ABB BALDOR RELIANCE

Customer information packet

ECS101M0K4EF4

4KW, 1500RPM, 3PH, 50HZ, D112S, 3632B, TEFC, F2
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	D112S
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	4.000 KW @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1500 RPM @ 50 HZ
Voltage @ Frequency	190.0 V @ 50 HZ
	380.0 V @ 50 HZ
Agency Approvals	CE
	WEEE
	CULUS
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	6.800 A @ 380.0 V
	13.600 A @ 190.0 V
Drip Cover	No Drip Cover
Duty Rating	S1
Efficiency @ 100% Load	91.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Frame Prefix	D
Heater Indicator	No Heater
High Voltage Full Load Amps	6.8 a

Part Detail

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

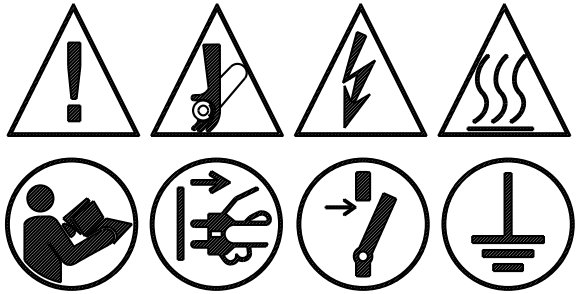
Insulation Class	F
Inverter Code	Inverter Duty
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	IEC
Motor Type	3632B
Mounting Arrangement	F2
Number of Poles	4
Overall Length	16.16 IN
Power Factor	97
Product Family	General Purpose
Pulley Face Code	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.103 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

BALDOR·RELIANCE

EC-Titanium™

CAT. NO.	ECS101M0K4EF4						IC	411	
SPEC.	36-0000-3634						YR	***	
FRAME	D112S		IP	55		WT.	44	kg	
KW	4	HZ	50	PH	3	DUTY	S1		
INSUL CL	F	CLASS RISE	B	AMB-°C	40				
EFF. CL	IE5	EFF.	91.6	COS Φ	97				
VOLTS	190/380			A	13.6/6.8				
RPM (1/MIN)	1500			RPM (1/MIN) MAX	3000				
BEMF (V)	105/210		Rs (Ω)	0.82/3.30					
Ld (mH)	13.5/54.0		Lq (mH)	47.8/191.0					
INV TYP	VPWM	CHP	50 TO 100 HZ						
	CT	5 TO 50 HZ	VT	1 TO 50 HZ					
MATCHED INV	-								
BEARING	DE	6206	ODE	6205					
SERIAL#	***								

FERRITE ASSISTED
SYNCHRONOUS RELUCTANCE MOTOR
FOR INVERTER USE ONLY



PERMANENT MAGNET MOTOR. WHEN SHAFT IS ROTATED, VOLTAGE WILL BE GENERATED AT THE MOTOR TERMINALS.
MOTEUR Á AIMANT PERMANENT. LORSQUE L'ARBRE TOURNE, UNE TENSION SERA GÉNÉRÉE AUX BORNES DU MOTEUR.

BALDOR-RELIANCE
SHAFT GROUNDING BRUSH INSTALLED

EN/IEC 60034 -1;-5
IEC TS 60034 -30-2
LISTED E46145

ELECTRIC MOTOR FOR INDUSTRIAL USE

ABB MOTORS AND MECHANICAL INC.
5711 R.S. BOREHAM JR. ST., FORT SMITH, AR. MFG IN U.S.A.

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

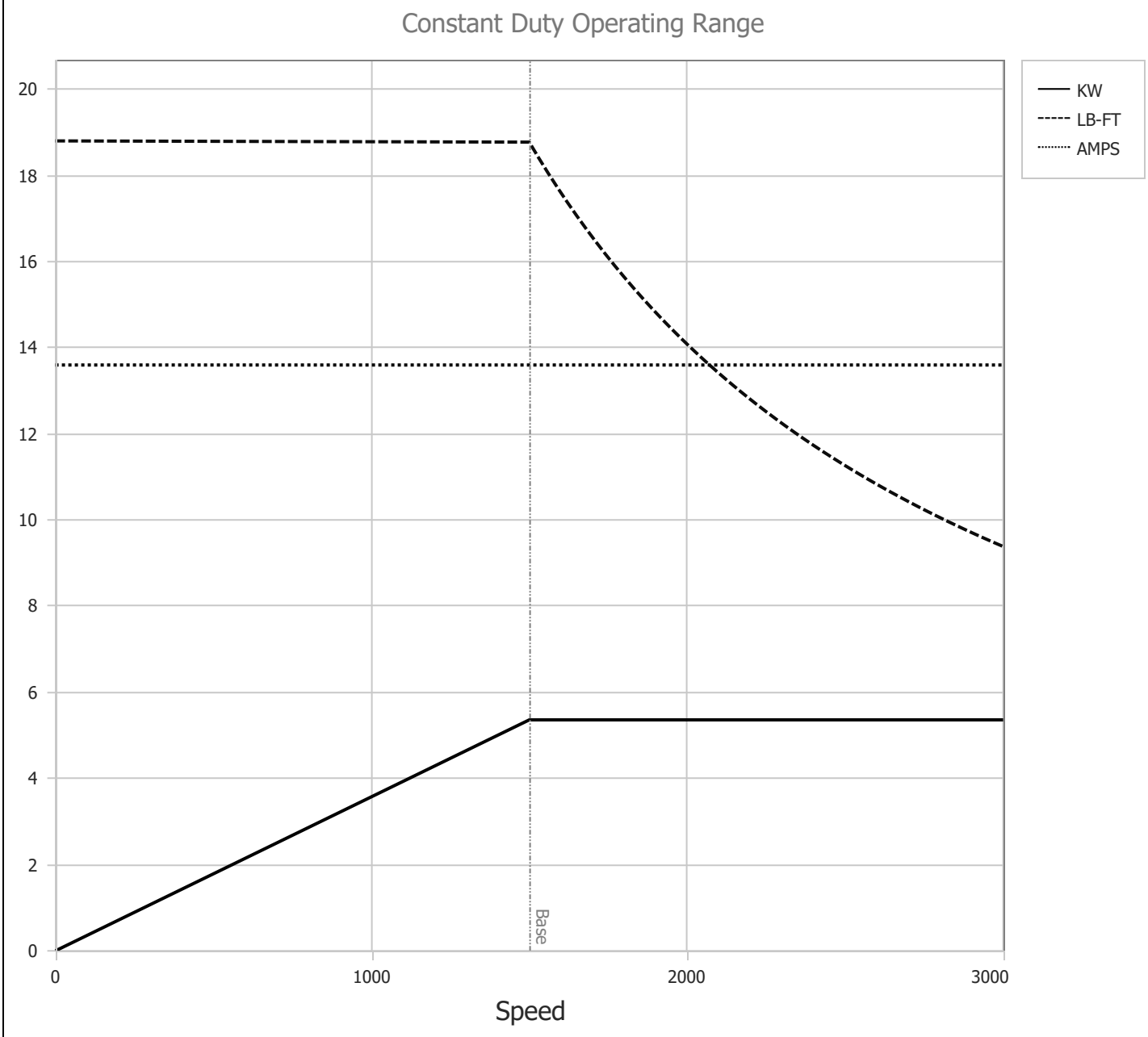
61800-9-2 PDS Performance at Reference Operating Points

	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.

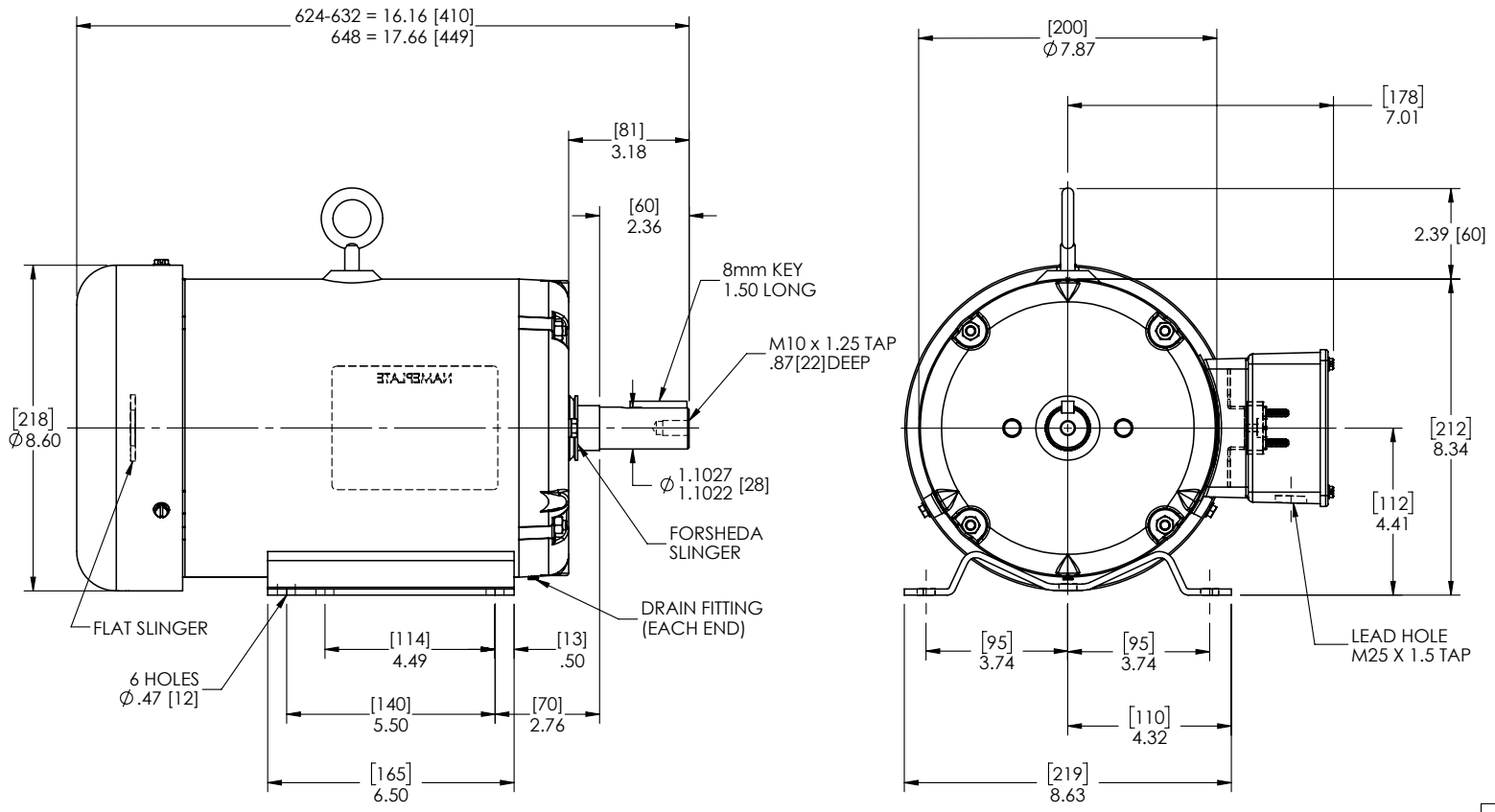
BALDOR • RELIANCE	DR By: R & D CK By: USGAHIL APP By: Date: 04/09/2025	**AC MOTOR PERFORMANCE CURVES**	**36WGA0020** 36-0000-3634 *Test - 112234*

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



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

36LYT499



REV. DESC: FIX MATE AND CONFIG ERRORS			
REV: A	VERSION: 01	REVISED: 10:28:47 02/10/2023	TDR: 000001201462
	MODEL NO. 36LYT499		REF: -
	BY: ENFRAJ0	Material: -	

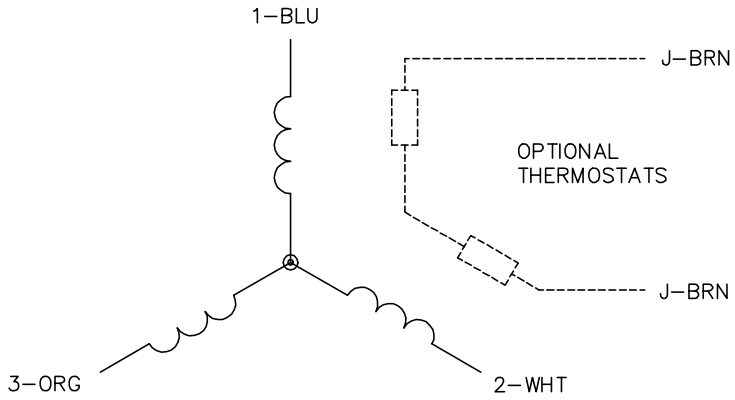
BALDOR

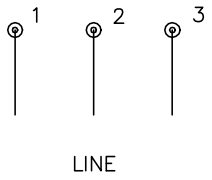
HOR D112S-M TEFC B3 INT SH GND, ECS

36LYT499

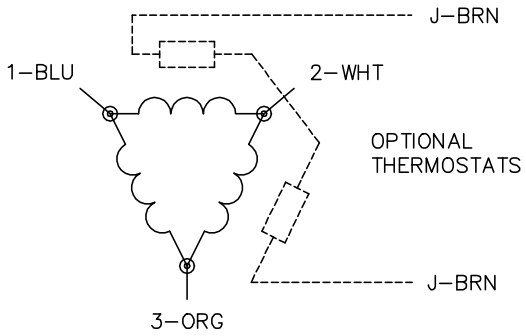
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



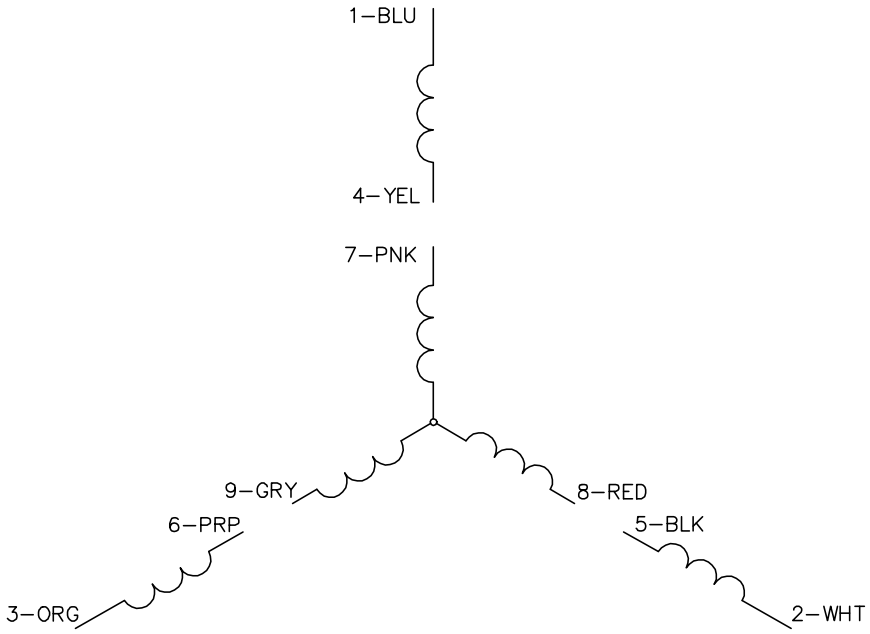
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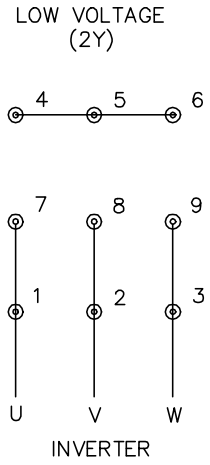
1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

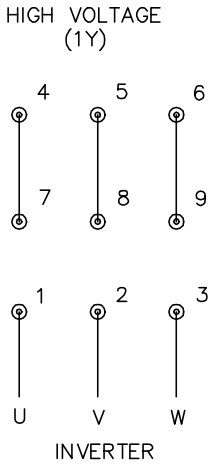
CD0006

REV. DESC: ADD CLASS CONN00000007			BALDOR - RELIANCE®
REV. LTR: E	VERSION: 01	TDR: 000001099922	
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0	3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED
MTL: –			SH 1 of 1

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