

ABB BALDOR RELIANCE III

Customer information packet

AEM4103-4

25HP, 1770RPM, 3PH, 60HZ, 324U, 1056M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	324U
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	25.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	UR CSA
Ambient Temperature	65 °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	30.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	30.0 a
Insulation Class	F
Inverter Code	Inverter Duty

Part Detail

Revision	E
Type	AC
Mech. spec.	10J746
Base	
Status	PRD/A
Elec. spec.	10WGZ580
Layout	10LYJ746
Eff. date	12-09-2025
CD Diagram	CD0006
Poles	04
Leads	3#10
Proprietary	False
Created date	01-11-2017

KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 10 AWG
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	1056M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	30.56 IN
Power Factor	85
Product Family	Automotive (Not For DC)
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.875 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 (OLD)
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1404									
CAT.NO.	AEM4103-4								
SPEC.	10J746Z580G1								
VOLTS	460								
AMP	30								
RPM	1770		HP	25					
FRAME	324U		HZ	60		PH	3		
SER.F.	1.00		CODE	F		DES	B		CL F
NEMA-NOM-EFF	93.6		PF	85					
G.MIN.EFF	92.4		CC	010A					
RATING	65C AMB-CONT								
LUBRICATION	POLYREX EM								
DE	6312		ODE	6309					
ENCL	TEFC		SER. #						

Parts List

Part number	Description	Quantity
SA332440	SA 10J746Z580G1	1.000 ea
RA320525	RA 10J746Z580G1	1.000 ea
09FN3001C02	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 ea
10CB1000A04SP	CONDUIT BOX, MACH W/2.00 NPT	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
10EP1104A01	FR ENDPLATE	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
HW4600B67	V-RING SLINGER 1.770 X 2.170 X .28 VITON	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
10XN2520K36	1/4-20 X 2.00 HX HD SCRW GRADE 5, ZINC P	2.000 ea
10EP1108A01	PULLEY ENDPLATE - 312 BRG.- ENCL.	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
10XN3118K40	5/16-18 X 2.75" HEX HD, GRADE 5	4.000 ea
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 ea
10FH1007	FAN COVER, CAST QF	1.000 ea
10XN3118K24	5/16-18 X 1.50" HEX HD, GRADE 5	3.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	3.000 ea
WD4100A02	DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL	1.000 ea
10CB1503	CONDUIT BOX LID CASTING	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
14GS1003	GASKET CONDUIT BOX LID, NEOP	1.000 ea
HW2501H36	KEY, 1/2 SQ X 4.250	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt

MJ5001A14	DYNAPRO SEALANT, CP MTR VC#2508050 (603	0.026 ea
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 ea
WD1000B07	T&B C71, RING TERM 10-12 AWG, .25" STUD	3.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	2.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
HW4500A20	1/8NPT SL PIPE PLUG	3.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MG1025G02	WILKOFAS, 782.02, LIGHT GRAY	0.070 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0006	CONNECTION LABEL	1.000 ea
NP1404	SS UL CSA CC "AUTOMOTIVE"	1.000 ea
12PA1000	PACKAGING GROUP PRINT PK1024A07	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
FE-0000022	ZRTG FE ASSEMBLY	1.000 ea
PE-0000013	ZRTG PE ASSEMBLY	1.000 ea

Accessories

Part number	Description	Multiplier
12-1105	C FACE KIT	A8

AC Induction Motor Performance Data

Record # 61590

Typical performance - not guaranteed values

Winding: 10WGZ580-R003			Type: 1056M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: Single Voltage Motor		
Rated Output (HP)		25	Full Load Torque		74.31 LB-FT	
Volts		460	Start Configuration		direct on line	
Full Load Amps		30	Breakdown Torque		197 LB-FT	
R.P.M.		1770	Pull-up Torque		91.4 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		115 LB-FT
NEMA Design Code		B	KVA Code	F	Starting Current	
Service Factor (S.F.)		1	No-load Current		10.4 A	
NEMA Nom. Eff.		93.6	Power Factor	85	Line-line Res. @ 25°C	
Rating - Duty		65C AMB-CONT		Temp. Rise @ Rated Load		54°C
				Locked-rotor Power Factor		30.3

Load Characteristics 460 V, 60 Hz, 25 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	51	73	81	85	86	86
Efficiency	91	93.8	94.1	93.7	92.9	91.8
Speed	1792.8	1785.5	1778.9	1770.7	1762.4	1751.5
Line amperes	12.5	17	22.9	29.5	36.5	44.7

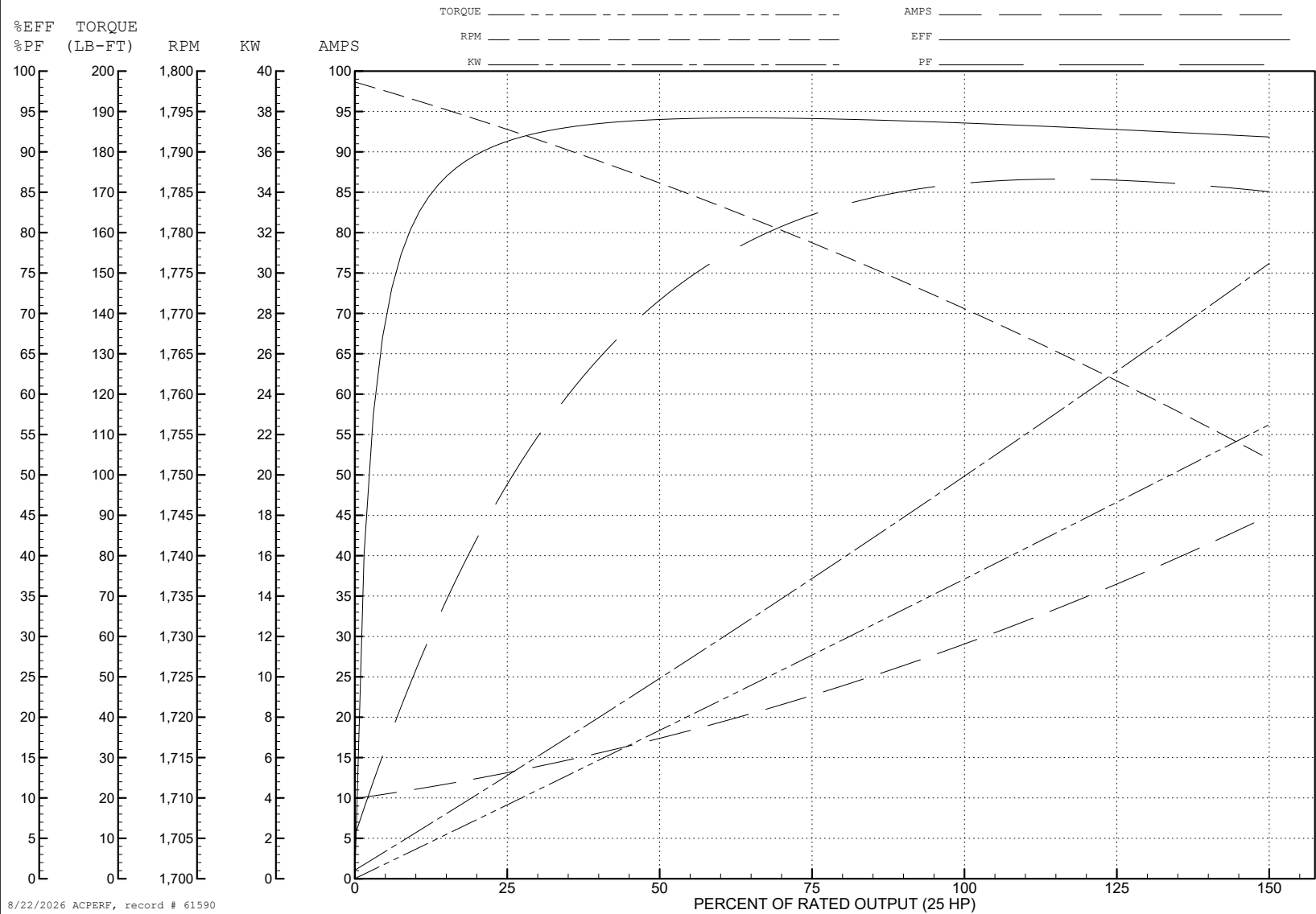
ABB Motors and Mechanical Inc.

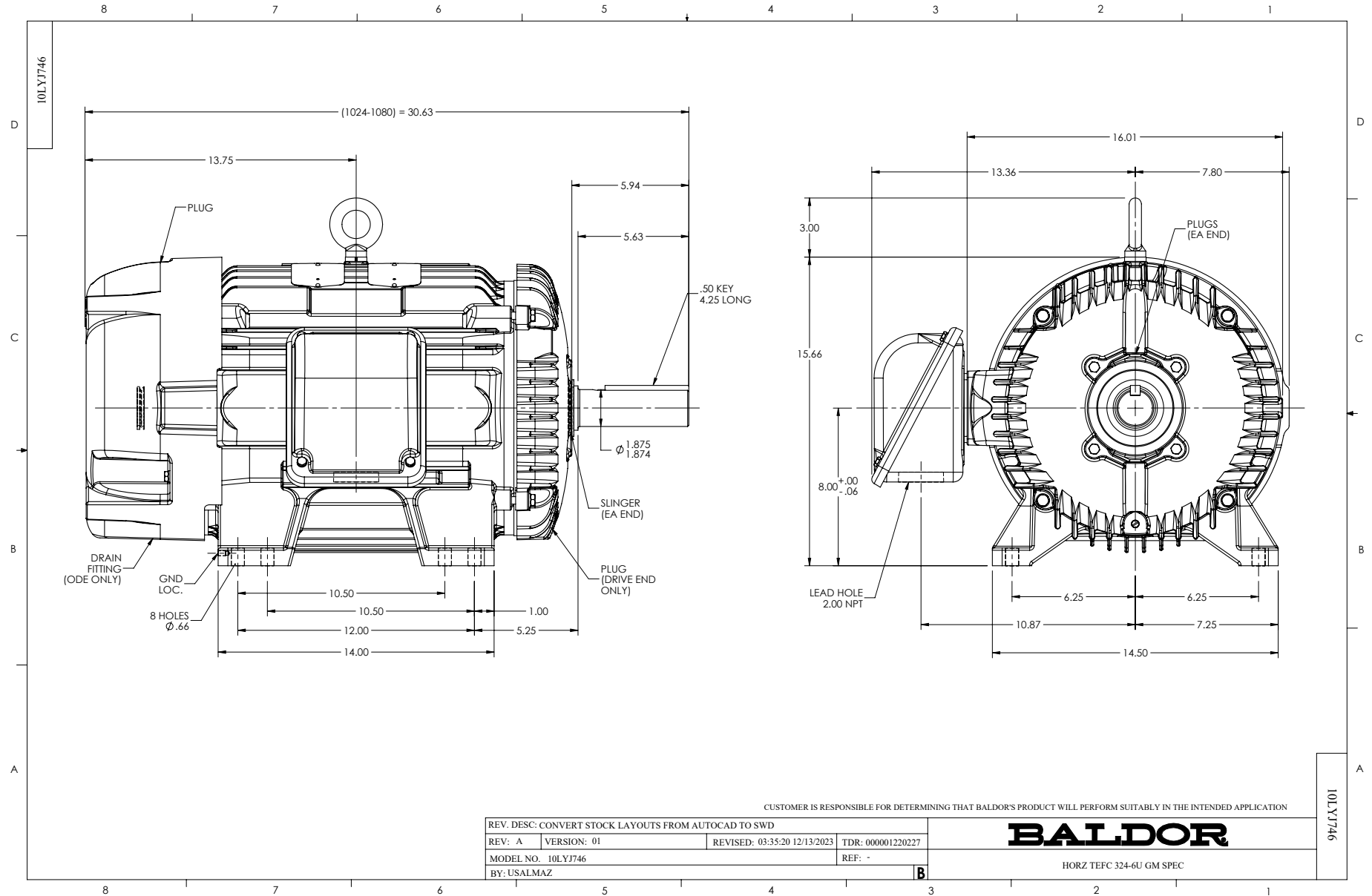
WINDING # 10WGZ580

Typical performance - not guaranteed values.

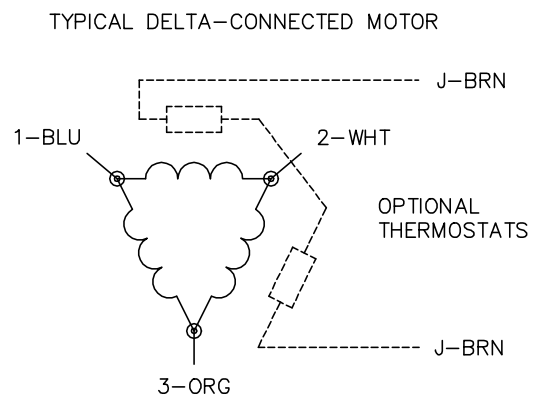
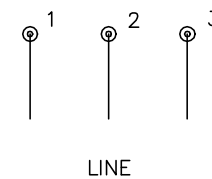
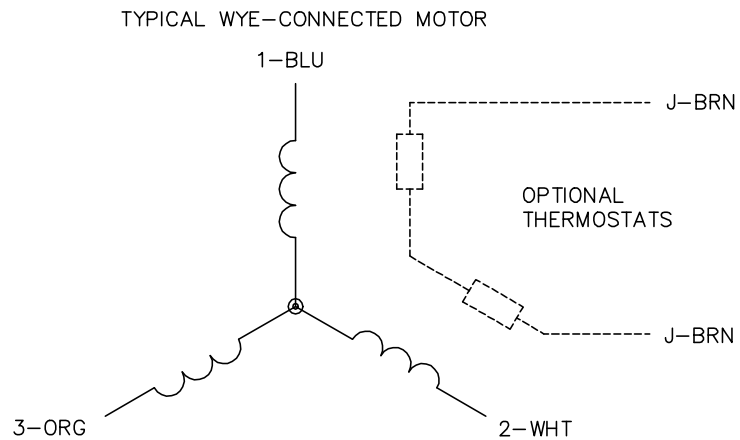
25 HP 3 PH 60 HZ 1770 RPM 460 V 1056M

TORQUES (LB-FT): PO=197 PU=91.4 LR=115 LRA=173





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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