

# **ABB BALDOR RELIANCE III**

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## **Customer information packet** SUM71004SM-4

10HP, 1765RPM, 3PH, 60HZ, 210TY, XPNV, V1

Class - CLI GP C,D

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	XPNV
<b>Frame</b>	210TY
<b>Frame Material</b>	Iron
<b>Frequency</b>	60.00 Hz
<b>Haz Area Class and Group</b>	CLI GP C,D
<b>Haz Area Division</b>	Not Applicable
<b>Motor Letter Type</b>	Three Phase
<b>Phase</b>	3
<b>Agency Approvals</b>	CCSA US
<b>Base Indicator</b>	Rigid
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Cable Length</b>	NO CABLE
<b>Design Code</b>	B
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Haz Area Temp Code</b>	T3C
<b>Heater Indicator</b>	No Heater
<b>Insulation Class</b>	F
<b>Inverter Code</b>	Not Inverter
<b>IP Rating</b>	IP68
<b>KVA Code</b>	H
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	M
<b>Mounting Arrangement</b>	V1
<b>Number of Poles</b>	4
<b>Product Family</b>	Pump - Centrifugal
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	1.250 IN
<b>Shaft Rotation</b>	Reversible

**Part Detail**

<b>Revision</b>	C
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	86077
<b>Layout</b>	619738-004
<b>Eff. date</b>	12-10-2024
<b>CD Diagram</b>	416820-001
<b>Poles</b>	///
<b>Leads</b>	
<b>Proprietary</b>	False
<b>Created date</b>	08-10-2021

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

**Nameplate**

**000613007MS**

<b>CAT.NO.</b>	SUM71004SM-4	<b>SPEC NO.</b>	S21-CWS0-0010				
<b>SER.NO.</b>		<b>FRAME SIZE</b>	X215TY				
	<b>HP</b>	<b>RPM</b>	<b>VOLTS</b>	<b>AMPS</b>	<b>HZ</b>	<b>S.F.</b>	
	10	1765	230/460	25/12.5	6-60	1.00	
	10	1765	230/460	25/12.5	60	1.15	
<b>CONSTANT HP RPM</b>		@	<b>HZ</b>	<b>CODE</b>	H		
<b>TYPE</b>	P	<b>INSUL.CLASS</b>	F	<b>TORQUE</b>	10:1_VT	<b>DESIGN</b>	B
<b>D.E. BRG.</b>	60BC02JPP30A	<b>ENCL</b>	TENV	<b>DUTY</b>	15MIN	<b>PH</b>	3
<b>O.D.E. BRG.</b>	30BC02JPG30A	<b>MOTOR WEIGHT</b>		<b>AMB</b>	40		
	FINAL CONN VOLTAGE = 460 *15						
	MIN IN AIR ;SUB. IN WATER						
	ONLY						

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**000613007RC**

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<b>CLASS I GROUP</b>	C D X	<b>NO.</b>	
<b>CLASS II GROUP</b>	X X X		
<b>OPERATING TEMP CODE</b>	T3C		

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**000692000MB**

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

**000613007MS**

<b>CAT.NO.</b>	SUM71004SM-4	<b>SPEC NO.</b>	S21-CWS0-0010			
<b>SER.NO.</b>		<b>FRAME SIZE</b>	X215TY			
	<b>HP</b>	<b>RPM</b>	<b>VOLTS</b>	<b>AMPS</b>	<b>HZ</b>	<b>S.F.</b>
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	FINAL CONN VOLTAGE = 460 *15					
	MIN IN AIR ;SUB. IN WATER					
	ONLY					

Record #86077 - Typical performance - not guaranteed values

Winding	07WGA0017
Type	0738M
Enclosure	TENV

Nameplate data

Rated Output			10
Volts			230/460
Full Load Amps			25/12.5
R.P.M.			1765
Hz	60	Phase	3
KVA Code			H
S.F.			1.15
NEMA Nom. Eff.	90.2	Power Factor	82
Duty			15 MIN
S.F. Amps			

460 V, 60 Hz:

High Voltage Connection

Full Load Torque	29.74 LB-FT
Start Configuration	direct on line
Breakdown Torque	83.88 LB-FT
Pull-up Torque	29.9 LB-FT
Locked-rotor Torque	45.11 LB-FT
Starting Current	87.77 A
No-load Current	4.92
Line-line Res. @ 25°C	1.25 Ω
Temp. Rise @ Rated Load	15°C
Temp. Rise @ S.F. Load	18°C
Locked-rotor Power Factor	37.1
Rotor inertia	0.934 lb-ft <sup>2</sup>

Load Characteristics 460 V, 60 Hz, 10 HP

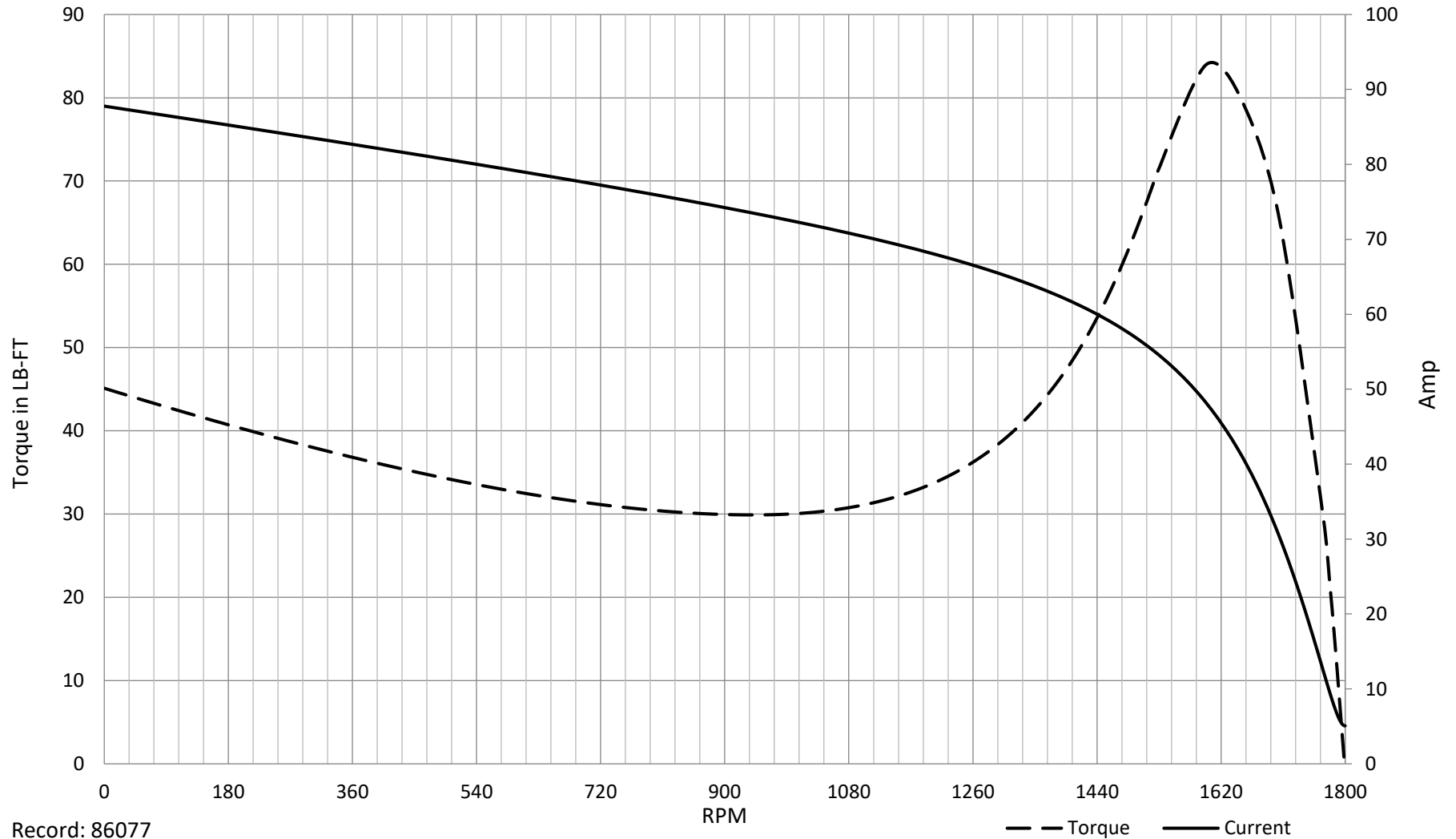
% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	6	47	68	78	82	84	84	83
Efficiency	0	88.1	90.8	91.9	90.9	90	88.6	90.4
Speed	1799	1792	1785	1777	1768	1758	1747	1762
Line amperes	4.92	5.73	7.53	9.86	12.49	15.44	18.79	14.3

**SPEED TORQUE / SPEED CURRENT CURVES**

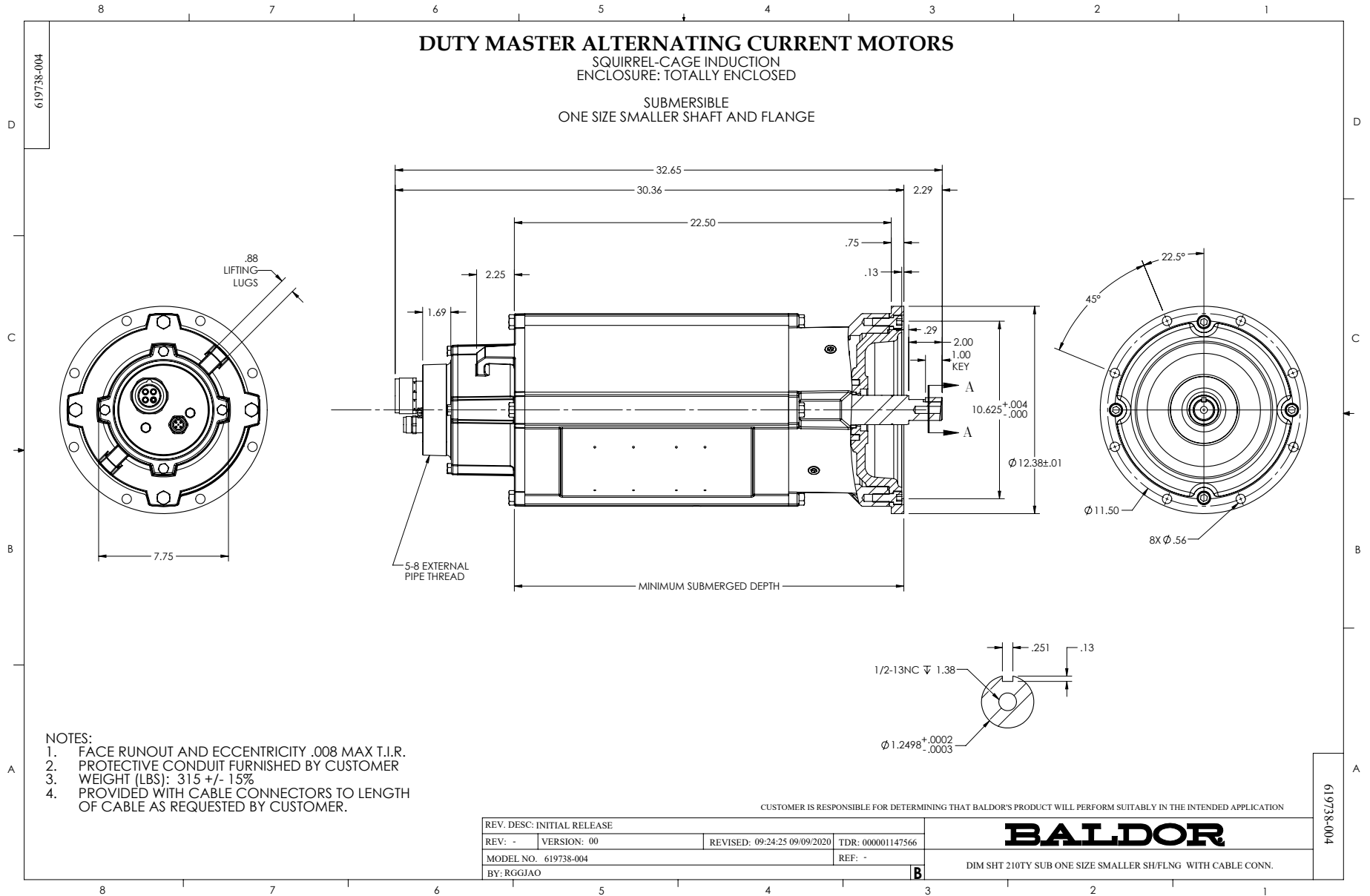


07WGA0017

10HP 460V 60HZ

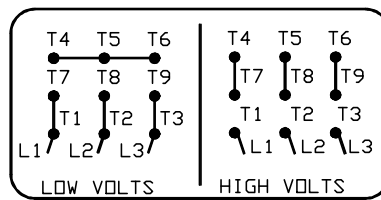
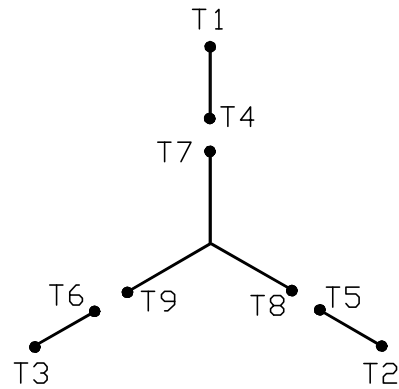


Record: 86077



416820-001

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 9 LEAD Y CONNECTED



(N. P. 1575-A)

416820-001

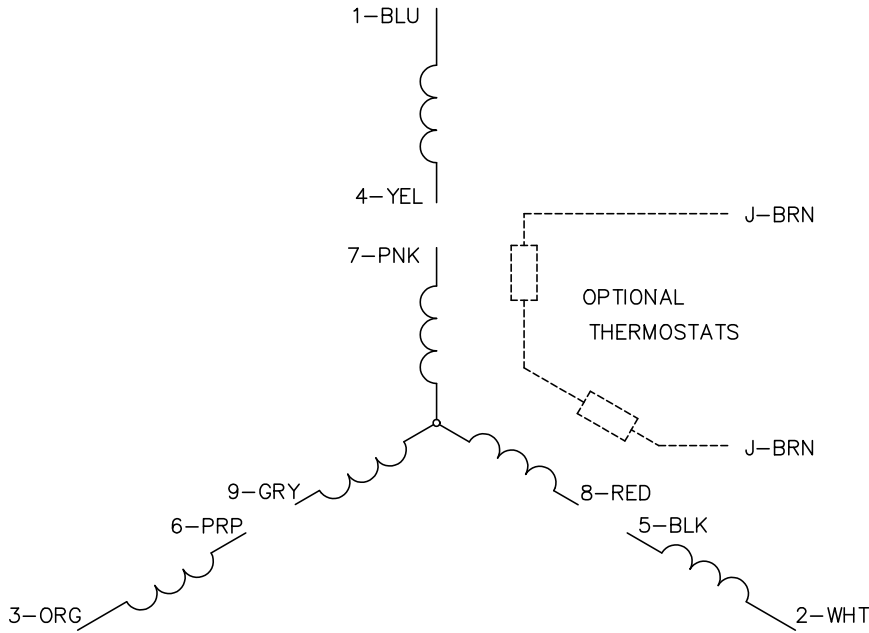
REV. DESC: FONT CHANGE FOR PDF SEARCHABLE		
REV. LTR: A	VERSION: 01	TDR: 000001009382
FILE: \MGA\00000\659	REVISED: 10:33:07 12/21/2016	BY: MGHMTT
MTL: -	© □	

**BALDOR**

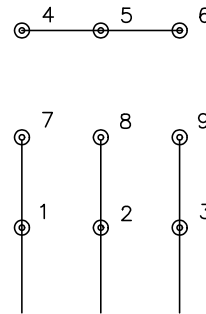
CONN DIAG - STANDARD 9 LEAD, Y CONNECTED

SH 1 of 1

CD0005

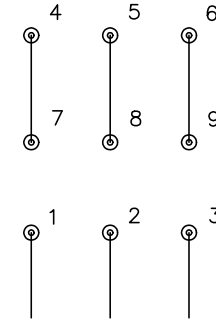


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

**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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS