

ABB BALDOR RELIANCE III

Customer information packet

ECP84106T-5

20HP, 3510RPM, 3PH, 60HZ, 256T, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	256T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
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
Constant Torque Speed Range	6
Current @ Voltage	17.900 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	841
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3

Part Detail

Revision	N
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	09WGT123
Layout	09LYJ286
Eff. date	11-14-2023
CD Diagram	CD0006
Poles	02
Leads	3#12
Proprietary	False
Created date	11-27-2018

Heater Indicator	No Heater
High Voltage Full Load Amps	17.9 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	IP56
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	0954M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	24.78 IN
Power Factor	91
Product Family	Chem Process S/P 32-8 IEEE 841
Pulley Face Code	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	3510 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
NP4332

CAT.NO.	ECP84106T-5			P/N			ENCLOSURE			TEFC				
SPEC.	09-0000-0867			CC	010A	FRAME	256T	S/N						
HP	20			CLASS	F	HZ	60	ODE BRG	6309	DE BRG	6309			
RPM	3510	RPM MAX	5400	PH	3	DES	B	D.E. BRG.		45BC03X30X				
VOLT	575			KVA-CODE		G	O.D.E. BRG.		45BC03X30X					
AMP	17.9			MOTOR WEIGHT			324	GREASE	POLYREX EM					
RATING	40C AMB-CONT			MAX. KVAR			2.1	BLANK						
NEMA-NOM-EFF	91	# OF ROTOR BARS			28	SER.F.	1.15	IP	56					
G.MIN.EFF	90.2	# OF STATOR SLOTS			36	PF	91	INV.TYPE	PWM					
TEMP CODE	T3	INVERTER-TEMP-CODE			200									
TEMP =	200	C HP FR	60	C HP TO	90									
CT HZ FROM	6	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
SA363381	SA 09-0000-0867	1.000 ea
RA352657	RA 09-0000-0867	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0006	CONNECTION LABEL	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
WD1000B49	T&B C73,RING TERMINAL 10-12 AWG 3/8 STUD	3.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HW3201A01	1/2-13 EYEBOLT	1.000 ea
HW1002A63	WASHER, 5/8 HI-COLLAR SPRLCKWASHER	1.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
09FH1000LP5	FAN COVER, CAST W/EPOXY PRIMER & PAINT	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	4.000 ea
37FN3002C02	EXFN, PLASTIC, 6.00 OD, 1.503 ID	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.080 lb
NP4332	SS IEEE841-2021 INV DIV-2 UL CSA-C US EE	1.000 ea
10XN2520K06	1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P	1.000 ea
09EP1118A02LP5	FREP MACH, 309 BRG. EPOXY PRIMER & BLACK	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
HW4601A61	INPRO SEAL #1698-A-17120-0, VBXX 309 BRG	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
HA4017A02	.125X2.50 GREASER EXTENS.F/S	1.000 ea
HA4017A08	.125 X 3.50 LGTH GREASER EXTEN.	1.000 ea
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 ea
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 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

HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 ea
09EP1118A01P	PUEP MACH, 309 BRG.INPRO SEALS-EPOXY PRI	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW4601A61	INPRO SEAL #1698-A-17120-0, VBXX 309 BRG	1.000 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
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	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
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 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
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.070 ga
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
40PA1005	PACKAGING GROUP, 09 STD	1.000 ea
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 ea
MJ5004A59	ADHESIVE LOCTITE #401 MSC #88545264	0.010 ea
80XN3118J10	5/16-18 X 5/8 SET SCREW, HEX SOC, CUP PT	4.000 ea

AC Induction Motor Performance Data

Record # 47326

Typical performance - not guaranteed values

Winding: 09WGT123-R001			Type: 0954M	Enclosure: TEFC	
Nameplate Data			575 V, 60 Hz: Single Voltage Motor		
Rated Output (HP)		20	Full Load Torque		30.1 LB-FT
Volts		575	Start Configuration		direct on line
Full Load Amps		17.9	Breakdown Torque		99 LB-FT
R.P.M.		3510	Pull-up Torque		33 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	43 LB-FT
NEMA Design Code	B	KVA Code	G	Starting Current	113 A
Service Factor (S.F.)		1.15	No-load Current		3.75 A
NEMA Nom. Eff.	91	Power Factor	91	Line-line Res. @ 25°C	0.683 Ω
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		68°C
S.F. Amps			Temp. Rise @ S.F. Load		86°C
			Locked-rotor Power Factor		26.7
			Rotor inertia		1.38 lb-ft²

Load Characteristics 575 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	73	87	91	91	92	91	93
Efficiency	91.4	93.4	93	92.1	90.6	88.8	91.6
Speed	3579	3559	3537	3513	3484	3451	3520
Line amperes	5.87	9.39	13.3	17.9	22.7	27.8	20.3

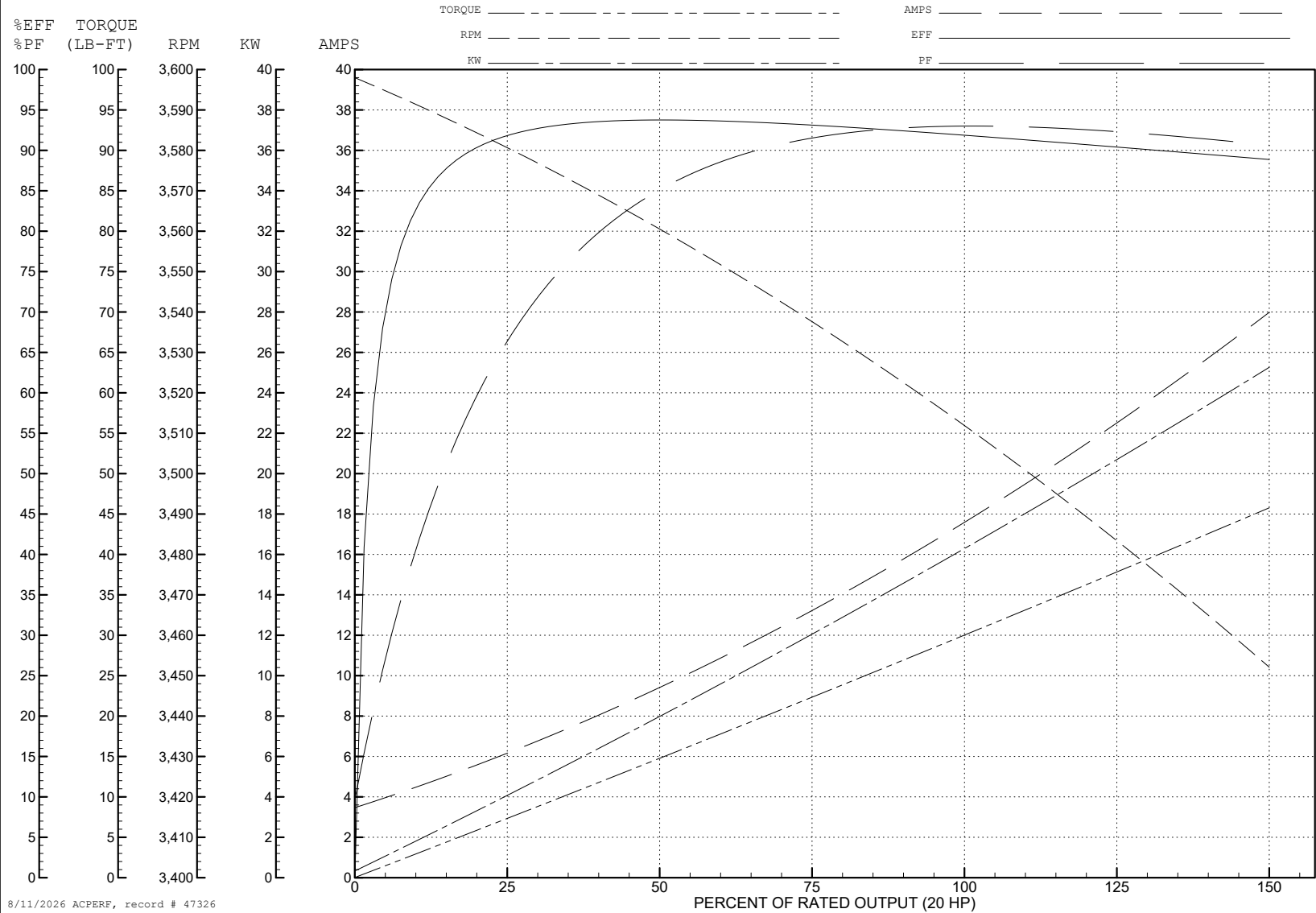
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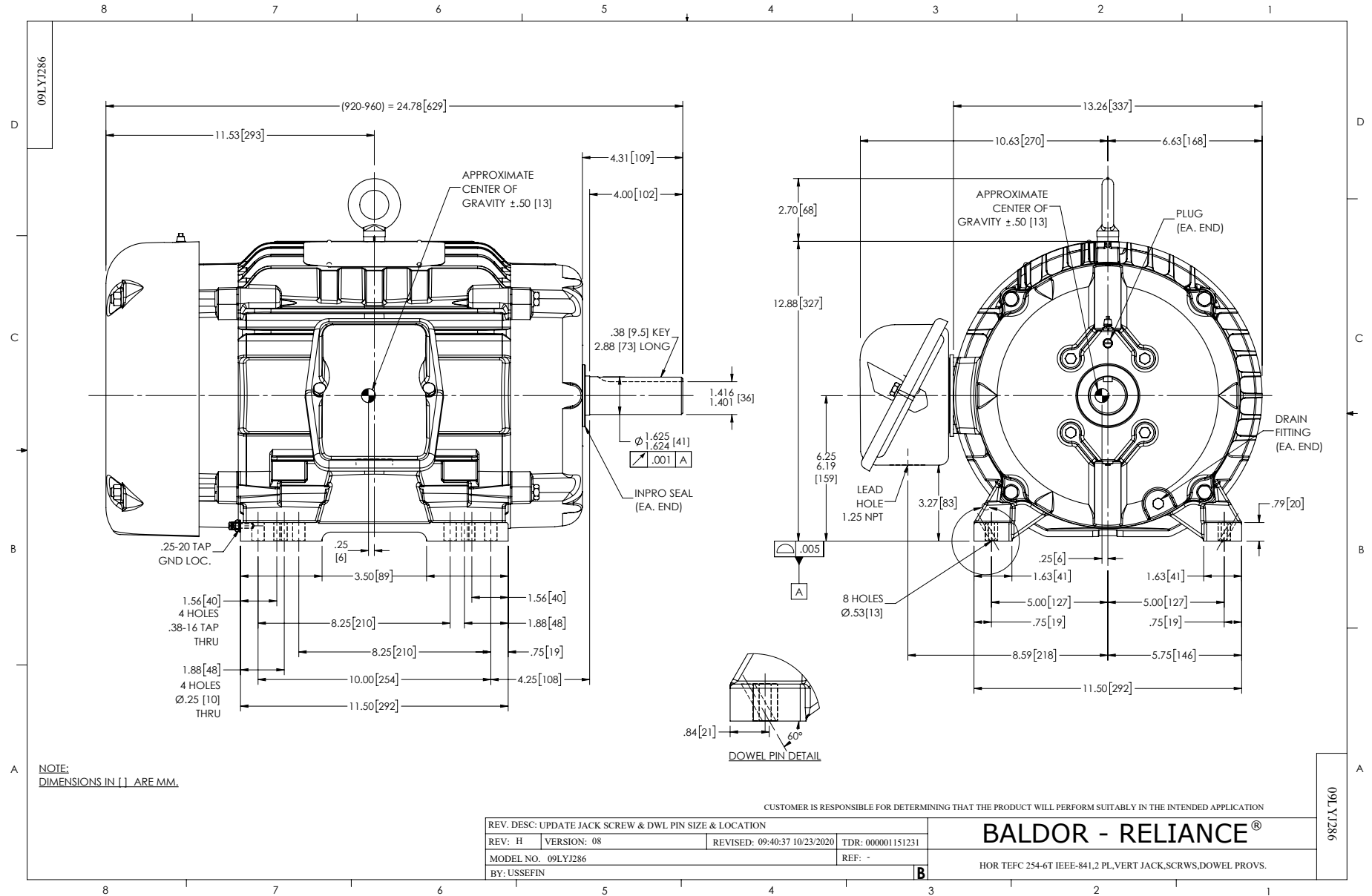
WINDING # 09WGT123

Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 3510 RPM 575 V 0954M

TORQUES (LB-FT) : PO=99 PU=33 LR=43 LRA=113





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

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