ABB BALDOR RELIANCE

Customer information packet

CEM2538T-G

40HP, 3530RPM, 3PH, 60HZ, 286TSC, OPSB, F1

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Specifications

Enclosure	OPSB
Frame	286TSC
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	CSA
	CSA EEV
	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
Current @ Voltage	46.000 A @ 460.0 V
	92.000 A @ 230.0 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
Heater Indicator	No Heater
High Voltage Full Load Amps	46.0 a
Insulation Class	H
Inverter Code	Inverter Ready

Part Detail

Revision	F
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	40WGX194
Layout	40LY-000-038
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	03-06-2020

IP Rating	NONE
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
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 Face Code	C-Face
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
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.	CEM2538T-G			**P/N**						**ENCL**	OPSB	
SPEC.	40-0000837	**CC**	010A		**FRAME**	286TSC		**SER.NO.**				
HP	40		**CLASS**	H	**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				SF1.0							
HTR-VOLTS	**HTR-AMPS**			**MAX. SPACE HEATER TEMP.**								

AC Induction Motor Performance Data
Record # 53043
Typical performance - not guaranteed values

Winding: 40WGX194-R006	**Type:** 4046M	**Enclosure:** OPSB

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			40	**Full Load Torque**	59.6 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**	0.1848 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	24
				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	93.7	93.7	93	92	90.7	92.4
Speed	3580.7	3565.4	3547.1	3527.4	3504.7	3481	3514
Line amperes	16.4	24.9	34.7	45.9	57	69.7	52.6

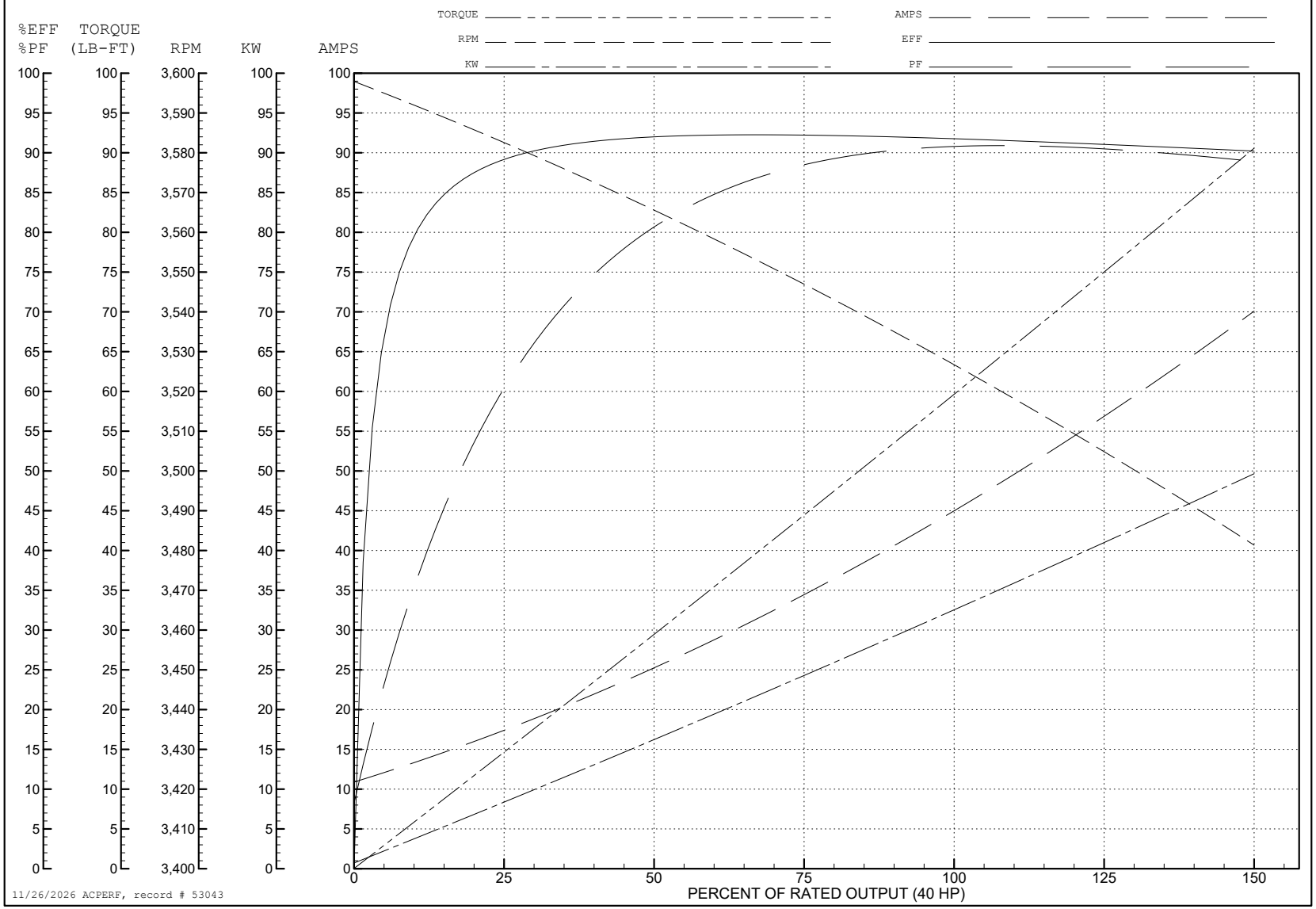
ABB Motors and Mechanical Inc.

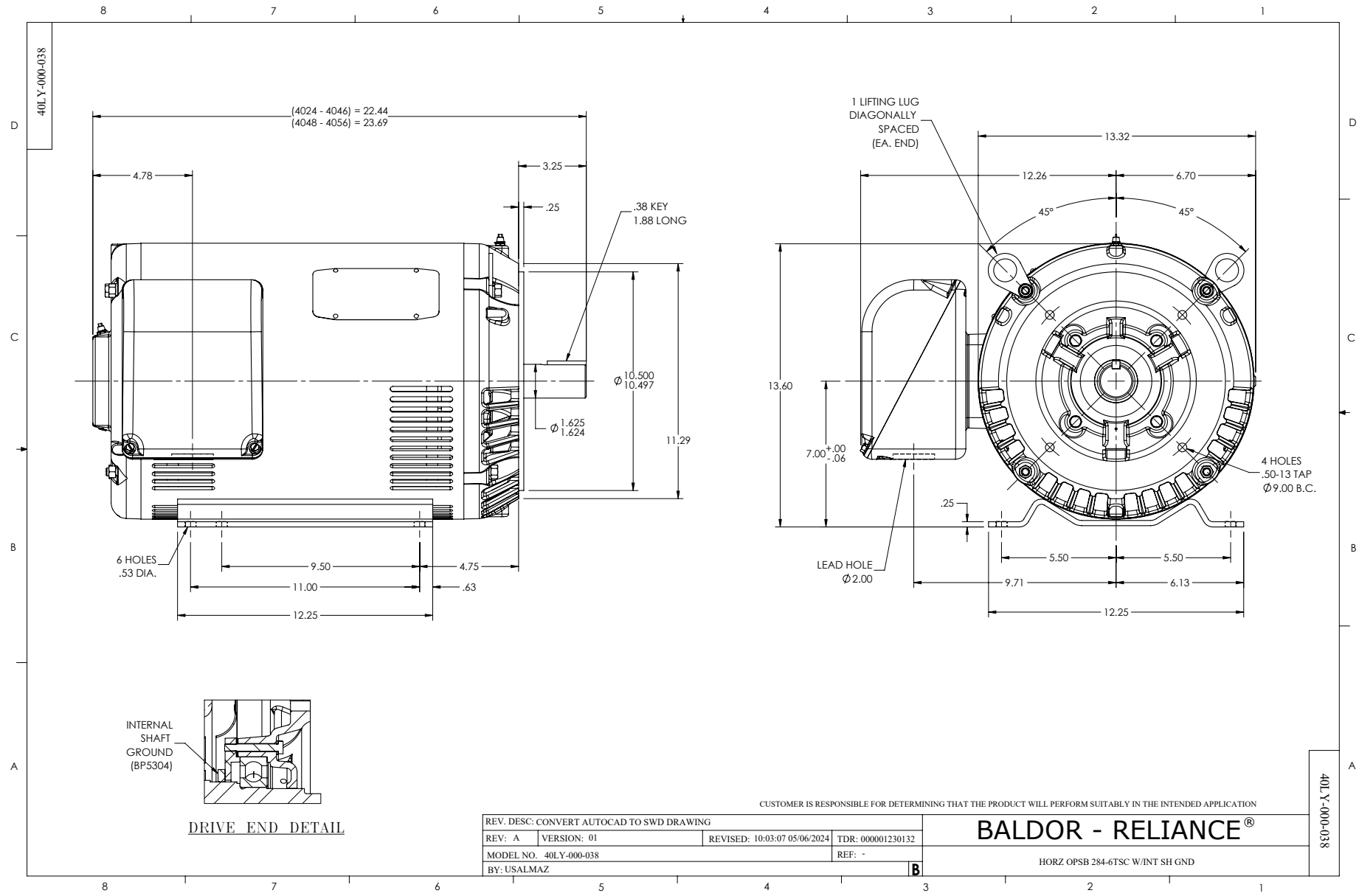
WINDING # 40WGX194

40 HP 3 PH 60 HZ 3530 RPM 460 V 4046M

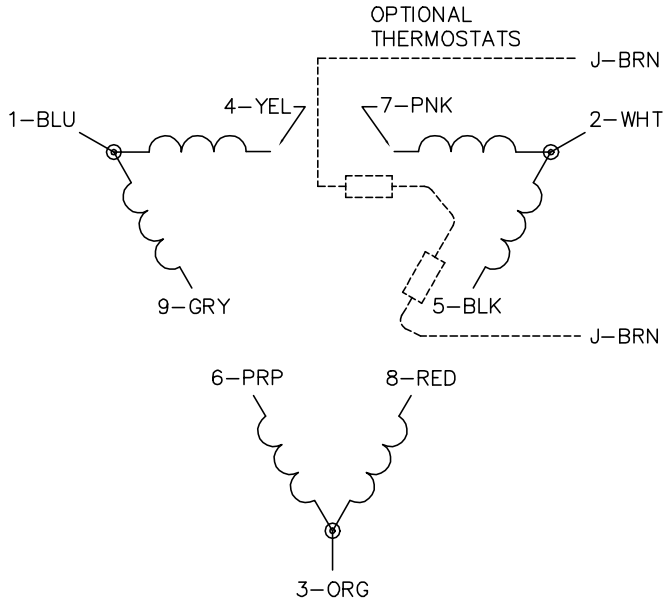
Typical performance - not guaranteed values.

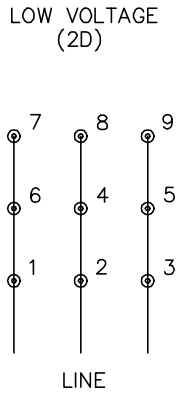
TORQUES(LB-FT): PO=207 PU=74.8 LR=103 LRA=282

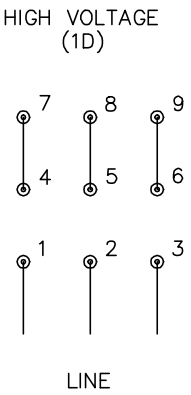



40LY-000-038
(4024 - 4046) = 22.44
(4048 - 4056) = 23.69
4.78
3.25
.25
.38 KEY
1.88 LONG
Ø 10.500
10.497
Ø 1.625
1.624
11.29
6 HOLES
.53 DIA.
9.50
4.75
11.00
.63
12.25
1 LIFTING LUG
DIAGONALLY
SPACED
(EA. END)
13.32
12.26
6.70
45°
45°
13.60
7.00 +.00 -.06
4 HOLES
.50-13 TAP
Ø9.00 B.C.
.25
LEAD HOLE
Ø2.00
5.50
5.50
9.71
6.13
12.25
INTERNAL
SHAFT
GROUND
(BP5304)
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD TO SWD DRAWING
REV: A
VERSION: 01
REVISED: 10:03:07 05/06/2024
TDR: 000001230132
MODEL NO. 40LY-000-038
REF: -
BY: USALMAZ
B
BALDOR - RELIANCE®
HORZ OPSB 284-6TSC W/INT SH GND
40LY-000-038

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		
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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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