

BALDOR® • RELIANCE 

Product Information Packet

ZDNM3581T

1HP,1745RPM,3PH,60HZ,143TC,0524M,TENV,F1

Part Detail							
Revision:	L	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	05WGX129	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	05E532	Layout:	05LYE532	Poles:	04	Created Date:	08-17-2010
Base:	RG	Eff. Date:	06-26-2019	Leads:	9#18		

Specs			
Catalog Number:	ZDNM3581T	Insulation Class:	H
Enclosure:	TENV	Inverter Code:	Inverter Duty
Frame:	143TC	KVA Code:	M
Frame Material:	Iron	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	1.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 18 AWG
Voltage @ Frequency:	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	460.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	0524M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	76
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	C-Face
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End
Current @ Voltage:	1.450 A @ 460.0 V	Shaft Ground Indicator:	No Shaft Grounding

	2.900 A @ 230.0 V	Shaft Rotation:	Reversible
Design Code:	B	Shaft Slinger Indicator:	Shaft Slinger
Drip Cover:	No Drip Cover	Speed Code:	Single Speed
Duty Rating:	CONT	Motor Standards:	NEMA
Electrically Isolated Bearing:	Not Electrically Isolated	Starting Method:	Direct on line
Feedback Device:	ENCODER	Thermal Device - Bearing:	None
Front Face Code:	Encoder/Feedback Device	Thermal Device - Winding:	Normally Closed Thermostat
Front Shaft Indicator:	None	Vibration Sensor Indicator:	No Vibration Sensor
Heater Indicator:	No Heater	Winding Thermal 1:	None
		Winding Thermal 2:	None

Nameplate NP1168L	
CAT NO	ZDNM3581T
SPEC.	05E532X129Z1
FRAME	143TC HP 1 TE
VOLTS	230/460
MAG CUR	1.8/.9 FLA 2.9/1.45
RPM	1745 RPM MAX 6000
HZ	60 PH 3 CLASS H
SER.F.	1.00 DES B SL HZ 1.7
NEMA-NOM-EFF	85.5 WK2 0.142
BLWR V	PH HZ A
RATING	40C AMB-CONT
DE BRG	6205 ODE BRG 6203
CC	010A SER.NO

Parts List		
Part Number	Description	Quantity
SA201781	SA 05E532X129Z1	1.000 EA
RA189076	RA 05E532X129Z1	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	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
35EP1100B45	FRONT TENV 203 BRG W/GRSR & THRU-SHAFT E	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
35FH4801G	THRU-SHAFT ENCODER COVER INV/VECTOR F1 &	1.000 EA
10XN2520A08	1/4-20X1/2 HEX HEAD CAP	4.000 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

Parts List (continued)		
Part Number	Description	Quantity
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 EA
HA1005A05SP	SLINGER, OD 1.50, ID .659, 203 BRG	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
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
OE5011A05SP	HS25 ENCODER ASSY - TENV	1.000 EA
MG1000G27	MED CHARCOAL METALLIC GREY 400-0096	0.022 GA
LB1119N	WARNING LABEL	1.000 EA
LC0145B01	CONNECTION LABEL	1.000 EA
NP1168L	ALUM VEC UL CSA CC	1.000 EA
36PA1000	PKG GRP, PRINT PK1016A06	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA



AC Induction Motor Performance Data

Record # 33945

Typical performance - not guaranteed values

Winding: 05WGX129	Type: 0524M	Enclosure: TENV
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Nameplate Data			General Characteristics at 460 V, 60 Hz: High Volt Connection		
Rated Output (HP)	1		Full Load Torque	3.02 LB-FT	
Volts	230/460		Start Configuration	DOL	
Full Load Amps	2.9/1.45		Break Down Torque	14.3 LB-FT	
R.P.M.	1745		Pull-Up Torque	8.76 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque	10.3 LB-FT
NEMA Design Code	B	KVA Code	M	Starting Current	13.5 Amps
Service Factor	1		No-load Current	0.89 Amps	
NEMA Nom. Eff.	85.5	P.F.	76	Line-line Res. @ 25°C.	15.922 Ohms
Rating - Duty	40C AMB-CONT		Temp. Rise @ Rated Load		
S.F. Amps			Temp. Rise @ S.F. Load		

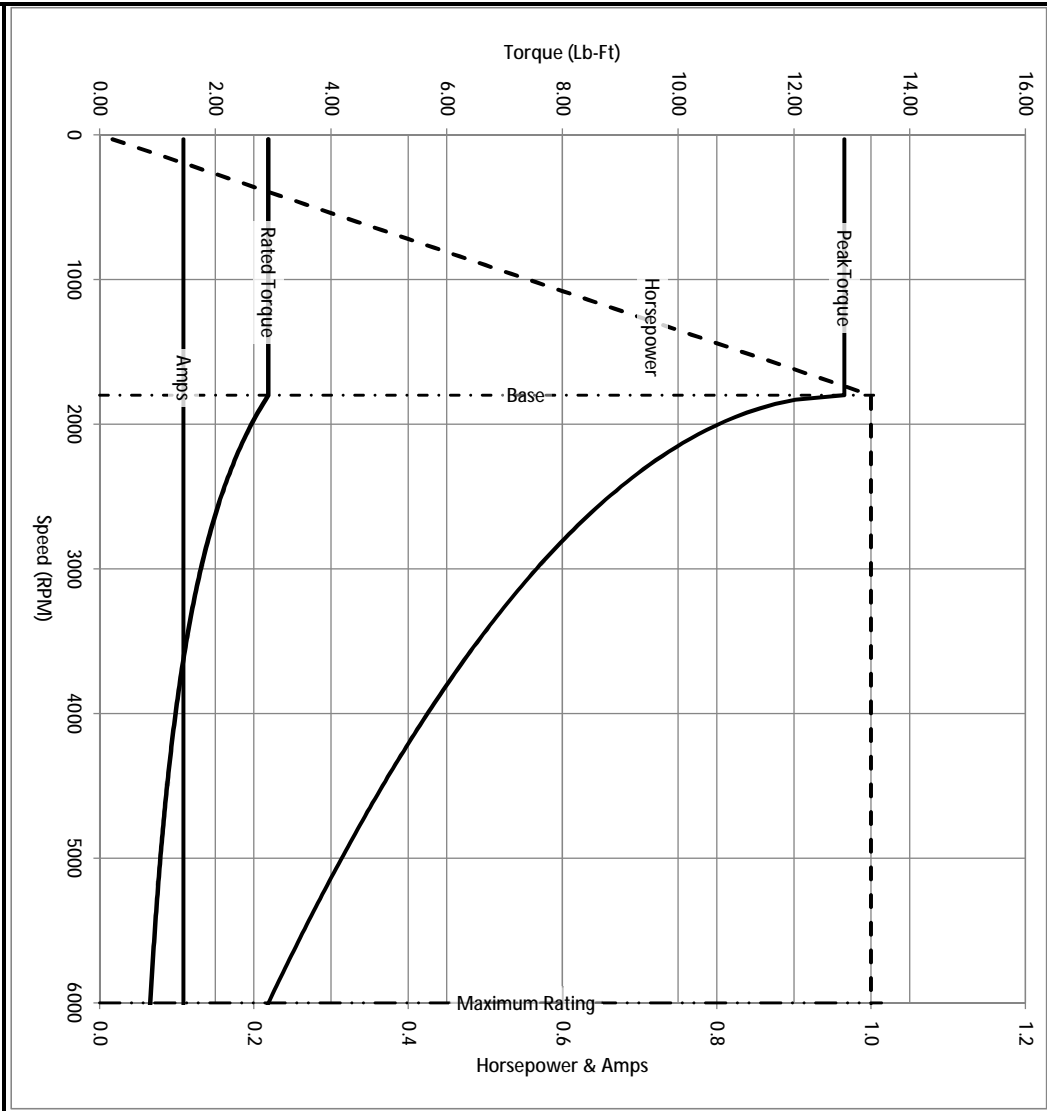
Load Characteristics at 460 Volts, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	33	53	67	76	81	85	
Efficiency	74.6	83.4	85.4	85.5	84.7	82.6	
Speed	1783.9	1773.9	1759.9	1743.9	1730.8	1698.3	
Line Amperes	0.935	1.05	1.22	1.45	1.7	1.99	

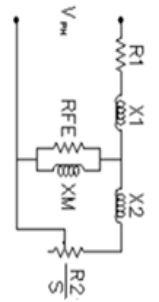
Baldor Electric Company Fort Smith, Arkansas



Catalog	ZDNM3581T	NIP VOLTS	230/460	ENCLOSURE	TENV	WYE CONNECTION OHMS PER PHASE (BASE RATING, 200°)			
FRAME	143TC	NIP AMPS	2.9/1.45	Base Volts	460	R1	7.710	X1	10.232
HP	1 HP	DUTY	Cont	Base AMPS	1.45	R2	4.940	X2	7.257
BASE SPEED	1800	MAX SAFE RPM	6000	Slip Hz	1.87			XMI	282.199
PHASE/HZ	3/60	AMB ⁶ /C/INSUL	40/H	WK ² (lb-ft ²)	0.142				



Remarks: Calculated Data



BALDOR DR BY ENR
 CK BY
 APP BY ENR
 DATE 2/26/2013

A MEMBER OF THE ABB GROUP

A-C MOTOR PERFORMANCE CURVES

05E532X129Z1

ISSUE DATE 2/26/2013

CD0005



LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: E BY: JLP

REVISED: 01/19/99 10:15

TDR: 0171435

90000

FILE: AAA00005140

MDL: -

MTL: -

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005