

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECS101M0K4EF4

4KW, 1500RPM, 3PH, 50HZ, D112S, 3632B, TEFC, F2

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	D112S
<b>Frame Material</b>	Steel
<b>Frequency</b>	50.00 Hz
<b>Haz Area Class and Group</b>	None
<b>Haz Area Division</b>	Not Applicable
<b>Motor Letter Type</b>	Brushless Wound Field PM Rotor
<b>Output @ Frequency</b>	4.000 KW @ 50 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1500 RPM @ 50 HZ
<b>Voltage @ Frequency</b>	190.0 V @ 50 HZ 380.0 V @ 50 HZ
<b>Agency Approvals</b>	CE WEEE CULUS
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Auxiliary Box Lead Termination</b>	None
<b>Base Indicator</b>	Rigid
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Blower</b>	None
<b>Constant Torque Speed Range</b>	5
<b>Current @ Voltage</b>	6.800 A @ 380.0 V 13.600 A @ 190.0 V
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	S1
<b>Efficiency @ 100% Load</b>	91.6 %
<b>Electrically Isolated Bearing</b>	Not Electrically Isolated
<b>Feedback Device</b>	NO FEEDBACK
<b>Frame Prefix</b>	D
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	6.8 a

**Part Detail**

<b>Revision</b>	K
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	36WGA0020
<b>Layout</b>	36LYT499
<b>Eff. date</b>	02-12-2026
<b>CD Diagram</b>	CD0005A25
<b>Poles</b>	04
<b>Leads</b>	9#12
<b>Proprietary</b>	False
<b>Created date</b>	10-05-2022

<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Duty
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	IEC
<b>Motor Type</b>	3632B
<b>Mounting Arrangement</b>	F2
<b>Number of Poles</b>	4
<b>Overall Length</b>	16.16 IN
<b>Power Factor</b>	97
<b>Product Family</b>	General Purpose
<b>Pulley Face Code</b>	Standard
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.00
<b>Shaft Diameter</b>	1.103 IN
<b>Shaft Ground Indicator</b>	Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Speed</b>	1500 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

Volts	190/380	Max RPM	3000	Conn Diag.	CD0005A25	Leads	9
Amps	13.6/6.8	Max Amps		Cs Diagram	CS0576	BEMF	105/210
KW	4	VFD#	ACS380-040S-09			LD	13.5/54.0
RPM	1500	S.F.	1.00			LQ	47.8/191.0
Phase/Hz	3/50	Rating	40C AMB-S1			Rs	3.3231 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	1350	90%	18.8	100%	4.8	90.4	9.48%	383
P2	750	50%	18.8	100%	2.7	86.5	7.72%	312
P3	375	25%	18.8	100%	1.3	78.3	6.87%	278
P4	1350	90%	9.4	50%	2.4	92.4	3.67%	149
P5	750	50%	9.4	50%	1.3	89.2	2.98%	121
P6	750	50%	4.7	25%	0.7	89.8	1.40%	57
P7	375	25%	4.7	25%	0.3	84.7	1.12%	45

**61800-9-2 PDS Performance at Reference Operating Points**

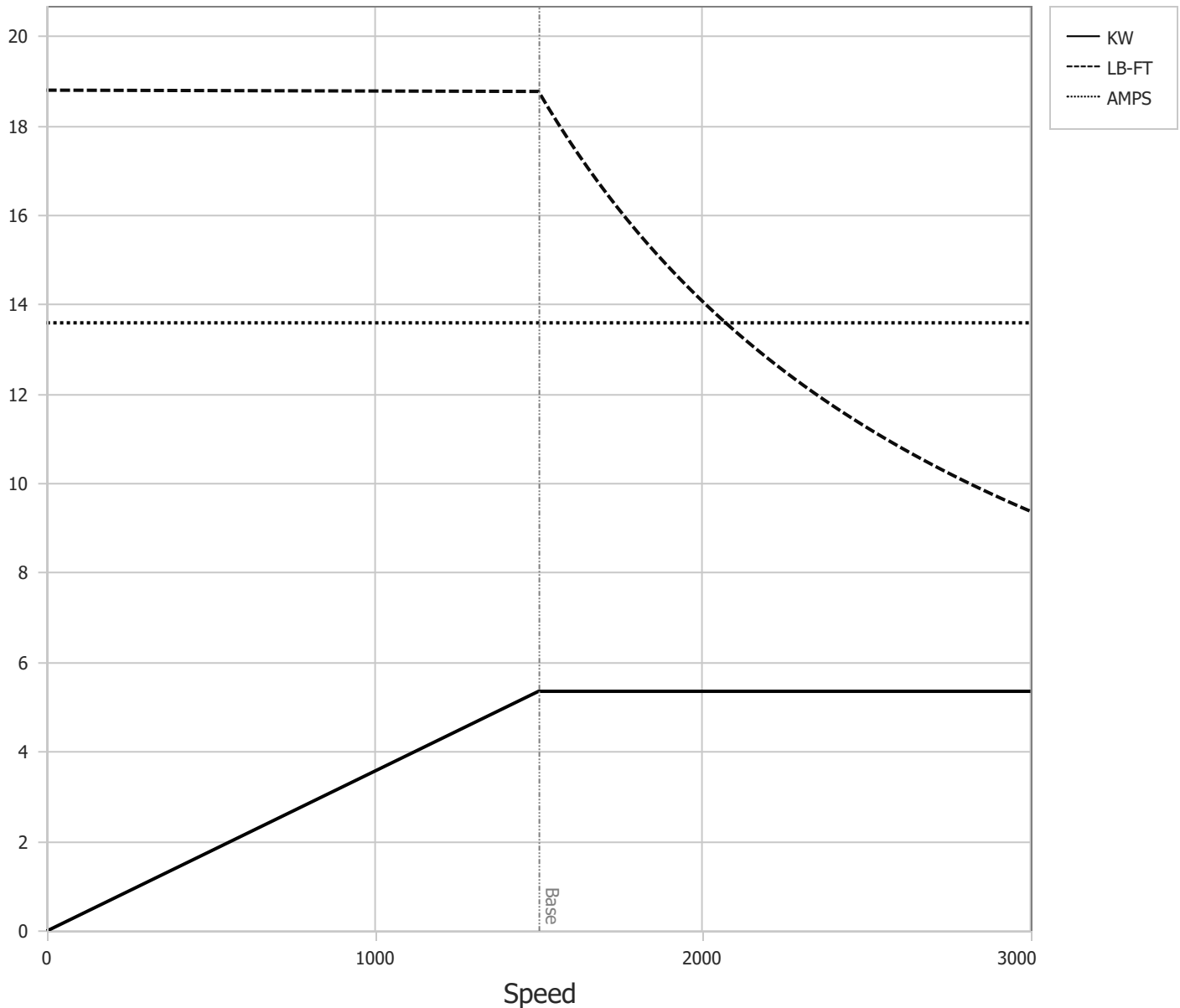
	RPM	% Speed	LB-FT	% Torque	KW	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1500	100%	18.8	100%	5.4	87.9	13.58%	549
P2	750	50%	18.8	100%	2.7	84.1	9.35%	378
P3	255	17%	18.8	100%	0.9	67.7	8.02%	324
P4	1500	100%	9.4	50%	2.7	91.1	4.85%	196
P5	750	50%	9.4	50%	1.3	86.1	3.99%	162
P6	255	17%	9.4	50%	0.5	71.8	3.30%	133
P7	750	50%	4.7	25%	0.7	85.2	2.14%	87
P8	255	17%	4.7	25%	0.2	71.1	1.71%	69

Points not taken in certified order.

<b>BALDOR • RELIANCE</b>	DR By:	<u>R &amp; D</u>	<b>AC MOTOR PERFORMANCE CURVES</b>	<b>36WGA0020</b> 36-0000-3634 Test - 112234
	CK By:	<u>USGAHIL</u>		
	APP By:			
	Date:	<u>04/09/2025</u>		

Volts	190/380	Max RPM	3000	Conn Diag.	CD0005A25	Leads	9
Amps	13.6/6.8	Max Amps		Cs Diagram	CS0576	BEMF	105/210
KW	4	VFD #	ACS380-040S-09			LD	13.5/54.0
RPM	1500	S.F.	1.00			LQ	47.8/191.0
Phase/Hz	3/50	Rating	40C AMB-S1			Rs	3.3231 Meas L-L

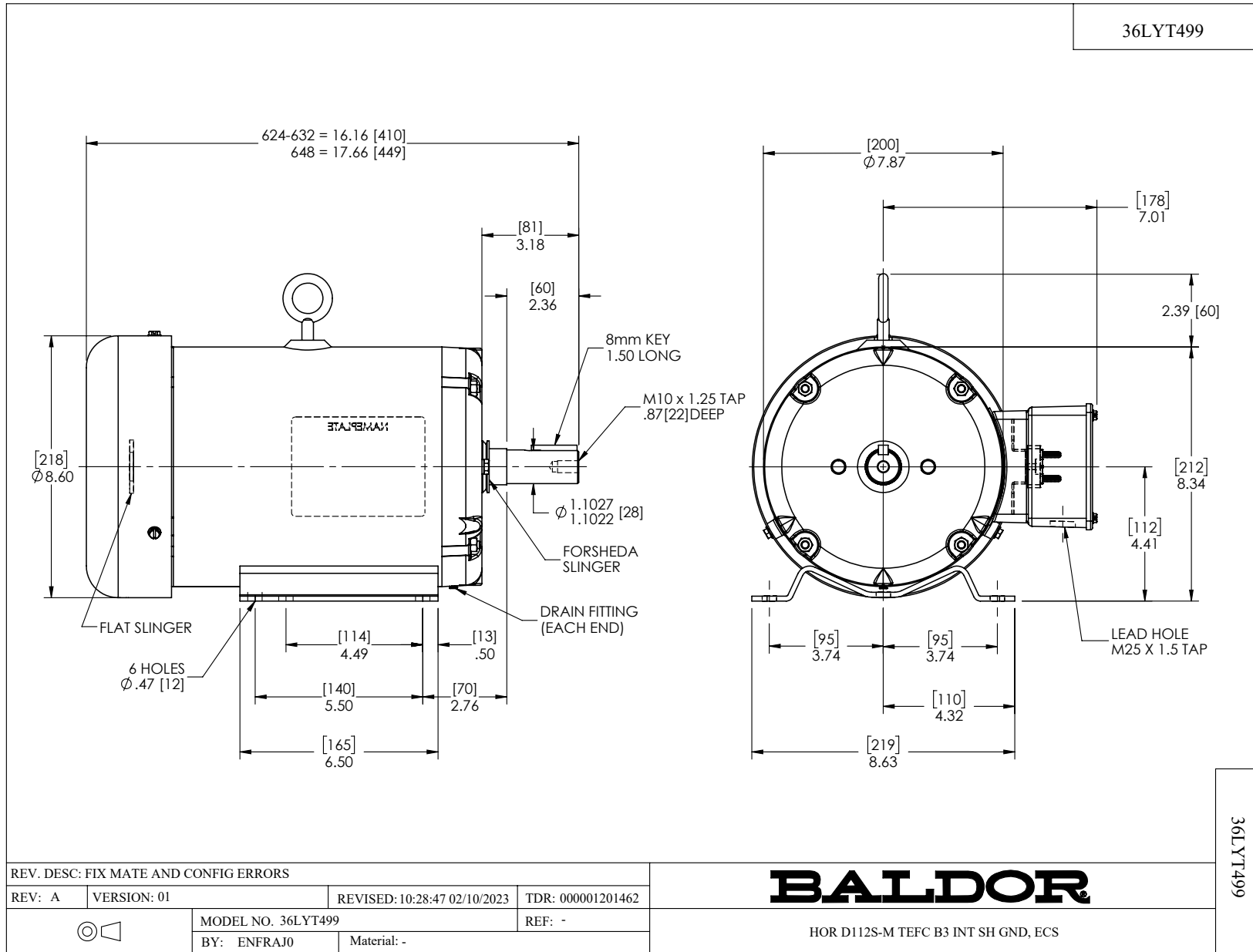
Constant Duty Operating Range



DR By: R & D  
 CK By: USGAHIL  
 APP By:  
 Date: 04/09/2025

**AC MOTOR  
PERFORMANCE  
CURVES**

**36WGA0020**  
 36-0000-3634  
 Test - 112234



CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

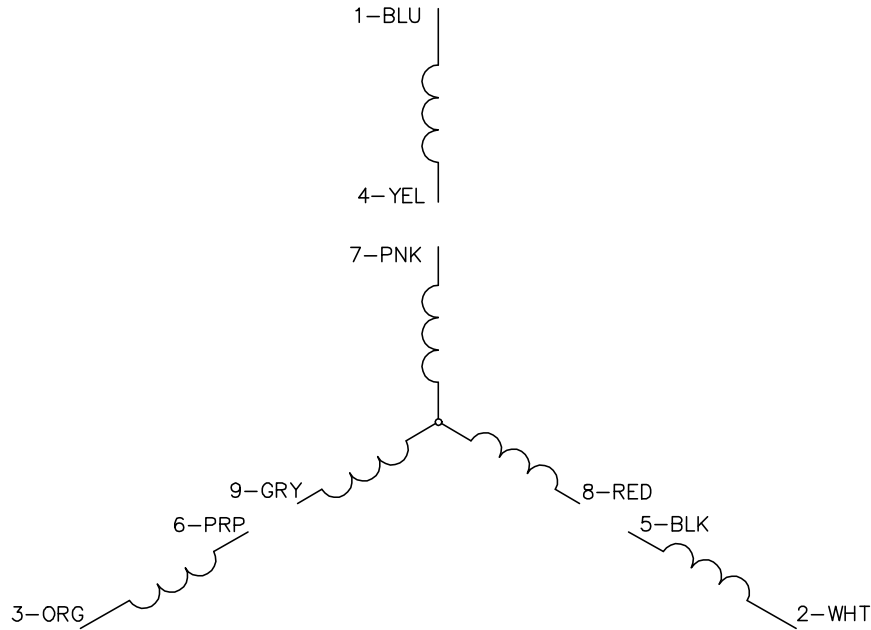
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MTL: -		© □

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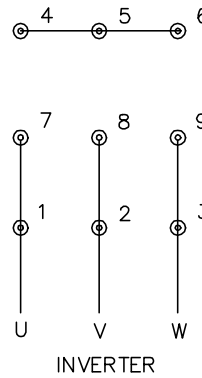
3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1

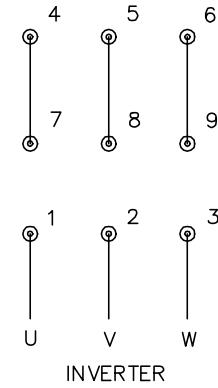
CD0005A25



LOW VOLTAGE  
(2Y)



HIGH VOLTAGE  
(1Y)



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