

**BALDOR® • RELIANCE** 

**Product Information Packet**

**IDVSM2334T**

**20HP, 1770RPM, 3PH, 60HZ, 256TC, 0960M, TEFC, F**

Part Detail							
Revision:	E	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	09WGT459	CD Diagram:	CD0180	Mfg Plant:	
Mech. Spec:	09K146	Layout:	09LYK146	Poles:	04	Created Date:	11-27-2017
Base:	RG	Eff. Date:	03-10-2020	Leads:	9#10		

Specs			
Catalog Number:	IDVSM2334T	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Inverter Duty
Frame:	256TC	KVA Code:	J
Frame Material:	Iron	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	20.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 10 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	0960M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	83
	UR	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:	24.000 A @ 460.0 V	Shaft Ground Indicator:	No Shaft Grounding

	48.000 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
	52.000 A @ 208.0 V	<b>Shaft Slinger Indicator:</b>	Shaft Slinger
<b>Design Code:</b>	A	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	No Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Direct on line
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	None
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	Normally Closed Thermostat
<b>Front Face Code:</b>	Standard	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	None
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 2:</b>	None

Nameplate NP3302L	
CAT NO	IDVSM2334T
SPEC.	09K146T459G1
FRAME	256TC HP 20 TE
VOLTS	230/460
MAG CUR	20.8/10.4 FLA 48/24
RPM	1770 RPM MAX 2700
HZ	60 PH 3 CLASS F
SER.F.	1.00 SL HZ 1
NEMA-NOM-EFF	93 WK2 2.62
RATING	40C AMB-CONT
DE BRG	6309 ODE BRG 6208
CC	010A SN
	1.5:1 CHP PWM

Parts List		
Part Number	Description	Quantity
SA348220	SA 09K146T459G1	1.000 EA
RA336772	RA 09K146T459G1	1.000 EA
09FN3001D01SP	EXTERNAL FAN, PLASTIC	1.000 EA
09CB3000SP	CONDUIT BOX CAST	1.000 EA
09GS1000SP	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 EA
10XN2520K12	1/4-20 X.75 GRD 5	2.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 EA
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 EA
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 EA
09FE1100A14	FREP ASSEMBLY, 09EP1100A14	1.000 EA
HW5100A08	W3118-035 WVY WSHR (WB)	1.000 EA
10XN2520K28	1/4-20 X 1.75" HX HD SCRWGRADE 5, ZINC P	2.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 EA
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
09EP1300A12	ENDPLATE, MACH	1.000 EA
HW4600B44	V-RING SLINGER 1.500 X 1.810 X .28 VITON	1.000 EA
HA3113A02	THRUBOLT 3/8-16 X 16.750	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
XY3816A12	3/8-16 FINISHED NUT	4.000 EA
09FH1000A38	FAN HSG, W/1.75 BORE & ENCODER CVR MTG	1.000 EA
HA2081A05	SPACER TUBE, 309 FAN HSG, 2.00 LONG	4.000 EA
XY3816A12	3/8-16 FINISHED NUT	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA

Parts List (continued)		
Part Number	Description	Quantity
HA6881	BEI HS35 THRU SHAFT ENCODER PROTECTIVE C	1.000 EA
10XN1032K12	10-32 X .75 HD, GRADE 5	2.000 EA
HW1001A10	WASHER, #10 SPLT LK, ZN X	2.000 EA
HW1000A10	#10 FLAT WASHER (SAE)	2.000 EA
09CB3500SP	CONDUIT BOX LID, CAST	1.000 EA
09GS1001SP	GASKET-CONDUIT BOX LID, 1/16 THICK LEXID	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 EA
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
HW4500A05	1669B ALEM/UNIV860 GR FTG X	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.080 LB
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 EA
MG1025N19	WILKOFASST, 778.50, RELIANCE BLUE-GREEN	0.050 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA

NP3302L	ALUM INV UL CSA CC (W/OUT DESIGN FIELD)	1.000 EA
40PA1005	PACKAGING GROUP, 09 STD	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA

NP VOLTS	230/460	MAX SAFE RPM	2700	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	48/24	Base Volt	460	R1	0.167	X1	0.876
HP	20 HP	NL AMPS	10.40	R2	0.159	X2	1.160
BASE SPEED	1772	Slips(Hz)	0.94			XM	30.000
PHASE/Hz	3/60	Wk2 ( )	0.000				

**Rated Full Load Data**



	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1771.9	20.0	59.3	460	60	24.0
Max Speed	2657	20.0	39.5	460	90	23.1
Min Speed	0	0.0	59.3	17.91	0.94	24.0

**Load Performance at Base Speed**

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1798.9	0.0	0.0	460	60	10.4
1/4	1793.2	5.0	14.7	460	60	11.8
1/2	1786.4	10.0	29.4	460	60	15.0
3/4	1779.1	15.0	44.3	460	60	19.2
Full Load	1771.9	20.0	59.3	460	60	24.0
O/L	1741	40.1	121.0	460	60	48.7

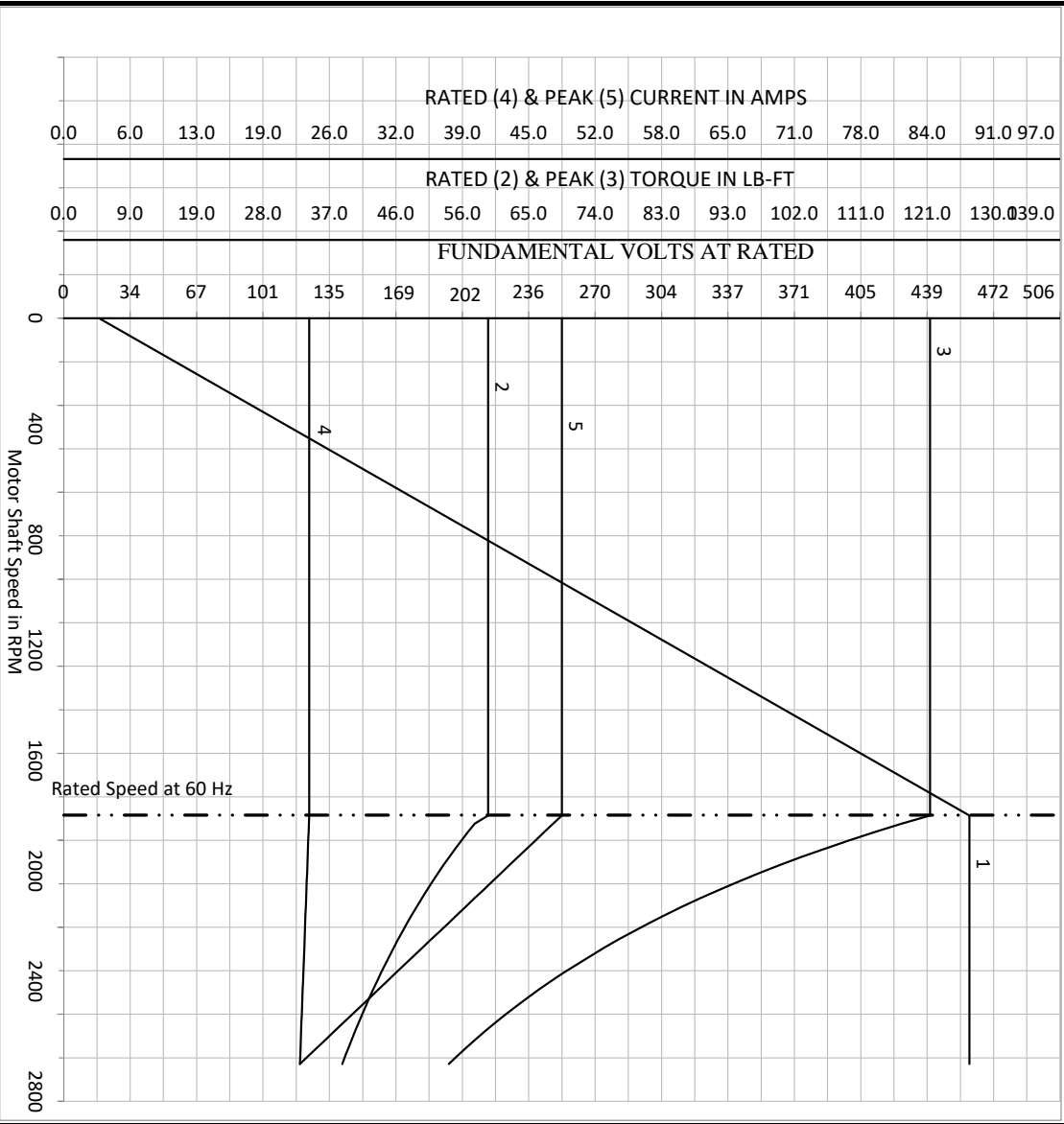
Blower Data	Volts	Ph/Hz	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data  
Vector PWM Inverter Duty

	DR BY	USBRRANI	<b>A-C MOTOR</b> <b>PERFORMANCE</b> <b>CURVES</b>	<b>09WGT459</b> Record: 67965
	CK BY	USBRRANI		
	APP BY	USBRRANI		
A MEMBER OF THE ABB GROUP	DATE	11/27/2017		

NP VOLTS	230/460	MAX SAFE RPM	2700	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	48/24	Base Volt	460	R1	0.167	X1	0.876
HP	20 HP	NL AMPS	10.40	R2	0.159	X2	1.160
BASE SPEED	1771.90002	Slips(Hz)	0.94	XM			30.000
PHASE/HZ	3/60	WK2 ( )	0.000				

Variable Speed AC Motor Curves  
Vector PWM Inverter Duty



Calculated Data  
Data Valid For Nameplate Speed Range only

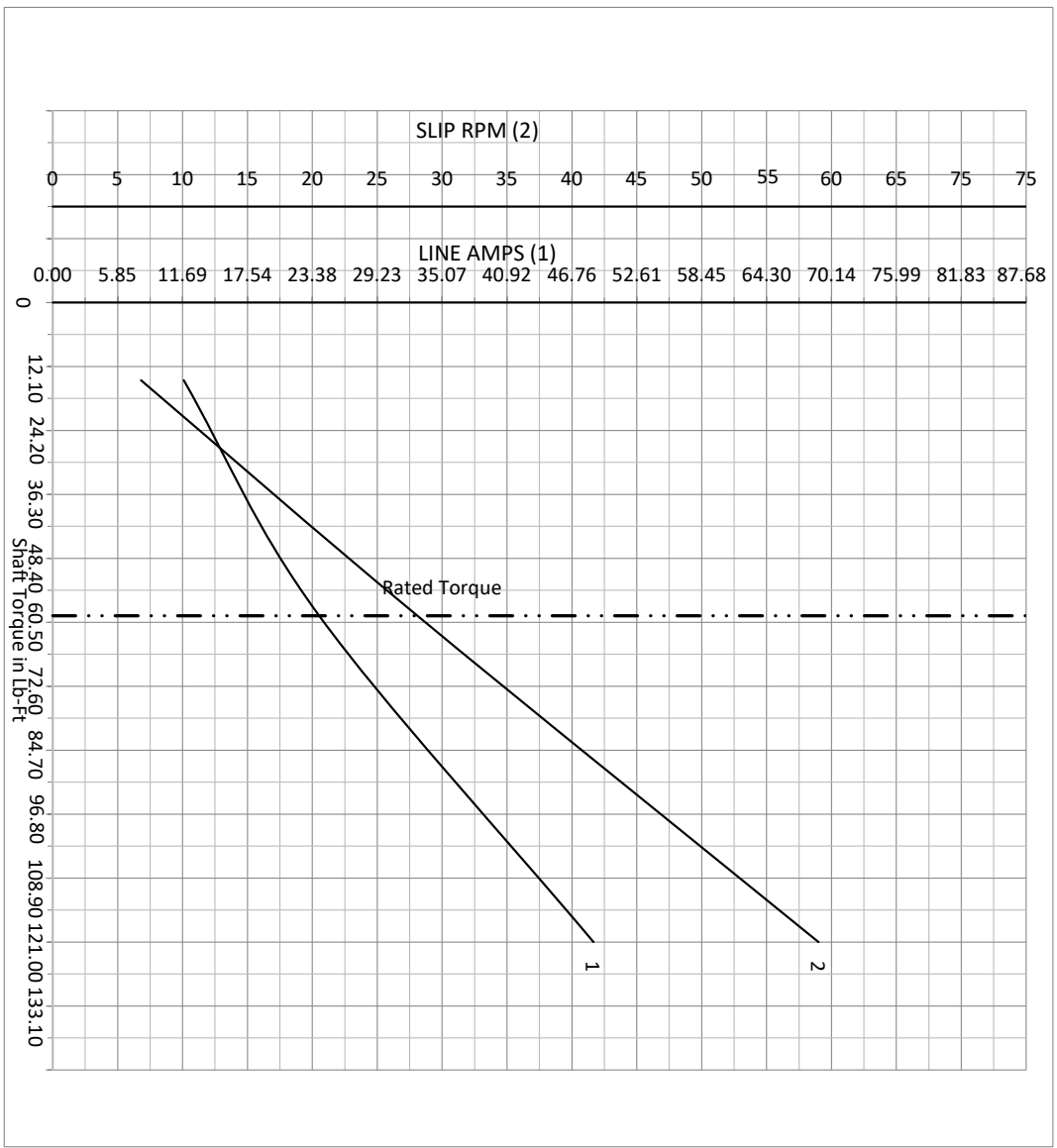
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DATE 11/27/2017

**A-C MOTOR PERFORMANCE CURVES**  
09WGT459  
Record: 67965

NP VOLTS	230/460	MAX SAFE RPM	2700	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	48/24	Base Volt	460	R1	0.167	X1	0.876
HP	20 HP	NL AMPS	10.40	R2	0.159	X2	1.160
BASE SPEED	1771.900024	Slips(HZ)	0.94	XM			30.000
PHASE/HZ	3/60	WK2 ( )	0.000				

Vector PWM Inverter Duty  
Variable Speed AC Motor Curves



Calculated Data

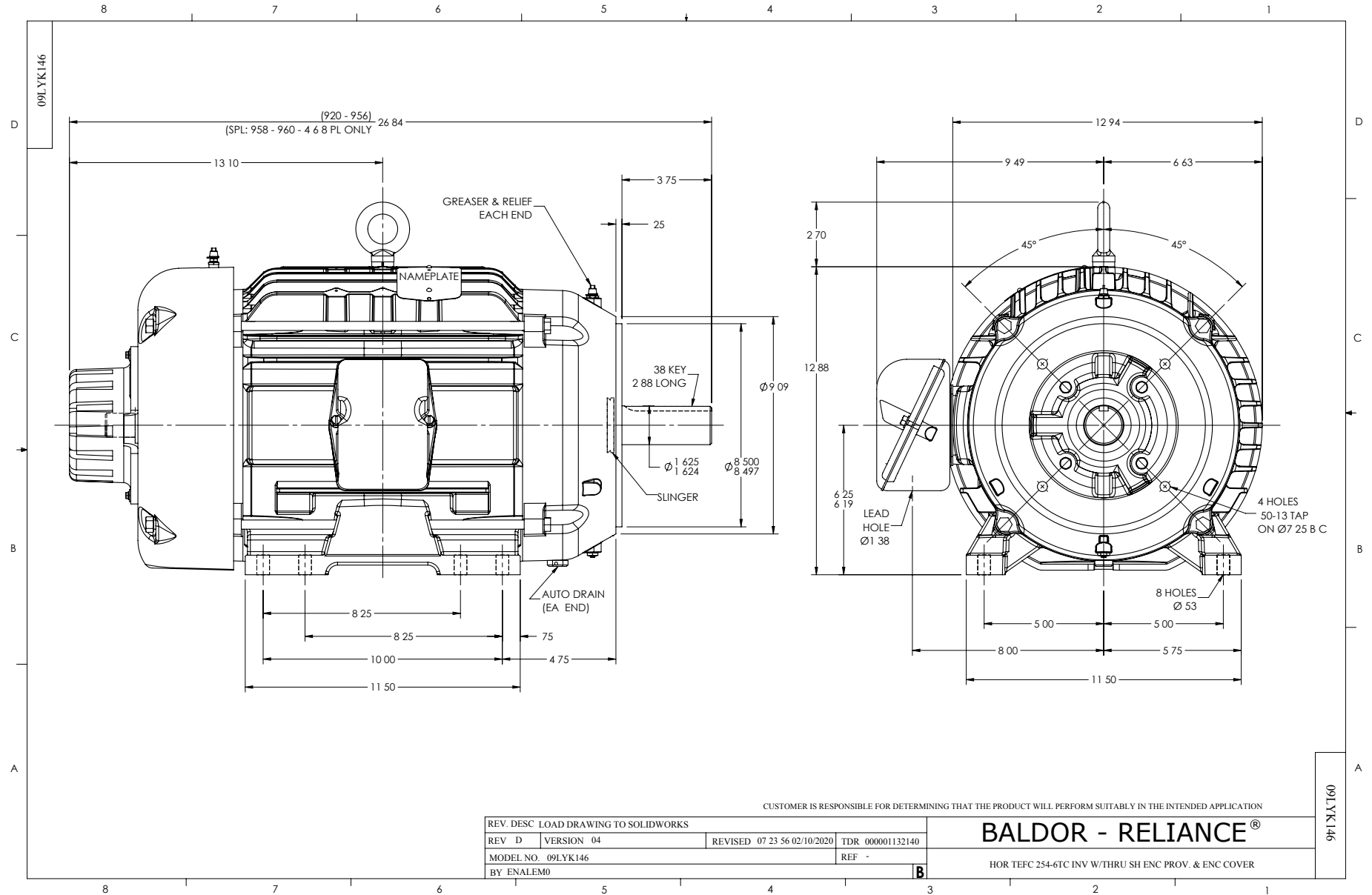
Data Valid For Nameplate Speed Range only

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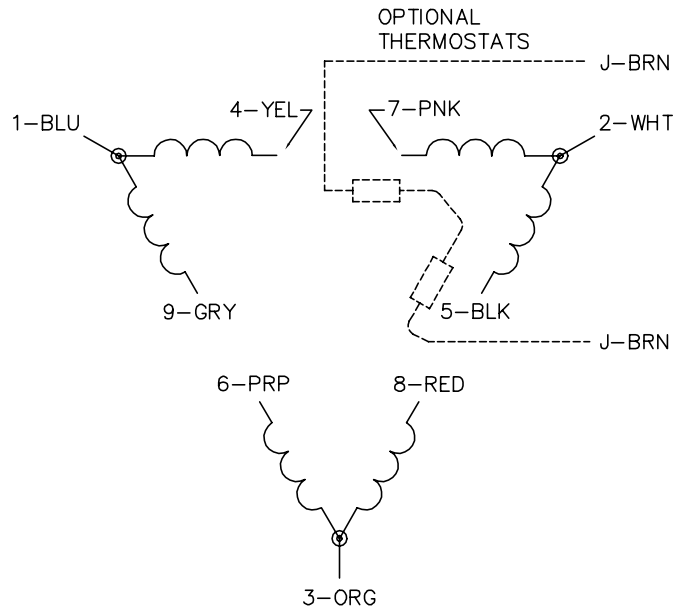
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DATE 11/27/2017

**A-C MOTOR PERFORMANCE CURVES**

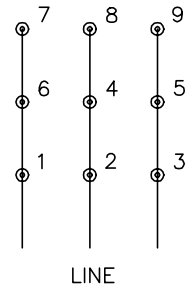
**09WGT459**  
Record: 67965



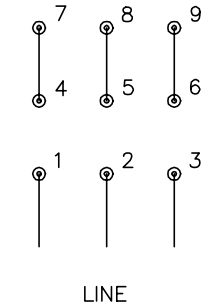
CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



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.

CD0180

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FILE: \AAA\00005\148	REVISED: 10:25:29 02/19/2019	BY: ENBRIRO
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**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

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