

ABB BALDOR RELIANCE III

Customer information packet

SUM74004-4

40HP, 1755RPM, 3PH, 60HZ, 250TY, XPNV, V1

Class - CLI GP C,D

Division - Not Applicable

Specifications

Enclosure	XPNV
Frame	250TY
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Phase	3
Agency Approvals	CCSA US
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Cable Length	25 FOOT
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Haz Area Temp Code	T3C
Heater Indicator	No Heater
Insulation Class	F
Inverter Code	Not Inverter
IP Rating	IP68
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Motor Type	M
Mounting Arrangement	V1
Number of Poles	4
Product Family	Pump - Centrifugal
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	1.750 IN
Shaft Rotation	Reversible

Part Detail

Revision	D
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	85935
Layout	619738-005
Eff. date	07-21-2025
CD Diagram	416820-001
Poles	///
Leads	
Proprietary	False
Created date	05-21-2021

Shaft Slinger Indicator	No Slinger
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Winding	Normally Closed Thermostat

Nameplate

000613007MS											
CAT.NO.	SUM74004-4			SPEC NO.	S25-CWS0-0008						
SER.NO.					FRAME SIZE	250TY					
CONSTANT HP RPM	HP	RPM	VOLTS		AMPS		HZ		S.F.		
	40	1755	460		50		6-60		1.00		
	40	1755	460		50		60		1.15		
	@			HZ	CODE	F					
	TYPE	P	INSUL.CLASS		F	TORQUE	10:1_VT			DESIGN	B
D.E. BRG.	60BC03JPP30A			ENCL	TENV		DUTY	15 MIN		PH	3
O.D.E. BRG.	40BC02JPG30A			MOTOR WEIGHT					AMB	40	
	*15 MIN IN AIR ;SUB. IN										
	SEWAGE / WATER ONLY										

000613007RC			
CLASS I GROUP	C D X	NO.	
CLASS II GROUP	X X X		
OPERATING TEMP CODE	T3C		

000692000MB	
SUITABLE FOR OPERATION ON PWM	
INVERTER EQUIPPED WITH IGBT	
DEVICES AND CAPABLE OF	
CARRIER	
FREQUENCY OF 2 KHZ MINIMUM	

000613007MS

CAT.NO.	SUM74004-4		SPEC NO.		S25-CWS0-0008			
SER.NO.				FRAME SIZE	250TY			
	HP	RPM	VOLTS	AMPS	HZ	S.F.		
	40	1755	460	50	6-60	1.00		
	40	1755	460	50	60	1.15		
CONSTANT HP RPM		@		HZ	CODE	F		
TYPE	P	INSUL.CLASS		F	TORQUE	10:1_VT	DESIGN	B
D.E. BRG.	60BC03JPP30A		ENCL	TENV	DUTY	15 MIN	PH	3
O.D.E. BRG.	40BC02JPG30A		MOTOR WEIGHT			AMB	40	
	*15 MIN IN AIR ;SUB. IN							
	SEWAGE / WATER ONLY							

AC induction motor performance data

Record #85935 - Typical performance - not guaranteed values

Winding	09WGA0212
Type	0954M
Enclosure	PART

Nameplate data

Rated Output	40		
Volts	230/460		
Full Load Amps	100/50		
R.P.M.	1755		
Hz	60	Phase	3
KVA Code	F		
S.F.	1.15		
NEMA Nom. Eff.	93	Power Factor	80
Duty	15 MIN		
S.F. Amps			

460 V, 60 Hz:

High Voltage Connection

Full Load Torque	119 LB-FT
Start Configuration	direct on line
Breakdown Torque	362 LB-FT
Pull-up Torque	159 LB-FT
Locked-rotor Torque	184 LB-FT
Starting Current	271 A
No-load Current	22.48
Line-line Res. @ 25°C	0.253 Ω
Temp. Rise @ Rated Load	63°C
Temp. Rise @ S.F. Load	82°C
Locked-rotor Power Factor	34.6
Rotor inertia	2.35 lb-ft ²

Load Characteristics 460 V, 60 Hz, 40 HP

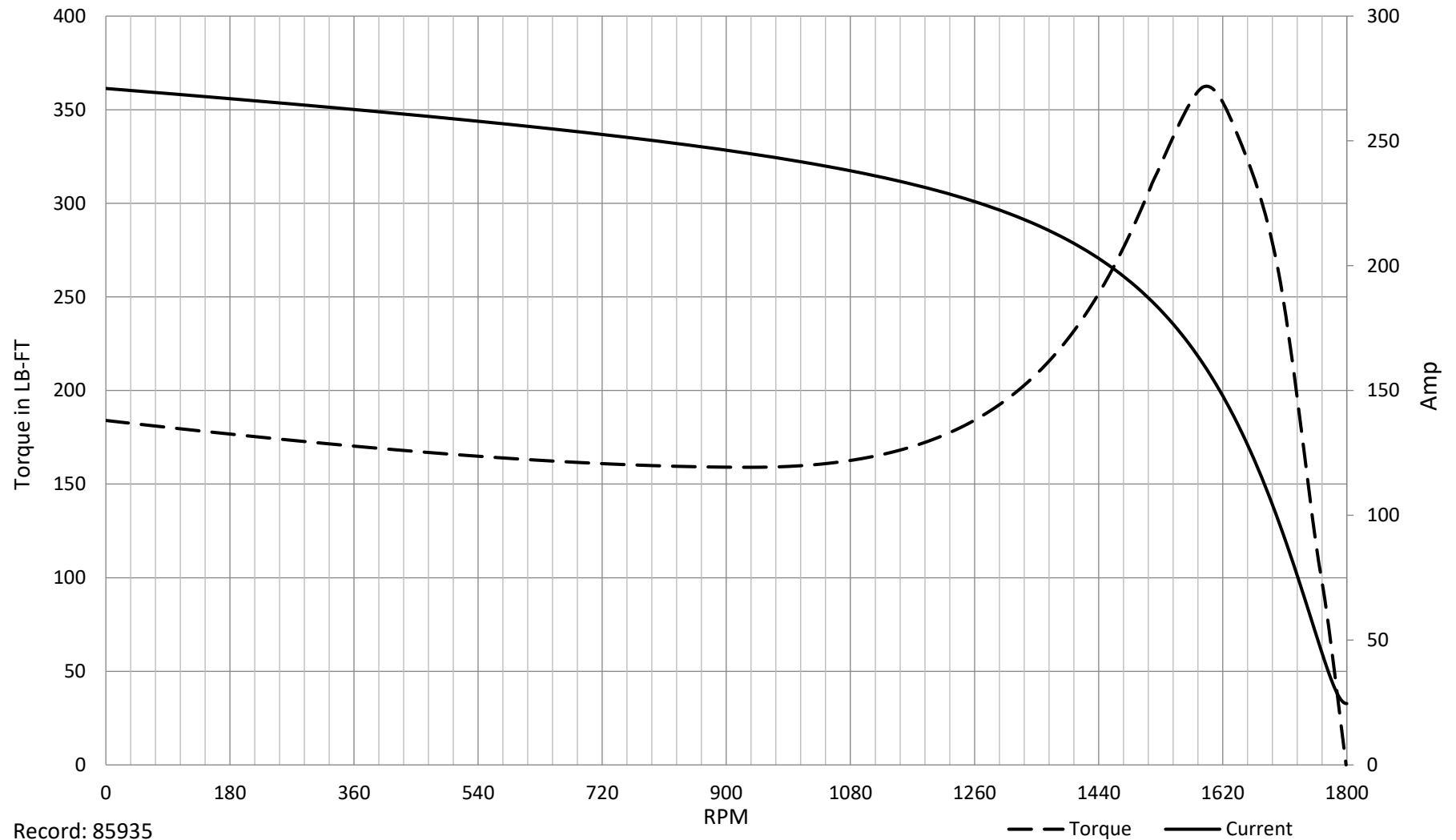
% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	3	41	65	75	80	82	81	81
Efficiency	0	90.4	93.2	93.5	93	92.1	91	92.5
Speed	1799	1789	1779	1768	1755	1741	1726	1747
Line amperes	22.48	25.15	31.2	40.07	50.28	62.12	75.57	57.4

SPEED TORQUE / SPEED CURRENT CURVES

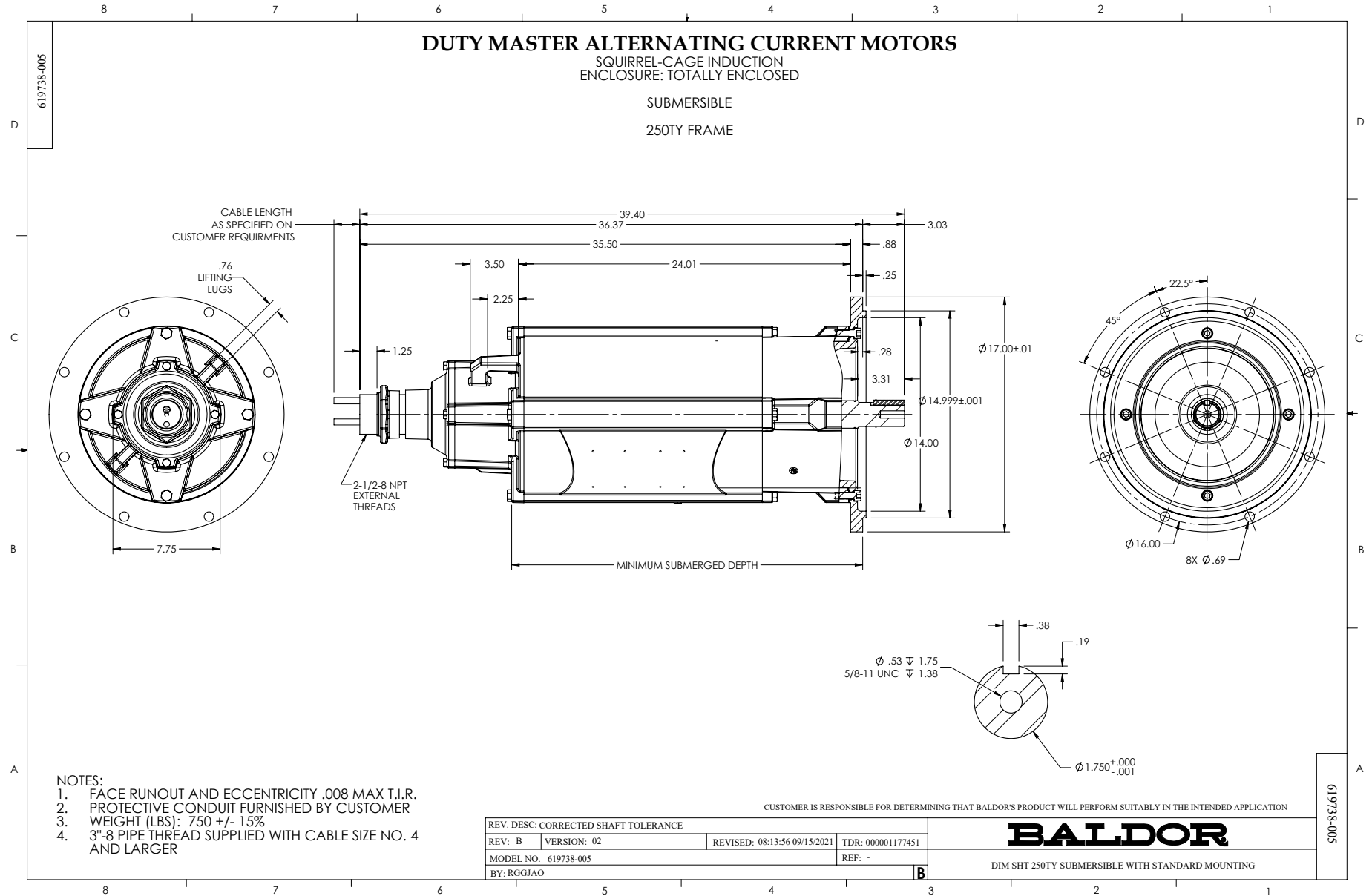
BALDOR • RELIANCE

09WGA0212

40HP 460V 60HZ

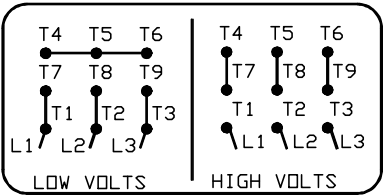
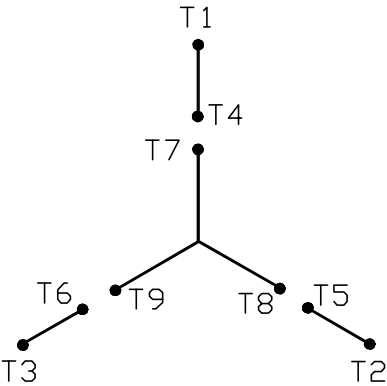


Record: 85935



416820-001

A-C MOTOR
CONNECTION DIAGRAM
STANDARD 9 LEAD Y CONNECTED



(N. P. 1575-A)

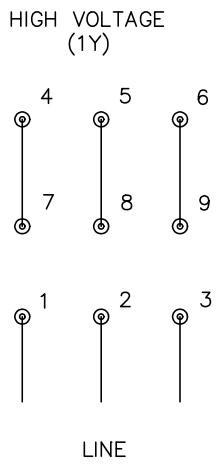
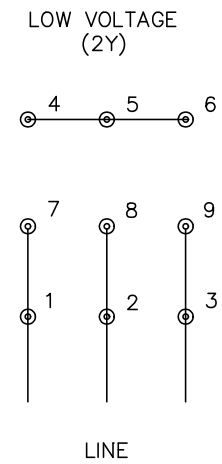
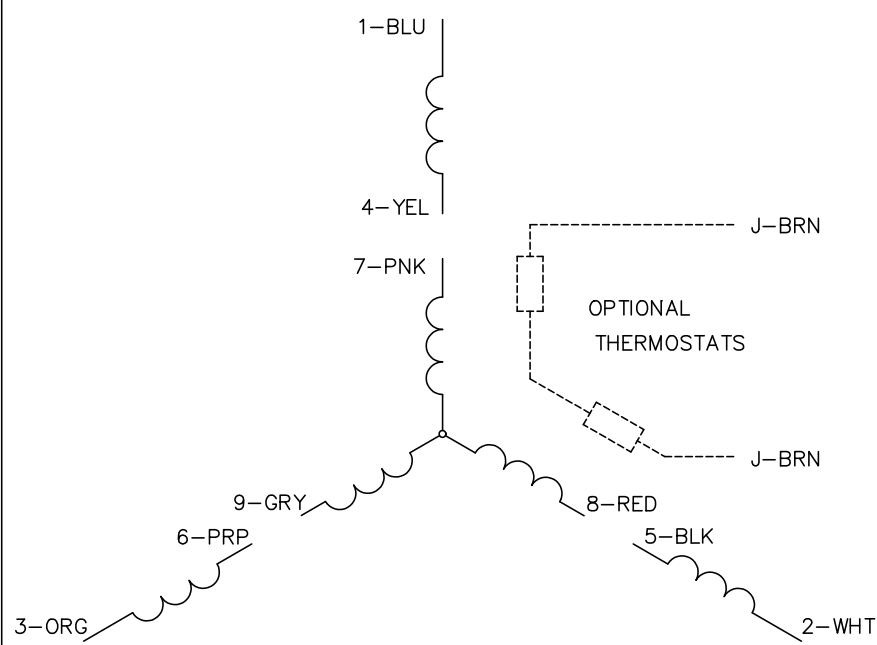
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BALDOR

CONN DIAG - STANDARD 9 LEAD, Y CONNECTED
SH 1 of 1

416820-001

CD0005



- 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			
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S00000		FILE: AAA00005140	MDL: -
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BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005