



CORRIGENDUM NO. 1 TO NOTICE INVITING TENDER

Job Name: Procurement of critical motors for NRL

Tender no.: OC02000154/SAN dated 26.12.2016

CLARIFICATIONS: Following query was raised by intending bidder(s). NRL's clarification to their query is hereby uploaded for information of all.

Query) With reference to your above tender we are to inform you that please provide GAD and data sheet for RFQ Item Sl.No.28 and 29 as the same has to be supplied one to one replacement and without which the same is not possible to match with existing running motors.

NRL's Clarification) Required drawing is as per attached file.

All other entries, terms and conditions of the Tender Document shall remain unchanged.

GM (Commercial & Legal)
Numaligarh Refinery Limited,
Numaligarh, Dist : Golaghat,
Assam – 785 699

Data sheet for High voltage
Squirrel Cage induction motor
ELECTRICAL DESIGN DATA

CCU ID No. 32641

M/S WIL

1	Motor no.	
2	Voltage/frequency	6.6kV/3 phase/50Hz
3	Rated level - kW & duration	250MVA for 0.25 sec.
4	Type of motor/duty	Sq. Cage induction motor/Continuous
5	Ambient temp °C/temp rise °C	40°C/80°C
6	Cable size/type	120
7	Enclosure type/cooling	IP33/TEFC
8	Special provision/standard	IEC standard classification 6.31.31
9	Harmonics classification/D11 group/location	N/A
10	Re-energization/differential protection CT's	N/A
11	Type of I.V. terminal box	Phase separated
12	Method of starting	DOL

Technical particulars from equipment manufacturer

13	Type of driver mounting/suggested kw	HORIZONTAL/326
14	Shaft dia. KW at max load	155/296
15	Speed/rotation of equip from coupling end	991
16	Starting torque required-mkr	23/291
17	Wkt of equipment including/excluding flywheel-km ²	2231
18	Maximum short-circuit/rupture rate	N/A
19	Equipment coupling type	ITD FAN / FLUID COUPLING
20	Manufacturer	ABB

Technical particulars from motor manufacturer

21	Manufacturer	KIRLOSKAR ELECTRIC CO. LTD. (MUMBAI)
22	KW Rating/angle	326/6
23	Frame designation/mounting	SCX 400F
24	Full load current(A)	37
25	Full load speed/rotation-mkr	991 rpm / 320 kg-m.
26	Type of enclosure/cooling	IP55 / IC 411
27	Insulation class	F
28	Starting/locked torque as % of full load torque	125 / 260 %
29	Full load line current	550 % Sub. to I.S. 325 Td. 11
30	Rotation speed from non-driving end	Bi-directional
31	Starting time at 80% and 100% voltage(sec)	8.0/3.0 Considering Primary load $G.D^2 = 84 kg m^2$
32	Locked rotor with stand time(when) sec	35/26
33	Wkt of motor-km ²	21.0
34	Power factor at 100/75% load	0.84 / 0.78
35	Efficiency at 100/75% load	94.5 / 93.9
36	Max. height of terminals	2000 / 240V
37	Terminal box location of terminals	P.S.T.B. / 3(Main) + 3(N.P.T.B.)
38	Type/size of P.T.D and R.T.D provided	6 wire PT 100 / 6 RTD & 2 RTDs
39	Heating/cooling time constant(min)	45/135
40	Bearing type/size	6326/NU522
41	Lubrication	Depend on grade - 3
42	Weight of motor(kg)(incl/excl motor)	2800 / 1600 / 930
43	Design of insulation	Universal fixed can be changed
44	Conformity to standards	Not provided

Note: 1) This is a preliminary drawing for an air rated supply conditions of substation.
2) This is a preliminary drawing for an air rated supply conditions of substation.
3) This is a preliminary drawing for an air rated supply conditions of substation.

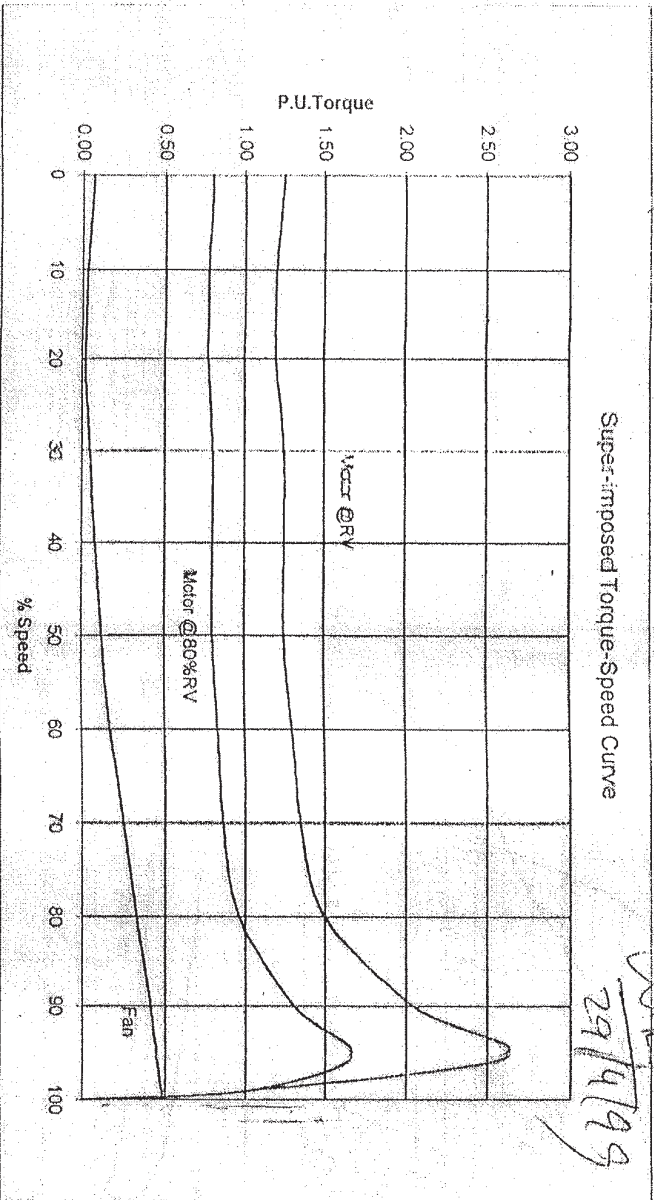
REV	DATE	ISSUED FOR	PURPOSE	BY	CHECKED	APPROVED
1	16.7.97					
ENGINEERS INDIA LIMITED NEW DELHI			Project: Numatigari Refinery (CCU)		DATA SHEET NO. 3244-06-LW-DS-453	
			Client: M/s WIL		Sheet 1 of 1	

HIGH VOLTAGE THREE PHASE INDUCTION MOTOR - PERFORMANCE CURVES

RATING: kW	RPM	FRAME	FL CURRENT %	DUTY	THERMAL WTS TIME SEC	AMBIENT deg C / INSULATION
325.00	991	SCX400F	37.00	S1	HOT - 25, COLD - 35	40 CLASS F (Temp rise into class B)
OA NO	SL NO	TAG NO	CUSTOMER	PROJECT	THERMAL TIME CONST	CONSULTANT
98PNA6072	1		WPL	NRL	45 MIN	ELI/Doc # 3244)

For reference & record only

Super-imposed Torque-Speed Curve



PREPARED: PPN/KEC PUNE

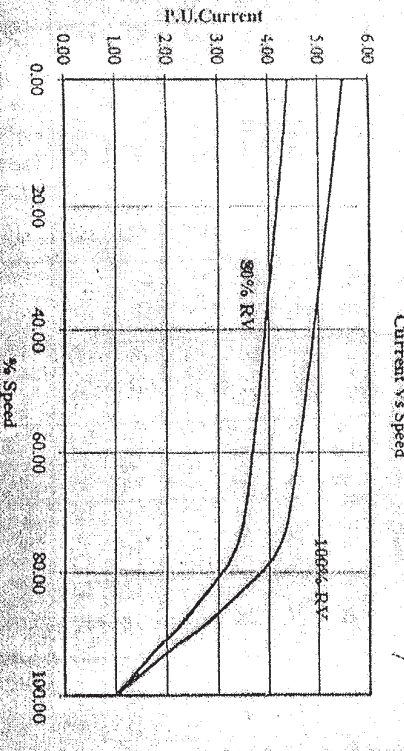
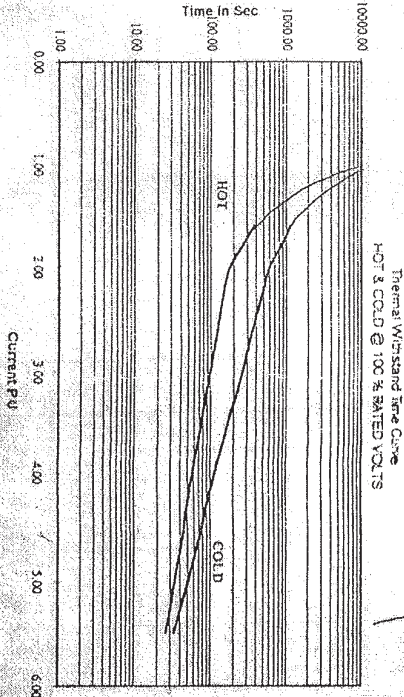
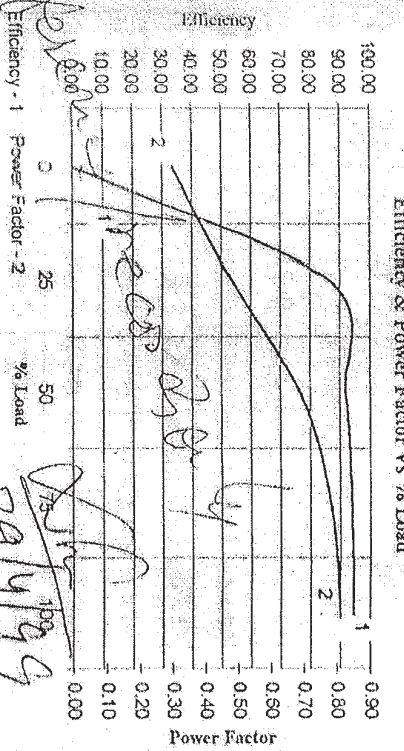
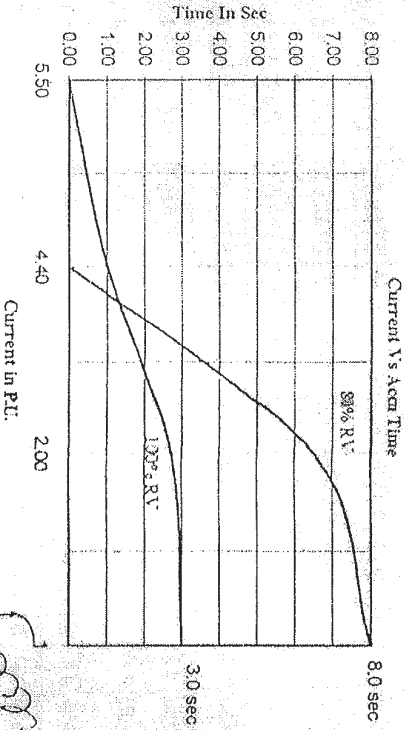
02-Apr-99

REC'D OFFICE: KIRLOSKAR ELECTRIC CO LTD, P.B. NO. 5555, MALLESWARAN WEST, BANGALORE-560 055

Curve No: 98PNA6072/1.1

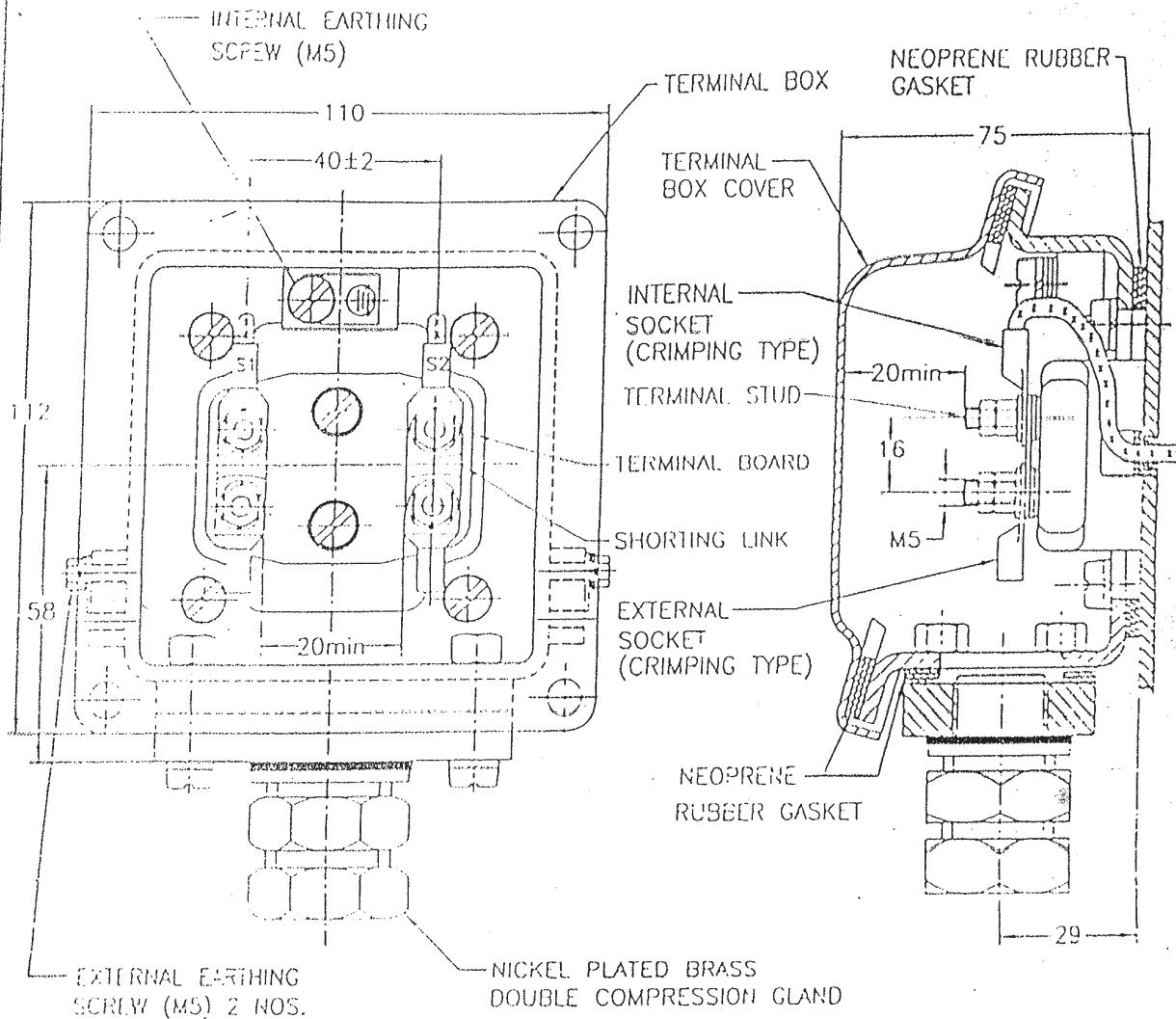
HIGH VOLTAGE THREE PHASE INDUCTION MOTOR - PERFORMANCE CURVES

RATING-KW	RPN	FRAME	FL CURRENT A	DCTV	THEORETICAL WINDING TIME SEC	AMBIENT deg C / INSULATION
326.00	991	SCV-500F	37.00	S1	HOT = 25, COLD = 35	40 CLASS F (Temp rise 140 to class B)
OA NO	SL NO	TAG NO	CUSTOMER	PROJECT	THEORETICAL TIME CONST	CONSULTANT
98PNA6072	1		WIL	NRL	43 MIN	ELI (Job # 3244)



PREPARED: PPN/KEC PUNE 02-Apr-99 CURVE No: 98PNA6072/L1

RECD OFFICE: KIRLOSKAR ELECTRIC CO LTD, P.B. NO. 555, MALLISWARAM WEST, BANGALORE-560 055



INSIDE VIEW OF TERMINAL BOX
(TERMINAL BOX COVER REMOVED)

For reference only

Xif
20/4/99

1. MINIMUM ELECTRICAL CLEARANCE AND CREEPAGE DISTANCES ARE AS PER BS:4999, PART-145.

CUSTOMER: Water and Power Dept. Ltd
PROJECT: Narmadiganj Refinery

CONSULTANT: P. I. L
JOB No.:

2.	1. 12.5.4 DIM 50 WAS 56, 40±2 WAS 40, 20min WAS 20 & DIM 20min ADDED.	<i>Shw</i>	98/10/06	
1.	1. 12.5.4 2 NOS EXTERNAL EARTHING SCREWS ADDED ON TBOX.	<i>Shw</i>	98/07/29	MKTG. ACM
REV	DATE	BRIEF RECORD		
		SIGNATURE	DATE	PRINTS ISSUED TO.

CUSTOMER / O/A No	99PNA 6006	SCALE	NTS	DRAWN	<i>Shw</i>	25/10/96	
USED ON / TPL				CHECKED	<i>Shw</i>		
				APPROVED	<i>Shw</i>		

TITLE	SPACE HEATER TERMINAL BOX ARRANGEMENT	DRG. NO.	MMD48100 R2/98KBL6043
		SHEET NO.	ONE of ONE