

ABB BALDOR RELIANCE III

Customer information packet

CDM3543

.75HP, 1180RPM, 3PH, 60HZ, 56C, 3524M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	56C
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	.750 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	UR CCSA US
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
Constant Torque Speed Range	6
Current @ Voltage	1.550 A @ 460.0 V 2.900 A @ 208.0 V 3.100 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	81.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	A
Type	AC
Mech. spec.	35E4315
Base	
Status	PRD/A
Elec. spec.	35WGG031
Layout	35LYE4315
Eff. date	11-08-2023
CD Diagram	CD0005
Poles	06
Leads	9#18
Proprietary	False
Created date	09-09-2022

High Voltage Full Load Amps	1.6 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	M
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	1800 rpm
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3524M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	13.23 IN
Power Factor	55
Product Family	Dirty Duty Plus
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1180 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

NP3505												
CAT NO	CDM3543											
SPEC.	35E4315G031G1						ENCL	TEFC				
FRAME	56C	HP		.75								
VOLTS	230/460											
FLA	3.1/1.55				I.P.		56					
RPM	1180	RPM MAX				1800						
HZ	60	PH	3	CLASS		F						
SER.F.	1.15	DES	B	CC								
NEMA-NOM-EFF	81.7											
RATING	40C AMB-CONT											
DE BRG	6205	ODE BRG				6203						
GREASE	POLYREX EM											
INV.TYPE		C HP FR			60	C HP TO			90			
CT HZ FROM	6	CT HZ TO			60	VT HZ FROM			6	VT HZ TO		60
SER.NO	SFA 2.9/1.45											

Parts List

Part number	Description	Quantity
SA407346	SA 35E4315G031G1	1.000 ea
RA398845	RA 35E4315G031G1	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB1001A01E	SPL CONDUIT BOX, MACHINED (E-COAT)	1.000 ea
35GS1022A02	GASKET BOX .06 THK NEOP BLK HDN 30-40 DU	1.000 ea
51XB1016A08	10-16X 1/2HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 ea
35EP1100F12EP5	FRONT TEFC 203 BRG W/ SEAL	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HW4606A01	JM CLIPPER/SEAL (WDE-0667-1064-BH49)	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	3.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP1300A113E	PUEP ENCL 205 BRG F/SEAL, (4).125 NPT	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	3.000 ea
HW4606A02	JM CLIPPER/SEAL (LWE-0938-1624-AL23)	1.000 ea
12XN1032S20	10-32 X 1-1/4 HEX M.S. , STAINLESS STEEL	2.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
35FH4005A01EP5	IEC FH NO GREASER	1.000 ea
10XN1032S08	10-32X1/2 HEX HEAD S STL	3.000 ea
35CB4516E	CONDUIT BOX LID, E-COAT	1.000 ea
36GS1002	GASKET, 1/16" NEOPRENE CONDUIT BOX LID	1.000 ea
59XW0832S07	TAPTITE II,HEX WSHR UNSLTD SER,410 S.S.,	4.000 ea
HW2502D13	SS KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
MJ5001A02	732 CL SEALANT 3 OZ DIXIE BEARING 289100	0.001 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1164	LABEL,WARNING AND DRAIN	1.000 ea
MJ5001A23	P.D. GEORGE B-276 AIR DRY VARNISH	0.001 ga
LB1000	LABEL, DIRTY DUTY	1.000 ea

MG2000A02	RUST VETO-377-HF HOUGHTON	0.001 ga
WD1000D21	TRM,T&B #B71M,RING,18-14,.25,NON-INSL	9.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HA3100S07	THRUBOLT 10-32 X 8.375 SS	4.000 ea
MG1500Y02	WILKOPON PRIMER YELLOW	0.010 ga
MG1025L01	WILKOFAST FD, 786.04, BLACK	0.010 ga
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP3505	SS DIRTY DUTY PLUS INV UL CSA-C US EEV C	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A08	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

AC Induction Motor Performance Data

Record # 82358

Typical performance - not guaranteed values

Winding: 35WGG031-R004				Type: 3524M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		.75		Full Load Torque		3.35 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		3.1/1.55		Breakdown Torque		12.9 LB-FT	
R.P.M.		1180		Pull-up Torque		7.2 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		7.7 LB-FT	
NEMA Design Code		B	KVA Code	Starting Current		9.7 A	
Service Factor (S.F.)		1.15		No-load Current		1.22 A	
NEMA Nom. Eff.		81.7	Power Factor	Line-line Res. @ 25°C		20.1 Ω	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		42°C	
S.F. Amps		3.3/1.65		Temp. Rise @ S.F. Load		47°C	
				Locked-rotor Power Factor		50.5	
				Rotor inertia		0.174 lb-ft²	

Load Characteristics 460 V, 60 Hz, 0.75 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	22	35	47	55	62	67	1
Efficiency	65	76	80	82	82	81	82.4
Speed	1194	1189	1184	1179	1172	1166	1170
Line amperes	1.23	1.31	1.42	1.56	1.74	1.95	1.47

ABB Motors and Mechanical Inc.

WINDING # 35WGG031

0.75 HP 3 PH 60 HZ 1180 RPM 460 V 3524M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=12.9 PU=7.2 LR=7.7 LRA=9.7





