ABB BALDOR RELIANCE

Customer information packet

EM2538T

40HP, 3540RPM, 3PH, 60HZ, 286TS, 4046M, OPSB, F

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Specifications

Enclosure	OPSB
Frame	286TS
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 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	46.000 A @ 460.0 V
	92.000 A @ 230.0 V
	100.000 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
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	46.0 a

Part Detail

Revision	V
Type	AC
Mech. spec.	40G51
Base	
Status	PRD/A
Elec. spec.	40WGX194
Layout	40LYG051
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	10-15-2010

Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4046M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	22.44 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	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3530 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.	EM2538T			**P/N**						**ENCL**	OPSB	
SPEC.	40G051X194	**CC**	010A	**FRAME**	286TS			**SER.NO.**				
HP	40		**CLASS**	F	**HZ**	60						
RPM	3530		**PH**	3	**DES**	B						
VOLTS	230/460			**CODE**	G		**ODE BRG**	6309	**DE BRG**	6311		
AMPS	92/46											
RATING	40C AMB-CONT			**NEMA-NOM-EFF**	92.4			**GREASE**	POLYREX EM			
PF	89	**SER.F.**	1.15				**CT30-60(2:1) VT3-60(20:1)**					
USABLE AT	50HZ 40HP 190/380V 112/56A			SF 1.0								
HTR-VOLTS	**HTR-AMPS**			**MAX. SPACE HEATER TEMP.**								

Parts List

Part number	Description	Quantity
SA204542	SA 40G051X194	1.000 ea
RA191789	RA 40G051X194	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 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
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
10CB3000SP	KOBX, CAST W/2.00 LEAD HOLE	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
40EP3200A02	STD FREP OPEN 309 BRG	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
40EP3200B05	STD PUEP OPEN 311 BRG	1.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	8.000 ea
10CB3500	CONDUIT BOX LID, CAST	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
HW2501G17	KEY, 3/8 SQ X 1.875	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.070 ga
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
40AD2002B01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
40AD2002B01	LEXAN BAFFLE 40 FR OPEN	1.000 ea

HA3154A03	STUD, 3/8-16 X 17.75	4.000 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
40PA1000	PACKAGING GROUP	1.000 ea
FE-0000022	ZRTG FE ASSEMBLY	1.000 ea

Accessories

Part number	Description	Multiplier
40-1400	C FACE KIT	A8

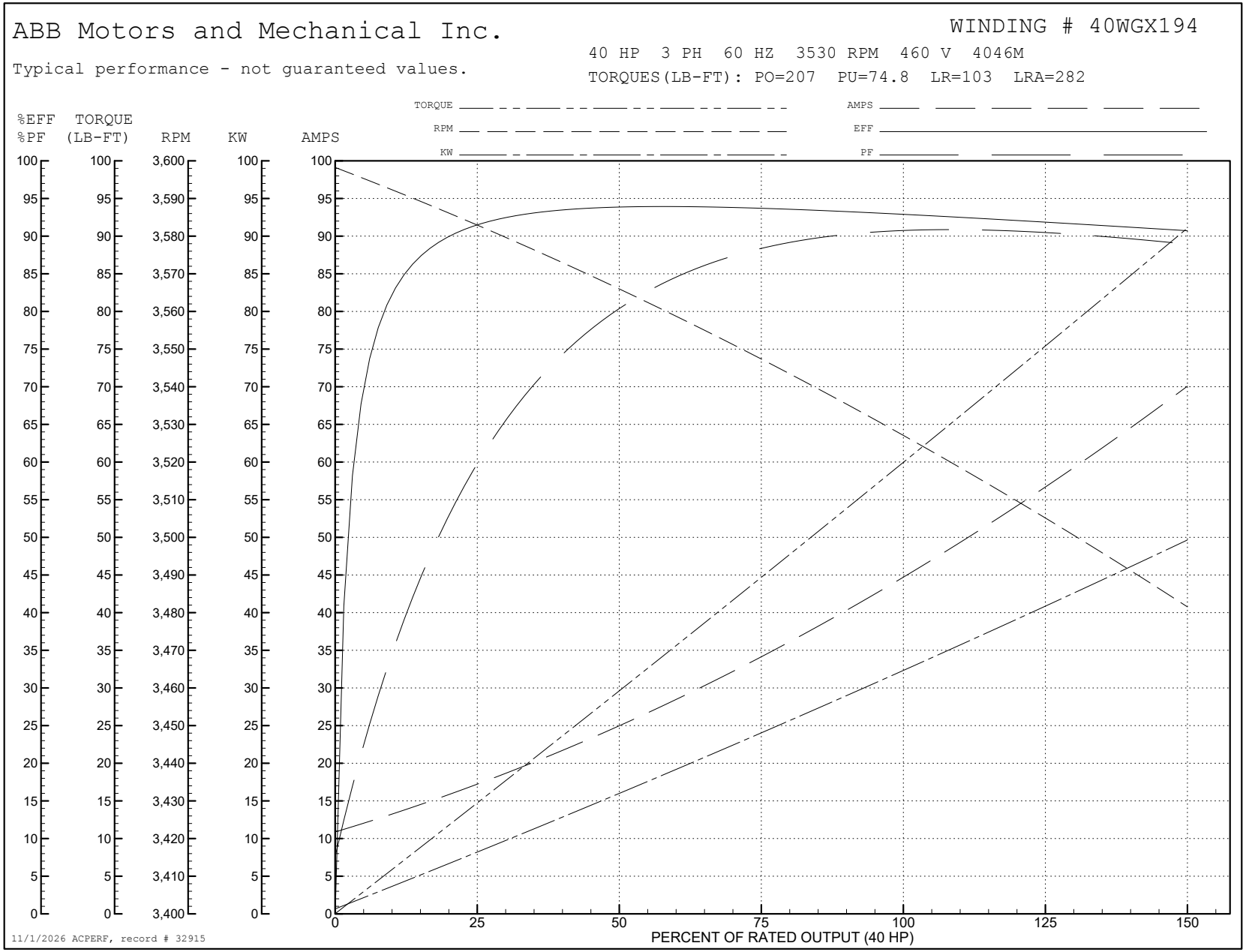
AC Induction Motor Performance Data
Record # 32915
Typical performance - not guaranteed values

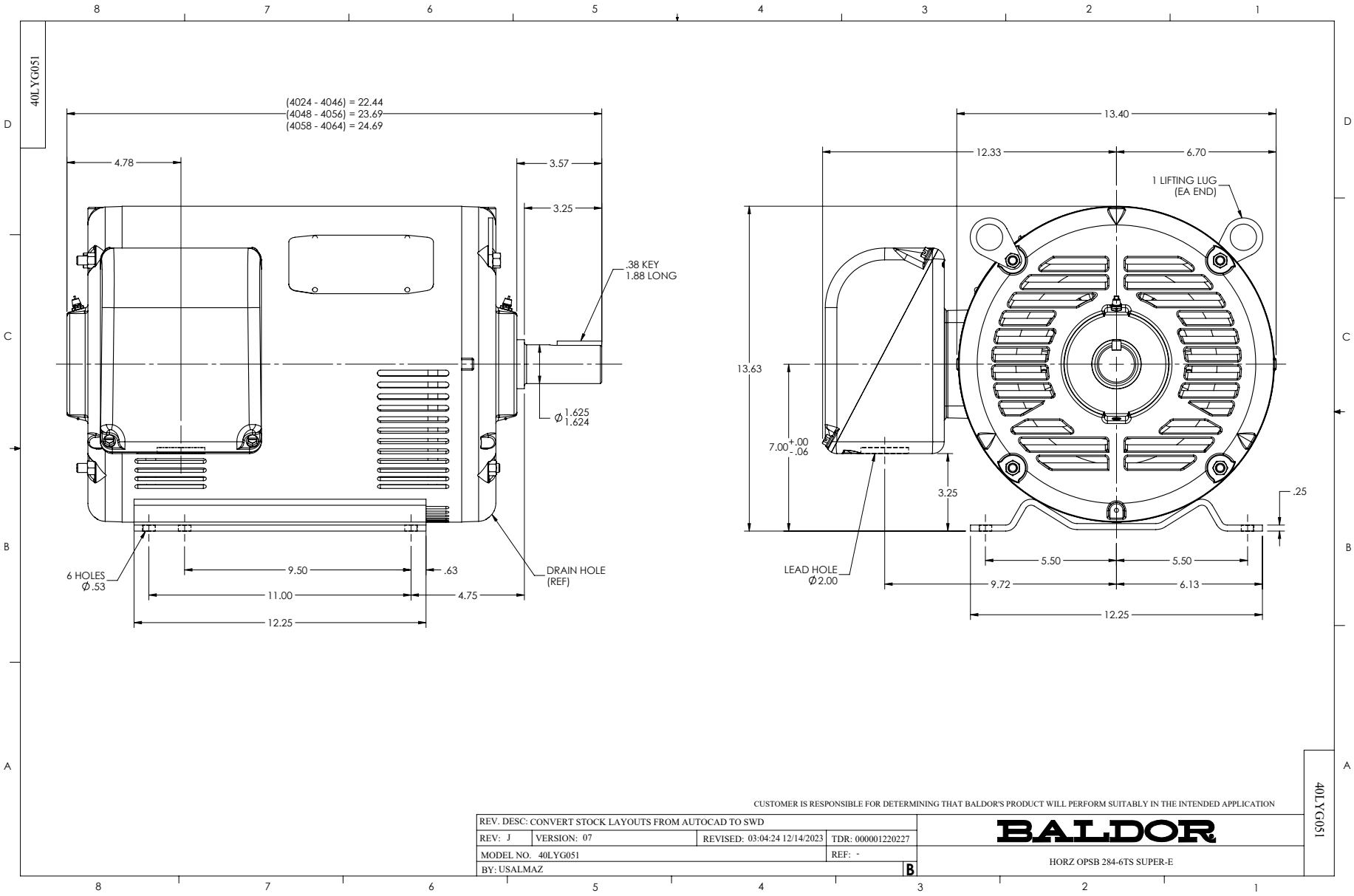
Winding: 40WGX194-R001	**Type:** 4046M	**Enclosure:** OPSB

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			40	**Full Load Torque**	60.3 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			92/46	**Breakdown Torque**	207 LB-FT
R.P.M.			3530	**Pull-up Torque**	74.8 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	103 LB-FT
NEMA Design Code	B	**KVA Code**	G	**Starting Current**	282 A
Service Factor (S.F.)			1.15	**No-load Current**	11.7 A
NEMA Nom. Eff.	92.4	**Power Factor**	89	**Line-line Res. @ 25ºC**	0.194 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	35°C
S.F. Amps				**Temp. Rise @ S.F. Load**	44°C
				Locked-rotor Power Factor	23.9
				Rotor inertia	1.97 LB-FT2

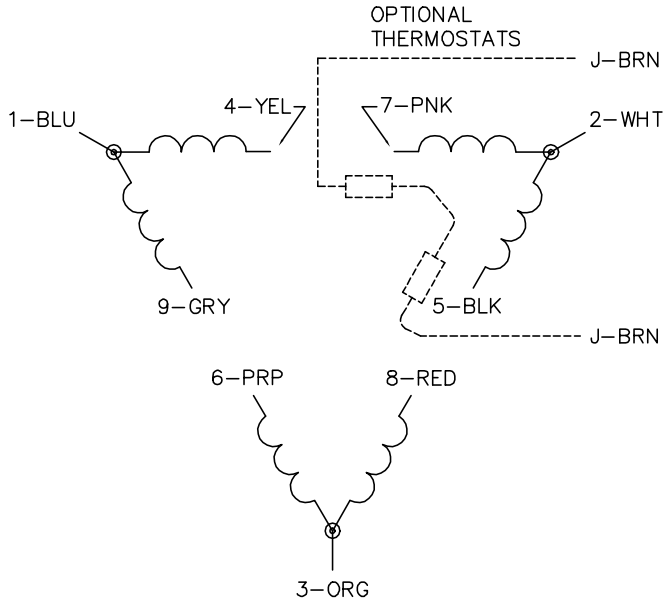
Load Characteristics 460 V, 60 Hz, 40 HP

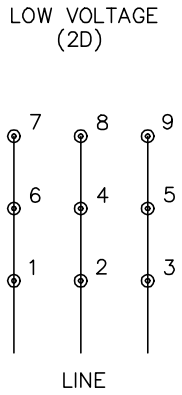
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	66	82	88	89	90	90	90
Efficiency	91.4	93.6	93.6	92.9	91.9	90.6	92.4
Speed	3581	3565	3547	3527	3505	3481	3514
Line amperes	16.4	24.9	34.7	45.9	57	69.7	52.6

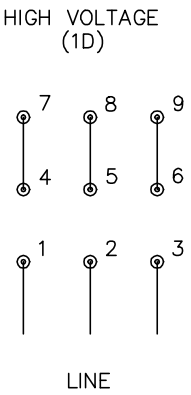

ABB Motors and Mechanical Inc.
WINDING # 40WGX194
40 HP 3 PH 60 HZ 3530 RPM 460 V 4046M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=207 PU=74.8 LR=103 LRA=282
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (40 HP)
11/1/2026 ACPERF, record # 32915


40LYG051
(4024 - 4046) = 22.44
(4048 - 4056) = 23.69
(4058 - 4064) = 24.69
4.78
3.57
3.25
.38 KEY
1.88 LONG
Ø 1.625
1.624
6 HOLES
Ø .53
9.50
.63
DRAIN HOLE
(REF)
11.00
4.75
12.25
13.40
12.33
6.70
1 LIFTING LUG
(EA END)
13.63
7.00 +.00 -.06
3.25
.25
LEAD HOLE
Ø 2.00
5.50
5.50
9.72
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: J
VERSION: 07
REVISED: 03:04:24 12/14/2023
TDR: 000001220227
MODEL NO. 40LYG051
REF: -
BY: USALMAZ
B
BALDOR
HORZ OPSB 284-6TS SUPER-E
40LYG051

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