ABB BALDOR RELIANCE

Customer information packet

CEM2515T-G

20HP, 1765RPM, 3PH, 60HZ, 256TC, OPSB, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	OPSB
Frame	256TC
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 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	48.000 A @ 230.0 V
	24.000 A @ 460.0 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
Heater Indicator	No Heater
High Voltage Full Load Amps	24.0 a

Part Detail

Revision	J
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	39WGX952
Layout	39LYE477
Eff. date	09-30-2026
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	03-03-2020

Insulation Class	H
Inverter Code	Inverter Ready
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	3948M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	23.19 IN
Power Factor	85
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	1765 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

NP3553LUA									
CAT.NO.	CEM2515T-G								
SPEC.	39-0000820								
HP	20								
VOLTS	230/460								
AMPS	48/24								
RPM	1765								
FRAME	256TC	**HZ**	60			**PH**	3		
SF	1.15	**CODE**	G	**DES**	A	**CLASS**	H		
NEMA NOM. EFF	93	**PF**	85						
RATING	40C AMB-CONT								
CC	010A								
ENCL	OPSB	**SN**							
DE	6309	**ODE**	6208						
VPWM INVERTER READY									
CT30-60(2:1) VT3-60(20:1)									
USABLE AT	50HZ 20HP 190/380V 58/29A								SF1.0

AC Induction Motor Performance Data
Record # 57686
Typical performance - not guaranteed values

Winding: 39WGX952-R003 **Type:** 3948M **Enclosure:** OPSB

Nameplate Data			
Rated Output (HP)			20
Volts			230/460
Full Load Amps			48/24
R.P.M.			1765
Hz	60	**Phase**	3
NEMA Design Code	A	**KVA Code**	G
Service Factor (S.F.)			1.15
NEMA Nom. Eff.	93	**Power Factor**	85
Rating - Duty			40C AMB-CONT
S.F. Amps			

460 V, 60 Hz: High Voltage Connection	
Full Load Torque	59.7 LB-FT
Start Configuration	direct on line
Breakdown Torque	187 LB-FT
Pull-up Torque	78.1 LB-FT
Locked-rotor Torque	112 LB-FT
Starting Current	156 A
No-load Current	8.83 A
Line-line Res. @ 25ºC	0.48438 Ω
Temp. Rise @ Rated Load	37°C
Temp. Rise @ S.F. Load	46°C
Locked-rotor Power Factor	33.3

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	50	72	81	85	87	87	86
Efficiency	90.2	93.3	93.5	93	92.2	91	92.5
Speed	1792.2	1784.8	1776.1	1767.5	1757.6	1746.3	1762
Line amperes	10.5	14	18.6	23.8	29.4	35.6	27.2

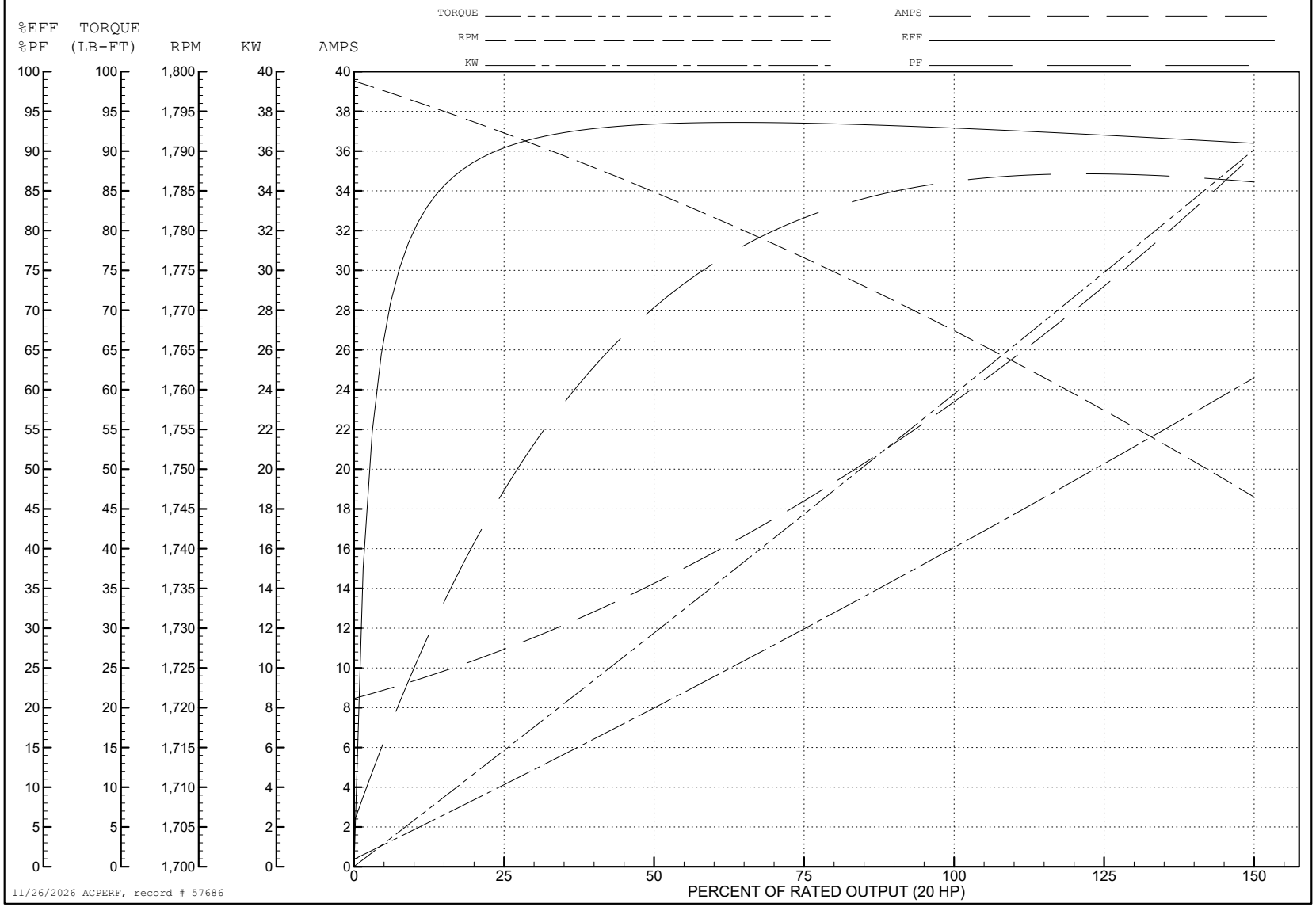
ABB Motors and Mechanical Inc.

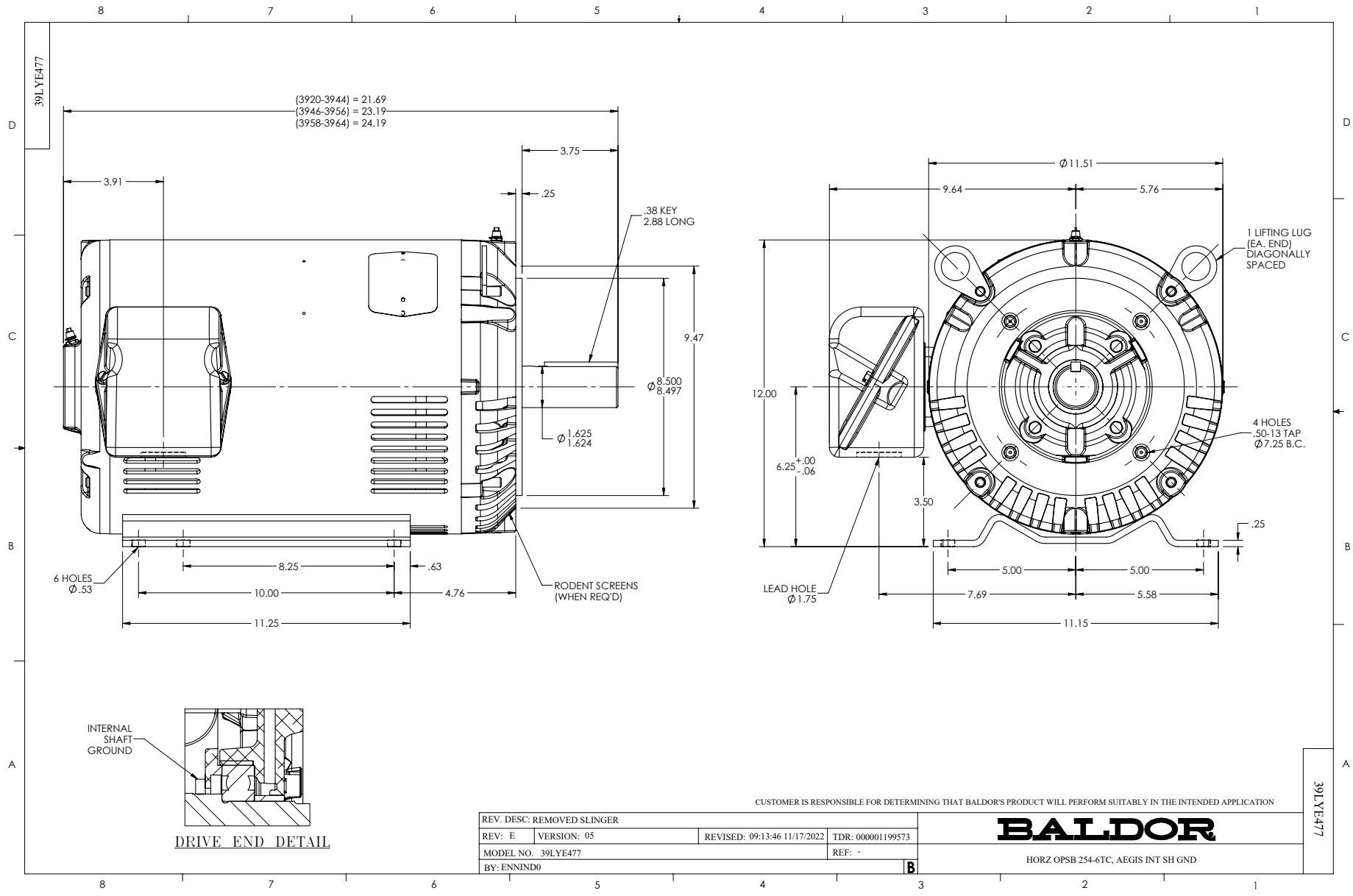
WINDING # 39WGX952

20 HP 3 PH 60 HZ 1765 RPM 460 V 3948M

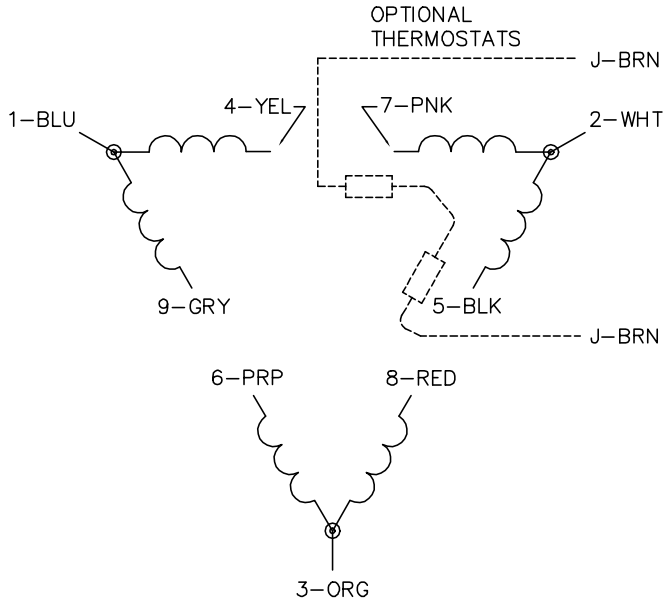
Typical performance - not guaranteed values.

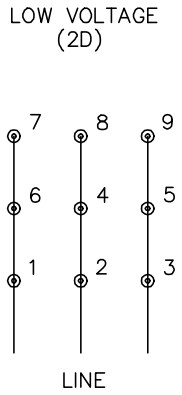
TORQUES(LB-FT): PO=187 PU=78.1 LR=112 LRA=156

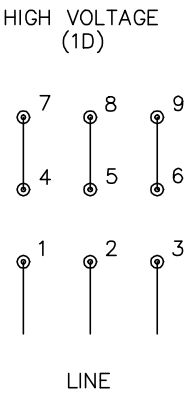



39LYE477
(3920-3944) = 21.69
(3946-3956) = 23.19
(3958-3964) = 24.19
3.91
3.75
.25
.38 KEY
2.88 LONG
9.47
Ø8.500
8.497
Ø1.625
1.624
6 HOLES
Ø.53
8.25
.63
10.00
4.76
11.25
RODENT SCREENS
(WHEN REQ'D)
Ø11.51
9.64
5.76
1 LIFTING LUG
(EA. END)
DIAGONALLY
SPACED
12.00
4 HOLES
.50-13 TAP
Ø7.25 B.C.
6.25 +.00 -.06
3.50
.25
LEAD HOLE
Ø1.75
5.00
5.00
7.69
5.58
11.15
INTERNAL
SHAFT
GROUND
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: REMOVED SLINGER
REV: E
VERSION: 05
REVISED: 09:13:46 11/17/2022
TDR: 000001199573
MODEL NO. 39LYE477
REF: -
BY: ENNIND0
B
BALDOR
HORZ OPSB 254-6TC, AEGIS INT SH GND
39LYE477

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