

BALDOR • RELIANCE

Customer information packet

SUM72004SM-4

20HP, 1750RPM, 3PH, 60HZ, 210TY, XPNV, V1

Class - CLI GP C,D

Division - Not Applicable

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8/11/2024 4:15:25 AM

Specifications

Enclosure	XPNV
Frame	210TY
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Not Applicable
Phase	3
Agency Approvals	CCSA US
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Design Code	A
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	NONE
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
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	1.250 IN
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Starting Method	Direct on line
Thermal Device - Winding	Normally Closed Thermostat

Part detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	78234
Layout	619738-004
Eff. date	05-02-2024
CD Diagram	
Poles	///
Leads	
Proprietary	False
Created date	08-06-2021

Nameplate

000613007MN									
CAT NO	SUM72004SM-4	SPEC NO.	S21-CWS0-0016						
HP	20	AMPS	27.09	VOLTS	460	DESIGN	A		
FRAME SIZE	210TY	RPM	1750	HZ	60	AMB	40	SF	1.15
D.E. BRG.	60BC02JPP30A	PH	3	DUTY	15 MIN	INSUL	F		
O.D.E. BRG.	30BC02JPG30A	TYPE	P	ENCL	TENV	CODE	H		
		POWER FACTOR		NEMA-NOM-EFF					
		MAX CORR KVAR		GUARANTEED EFFICIENCY					
		NEMA NOM/CSA QUOTED EFF @		100% LOAD					
SER.NO.		MOTOR WEIGHT		LBS.					
	FINAL CONN VOLTAGE = 460 *15								
	MIN IN AIR ;SUB. IN WATER								
	ONLY								

000613007RC

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

000613007MR

CAT NO	SUM72004SM-4	SPEC NO.	S21-CWS0-0016						
HP	20	AMPS	27.09	VOLTS	460	DESIGN	A		
FRAME SIZE	210TY	RPM	1750	HZ	60	AMB	40	SF	1.15
D.E. BRG.	60BC02JPP30A	PH	3	DUTY	15 MIN	INSUL	F		
O.D.E. BRG.	30BC02JPG30A	TYPE	P	ENCL	TENV	CODE	H		
		POWER FACTOR		NEMA-NOM-EFF					
		MAX CORR KVAR		GUARANTEED EFFICIENCY					
		NEMA NOM/CSA QUOTED EFF @		100% LOAD					
SER.NO.		MOTOR WEIGHT		LBS.					
	FINAL CONN VOLTAGE = 460 *15								
	MIN IN AIR ;SUB. IN WATER								
	ONLY								

AC induction motor performance data

Record #78234 - Typical performance - not guaranteed values

Winding	07WGA0004
Type	0750M
Enclosure	XPNV

Nameplate data

Rated Output			20
Volts			230/460
Full Load Amps			54.2/27.1
R.P.M.			1750
Hz	60	Phase	3
KVA Code			H
S.F.			1.15
NEMA Nom. Eff.	91	Power Factor	76
Duty			15 MIN
S.F. Amps			

460 V, 60 Hz:
High Voltage Connection

Full Load Torque	59.8 LB-FT
Start Configuration	direct on line
Breakdown Torque	147 LB-FT
Pull-up Torque	95.75 LB-FT
Locked-rotor Torque	106 LB-FT
Starting Current	168 A
No-load Current	13.63
Line-line Res. @ 25°C	0.614 Ω
Temp. Rise @ Rated Load	40°C
Temp. Rise @ S.F. Load	52°C
Locked-rotor Power Factor	38
Rotor inertia	1.23 lb-ft²

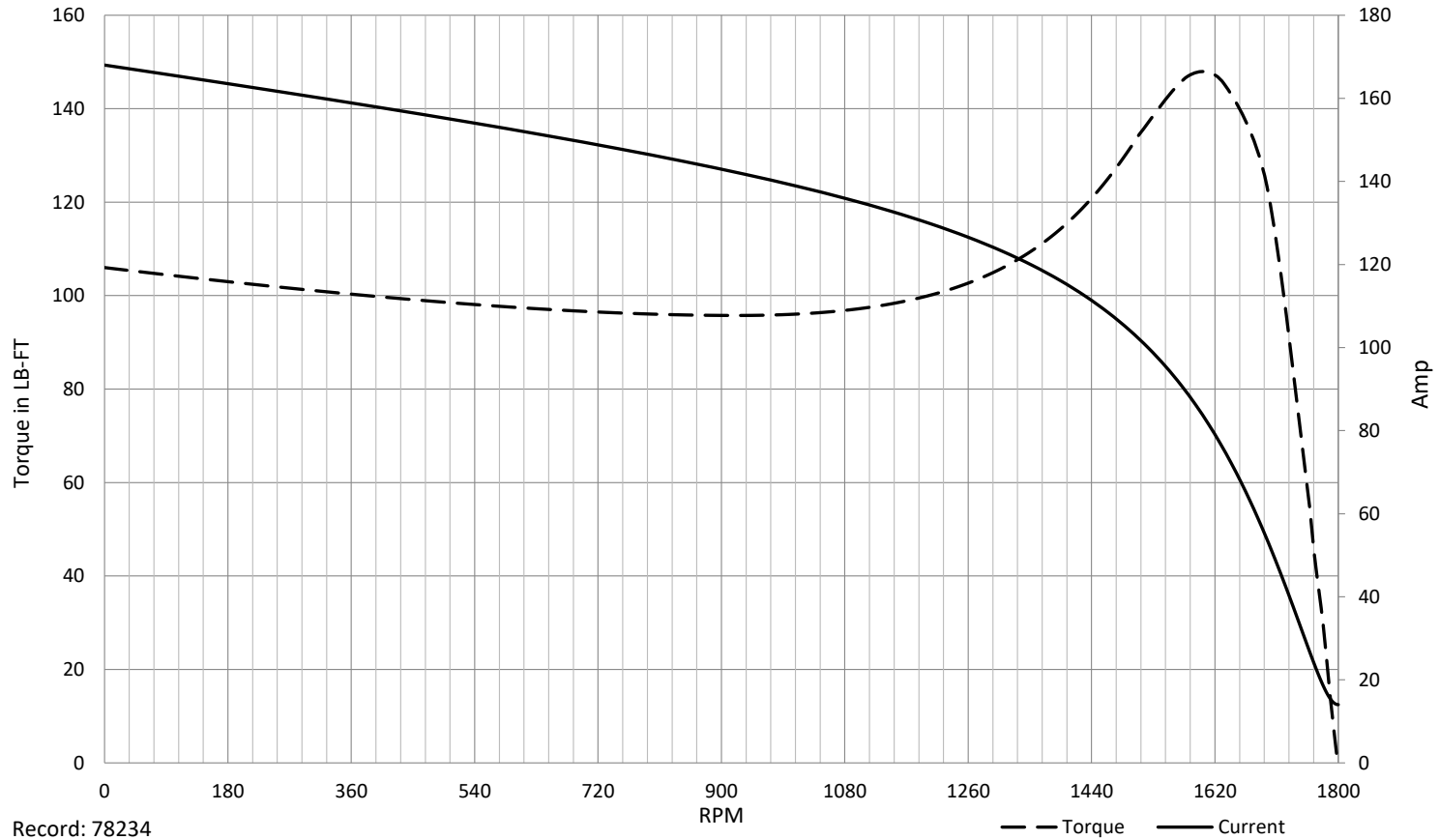
Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	3	35	57	69	76	79	80	78
Efficiency	0	89.3	92.5	92.1	91.2	89.5	88.2	90.2
Speed	1799	1788	1778	1765	1754	1738	1724	1744
Line amperes	13.63	14.74	17.69	21.99	27.09	33.1	39.7	30.7

SPEED TORQUE / SPEED CURRENT CURVES

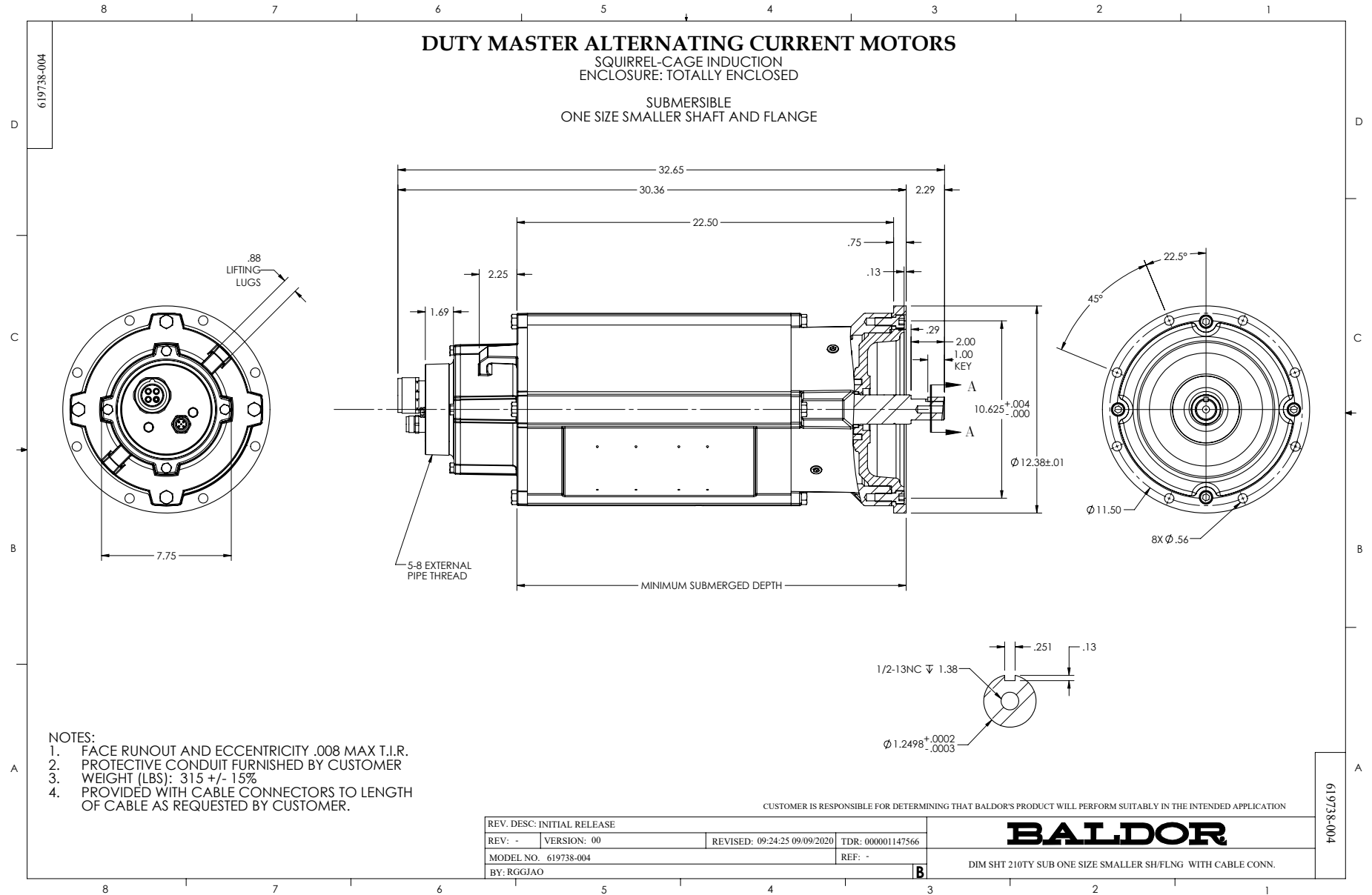


07WGA0004
20HP 460V 60HZ

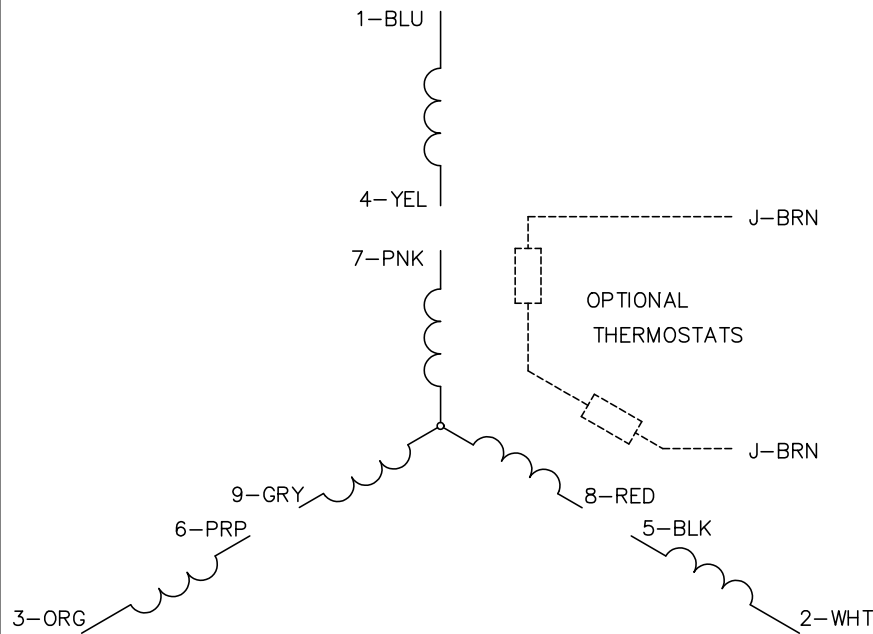


Record: 78234

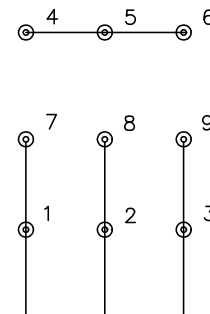
--- Torque — Current



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.

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

CD0005