

ABB BALDOR RELIANCE III

Customer information packet

VNEDM3554T

1.5HP, 1770RPM, 3PH, 60HZ, 145TC, 3530M, TENV

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	145TC
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	1.500 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	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	6
Current @ Voltage	4.600 A @ 230.0 V 4.400 A @ 208.0 V 2.300 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated

Part Detail

Revision	E
Type	AC
Mech. spec.	35E4321
Base	
Status	PRD/A
Elec. spec.	35WGG178
Layout	35LYE4321
Eff. date	05-03-2024
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-10-2022

Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	2.3 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	M
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3530M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.99 IN
Power Factor	72
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	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 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

NP3504												
CAT NO	VNEDM3554T											
SPEC.	35E4321G178G1						ENCL	TENV				
FRAME	145TC	HP		1.5								
VOLTS	230/460											
FLA	4.6/2.3				I.P.		56					
RPM	1770	RPM MAX				2700						
HZ	60	PH	3	CLASS		F						
SER.F.	1.15	DES	B	CC	010A							
NEMA-NOM-EFF	87.5											
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 4.66/2.33											

Parts List

Part number	Description	Quantity
SA401865	SA 35E4321G178G1	1.000 ea
RA393128	RA 35E4321G178G1	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
35EP1100B94E	FREP TENV (4).125 NPT DRAINS	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
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
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
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	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
WD1000D21	TRM,T&B #B71M,RING,18-14,.25,NON-INSL	9.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1500Y02	WILKOPON PRIMER YELLOW	0.010 ga
MG1025L01	WILKOFAS FD, 786.04, BLACK	0.010 ga

HA3100S07	THRUBOLT 10-32 X 8.375 SS	4.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP3504	SS DIRTY DUTY PLUS,INV,CURUS EEV,NEMA PR	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A08	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

AC Induction Motor Performance Data

Record # 82076

Typical performance - not guaranteed values

Winding: 35WGG178-R001			Type: 3530M		Enclosure: TENV	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		1.5	Full Load Torque		4.46 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		4.2/2.1	Breakdown Torque		21 LB-FT	
R.P.M.		1770	Pull-up Torque		12.2 LB-FT	
Hz	60 Phase	3	Locked-rotor Torque		14.8 LB-FT	
NEMA Design Code		B KVA Code	Starting Current		21.4 A	
Service Factor (S.F.)		1.15	No-load Current		1.3 A	
NEMA Nom. Eff.		86.5 Power Factor	Line-line Res. @ 25°C		10.1 Ω	
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		80°C	
S.F. Amps			Temp. Rise @ S.F. Load		95°C	
			Locked-rotor Power Factor		55.2	
			Rotor inertia		0.217 LB-FT2	

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	29	49	63	72	78	82	79
Efficiency	78.6	86.1	87.9	88.2	87.5	86.4	87.9
Speed	1792	1785	1778	1770	1762	1753	1764
Line amperes	1.36	1.53	1.79	2.11	2.47	2.9	2.33

ABB Motors and Mechanical Inc.

WINDING # 35WGG178

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 3530M

TORQUES (LB-FT): PO=21 PU=12.2 LR=14.8 LRA=21.4





