Si'Tarc

Scientific And industrial Testing and Research Centre, Coimbatore-641006

ELECTRICAL TESTING LABORATORY

Code No.

SERVICE REQUEST FORM

Test for OPENWELL SUBMERSIBLE PUMPSET - SPECIFICATION

(As Per s)

IS 14220 : 2018 – Third Revision – (up to and including last amendments)
(For THREE PHASE MOTORS

# Name of the Tes	t item	Open well Submersible Pump set – Three Phase AC Induction Motor			
#Rated Output	kW	#Rated Voltage	V	#Max. Current	А
#Rated Frequency	Hz	#No. of poles	2 / 4	#Rated Speed	rpm
#Winding Connection	Star / Delta / Star Delta	#Category	CAT. A / CAT.B	#Type of Duty	S1
#Type of motor	Induction motor Wet / dry	Winding	Poly. wire / Enamel wire	#Class of Insulation	
#Method of	Wet Type - Water		% of FLT	#Starting Current	% of FLC
Cooling & Liquid / Filling	Water / Oil / Resin	#Starting Torque			
#Leakage		Cable Size /	Sq.mm	Time of Oakla	Flat / Round
Current	mA	Length	m	Type of Cable	
#Bore Size (min.)	mm	Motor Size (OD)	mm	Pump Size (OD)	mm
#No. of Stage(s)		#Head at Nominal Duty Point	m	#Head Range	m
#Delivery Pipe Size	mm	#Overall Efficiency	%	#Discharge at Nominal Duty Point	lps
Motor Eff. Factor	%	#Min. Submergence	m	Star Rating	
#Earthing	Provided / Not Provided	#Terminal marking	Affixed / Not Affixed	#Connection Diagram	Affixed / Not Affixed
#Pump Efficiency(Minimum)		%	Model		
#Manufacturer Motor SI.No			#Pump SI.No.		
Trade mark/Brand			BIS Mark & CM/L N	No. if any	

Note: Rating above 22kW may be declared by the manufacturer (Efficiency shall not less than 22kW value). For 4 Pole Motors, the performance values shall be declared by the manufacturer.

Name and Add	Iress of the Customer in Test Report	Ref Doc	oc. Details :
Name and Ado	Iress of the Customer in Invoice	Contact	ct Person :
		Phone N	No.
MIN No.		Date	
For Si'Tarc		For Cus	ustomer
Date:	Sign & Name	Date:	Sign & Name

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Test Requirements					
SI.No.	Name of the test / Clause No.	Test Required Y/NR	SI.No.	Name of the test / Clause No.	Test Required Y/NR
1.	General (14.1)		8.	Breakaway (Starting) Torque test (Cl.14.10.1 g)	
2.	Insulation Resistance Test (Cl.14.10.1 a)		9.	Leakage current test (Cl.14.10.1 h)	
3.	High Voltage test (Cl.14.10.1 b)		10.	Temp. rise test at rated voltage (Cl.14.10.1 j)	
4.	Measurement of Stator winding resistance test (Cl. 14.10.1 c)		11.	Temperature rise test reduced voltage (Cl.14.10.1 k) (N/A for Cat. A Motor)	
5.	No load test (Cl.14.10.1 d)		12.	Hydrostatic Pressure Test (Cl.15.5)	
6.	Reduced voltage running up test at no load (Cl.14.10.1 e)		13.	Verification of Guarantee (Cl.16)	
7.	Locked rotor test (CI.14.10.1 f)		14.		

*Y- Required, NR – Not Required, ND – Not Described. Put "Y" or "NR "for test requirements, For BIS test requirement attach a Performance declared values for each sample in an authenticated separate sheet. The above details are to be furnished by the customer at the time of submitting the samples for testing.

Note:

1) Kindly issue separate SRF Form for each sample.

2) Marked with a # are Mandatory Fields.

	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Name and Add	dress of the Customer in Test Report	Ref Do	c. Details :	
Name and Address of the Customer in Invoice		Contac	t Person :	
		Phone	Νο	
MIN No.		Date		
For Si'Tarc		For Cu	stomer	
Date:	Sign & Name	Date:		Sign & Name

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Materials of Construction (CI.No.7.1) - Customer Declaration Required / Not Required

SI.No.	Component	Material of Construction	Customer Declaration
	•	Grade X 04 Cr12, X 12 Cr12, X 20 Cr13,	
1	Shaft Sleeve	confirming to IS 1570(Part-5)	
2	Motor Bearing House & Base	Grade FG 200of IS 210	
		Grade X04 Cr 12,X12 Cr 12 or X20 Cr 13,	
3	Motor Shaft	confirming to IS 1570(Part-5) or Grade 40C8 or	
		45C8 confirming to IS 1570 (Part	
		2/Sec 1) Leaded tin Bronze grade. LTB3,4 or 5 of IS 318	
4	Bearing Bush	or resin based carbon or PTFE bonded carbon	
		Electrical sheet steel confirming to IS 648 and	
5	Rotor	electro grade copper	
		Electrical sheet steel confirms to IS 648 and	
6	Stator Core	electro grade copper rods confirming to IS 613	
		or Aluminum die cast rotor confirming to IS 617	
		a). For poly filled motors	
_		b).PVC insulated winding wire confirming to IS	
7	Winding wire	8783	
		c).With polymer insulation such that the test on insulation resistance satisfied	
	Breather and Diaphragm & Cable		
8	gland	Nitrile Rubber	
	Cable	PVC insulated and PVC core flat type	
9		confirming to IS 694 or PVC insulated polymer	
		sheathed 3 core flat type	
	Thrust bearing face combinations	Bronze-ferro-asbestos, brass-ferro tests,	
10		carbon- stainless, bronze suitable elastomer or	
		any other suitable combinations Bronze grade LTB 2,3,4,or 5 of IS 318 or Nitrile	
11	Casing Wear Ring (if provided)	rubber or NBR or Plastic/techno polymer or X	
		04 Cr19Ni-9/10 of IS 6911	
12	Water Drain plug	Bronze/brass/stainless steel/suitable plastics	
		High tensile brass confirming to IS 304 or	
		leaded tin bronze LTB 2 of IS 318 or Cast iron	
13	impeller	FG 200 grade of IS 210 or suitable	
		thermoplastics such as poly phenylene	
		oxide(PPG) polycarobonate , acetal, glass filled	
		nylon 6/nylon 66 PTFE, ABS, Polymer PETP,	
		UHMWPE, rec Cast iron grade of FG 200 of IS 210, Alloy steel	
14	Casing	conforming to IS 3444	
L			

SLFEL097/01.00/01-20

Name and Address of the Customer in Test Report Ref Doc. Details : Name and Address of the Customer in Invoice Contact Person : Name and Address of the Customer in Invoice Phone No. MIN No. Date For Si'Tarc For Customer Date: Sign & Name Sign & Name Date: