

ABB BALDOR RELIANCE III

Customer information packet

IDM3584T

1.5HP, 1770RPM, 3PH, 60HZ, 145TC, 0524M, TEBC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEBC
Frame	145TC
Frame Material	Iron
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	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA UR
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	BLOWER
Current @ Voltage	2.300 A @ 460.0 V 4.600 A @ 230.0 V 4.640 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	2.3 a

Part Detail

Revision	D
Type	AC
Mech. spec.	05E535
Base	
Status	PRD/A
Elec. spec.	05WGX510
Layout	05LYE535
Eff. date	09-30-2025
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	07-21-2022

Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	M
Lifting Lugs	Standard 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	0524M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.02 IN
Power Factor	72
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP4009L											
CAT.NO.	IDM3584T										
SPEC.	05E535X510G1										
FRAME	145TC			H.P.	1.5 TE						
VOLTS	230/460										
MAG. CUR.	3/1.5				F.L. AMPS			4.6/2.3			
R.P.M.	1770			R.P.M. MAX			2700				
HZ.	60		PH.	3		CLASS		H			
SER.F.	1.00		DES.	B		SL HZ		1			
NEMA NOM. EFF.	86.5		WK2	0.174							
BLOWER		V	115		PH	1	HZ	60	AMPS	.5	
RATING	40C AMB-CONT										
DE	6205		ODE	6203							
CC	010A	SN									
	1000:1 CT/VT										

Parts List

Part number	Description	Quantity
SA407605	SA 05E535X510G1	1.000 ea
RA399104	RA 05E535X510G1	1.000 ea
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
10XN2520A06	1/4 20X3/8 HX HD CAP	2.000 ea
06CB3000	BALDOR CONDUIT BOX CAST	1.000 ea
06GS1000	GASKET,CONDUIT BOX	1.000 ea
51XW2520A12	SCREW, HEX SER SLT HD, ZN, 1/4-20 X .75	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
35EP1100B21	FRONT TEBC 203 BRG W/ GREASER & THRU-SHA	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP1329A01	PU EP ENCL 143-5TC 205 BRG W/GRSR & STD	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
HA3100A28	THRUBOLT 10-32 X 8.187	4.000 ea
10XN2520A08	1/4-20X1/2 HEX HEAD CAP	1.000 ea
HA3218A04	MALE-FEMALE STANDOFF .25-.20 .38 HEX	3.000 ea
10XN2520A04	1/4-20 X 1/4 HEX HD MACH SCREW	3.000 ea
HW1003A25	WASHER, 1/4 EX TH LK, ZN X	3.000 ea
06CB3500	BALDOR CONDUIT BOX LID	1.000 ea
06GS1001	BALDOR CONDUIT BOX GASKET	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
HA1005A05SP	SLINGER, OD 1.50, ID .659, 203 BRG	1.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
MJ5004A05	#242-21 LOCTITE GENERAL PURPOSE MED. STR	0.005 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea

LB1009N	LABEL,ROTATION DIRECTION (ON ROLLS)	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
05FH5001A03	BLOWER KIT,05FH4002,EF0008,35CB3002	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.022 ga
LC0035B01	1PH, SV, FIX, 2 LEAD	1.000 ea
LC0145B01	CONNECTION LABEL	1.000 ea
NP4009L	SS INV UL CSA-EEV CC NEMA PREM	1.000 ea
G7PA1000	PKG GRP, PRINT PK1034A07	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 95409

Typical performance - not guaranteed values

Winding: 05WGX510-R004			Type: 0524M		Enclosure: TEBC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		1.5	Full Load Torque		4.48 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		4.6/2.3	Breakdown Torque		18.8 LB-FT	
R.P.M.		1770	Pull-up Torque		9.6 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		12.6 LB-FT
NEMA Design Code		B	KVA Code	M	Starting Current	
Service Factor (S.F.)		1	No-load Current		1.51 A	
NEMA Nom. Eff.		86.5	Power Factor	72	Line-line Res. @ 25°C	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		48°C
				Locked-rotor Power Factor		58.4
				Rotor inertia		0.173 lb-ft²

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	31	49	63	72	78	81
Efficiency	75.1	83.5	86	86.5	85.8	84.8
Speed	1792	1785	1777	1769	1760	1750
Line amperes	1.56	1.72	1.97	2.28	2.65	3.06

ABB Motors and Mechanical Inc.

WINDING # 05WGX510

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 0524M

TORQUES (LB-FT): PO=18.8 PU=9.6 LR=12.6 LRA=19.7





