

ABB BALDOR RELIANCE III

Customer information packet

EM2515T

20HP, 1765RPM, 3PH, 60HZ, 256T, 3948M, OPSB, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	OPSB
Frame	256T
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	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	48.000 A @ 230.0 V 52.000 A @ 208.0 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
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	W
Type	AC
Mech. spec.	39K57
Base	
Status	PRD/A
Elec. spec.	39WGX952
Layout	39LYK057
Eff. date	09-30-2026
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	03-03-2016

Heater Indicator	No Heater
High Voltage Full Load Amps	24.0 a
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 @ 10 AWG
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 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	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

NP3554LUA											
CAT.NO.	EM2515T			P/N						ENCL	OPSE
SPEC.	39K057X952		CC	010A		FRAME	256T		SER.NO.		
HP	20			CLASS		F	HZ	60			
RPM	1765			PH	3	DES		A			
VOLTS	230/460			CODE		G		ODE BRG	6208	DE BRG	6309
AMPS	48/24										
RATING	40C AMB-CONT			NEMA-NOM-EFF				93	GREASE	POLYREX EM	
PF	85	SER.F.	1.15			CT30-60(2:1) VT3-60(20:1)					
USABLE AT	50HZ 20HP 190/380V 58/29A					SF 1.0					
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.									

Accessories

Part number	Description	Multiplier
39-3400	C FACE KIT	A8

AC Induction Motor Performance Data

Record # 56778

Typical performance - not guaranteed values

Winding: 39WGX952-R001			Type: 3948M		Enclosure: OPSB	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		20	Full Load Torque		59.7 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		48/24	Breakdown Torque		187 LB-FT	
R.P.M.		1765	Pull-up Torque		78.1 LB-FT	
Hz	60 Phase	3	Locked-rotor Torque		112 LB-FT	
NEMA Design Code		A	KVA Code		G	
Service Factor (S.F.)		1.15	No-load Current		8.83 A	
NEMA Nom. Eff.		93	Power Factor		85	
Rating - Duty		40C AMB-CONT	Line-line Res. @ 25°C		0.48438 Ω	
S.F. Amps			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

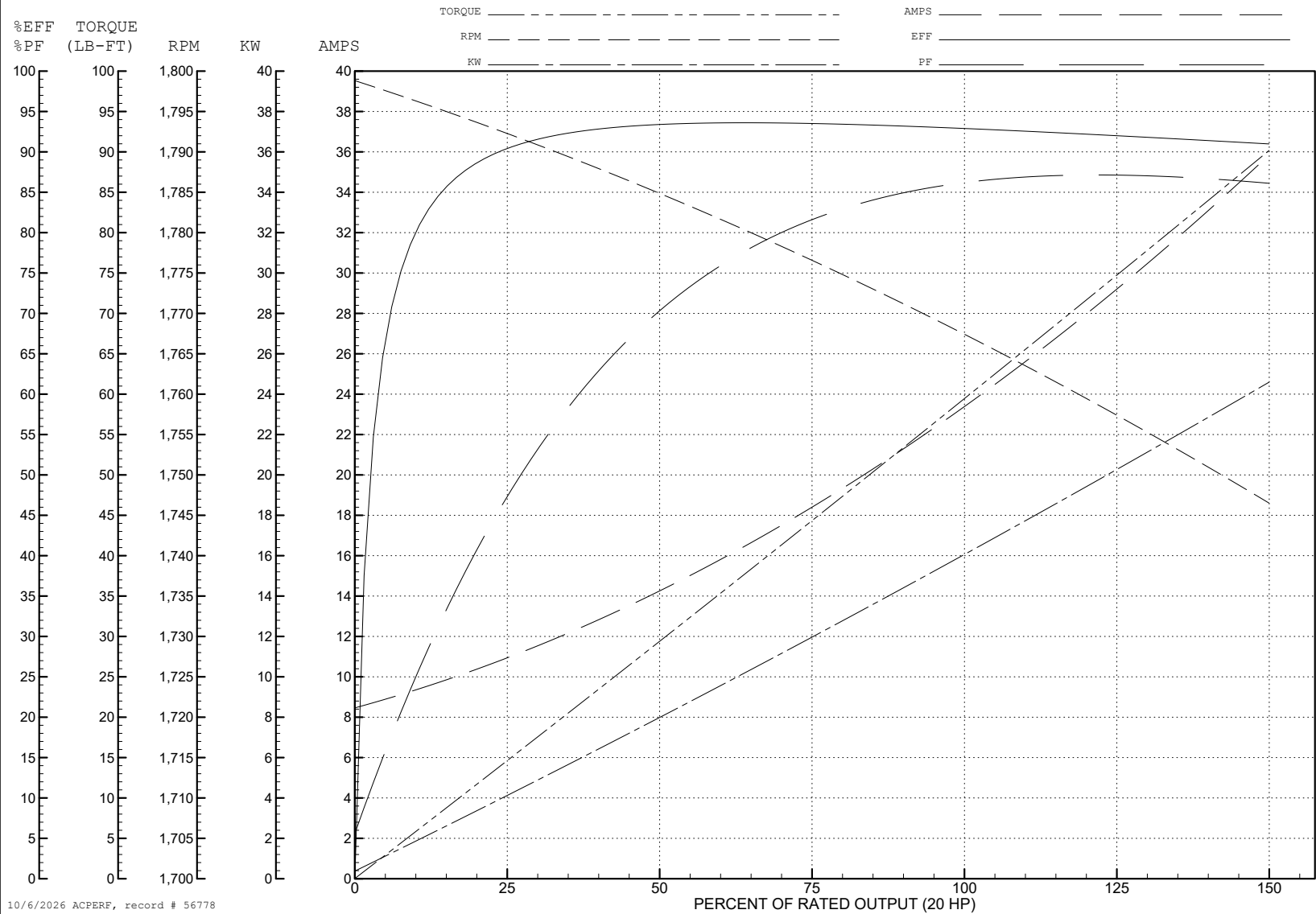
ABB Motors and Mechanical Inc.

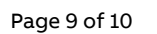
WINDING # 39WGX952

Typical performance - not guaranteed values.

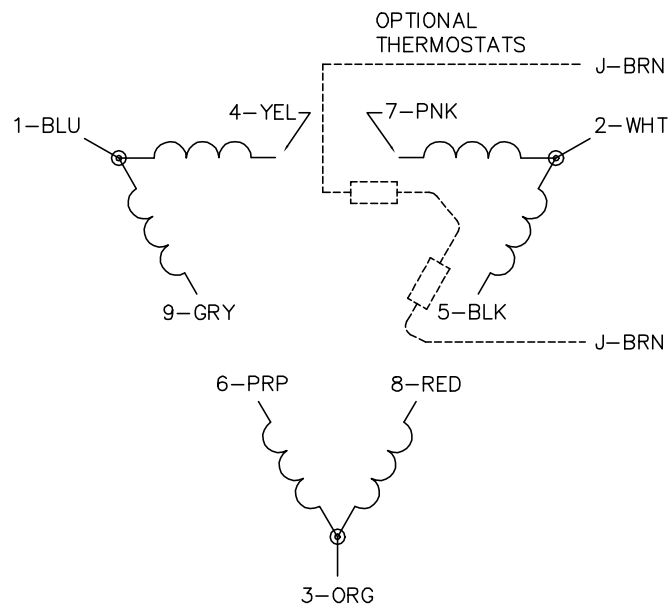
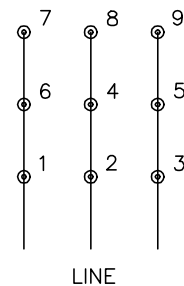
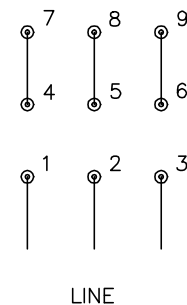
20 HP 3 PH 60 HZ 1765 RPM 460 V 3948M

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





CD0180


 LOW VOLTAGE
(2D)

 HIGH VOLTAGE
(1D)

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.

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -


BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

CD0180