F1

MG1025N19	WILKOFAST, 778.50, RELIANCE BLUE-GREEN	0.070 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0006	CONNECTION LABEL	1.000 EA
NP3241	SS SUPER-E INV UL CSA-EEV PREM CC	1.000 EA
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A06	1.000 EA
LB1449	DIV-2/NEC WARNING LABEL	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA

<b>Accessories</b>		
<b>Part Number</b>	<b>Description</b>	<b>Multiplier</b>
10-1305	C FACE KIT	A8



**AC Induction Motor Performance Data**

Record # 66237

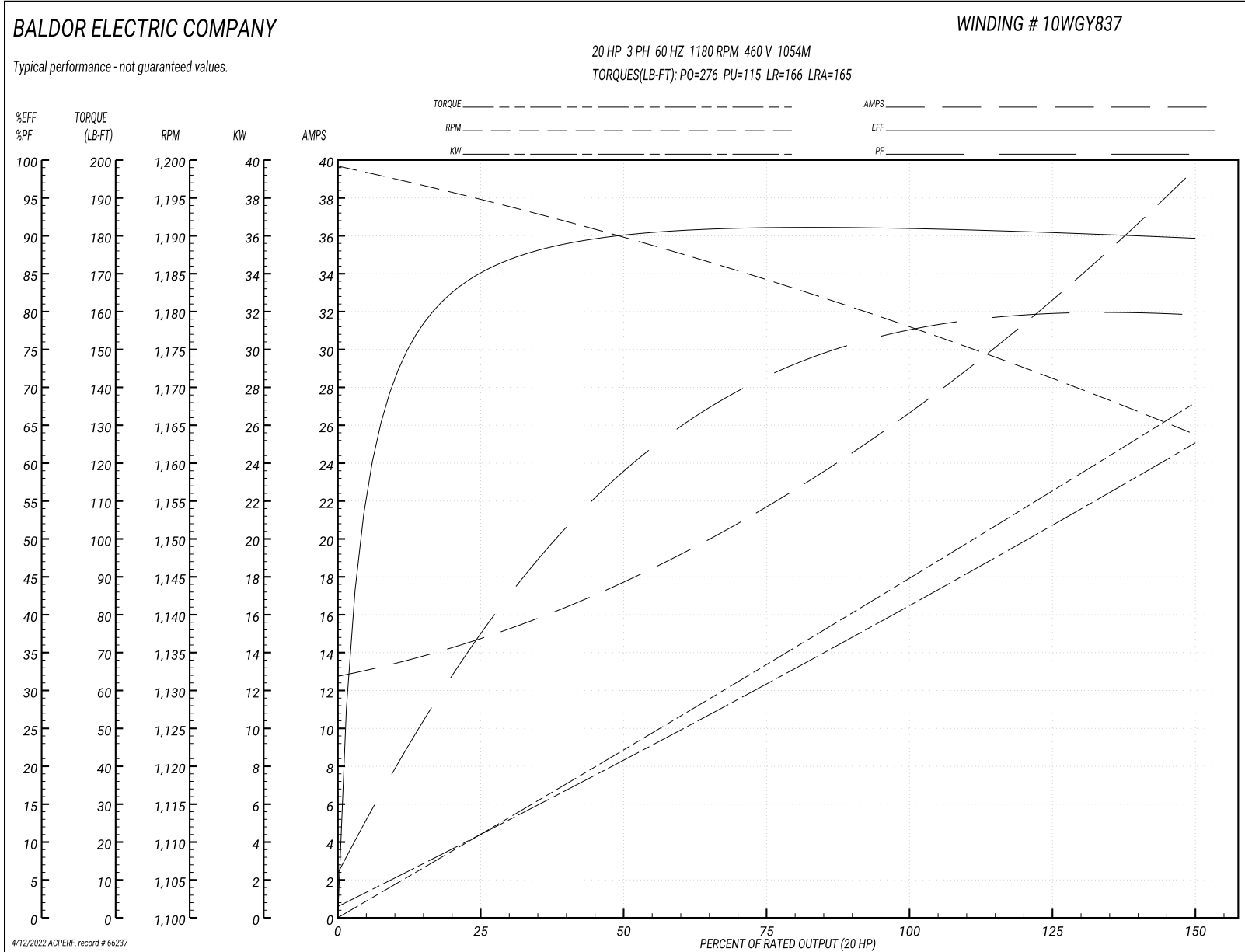
Typical performance - not guaranteed values

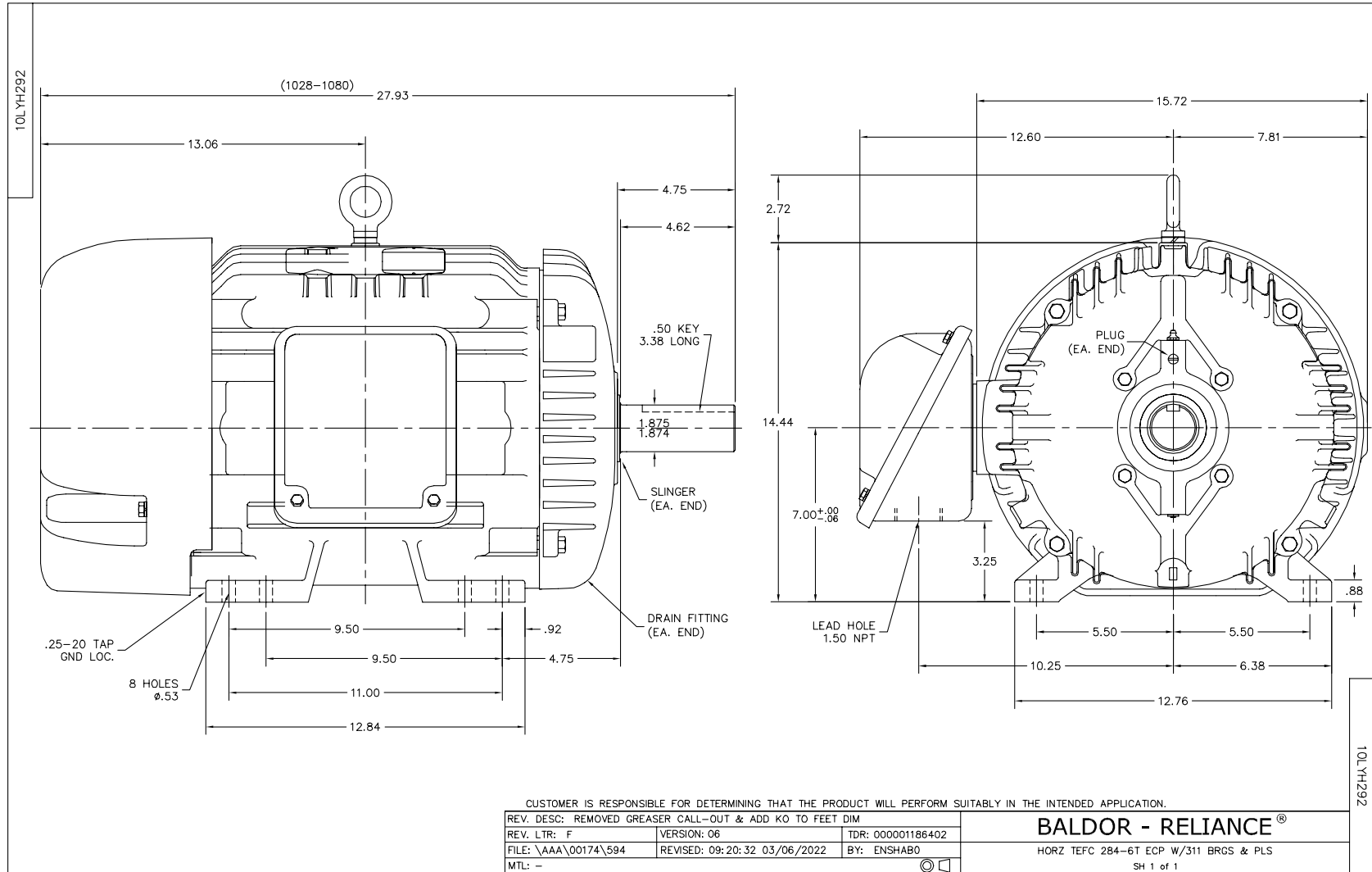
<b>Winding: 10WGY837-R016</b>		<b>Type: 1054M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: Single Voltage Motor</b>		
<b>Rated Output (HP)</b>	20	<b>Full Load Torque</b>	90.1 LB-FT		
<b>Volts</b>	460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	27	<b>Breakdown Torque</b>	276 LB-FT		
<b>R.P.M.</b>	1180	<b>Pull-up Torque</b>	115 LB-FT		
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	166 LB-FT	
<b>NEMA Design Code</b>	A <b>KVA Code</b>	H	<b>Starting Current</b>	165 A	
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	13.1 A		
<b>NEMA Nom. Eff.</b>	91.7 <b>Power Factor</b>	77	<b>Line-line Res. @ 25°C</b>	0.425 Ω	
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	65°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	78°C	
			<b>Locked-rotor Power Factor</b>	31.8	
			<b>Rotor inertia</b>	6.61 LB-FT <sup>2</sup>	

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

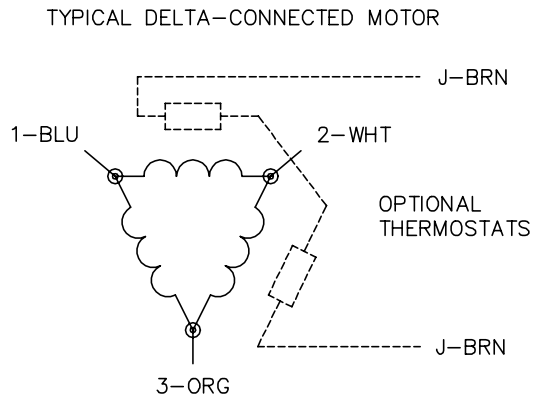
<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	39	60	71	77	79	80	78
<b>Efficiency</b>	84.1	89.6	91.1	91.7	90.2	89.7	90.8
<b>Speed</b>	1195	1190	1184	1178	1171	1164	1174
<b>Line amperes</b>	14.3	17.5	21.9	26.9	32.7	39.3	30.4

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

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIRO
MTL: -		

**BALDOR - RELIANCE®**

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

SH 1 of 1

Marketing maintained PDF of MN416:

<http://www.baldor.com/support/Literature/Load.ashx/MN416?ManNumber=MN416>