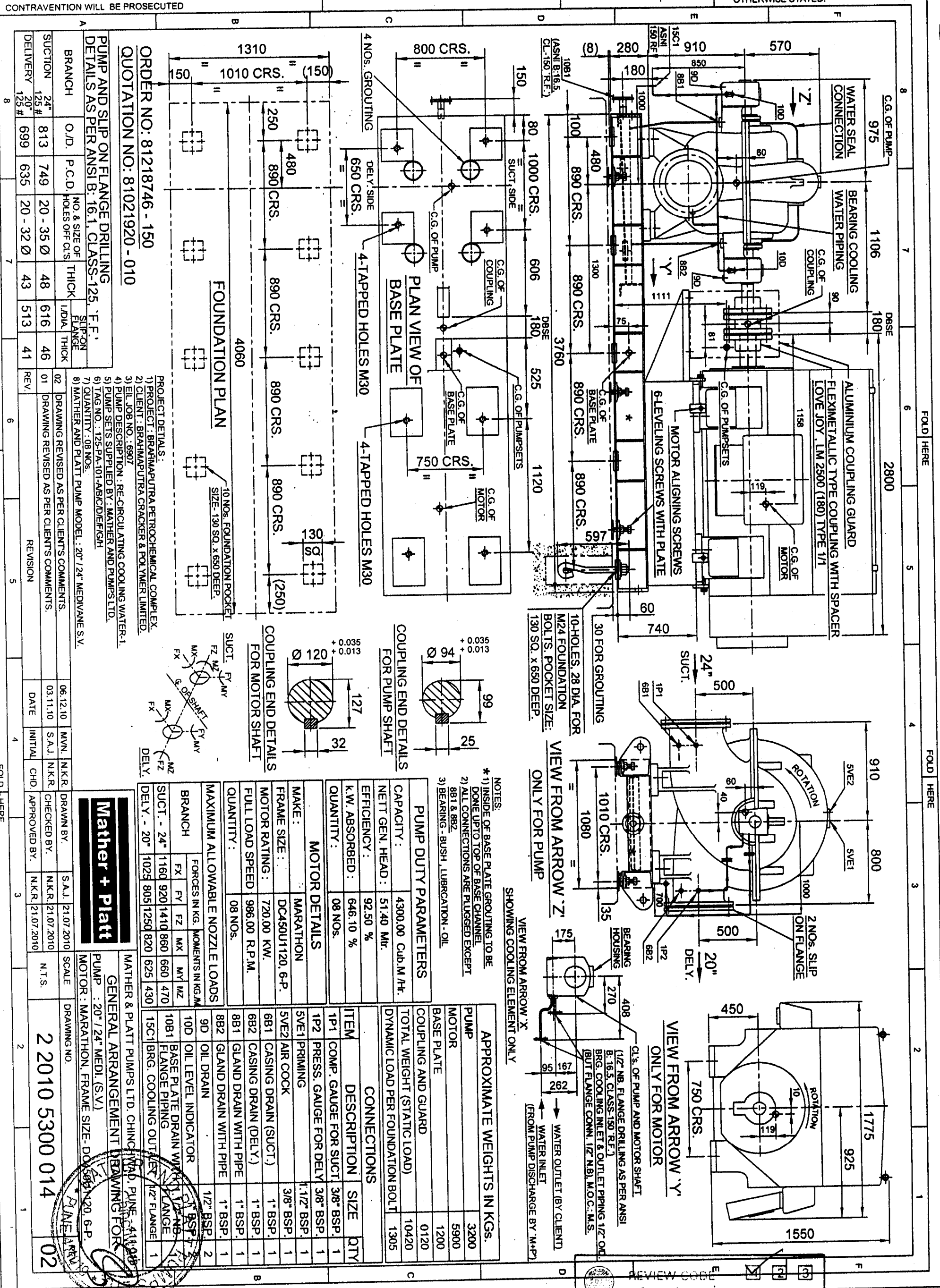
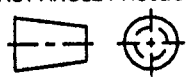


DO NOT SCALE. WORK TO DIMENSIONS.
DEBURR AND REMOVE SHARP EDGES.
DIMENSIONS IN MM. EXCEPT WHERE
OTHERWISE STATED.



REVIEW CODE^m ☒ 2 ☒ 3

सं. राभीशा कोड

Signatures & Name

हरदत्त एच भाग

Date / दिनांक

VP No.

बी को रोल

6907/2041

DATA SHEET				Datasheet No. 6907-125-16-50- DS-45													
REV: 01.Dtd:23.08.2010				Rev. No. 0													
PURCHASER'S DATA				Page 1 of 1													
A. Site conditions																	
1	Ambient temperature:	minimum: 1 °C maximum: 39.8 °C design: 40 °C	3	Atmospheric condition:	Humid & highly corrosive												
2	Relative humidity:	93 %	4	Altitude:	< 1000 m												
			5	Location:	Outdoor												
B. Technical particulars																	
1	Motor tag no.:	125-PA-101 A-H	17	Hazardous area classification:	Safe												
2	Driven equipment name:	Pump	18	Temp Class													
3	Voltage:	6.6KV +/-6%	19	Type of explosion protection:	Safe Area												
4	Phase:	Three	20	Type of ingress protection:	IP 55												
5	Frequency:	50 Hz ± 3%	21	Reacceleration:	☒ Required ☐ Not required												
6	Fault level:	43.7kA	22	Diff. protection CTs:	☒ Required ☐ Not required												
7	Fault duration:	0.25 sec		CT specs.:													
8	System earthing:	Resistance	24	Color shade:	632 as per IS:5												
9	Duty:	Continuous	25	Thermistors:	No												
10	Method of starting:	D.O.L	26	RTD:	12 Nos., PT100, Simplex												
11	Cable size:	3CX185mm², 6.6kV (UE)	27	RTD:	2 Nos. PT100, Duplex												
12	Cable type:	N. cond. XLPE insulated	28	RTD/BTD monitoring device:	Not in scope of Marathon												
13	Temperature rise:	80 °C		RTD/BTD Make:													
14	Cooling:	CACA		Applicable specification:	EIL-SPEC 6- 51-0031-REV 4												
15	Insulation class:	F (Resin poor VPI) (Temp rise limited to B)			IS: 325												
DRIVEN EQUIPMENT MANUFACTURER'S DATA																	
1	Suggested motor rating:	720 kW	9	Coupling type:	Flexible Spacer												
2	Manufacturer:	Marathon	10	Torque required, starting:	92.5 mkg												
3	Type of driver mounting:	HORIZONTAL	11	Torque required, maximum:	668 mkg												
4	Driven equipment:	Pump	12	IGD² of eqpt., Including (Gear Box + Coupling)	17.7 kgm²												
5	Shaft kW:	646 kW	13	Maximum thrust:	329-Radix kg												
6	kW at maximum load:	680 kW	14	Pulsation rate:													
7	Speed:	988 RPM	15	Starting condition:	NO LOAD												
8	Rotation of eqpt. from coupling end:	CW															
MOTOR MANUFACTURER'S DATA																	
1	Rating:	720 kW	19	Space heater - voltage & power:	240 V, 2 x 170 W												
2	Manufacturer:	Marathon Electric Motors (I) Ltd	20	Moment of inertia, GD²:	136 kgm²												
3	Frame designation:	DC450U1120	21	DE/NDE bearing type & no.:	Anti-friction												
4	No. of poles:	6 Pole	22	Type of lubrication:	Grease												
5	Full load speed:	988 RPM	23	Type of main terminal box:	PSTB												
6	Mounting:	B3	24	Type of neutral terminal box:	Non-PSTB												
7	Full load torque (FLT):	712 mkg	25	No of Terminals	6												
8	Starting torque:	75 % of FLT	26	Weight of motor:	5900 kg												
9	Break down or pull out torque:	180 % of FLT	27	Thermistors, quantity:	N.A no.												
10	Full load current (FLC):	78.5 A		make:													
11	Starting current at 100% voltage:	500% of FLC (Max)	28	RTD, quantity:	12 no.												
12	Rotation viewed from coupling end:	CCW From DE		make: Reputed Make	type: PT100												
13	Starting time at 80%/100% voltage:	4Sec/ 2 Sec	29	BTD, quantity:	2 no.												
14	Locked rotor withstand time (cold/hot) at, 80% voltage:	18S / 15S		make: Reputed Make	type: PT100												
	100% voltage:	12 S / 10 S	30	Shaft voltage:	Less than 250mv												
15	Time (Te) for increased safety motors	NA	31	Critical speed, 1 1/2" stage:	MORE THAN 1300 RPM												
16	Efficiency at 75%/100% voltage: %	94/94.5	32	Pressurization panel:	☐ Applicable ☒ Not applicable												
17	Power factor at 75%/100% load:	0.83/ 0.85		make:	type:												
18	Heating/ Cooling Time Const(min)	55 min/110 min	33	Canopy	☒ Not required ☐ Required												
			34	Fan Rotation Design	- FIXED												
1. All performance figs are subject to IS tolerance except Stg current. 2. Pump to be started with valve closed condition. 3. Canopy is beyond our scope of supply. 4. Noise & Vibration as per IS.																	
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A	14.06.10	Issued with PR	LC	RKS	BD												
Rev.	Date	Purpose	Prepared	Checked	Approved												

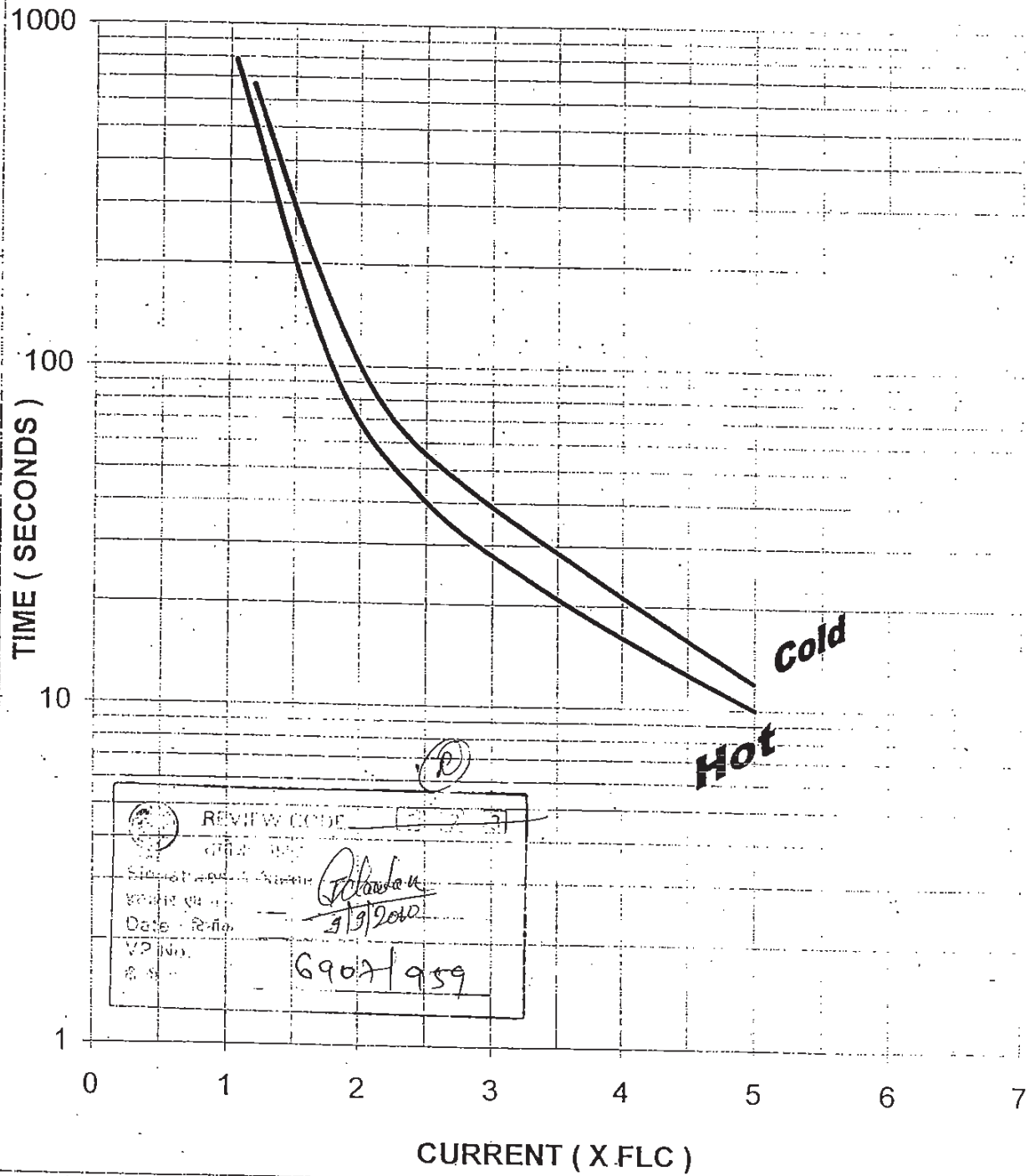
Format No. EIL-1650-687H Rev.3

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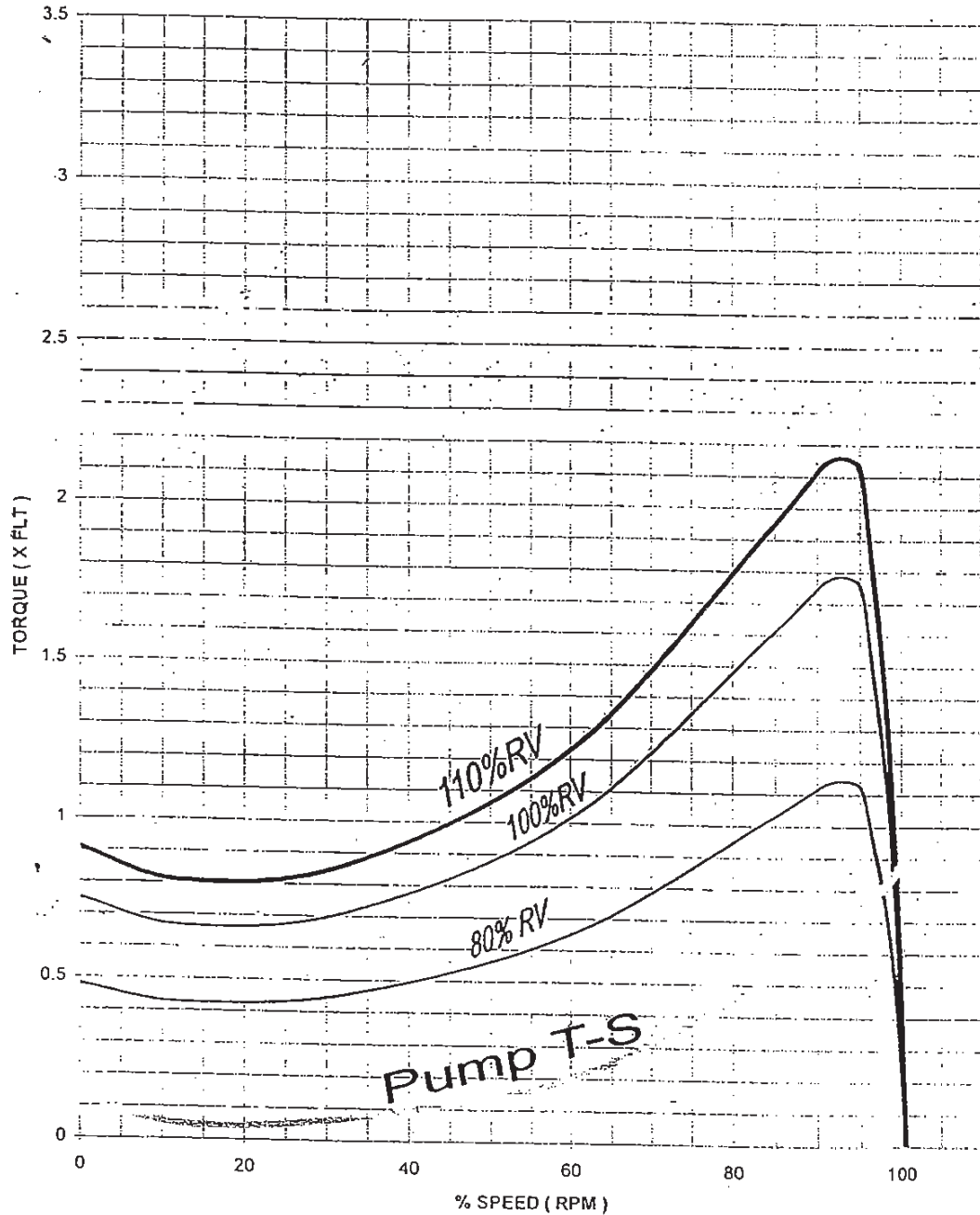
	REVIEW CODE ☒ 1 ☐ 2 ☐ 3
Signature & Name: <i>[Signature]</i>	
Date / <i>9/9/2010</i>	
VP No. <i>6902/959</i>	

990188

THERMAL WITHSTAND CHARACTERISTICS CURVE
720 KW, 6 POLE, 6600 V, DC450U1120 Motor
Customer: M/s Mather & Platt Pumps Ltd.



TORQUE Vs. SPEED CHARACTERISTIC CURVE
720 KW, 6POLE, 6600 V, DC450U1120 MOTOR
Customer: M/s Mather & Platt Pumps Ltd.



Marathon Electric Motors (India) Ltd.

T-S Chart 3

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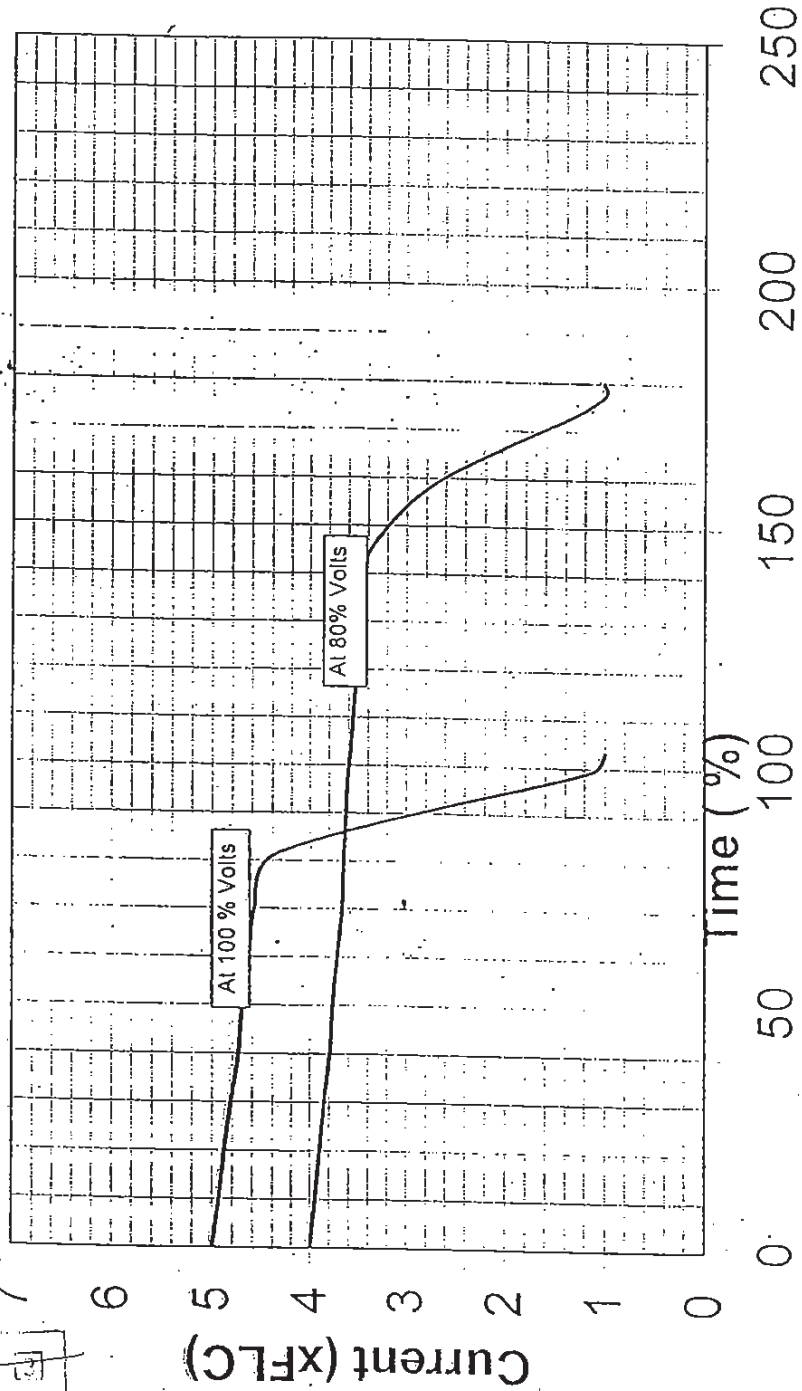
Date: 9/9/2010

VP: 6907/359

Page 1

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Starting Current - % Time curve for 720 KW, 6 Pole, 6.6 KV, DC450U1120 Motor
 Customer: M/s Mather & Platt Pumps Ltd..





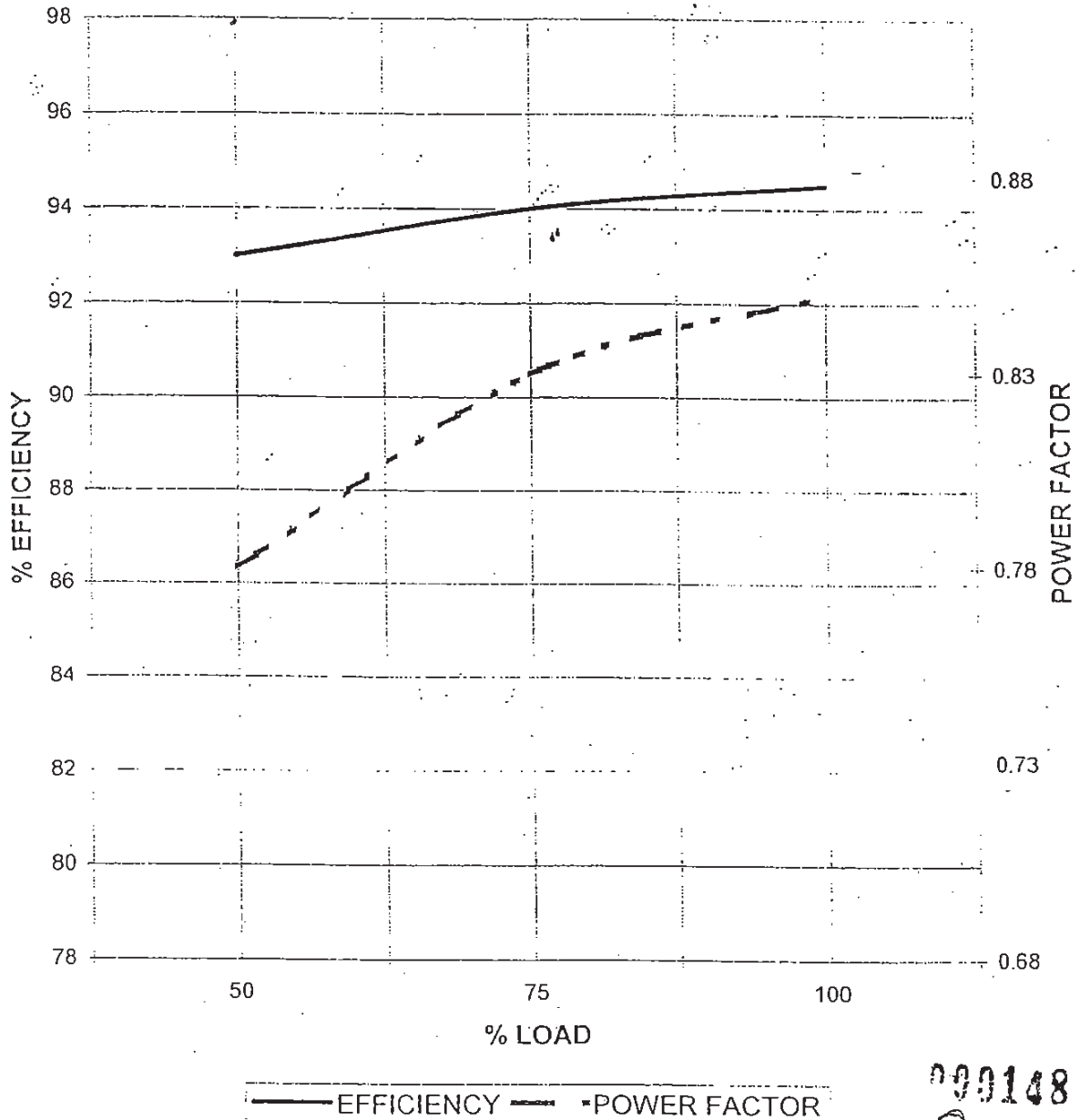
REVISION

6207/959

9/9/2010

000147

EFFICIENCY & POWER FACTOR VS % LOAD CURVE
720KW, 6 POLE, 6600 V, DC450U1120 Motor
CUSTOMER : M/s Mather & Platt Ltd.

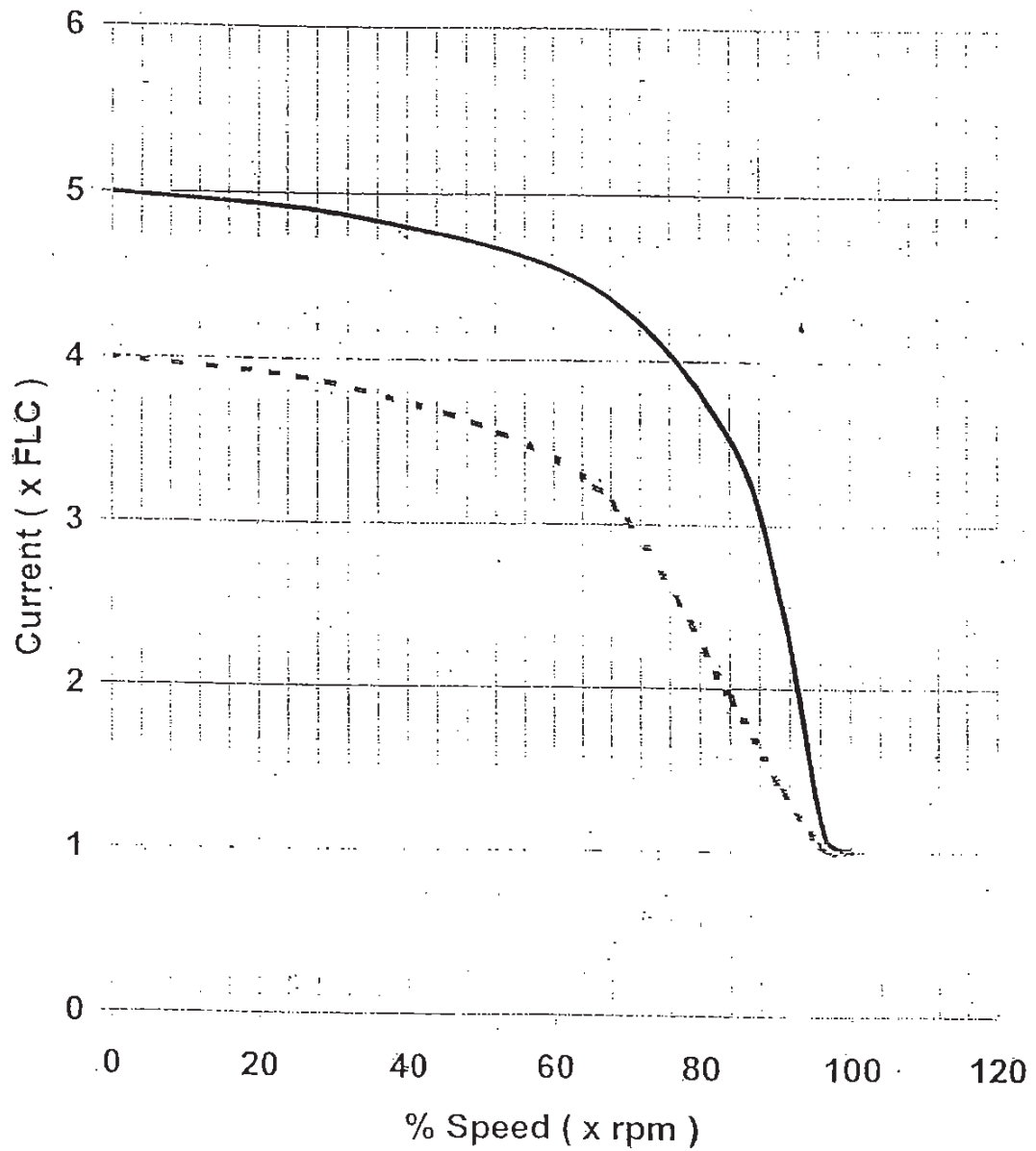


MARATHON ELECTRIC MOTORS (INDIA) LTD. EFF-PF

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(R)

REVIEW CODE	1	2	3	REV:00
समीक्षा कोर Signatures & Name	<i>[Signature]</i>			
हस्ताक्षर एवं नाम				
Date / दिनांक	31/12/2010			
VP No.				
वो पी नं	6907/959			

Current Vs % Speed Characteristic Curve
 720 KW, 6 Pole, 6600 V, DC450U1120 Motor
 Customer : M/s Mather & Platt Pumps Ltd.



— 100 % RV

- - 80% RV

Marathon Electric

REVIEW CODE ☒ 1 ☐ 2 ☐ 3 ☒ (R)

समीक्षा कोर.
 Signatures & Name: [Signature]
 हस्ताक्षर एवं नाम: 9/9/2010
 Date / दिनांक: 9/9/2010
 YP No. 6907/959
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