ABB BALDOR RELIANCE

Customer information packet

ECS101M0K0P8DF4

.75KW, 1500RPM, 3PH, 50HZ, D90S, 3516B, TEFC, B
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	D90S
Frame Material	Steel
Frequency	50.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Brushless Wound Field PM Rotor
Output @ Frequency	.750 KW @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1500 RPM @ 50 HZ
Voltage @ Frequency	380.0 V @ 50 HZ
	190.0 V @ 50 HZ
Agency Approvals	CE
	CULUS
	UKCA
	WEEE
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
Constant Torque Speed Range	5
Current @ Voltage	2.380 A @ 190.0 V
	1.190 A @ 380.0 V
Design Code	-
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	88.2 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Frame Prefix	D

Part Detail

Revision	E
Type	AC
Mech. spec.	35EE431
Base	
Status	PRD/A
Elec. spec.	35WGG982
Layout	35LYEE431
Eff. date	02-12-2026
CD Diagram	CD0005A25
Poles	04
Leads	9#16
Proprietary	False
Created date	03-18-2024

Heater Indicator	No Heater
High Voltage Full Load Amps	1.2 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	-
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 16 AWG
Motor Lead Termination	Terminal Block
Motor Standards	IEC
Motor Type	3516B
Mounting Arrangement	B3
Number of Poles	4
Overall Length	11.95 IN
Power Factor	97
Product Family	General Purpose
Pulley Face Code	Standard
Rodent Screen	None
RoHS Status	Y
Service Factor	1.15
Shaft Diameter	0.945 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1500 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

NP3968B01A01									
CAT.NO.	ECS101M0K0P8DF4								
SPEC.	35EE431G982				**YR**				
FRAME	D90S		**IP**	54	**WT.**	35			
KW	.75	**HZ**	50	**PH**	3	**DUTY-IPM**	CONT		
INS CL	F	**CLASS RISE**				**AMB-C**	40		
EFF. CL	IE5	**EFF**	88.2	**COS0**	97				
VOLTS	190/380		**FLA**	2.38/1.19					
1/MIN	1500			**1/MIN MAX**	4000				
BEMF (V)	112/223			**RS (OHMS)**	20.8				
LD (MH)	29.3/117				**LQ (MH)**	91.8/367			
VPWM	**CP =**	50	**TO**	100					
CT	5	**TO**	50	**VT**	5	**TO**	50		
MATCHED INV	ACS380-04XX-03A7-1 / 01A8-4								
DE	6205		**ODE**	6203					
SERIAL #									

Volts	380	Max RPM	3600	Conn Diag.	CD0006B03	Leads	3
Amps	1.4	Max Amps		Cs Diagram	CS1126	BEMF	269
KW	0.75	VFD#	ECI4A2P2			LD	117
RPM	1500	S.F.	1.00			LQ	500
Phase/Hz	3/50	Rating	40C AMB-CONT			Rs	19.5471 Meas. L-L

60034-2-3 Motor Performance at Standardized Operating Points

	RPM	% Speed	LB-FT	% Torque	KW	Efficiency	Loss (% FL)	Watts Loss (W)
P1	1352	90%	3.5	100%	0.7	88.8	11.47%	86
P2	751	50%	3.5	100%	0.4	84.1	9.49%	71
P3	376	25%	3.5	100%	0.2	75.1	8.30%	62
P4	1351	90%	1.8	50%	0.3	89.2	5.47%	41
P5	751	50%	1.8	50%	0.2	86.5	3.92%	29
P6	751	50%	0.9	25%	0.1	86.6	1.95%	15
P7	376	25%	0.9	25%	0.0	82.9	1.30%	10

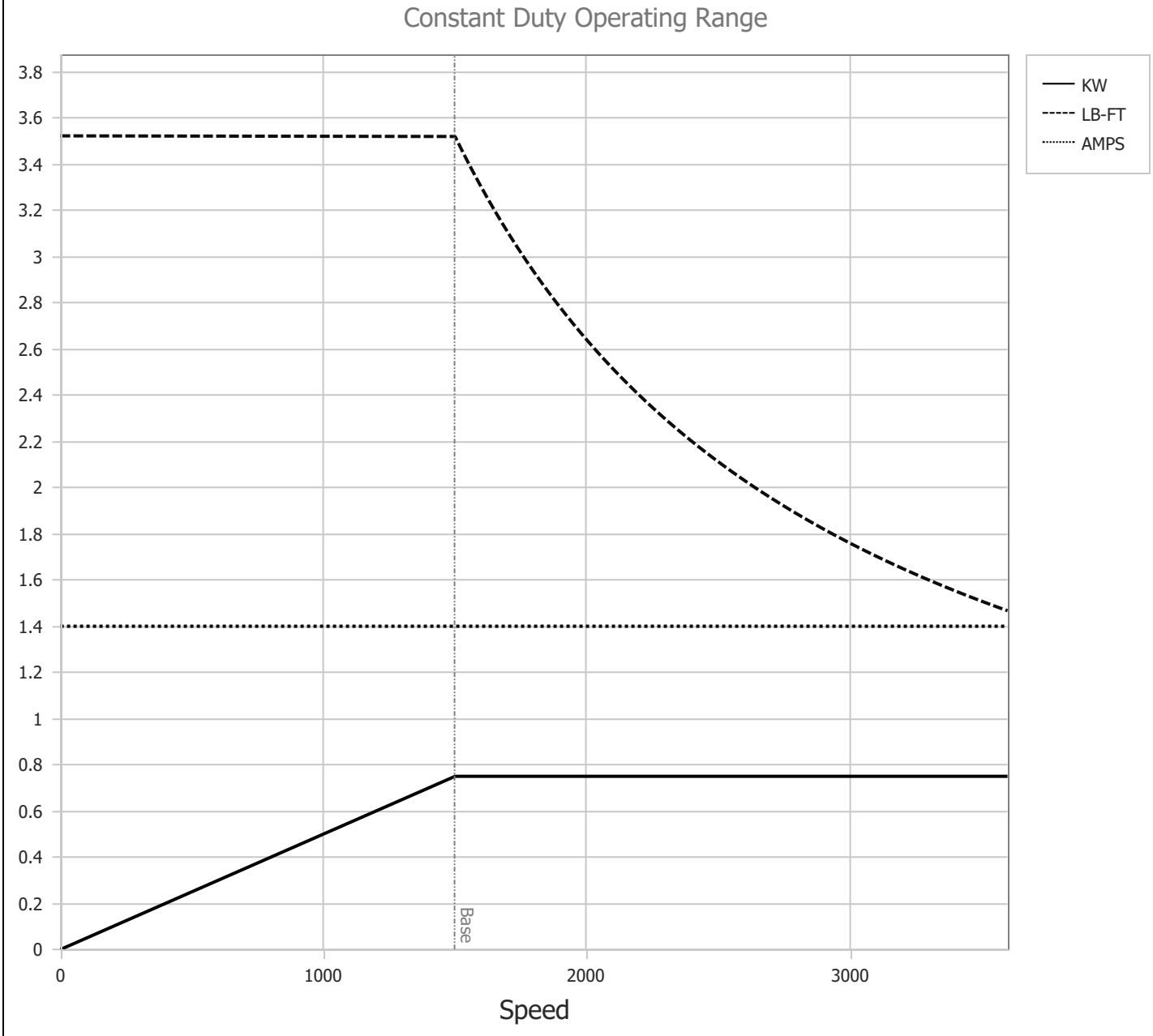
61800-9-2 PDS Performance at Reference Operating Points

	RPM	% Speed	LB-FT	% Torque	KW	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1506	100%	3.5	100%	0.8	86.4	15.83%	119
P2	751	50%	3.5	100%	0.4	79.7	12.73%	95
P3	256	17%	3.5	100%	0.1	60.5	11.12%	83
P4	1502	100%	1.8	50%	0.4	85.2	8.71%	65
P5	751	50%	1.8	50%	0.2	79.7	6.39%	48
P6	256	17%	1.8	50%	0.1	61.8	5.28%	40
P7	751	50%	0.9	25%	0.1	76.0	3.96%	30
P8	256	17%	0.9	25%	0.0	57.3	3.18%	24

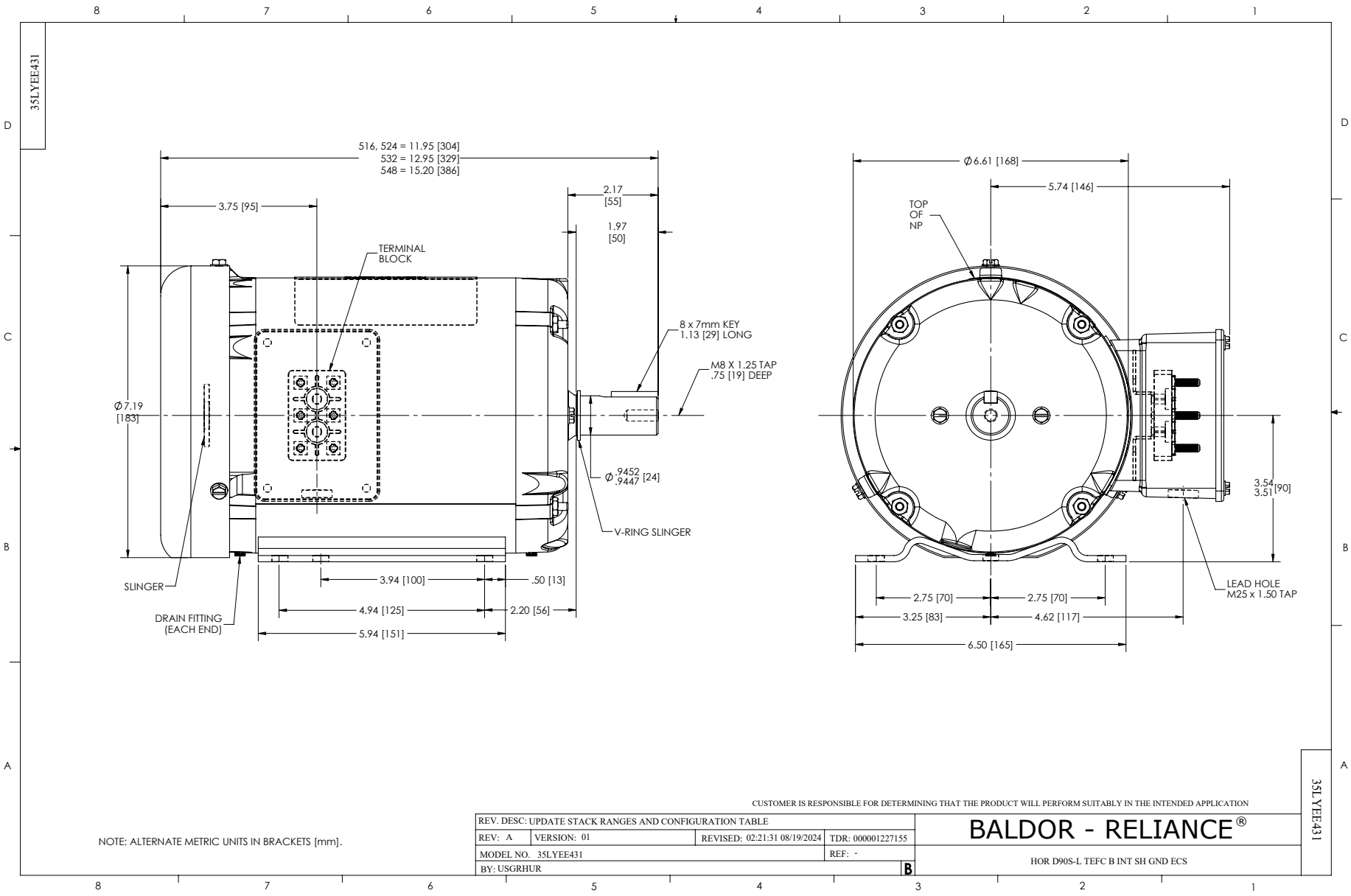
Points not taken in certified order.

BALDOR • RELIANCE	DR By: R & D CK By: USJORAD2 APP By: USJAROB1 Date: 07/27/2024	**AC MOTOR PERFORMANCE CURVES**	**35WGG965** 35E5209G965 *Test - 111042*

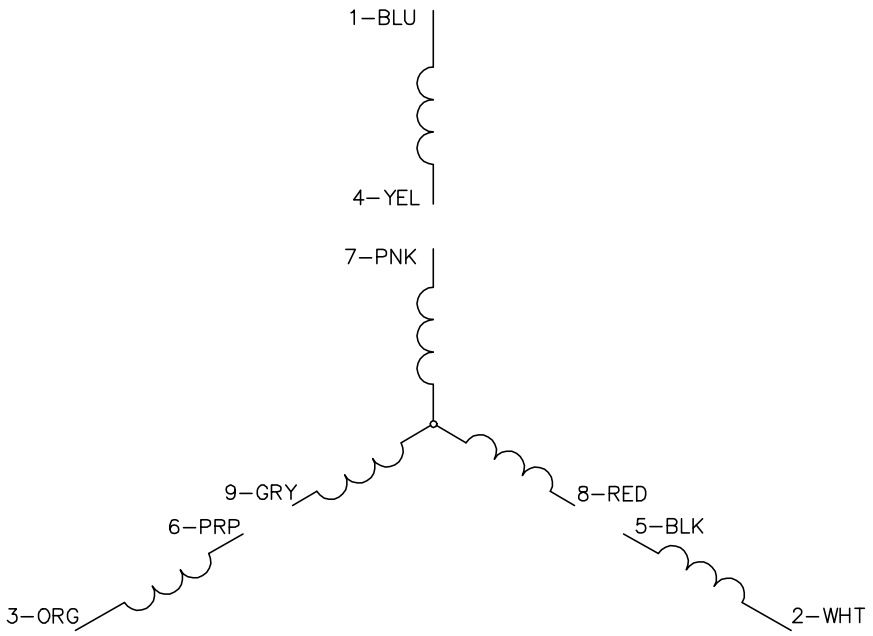
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RPM	1500	S.F.	1.00			LQ	500
Phase/Hz	3/50	Rating	40C AMB-CONT			Rs	19.5471 Meas L-L

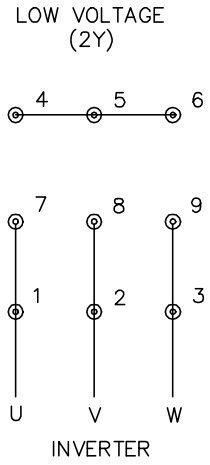


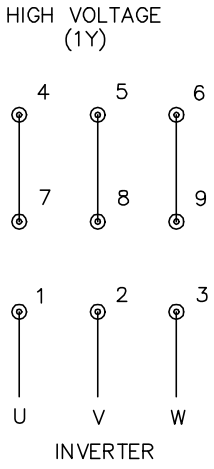
BALDOR • RELIANCE	DR By: R & D CK By: USJORAD2 APP By: USJAROB1 Date: 07/27/2024	**AC MOTOR PERFORMANCE CURVES**	**35WGG965** 35E5209G965 *Test - 111042*


35LYEE431
516, 524 = 11.95 [304]
532 = 12.95 [329]
548 = 15.20 [386]
3.75 [95]
2.17 [55]
1.97 [50]
TERMINAL BLOCK
8 x 7mm KEY 1.13 [29] LONG
M8 X 1.25 TAP .75 [19] DEEP
Ø7.19 [183]
Ø .9452 .9447 [24]
V-RING SLINGER
SLINGER
DRAIN FITTING (EACH END)
3.94 [100]
.50 [13]
4.94 [125]
2.20 [56]
5.94 [151]
Ø6.61 [168]
5.74 [146]
TOP OF NP
3.54 3.51 [90]
LEAD HOLE M25 x 1.50 TAP
2.75 [70]
2.75 [70]
3.25 [83]
4.62 [117]
6.50 [165]
NOTE: ALTERNATE METRIC UNITS IN BRACKETS [mm].
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE STACK RANGES AND CONFIGURATION TABLE
REV: A
VERSION: 01
REVISED: 02:21:31 08/19/2024
TDR: 000001227155
MODEL NO. 35LYEE431
REF: -
BY: USGRHUR
B
BALDOR - RELIANCE®
HOR D90S-L TEFC B INT SH GND ECS
35LYEE431

CD0005A25







NOTES:

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

CD0005A25

REV. DESC: NEW		
REV. LTR: –	VERSION: 00	TDR: 000001135746
FILE: \AAA\00253\082	REVISED: 01:10:57 03/30/2020	BY: ENMARSO
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, ECS

SH 1 of 1