

ABB BALDOR RELIANCE III

Customer information packet

ZDVSCP3770T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 0738M, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	213TC
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	7.500 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	None
Current @ Voltage	19.000 A @ 230.0 V 20.000 A @ 208.0 V 9.500 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	RESOLVER
Front Shaft Indicator	No Key Or Flat
Heater Indicator	No Heater
High Voltage Full Load Amps	9.5 a

Part Detail

Revision	A
Type	AC
Mech. spec.	07M294
Base	
Status	PRD/A
Elec. spec.	07WGT510
Layout	07LYM294
Eff. date	09-30-2025
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	01-28-2021

Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	4000 rpm
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0738M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	25.03 IN
Power Factor	81
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	1.375 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

NP3949				
CAT.NO.	ZDVSCP3770T			
SPEC.	07M294T510Z1			
FRAME	213TC	H.P.	7.5 TE	
VOLTS	230/460			
MAG. CUR.	8.6/4.3	F.L. AMPS		19/9.5
R.P.M.	1770	R.P.M. MAX		4000
HZ.	60	PH.	3	CLASS F
SER.F.	1.00	SL HZ		1
NEMA NOM. EFF.	91.7	WK2	0.934	
RATING	40C AMB-CONT			
DE	6307	ODE	6206	
CC	010A	SN		
	1.5:1 CHP PWM			
	1000:1 CT/VT			

Parts List

Part number	Description	Quantity
SA390708	SA 07M294T510Z1	1.000 ea
RA381166	RA 07M294T510Z1	1.000 ea
37FN3002C01	EXFN, PLASTIC, 6.00 OD, 1.155 ID	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
09CB1001A03G	CONDUIT BOX, MACH GRAY	1.000 ea
RM1017	LEAD SEPERATOR GASKET MODEL 307 1/8" THK	1.000 ea
19XW2520A16	SCREW,1/4-20X1 TAPTITE-II OR ROLOC 91	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
10XN2520S06	1/4 20X3/8 HX HD CAP S.S.	1.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
07EP1901A37G	FRONT 206 BRG, GRSR, REL, .125 NPT DRAIN	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 ea
37EP1300A41G	FACE MTD E.P. ENCL 307 BRG. 213-5TC S.P.	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
10XN2520A30	HEX HD CAP SCREW-STD THD-.25 X 20 THD PE	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 ea
07FH1002A25G	307 C-FACE FH W/ 206 BRG, GRS, RLF, (CP)	1.000 ea
WD4100A02	DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL	1.000 ea
10XN3118A52	5/16-18 X 3-1/4 HEX HEAD CAP SCR,GR.5,Z/	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
HA1103A13	#4 X 4 SCREEN FOR FAN CVR 07FH1002 (MR21	1.000 ea
13XT0832A07	8-32X7/16 TYP 23 PAN HD SLT DX	4.000 ea

HA6059A05	ADAPTER FOR 8.50" RABBET TO 4.50" RABBET	1.000 ea
84XN5013J16S	1/2-13 X 1 LOW HEAD HEX SOC HD	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT, .879 OD, .509 I	4.000 ea
09CB1504A01G	LIPPED CONDUIT BOX LID, MACH GRAY EPOXY	1.000 ea
09GS1001A01	GASKET, BOX LID, 1/8 THICK BLACK NEOPREN	1.000 ea
10XF2520A12	1/4-20 X 3/4 HX HD TYPE F	2.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
HA1005A02	SLINGER, OD 2.00, ID 1.14, 206 BRG,	1.000 ea
HW4600B33	V-RING SLINGER 1.375 X 1.890 X .35 VITON	1.000 ea
HW2501F21	KEY, 5/16 SQ X 2.375	1.000 ea
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.001 qt
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HA3104A32	THRUBOLT- 5/16-18 X12.750	4.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
611712073A	TACH 210	1.000 ea
MG1025N19	WILKOFASST, 778.50, RELIANCE BLUE-GREEN 8	0.036 ga
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea
LC0145B01	CONNECTION LABEL	1.000 ea
NP3949	SS CP VEC UL CSA-EEV CC NEMA PREM W/OUT	1.000 ea
07PA1011	PKG GRP, 07 CAST IRON PK1181	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

NP VOLTS	230/460					WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)
NP AMPS	19/9.5	Base Volt	460	R1	0.784	X1 2.650
HP	7.5	NL AMPS	4.07	R2	0.464	X2 2.040
BASE SPEED	1769	Slip (HZ)	1.03			XM 62.900
PHASE/HZ	3/60	WK ² (lb-ft ²)	0.934			

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1769	7.5	22.3	460	60	9.4
Max Speed	2653	7.5	14.9	460	90	8.9
CT Min Speed	1.769	0.008	22.3	0.46	0.06	9.4

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.0	460	60	4.1
1/4	1792	1.9	5.5	460	60	4.6
1/2	1785	3.7	11.0	460	60	5.8
3/4	1777	5.6	16.6	460	60	7.5
Full Load	1769	7.5	22.3	460	60	9.4
O/L	1734	15.0	45.4	460	60	18.7

Blower Data

Volts	Ph/Hz	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data

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CK BY CD
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DATE 3/21/2025
**A-C MOTOR
PERFORMANCE
CURVES**
07WGT510

Record: 86626

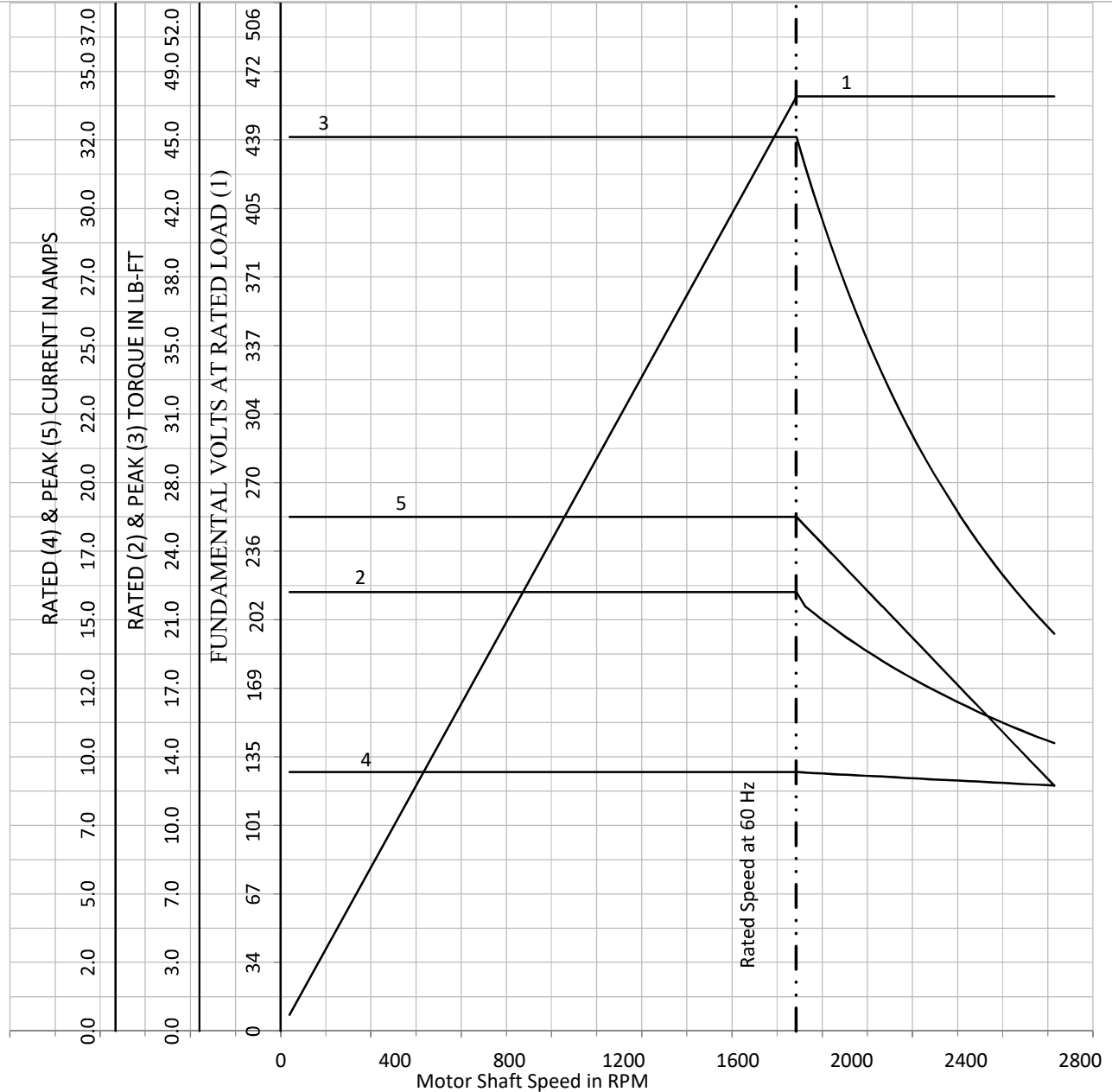
NP VOLTS 230/460
 NP AMPS 19/9.5
 HP 7.5
 BASE SPEED 1769
 PHASE/HZ 3/60

Base Volt 460
 NL AMPS 4.07
 Slip (HZ) 1.03
 WK² (lb-ft²) 0.934

WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)

R1	0.784	X1	2.650
R2	0.464	X2	2.040
		XM	62.900

Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

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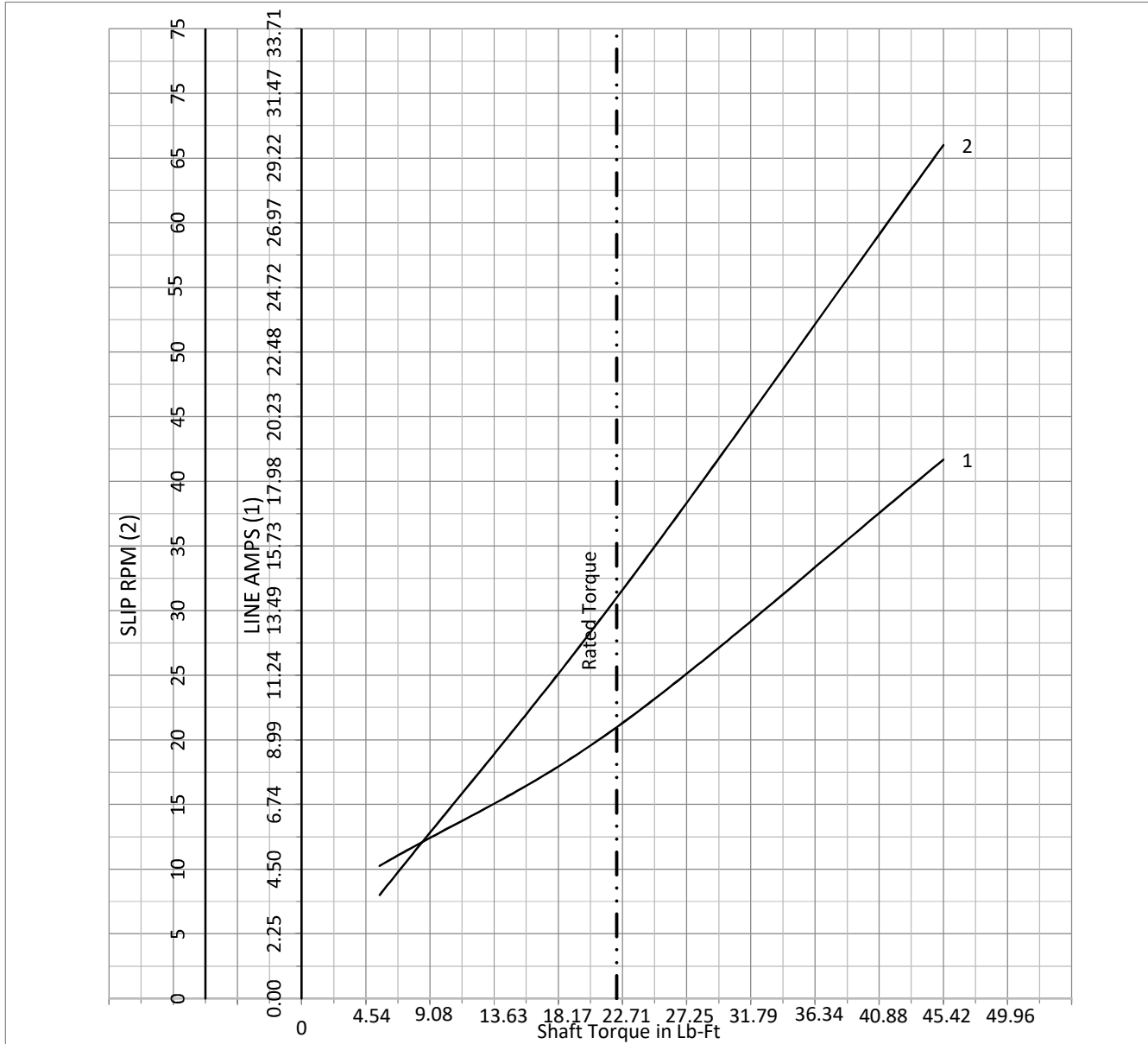
**A-C MOTOR
PERFORMANCE
CURVES**

07WGT510

Record: 86626

NP VOLTS	230/460	0	0	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	19/9.5	Base Volt	460	R1	0.784	X1	2.650
HP	7.5	NL AMPS	4.07	R2	0.464	X2	2.040
BASE SPEED	1769	Slip (HZ)	1.03			XM	62.900
PHASE/HZ	3/60	WK2 (lb-ft2)	0.934				

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data

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**A-C MOTOR
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07WGT510

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