ABB BALDOR RELIANCE

Customer information packet

CEM2528T

20HP, 1180RPM, 3PH, 60HZ, 286TC, OPSB, F1

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Specifications

Enclosure	OPSB
Frame	286TC
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CURUSEEV
	NEMA PREMIUM
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	56.000 A @ 208.0 V
	54.000 A @ 230.0 V
	27.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	27.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE

Part Detail

Revision	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	40WGX191
Layout	40LYD102
Eff. date	02-12-2024
CD Diagram	CD0180
Poles	06
Leads	9#10
Proprietary	False
Created date	02-20-2020

KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4056M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	25.06 IN
Power Factor	74
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1180 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

NP2138L												
CAT.NO.	CEM2528T		**P/N**				**ENCLOSURE**	OPSB				
SPEC.	40-0000783	**CC**	010A	**FRAME**	286TC		**S/N**					
HP	20		**CLASS**	F	**HZ**	60						
RPM	1180		**PH**	3	**DES**	A						
VOLT	230/460				**KVA-CODE**	H	**ODE BRG**	6309	**DE BRG**	6311		
AMP	54/27											
RATING	40C AMB-CONT				**GREASE**	POLYREX EM						
NEMA-NOM-EFF	92.4	**PF**	74	**SER.F.**	1.15							
HTR-VOLTS		**HTR-AMPS**										

Parts List

Part number	Description	Quantity
SA379247	SA 40-0000783	1.000 ea
RA369233	RA 40-0000783	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP2138L	ALUM SUPER-E UL PREM CC (300	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
HA3154A04	THRUBOLT STUD 3/8-16 X 18.750	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	8.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	8.000 ea
40EP3200A02	STD FREP OPEN 309 BRG	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
40EP1400A13	PU ENDPLATE, CFACE MACH W/O BAFFEL	1.000 ea
10XN3118K40	5/16-18 X 2.25" HEX HD, GRADE 5	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
10CB3000SP	KOBX, CAST W/2.00 LEAD HOLE	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 ea
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 ea
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 ea
HA6017	CAST ADAPTER, 40,42 KOBX	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 ea

10CB3500SP	CONDUIT BOX LID, CAST	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.125 ga
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
40PA1000	PACKAGING GROUP	1.000 ea
HW2501H28	KEY, 1/2 SQ X 3.250	1.000 ea

AC Induction Motor Performance Data
Record # 66052
Typical performance - not guaranteed values

Winding: 40WGX191-R001	**Type:** 4056M	**Enclosure:** OPSB

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			20	**Full Load Torque**	88.68 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			54/27	**Breakdown Torque**	291 LB-FT
R.P.M.			1180	**Pull-up Torque**	110 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	160 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	177 A
Service Factor (S.F.)			1.15	**No-load Current**	14.1 A
NEMA Nom. Eff.	92.4	**Power Factor**	74	**Line-line Res. @ 25ºC**	0.38967 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	29°C
S.F. Amps				**Temp. Rise @ S.F. Load**	35°C
				Locked-rotor Power Factor	31.3

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	34	55	68	74	78	79	76
Efficiency	88.4	92.5	93.3	93.2	92.7	91.9	92.9
Speed	1195.7	1191.7	1187.5	1183.3	1178.5	1172.9	1180
Line amperes	15.4	18.3	22.2	27	32.4	38.5	30.2

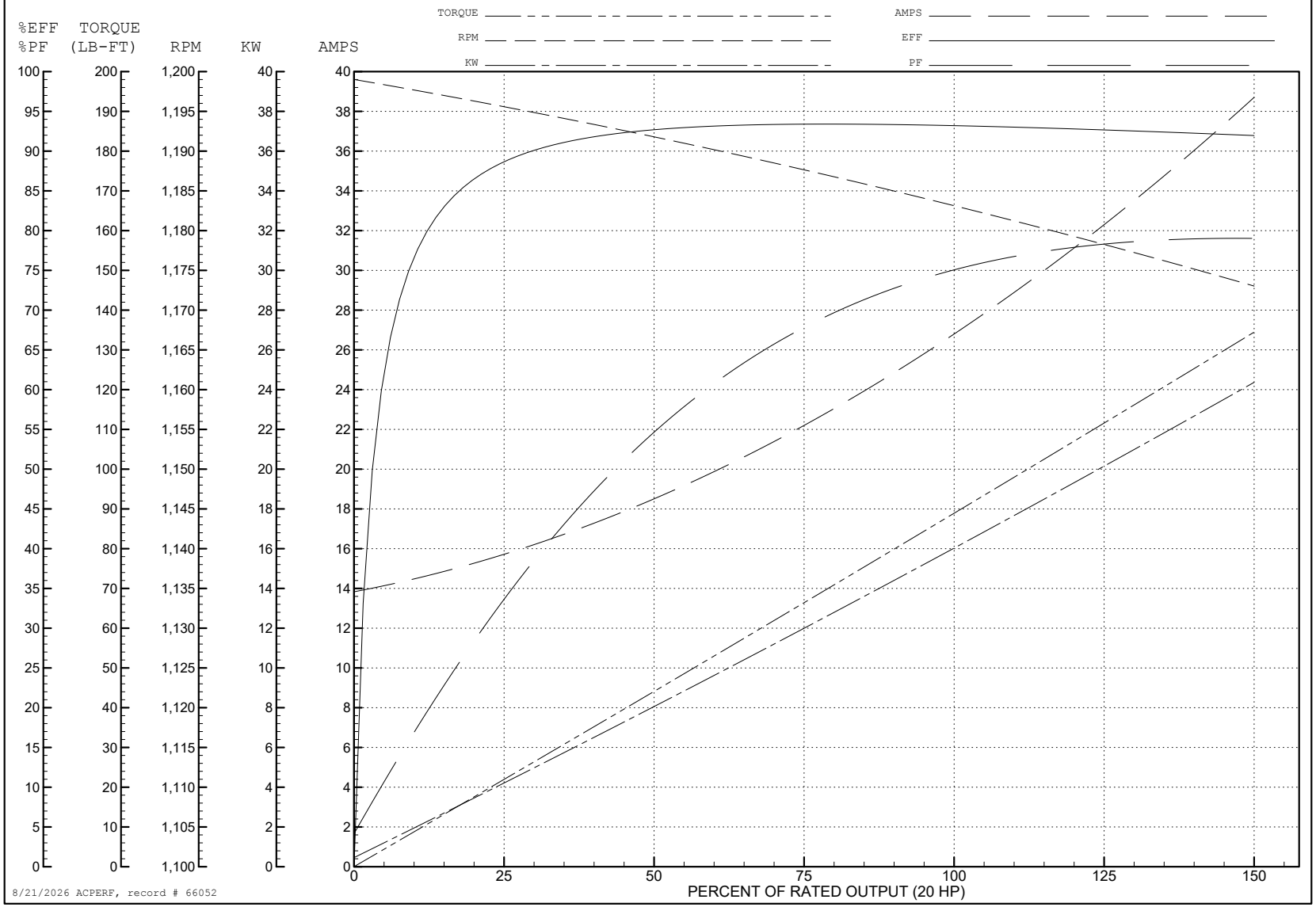
ABB Motors and Mechanical Inc.

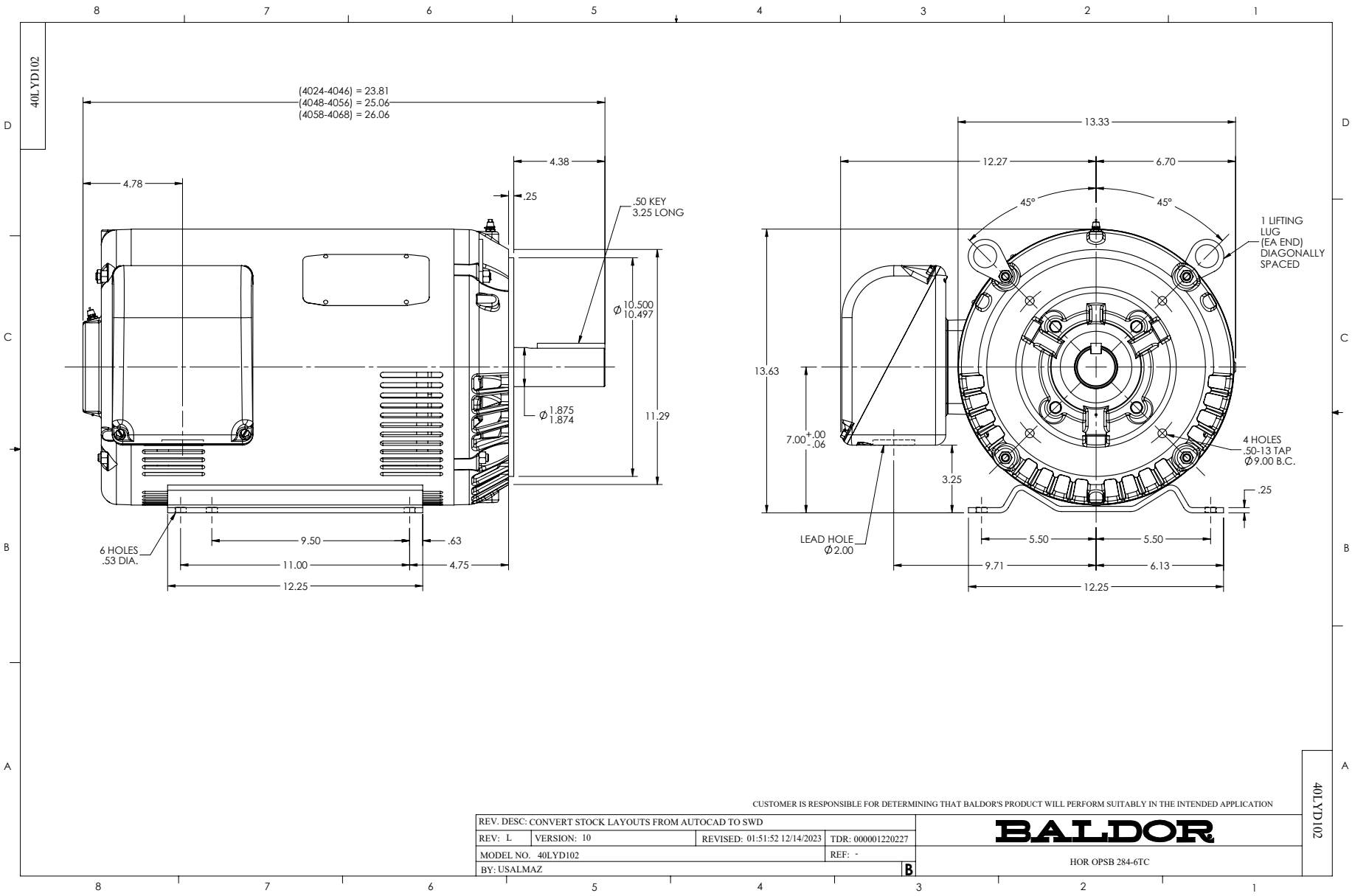
WINDING # 40WGX191

20 HP 3 PH 60 HZ 1180 RPM 460 V 4056M

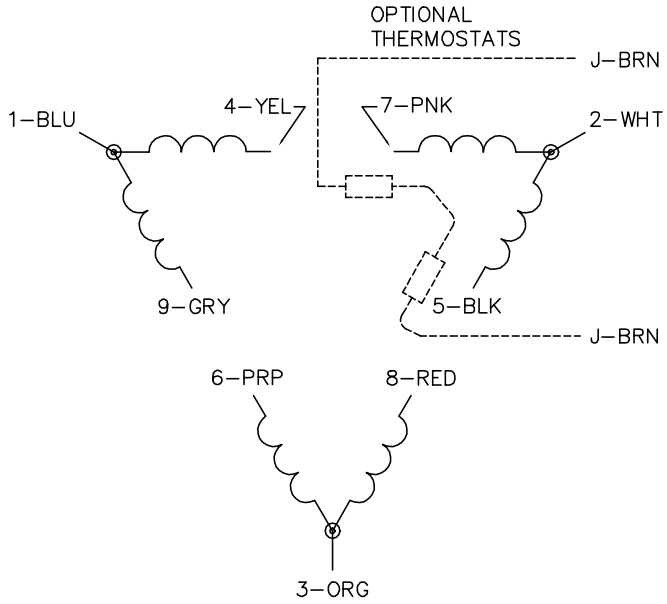
Typical performance - not guaranteed values.

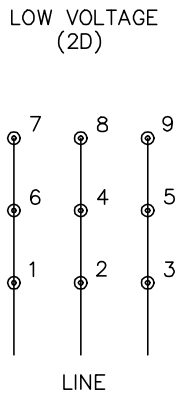
TORQUES(LB-FT): PO=291 PU=110 LR=160 LRA=177

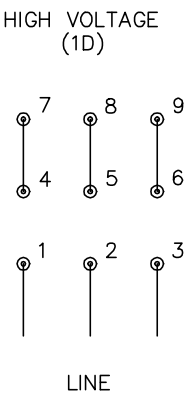



40LYD102
(4024-4046) = 23.81
(4048-4056) = 25.06
(4058-4068) = 26.06
4.78
4.38
.25
.50 KEY
3.25 LONG
Ø 10.500
10.497
Ø 1.875
1.874
11.29
6 HOLES
.53 DIA.
9.50
.63
11.00
4.75
12.25
13.33
12.27
6.70
45°
45°
1 LIFTING
LUG
(EA END)
DIAGONALLY
SPACED
13.63
7.00 +.00 -.06
4 HOLES
.50-13 TAP
Ø 9.00 B.C.
3.25
.25
LEAD HOLE
Ø 2.00
5.50
5.50
9.71
6.13
12.25
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT STOCK LAYOUTS FROM AUTOCAD TO SWD
REV: L
VERSION: 10
REVISED: 01:51:52 12/14/2023
TDR: 000001220227
MODEL NO. 40LYD102
REF: -
BY: USALMAZ
B
BALDOR
HOR OPSB 284-6TC
40LYD102

CD0180







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.

CD0180

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\148	REVISED: 10:25:29 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1