ABB BALDOR RELIANCE

Customer information packet

EM2515T-58

20HP, 1470RPM, 3PH, 50HZ, 256T, 3956M, OPSB, F3
Class - None
Division - Not Applicable

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Specifications

Enclosure	OPSB
Frame	256T
Frame Material	Steel
Frequency	50.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1500 RPM @ 50 HZ
Voltage @ Frequency	400.0 V @ 50 HZ
Agency Approvals	C UR US
	CE
	CURUS
	IE3
	UKCA
	WEEE
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	28.000 A @ 400.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.1 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	P
Type	AC
Mech. spec.	39E318
Base	
Status	PRD/A
Elec. spec.	39WGX494
Layout	39LYE318
Eff. date	12-15-2025
CD Diagram	CD0382
Poles	04
Leads	6#10
Proprietary	False
Created date	04-03-2015

Heater Indicator	No Heater
High Voltage Full Load Amps	28.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3956M
Mounting Arrangement	F3
Number of Poles	4
Overall Length	23.19 IN
Power Factor	85
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	Included
RoHS Status	ROHS NON-COMPLIANT
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	1470 rpm
Speed Code	Single Speed
Starting Method	Wye Start - Delta Run
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor

Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP2716L									
CAT NO	EM2515T-58								
SPEC.	39E318X494G1								
HP	20HP/15KW				**PH**	3			
VOLTS	400								
AMP	28								
R.P.M. (1/MIN)	1470								
FRAME	256T		**HZ**	50			**I.P.**	23	
SER.F.	1.15	**CODE**	H	**DES**	B		**CL**	F	
NOM.EFF.	92.1			**% (100%)**					
PF	85								
RATING	40C AMB-S1 CONT				**CC**				
DE BRG	6309		**ODE**	6208					
ENCL	OPSB	**SN**							
BLANK	IE3-92.6(75%)91.8(50%)								
	IC01 127KG								

AC Induction Motor Performance Data
Record # 49907
Typical performance - not guaranteed values

Winding: 39WGX494-R003	**Type:** 3956M	**Enclosure:** OPEN

Nameplate Data				**400 V, 50 Hz: Single Voltage Motor**	
Rated Output (HP)			20	**Full Load Torque**	72 LB-FT
Volts			400	**Start Configuration**	direct on line
Full Load Amps			28	**Breakdown Torque**	266 LB-FT
R.P.M.			1470	**Pull-up Torque**	111 LB-FT
Hz	50	**Phase**	3	**Locked-rotor Torque**	184 LB-FT
NEMA Design Code	B	**KVA Code**	H	**Starting Current**	205 A
Service Factor (S.F.)			1.15	**No-load Current**	12.3 A
NEMA Nom. Eff.	92.1	**Power Factor**	85	**Line-line Res. @ 25ºC**	0.355 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	43°C
S.F. Amps				**Temp. Rise @ S.F. Load**	53°C

Load Characteristics 400 V, 50 Hz, 20 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	45	69	79	85	86	87	86
Efficiency	87.9	91.8	92.6	92.4	91.5	90.5	91.9
Speed	1493	1486	1478	1470	1460	1451	1464
Line amperes	13.8	17.4	22.3	27.8	34.1	40.9	31.6

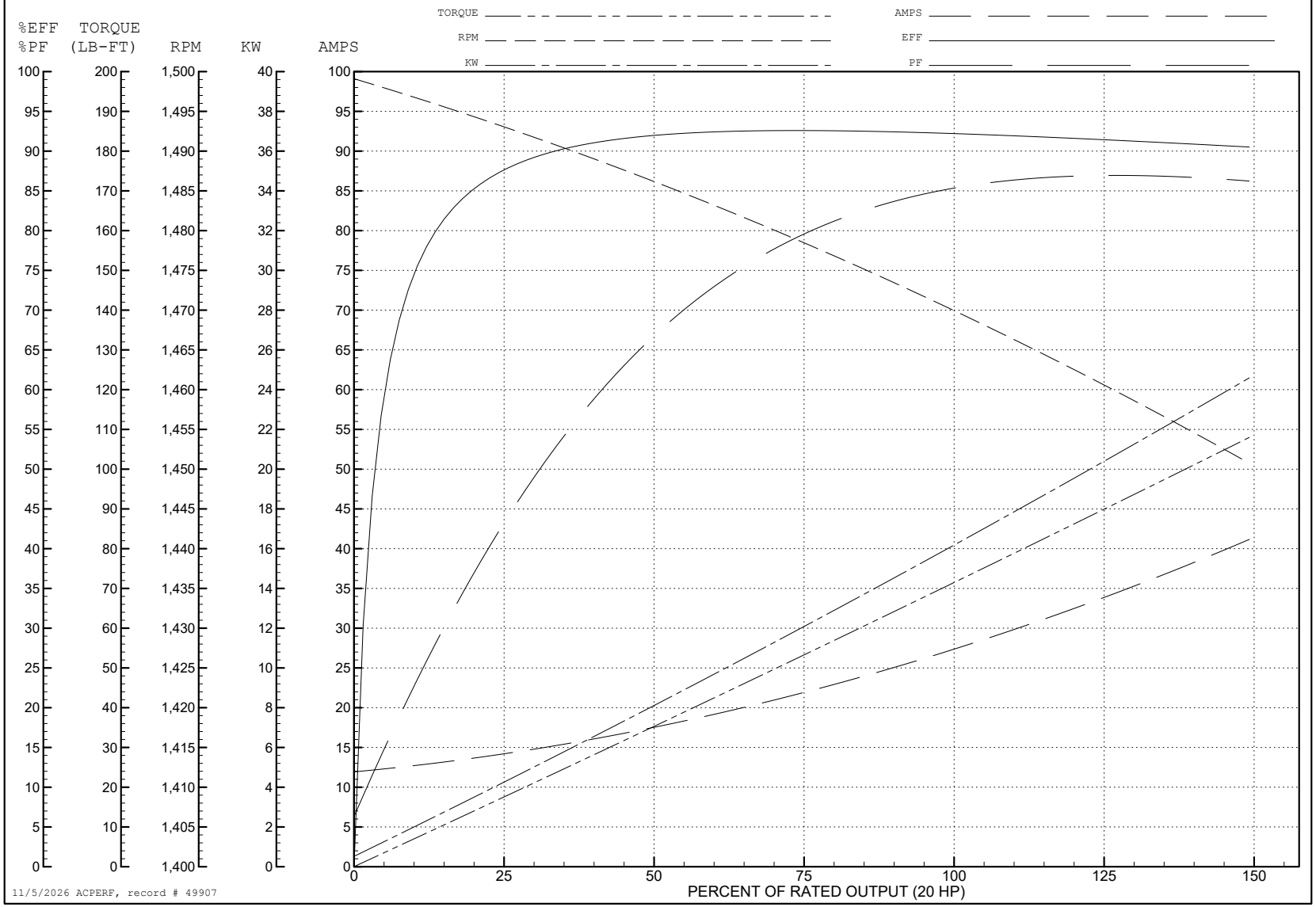
ABB Motors and Mechanical Inc.

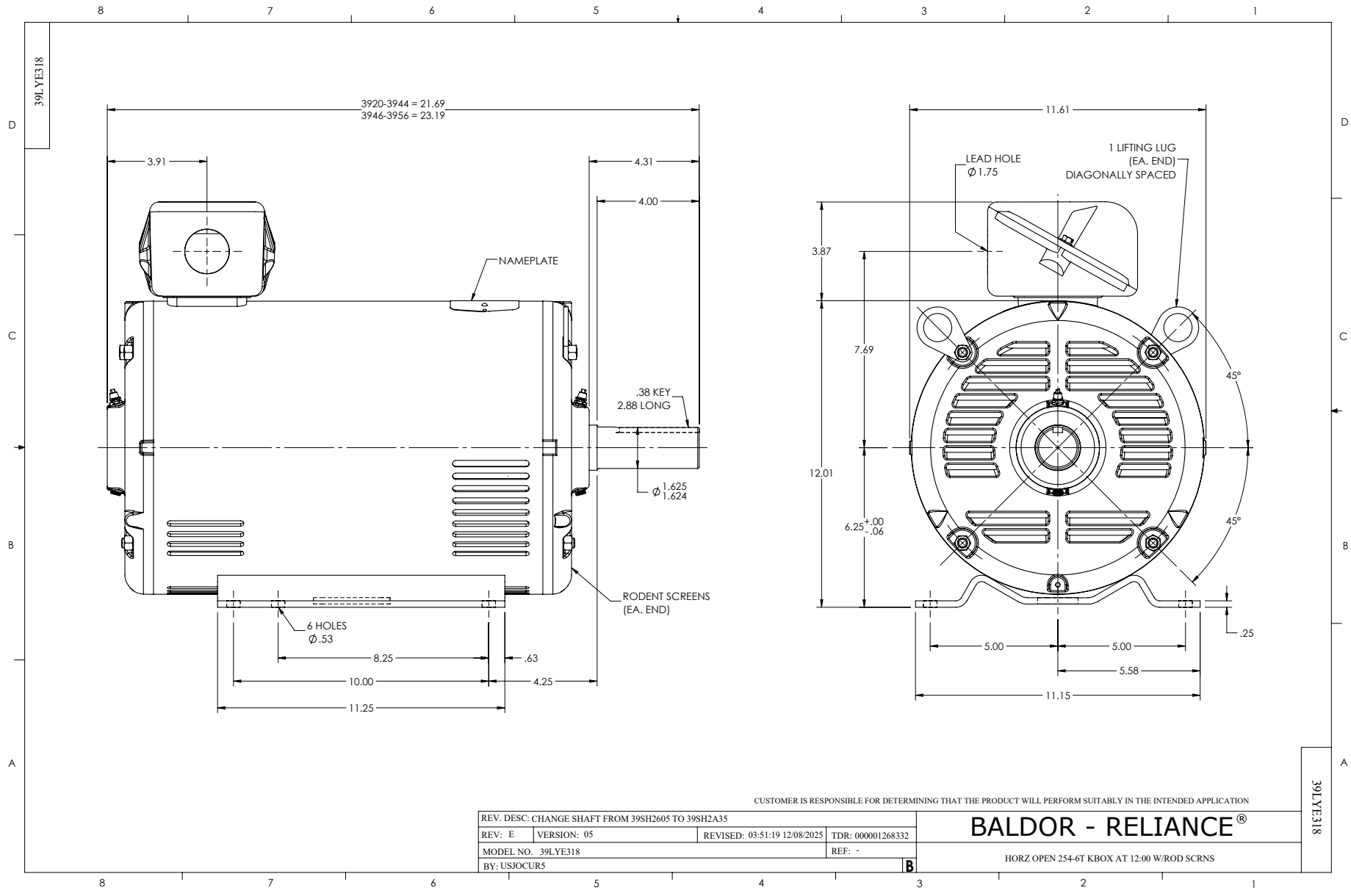
WINDING # 39WGX494

20 HP 3 PH 50 HZ 1470 RPM 400 V 3956M

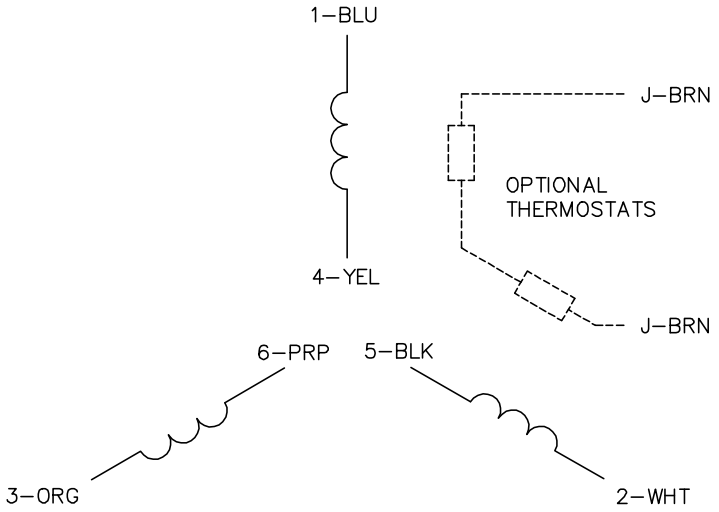
Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=266 PU=111 LR=184 LRA=205

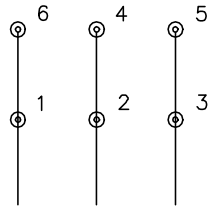



39LYE318
3920-3944 = 21.69
3946-3956 = 23.19
3.91
4.31
4.00
NAMEPLATE
.38 KEY
2.88 LONG
Ø 1.625
1.624
RODENT SCREENS
(EA. END)
6 HOLES
Ø .53
8.25
.63
10.00
4.25
11.25
11.61
LEAD HOLE
Ø 1.75
1 LIFTING LUG
(EA. END)
DIAGONALLY SPACED
3.87
7.69
12.01
6.25 +.00 -.06
45°
45°
.25
5.00
5.00
5.58
11.15
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CHANGE SHAFT FROM 39SH2605 TO 39SH2A35
REV: E
VERSION: 05
REVISED: 03:51:19 12/08/2025
TDR: 000001268332
MODEL NO. 39LYE318
REF: -
BY: USJOCUR5
B
BALDOR - RELIANCE®
HORZ OPEN 254-6T KBOX AT 12:00 W/ROD SCRNS
39LYE318

CD0382

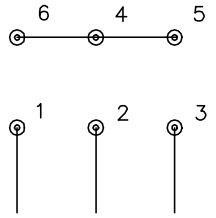


RUN CONNECTION
(1D)



LINE

START CONNECTION
(1Y)



LINE

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.
5. FOR ACROSS–THE–LINE STARTING, USE 'RUN' CONNECTION.

CD0382

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: F	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\243	REVISED: 09:05:32 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, SV, 6 LEADS, Y START/D RUN

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