

BALDOR® • RELIANCE 

Product Information Packet

ECP84102T-5

20HP,1175RPM,3PH,60HZ,286T,1056M,TEFC,F1

Part Detail							
Revision:	K	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	10WZ466	CD Diagram:	CD0006	Mfg Plant:	
Mech. Spec:	10G187	Layout:	10LYG187	Poles:	06	Created Date:	10-20-2015
Base:	RG	Eff. Date:	10-16-2018	Leads:	3#12		

Specs			
Catalog Number:	ECP84102T-5	Inverter Code:	Inverter Duty
Enclosure:	TEFC	KVA Code:	G
Frame:	286T	Lifting Lugs:	Standard Lifting Lugs
Frame Material:	Iron	Locked Bearing Indicator:	Locked Bearing
Output @ Frequency:	20.000 HP @ 60 HZ	Motor Lead Quantity/Wire Size:	3 @ 12 AWG
Synchronous Speed @ Frequency:	1200 RPM @ 60 HZ	Motor Lead Exit:	Ko Box
Voltage @ Frequency:	575.0 V @ 60 HZ	Motor Lead Termination:	Ring Terminals
XP Class and Group:	CLI GP A,B,C,D	Motor Type:	1056M
XP Division:	Division II	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	78
	CSA EEV	Product Family:	Chem Process S/P 32-8 IEEE 841
	CCSA US	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	Standard
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	Rigid	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	Shaft Extension Location:	Pulley End
Blower:	None	Shaft Ground Indicator:	No Shaft Grounding
Constant Torque Speed Range:	1.0	Shaft Rotation:	Reversible

Current @ Voltage:	21.000 A @ 575.0 V	Shaft Slinger Indicator:	No Slinger
Design Code:	B	Speed Code:	Single Speed
Drip Cover:	No Drip Cover	Motor Standards:	NEMA
Duty Rating:	CONT	Starting Method:	Direct on line
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Bearing:	NONE (OLD)
Feedback Device:	NO FEEDBACK	Thermal Device - Winding:	None
Front Face Code:	Standard	Vibration Sensor Indicator:	No Vibration Sensor
Front Shaft Indicator:	None	Winding Thermal 1:	None
Heater Indicator:	No Heater	Winding Thermal 2:	None
Insulation Class:	F	XP Temp Code:	T3C

Nameplate NP3190									
STK.NO.	ECP84102T-5	P/N		ENCLOSURE	TEFC				
SPEC.	10G187Z466	CC	010A	FRAME	286T	S/N			
HP	20	CLASS	F	HZ	60	ODE BRG	6311	DE BRG	6311
RPM	1175	RPM MAX	1800	PH	3	DES	B	D.E. BRG.	55BC03X30X
VOLT	575	KVA-CODE	G	O.D.E. BRG.	55BC03X30X	GREASE	POLYREX EM		
AMP	21	MOTOR WEIGHT	429	BLANK					
RATING	40C AMB-CONT	MAX. KVAR	7.7	IP	56				
NEMA-NOM-EFF	91.7	# OF ROTOR BARS	42	SER.F.	1.15	INV.TYPE	PWM		
G.MIN.EFF	90.2	# OF STATOR SLOTS	54	PF	78				
TEMP CODE	T3C	INVERTER-TEMP-CODE	180						
TEMP =	160	C HP FR	60	C HP TO	90				
CT HZ FROM	1.0	CT HZ TO	60						
HTR-VOLTS		HTR-AMPS		HTR-WATTS		MAX. SPACE HEATER TEMP.		VT HZ FROM	0
								VT HZ TO	60

Parts List		
Part Number	Description	Quantity
SA309375	SA 10G187Z466	1.000 EA
RA296727	RA 10G187Z466	1.000 EA
09FN3001D02	EXTERNAL FAN, PLASTIC	1.000 EA
WD1000B16	T&B CX70TN TERMINAL	1.000 EA
10XN2520K06	1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P	1.000 EA
10CB1000A09P	CONDUIT BOX, MACH W/EPOXY PRIMER	1.000 EA
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 EA
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
WD1000B16	T&B CX70TN TERMINAL	1.000 EA
10XN2520K06	1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P	1.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
HA4017A02	.125X2.50 GREASER EXTENS.F/S	1.000 EA
HA4017A10	1/8X1.25 GREASE EXT (F/S)	1.000 EA
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 EA
HW4601A53	INPRO/SEAL VBXX FOR 311 BEARING/310 FRAM	1.000 EA
HW5100A13	W4627-047 WVY WSHER	1.000 EA
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 EA
10EP1110A01P	MACH'D EPOXY PRIMED EP	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 EA

Parts List (continued)		
Part Number	Description	Quantity
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
HW4601A53	INPRO/SEAL VBXX FOR 311 BEARING/310 FRAM	1.000 EA
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 EA
10XN3118K16	5/16-18 X 1" GRADE #5, STL, ZINC PLATE	3.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	3.000 EA
10CB1503A01P	CONDUIT BOX LIPPED LID, MACH W/EPXY PRMR	1.000 EA
14GS1003	GASKET CONDUIT BOX LID, NEOP	1.000 EA
MJ5004A59	ADHESIVE LOCTITE #401 SURFACE INSENSITIV	0.010 EA
10XN2520K16	1/4-20 X 1" HX HD SCRW GRADE 5, ZINC P	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
HW2501H28	KEY, 1/2 SQ X 3.250	1.000 EA
MJ5001A14	DYNAPRO SEALANT, CP MTR VC#2508050 (603	0.026 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
WD1000B49	T&B C73,RING TERMINAL 10-12 AWG 3/8 STUD	3.000 EA
10EP1110A02GP6	FR ENDPLATE, MACH W/PRIMER & PAINT	1.000 EA
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.130 LB
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 EA

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HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 EA
10FH1007A24GP6	FAN COVER W/1.00 SLOT @ 6:00	1.000 EA
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 QT
MG1025N19	WILKOFASST, 778.50, RELIANCE BLUE-GREEN	0.070 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
LB1449	DIV-2/NEC WARNING LABEL	1.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0006	CONNECTION LABEL	1.000 EA
NP3190	SS IEEE841 INV DIV-2 UL CSA-C US EEV	1.000 EA
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A06	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA

AC Induction Motor Performance Data

Record # 53506 - Typical performance - not guaranteed values

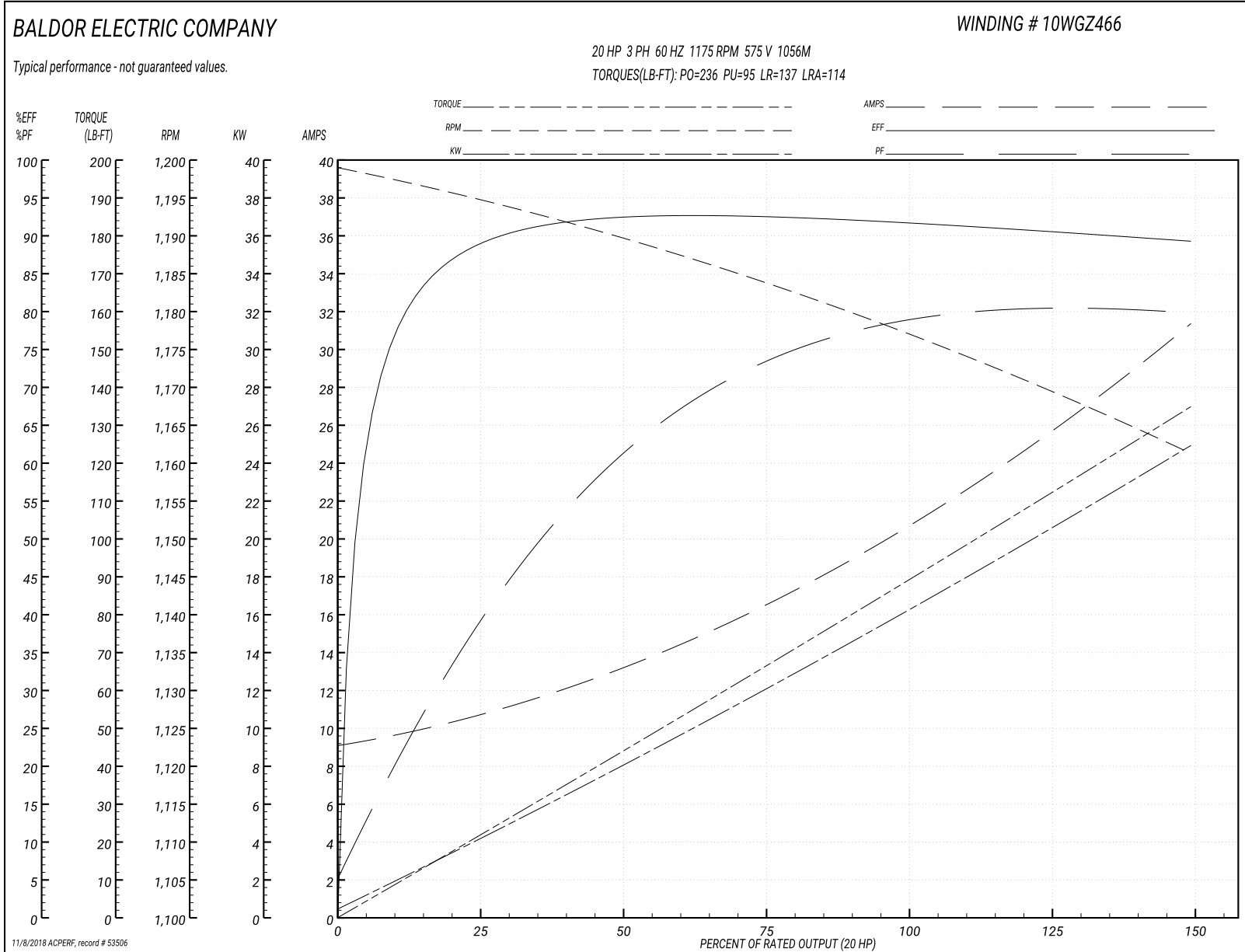
Winding: 10WGZ466-R001	Type: 1056M	Enclosure: TEFC
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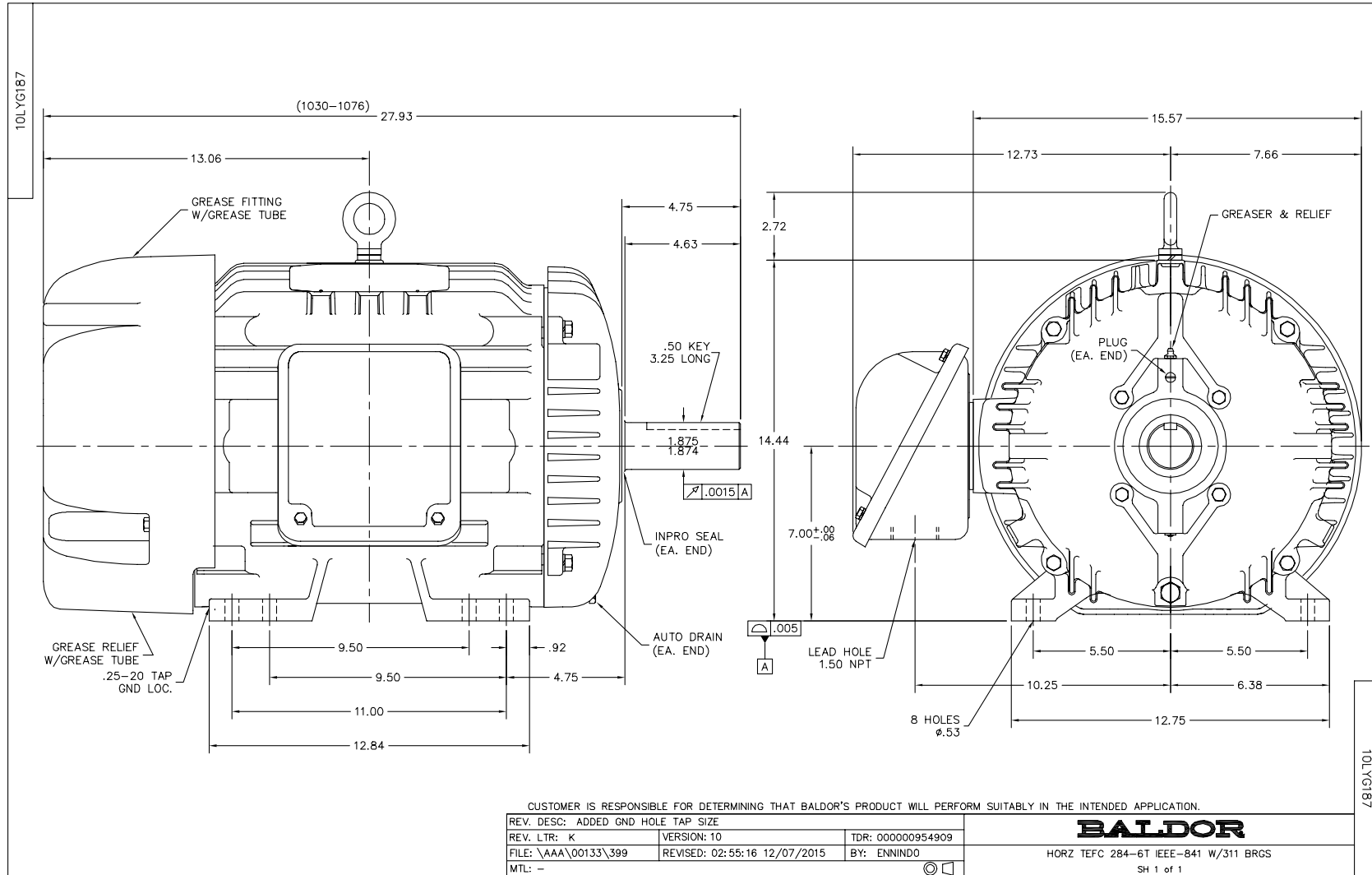
Nameplate Data				575 V, 60 Hz: Single Voltage Motor	
Rated Output (HP)	20			Full Load Torque	89.1 LB-FT
Volts	575			Start Configuration	direct on line
Full Load Amps	21			Breakdown Torque	236 LB-FT
R.P.M.	1175			Pull-up Torque	95 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	137 LB-FT
NEMA Design Code	B	KVA Code	G	Starting Current	114 A
Service Factor (S.F.)	1.15			No-load Current	9.28 A
NEMA Nom. Eff.	91.7	Power Factor	78	Line-line Res. @ 25°C	0.757 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	64°C
S.F. Amps				Temp. Rise @ S.F. Load	78°C
				Locked-rotor Power Factor	32
				Rotor inertia	6.86 LB-FT ²

Load Characteristics 575 V, 60 Hz, 20 HP

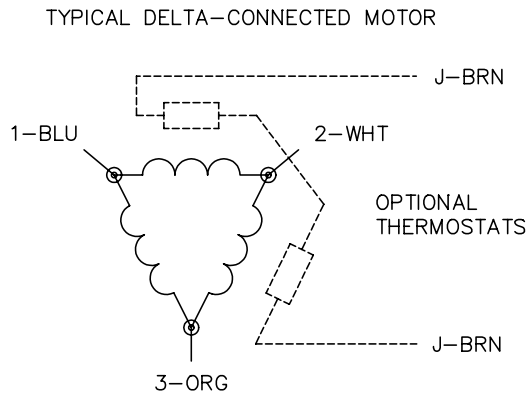
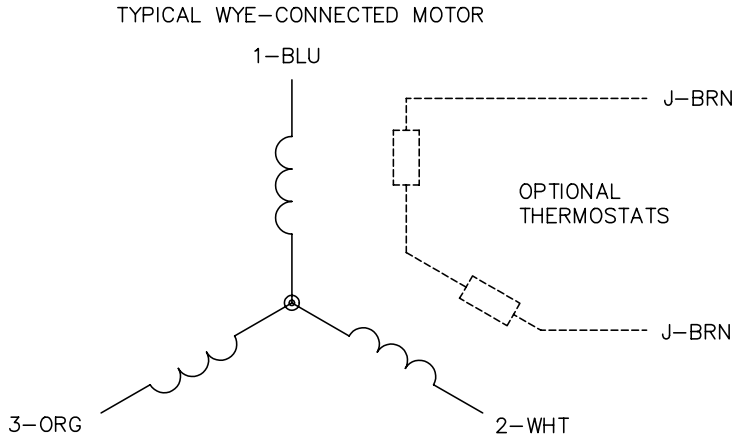
% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	41	63	73	78	80	80	79
Efficiency	88.5	92.1	92.4	91.8	91.1	89.1	91.4
Speed	1195	1189	1184	1177	1170	1161	1173
Line amperes	10.5	13.1	16.6	20.9	25.6	31.3	23.7

Performance Graph at 575V, 60Hz, 20.0HP Typical performance - Not guaranteed values





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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: D	BY: JLP	REVISED: 01/21/99 4:02	TDR: 0171435
9000D		FILE: AAA00005141	MDL: -
		MTL: -	

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

CD0006

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