

ABB BALDOR RELIANCE III

Customer information packet

EM2515T-12

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	N
Type	AC
Mech. spec.	39K57
Base	
Status	PRD/A
Elec. spec.	39WGX980
Layout	39LYK057
Eff. date	12-12-2025
CD Diagram	CD0104
Poles	04
Leads	12#10
Proprietary	False
Created date	06-20-2016

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	12 @ 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	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

NP3554LUA												
CAT.NO.	EM2515T-12				P/N						ENCL	OPSE
SPEC.	39K057X980		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.									

Parts List

Part number	Description	Quantity
SA322710	SA 39K057X980	1.000 ea
RA310509	RA 39K057X980	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 ea
HA6016	ADAPTER, CAST CONDUIT BOX	1.000 ea
09CB3003	CB W/1.75" DIA LD HL - 37, 39, 307 & 309	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 ea
39EP3200A01SP	FR/PU ENDPLATE, MACH	1.000 ea
HW5100A08	W3118-035 WVY WSHR (WB)	1.000 ea
39EP3201A13	PU ENDPLATE, MACH	1.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	8.000 ea
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.030 lb
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.050 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
39AD2002A01	BAFFLE PLATE 39 OPEN, SLOTTED BAND MTRS	1.000 ea
39AD2002A01	BAFFLE PLATE 39 OPEN, SLOTTED BAND MTRS	1.000 ea
HA3154A03	STUD, 3/8-16 X 17.75	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0104A01	CONNECTION DIAGRAM	1.000 ea
NP3554LUA	SS SUPER-E VPWM INV READY,CURUS-EEV,PREM	1.000 ea
39PA1000	PACKAGING GROUP 39 PRINT	1.000 ea

MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LD7020E12	LEAD SET, 10AWG, 12 LEAD, 20" LONG LEADS	1.000 ea

AC Induction Motor Performance Data

Record # 57708

Typical performance - not guaranteed values

Winding: 39WGX980-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 # 39WGX980

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





