ABB BALDOR RELIANCE

Customer information packet

EM2542T-CI

50HP, 3540RPM, 3PH, 60HZ, 324TS, 1250M, OPEN, F
Class - None
Division - Not Applicable

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Specifications

Enclosure	OPEN
Frame	324TS
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	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
	230.0 V @ 60 HZ
Agency Approvals	CURUSEEV
	NEMA PREMIUM
	NEMA PREMIUM (OLD LOGO)
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	124.000 A @ 208.0 V
	56.000 A @ 460.0 V
	112.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	U
Type	AC
Mech. spec.	12E01
Base	
Status	PRD/A
Elec. spec.	12WGY256
Layout	12LYE001
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#6
Proprietary	False
Created date	03-08-2010

Heater Indicator	No Heater
High Voltage Full Load Amps	56.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 6 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1250M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	24.63 IN
Power Factor	89
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3540 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

NP3554LUA												
CAT.NO.	EM2542T-CI			**P/N**						**ENCL**	OPEN	
SPEC.	12E001Y256G1	**CC**	010A	**FRAME**	324TS		**SER.NO.**					
HP	50	**CLASS**	F	**HZ**	60							
RPM	3540	**PH**	3	**DES**	A							
VOLTS	230/460	**CODE**	G	**ODE BRG**	6311	**DE BRG**	6311					
AMPS	112/56											
RATING	40C AMB-CONT	**NEMA-NOM-EFF**	93	**GREASE**	POLYREX EM							
PF	89	**SER.F.**	1.15	**CT30-60(2:1) VT3-60(20:1)**								
USABLE AT	50HZ 50HP 190/380V 138/69A		SF 1.0									
HTR-VOLTS	**HTR-AMPS**	**MAX. SPACE HEATER TEMP.**										

Parts List

Part number	Description	Quantity
SA192018	SA 12E001Y256G1	1.000 ea
RA179672	RA 12E001Y256G1	1.000 ea
10CB3000SP	KOBX, CAST W/2.00 LEAD HOLE	1.000 ea
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 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
12EP1200A04	FR ENDPLATE, MACH	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
51XF2520A08	SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L	3.000 ea
51XF2520A08	SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L	3.000 ea
10XN5013K80	HEX HD , 1/2-13 X 5.00 LGGRADE 5,ZINC PL	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
HW5100A13	W4627-047 WVY WSHER	1.000 ea
12EP1200A03	ENDPLATE, MACH	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
10XN3816K44	3/8-16 X 2.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
10XN3816K44	3/8-16 X 2.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
10XN5013K80	HEX HD , 1/2-13 X 5.00 LGGRADE 5,ZINC PL	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
10CB3500	CONDUIT BOX LID, CAST	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW2501H18	KEY, 1/2 SQ X 2.000	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.200 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.080 ga

85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
12AD2000A01	AIR DEFLECTOR	1.000 ea
12AD2000A01	AIR DEFLECTOR	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3554LUA	SS SUPER-E VPWM INV READY,CURUS-EEV,PREM	1.000 ea
12PA1000	PACKAGING GROUP PRINT PK1024A08	1.000 ea

AC Induction Motor Performance Data
Record # 53034
Typical performance - not guaranteed values

Winding: 12WGY256-R003	**Type:** 1250M	**Enclosure:** OPEN

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			50	**Full Load Torque**	74.1 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			112/56	**Breakdown Torque**	276 LB-FT
R.P.M.			3540	**Pull-up Torque**	91.7 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	126 LB-FT
NEMA Design Code	A	**KVA Code**	G	**Starting Current**	383 A
Service Factor (S.F.)			1.15	**No-load Current**	16.6 A
NEMA Nom. Eff.	93	**Power Factor**	89	**Line-line Res. @ 25ºC**	0.117 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	81°C
S.F. Amps				**Temp. Rise @ S.F. Load**	100°C
				Locked-rotor Power Factor	21
				Rotor inertia	3.91 LB-FT2

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	59	80	86	89	90	90	90
Efficiency	90.6	93.7	94.2	94	93.3	92.4	93.6
Speed	3584	3572	3560	3547	3535	3521	3540
Line amperes	21.6	31.4	43.1	56	69.8	83.7	64.3

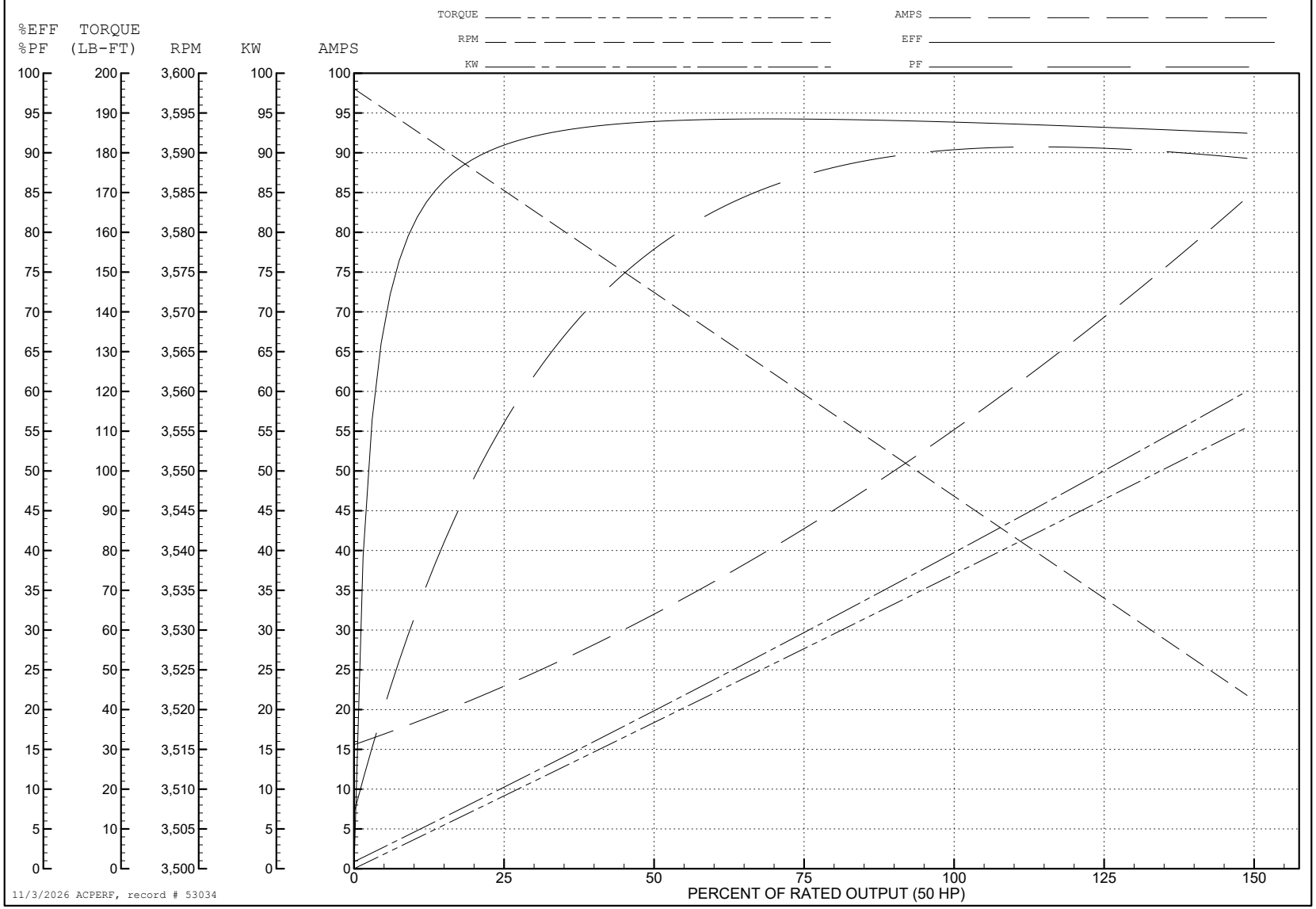
ABB Motors and Mechanical Inc.

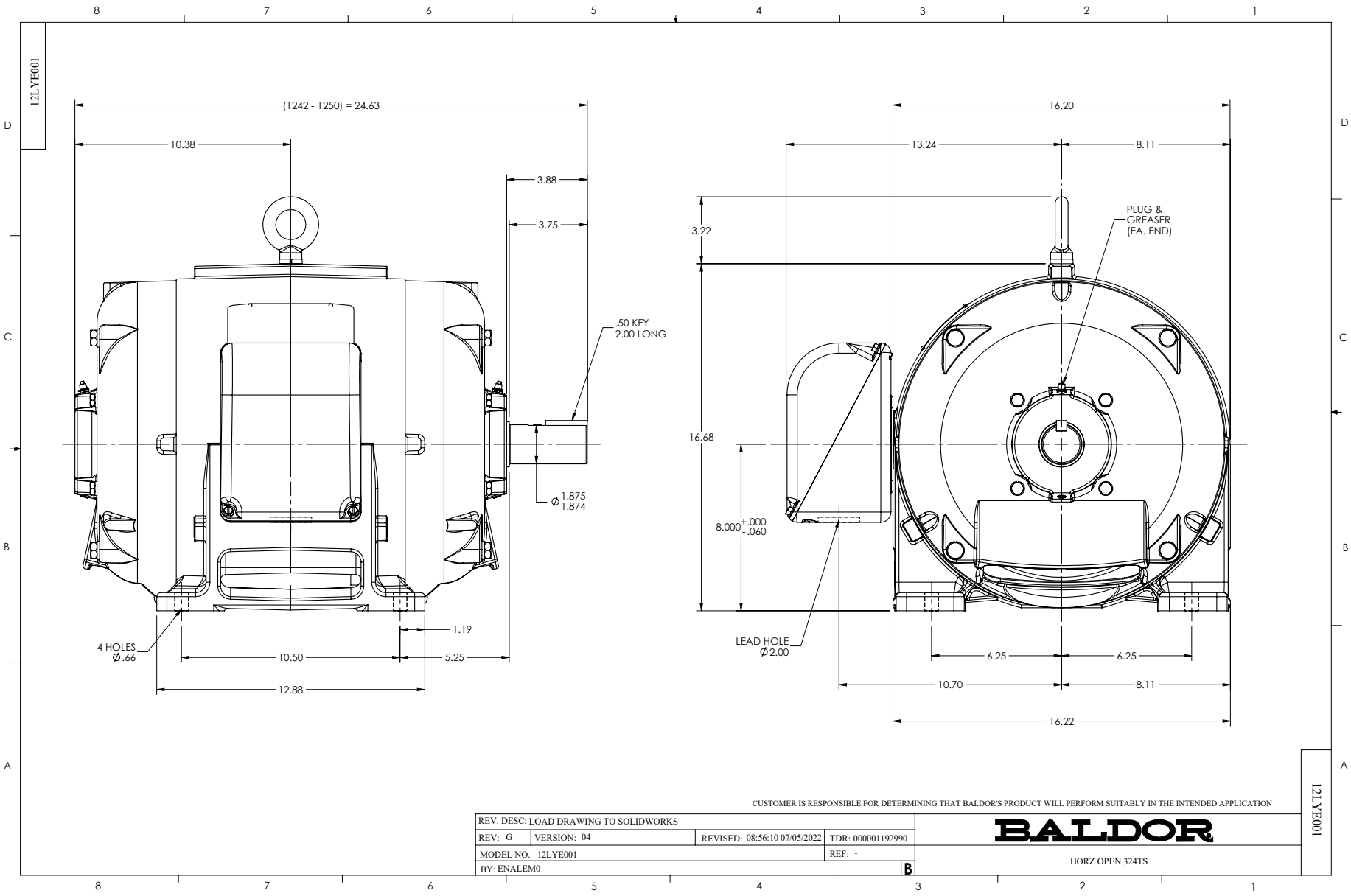
WINDING # 12WGY256

50 HP 3 PH 60 HZ 3540 RPM 460 V 1250M

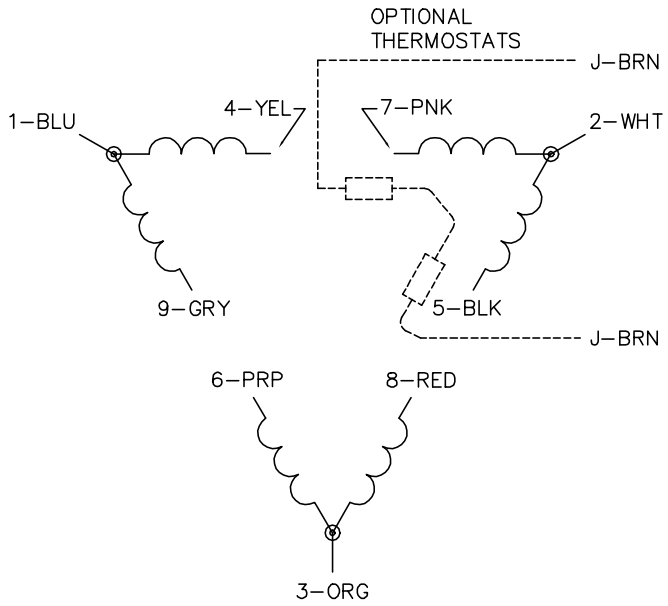
Typical performance - not guaranteed values.

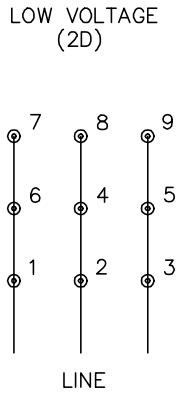
TORQUES(LB-FT): PO=276 PU=91.7 LR=126 LRA=383

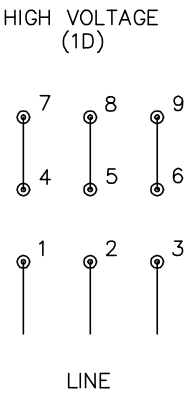



12LYE001
(1242 - 1250) = 24.63
10.38
3.88
3.75
.50 KEY
2.00 LONG
Ø 1.875
1.874
1.19
4 HOLES
Ø.66
10.50
5.25
12.88
16.20
13.24
8.11
3.22
PLUG &
GREASER
(EA. END)
16.68
8.000 +.000 -.060
LEAD HOLE
Ø2.00
6.25
6.25
10.70
8.11
16.22
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD DRAWING TO SOLIDWORKS
REV: G
VERSION: 04
REVISED: 08:56:10 07/05/2022
TDR: 000001192990
MODEL NO. 12LYE001
REF: -
BY: ENALEM0
B
BALDOR
HORZ OPEN 324TS
12LYE001

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

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