

MFR'S LOGO				MANUFACTURER'S NAME & ADDRESS				REFERENCE QUALITY PLAN										PROJECT:			
				Item/Equipment: Elevator Sub-System: Passenger/ Goods				QAP NO. : REV NO. : PAGE NO. :		PACKAGE : MAIN SUPPLIER :		FORMAT OF RECORD		AGENCY		REMARKS					
COMPONENTS & OPERATION		CHARACTERISTICS		CLASS		TYPE OF CHECK		QUANTUM OF CHECK		REFERENCE DOCUMENTS		ACCEPTANCE NORMS		M		C		N		11	
SL. NO.	NO.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1.1	a) L-Guides	Dimension & Visual Physical & Chemical Properties	Major	Major	Measurement Lab Test	Sample per lot	VEND Drawing, VEND Specification	VEND Drawing, IS2062:2006	VEND Inspection Report SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
	b) Raw Materials Stainless sheet	Thickness Length Width Squariness Flatness Free from surface defects Chemical composition Mechanical properties (Tensile, Hardness, % elongation))	Major	Major	Measurement	Sample per lot	VEND Specification	VEND Specification	VEND Inspection Report	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Measurement	-	VEND Specification	VEND Specification	VEND Inspection Report	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Measurement	-	VEND Specification	VEND Specification	VEND Inspection Report	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Measurement	-	VEND Specification	VEND Specification	VEND Inspection Report	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Visual	-	VEND Specification	VEND Specification	VEND Inspection Report	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Visual	-	VEND Specification	VEND Specification	VEND Inspection Report	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	ASTM A240 - 2009	ASTM A240 - 2009	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	ASTM A240 - 2009	ASTM A240 - 2009	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
1.2	a) Gear Internals	No. of starts Dimensions Material composition Mechanical Properties (Tensile, Hardness) Internal defects (UT) on proof m/c condition for dia & thickness > 50 mm & MPI on m/c area	Major	Major	Measurements	Sample per lot	VEND Drawing, EN-19	VEND Drawing, BS 970	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
	b) worm shaft machined		Major	Major	Lab test	-	EN-19	EN-19	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab test	-	ASTM A389/	ASTM E709/IS 3703	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	NDT	100%	ASTM E709/IS 3703	No linear indication	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
	b) worm wheel machined		Major	Major	Measurements	Sample per lot	VEND Drawing, EN-24	VEND Drawing, BS 970	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab test	-	EN-24	EN-24	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	NDT	100%	ASTM A389/	ASTM E709/IS 3703	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
1.3	a) Castings	Visual Dimension Chemical Mechanical Properties including hardness	Major	Major	Measurement	Sample per lot	VEND Drawing, IS 1865 - 1991	VEND Drawing, IS 1865 - 1991	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
	b) Traction Shafts		Major	Major	Lab Test	-	IS 1865 - 1991	IS 1865 - 1991	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	IS 1865 - 1991	IS 1865 - 1991	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
	b) Over speed Governor Wheel		Major	Major	Measurement	Sample per lot	VEND Drawing, IS 1865 - 1991	VEND Drawing, IS 1865 - 1991	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Measurement	-	VEND Drawing, IS 1865 - 1991	VEND Drawing, IS 1865 - 1991	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	IS 1865 - 1991	IS 1865 - 1991	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	IS 1865 - 1991	IS 1865 - 1991	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
	d) Divertors	Visual Dimension Chemical Mechanical Properties including hardness	Major	Major	Measurement	Sample per lot	VEND Drawing, IS 210 - 1993	VEND Drawing, IS 210 - 1993	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Measurement	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	IS 210 - 1993	IS 210 - 1993	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
	d) Gear Box	Visual Dimension Chemical Mechanical Properties	Major	Major	Measurement	Sample per lot	VEND Drawing, IS 210 - 1993	VEND Drawing, IS 210 - 1993	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Measurement	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	IS 210 - 1993	IS 210 - 1993	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do-	SUPPLIER TC	V	V	V	V	V	V	V	V	V	V	V	
			Major	Major	Lab Test	-	-do-	-do													

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SL. NO.	COMPONENTS & OPERATION	CHARACTERISTICS	CLASS	QUANTUM OF CHECK			TYPE OF CHECK	REFERENCE DOCUMENTS			ACCEPTANCE NORMS			FORMAT OF RECORD			AGENCY	REMARKS	
				M	C/N								M	C	N				
1.4	Motor	Make, type & rating Routine test/IOC as per Note 2	Major Major	100%	100%	100%	Verify Measurements	NTPC approved data sheet IEC 34/IS:325	7	9	NTPC approved data sheet IEC 34/IS:325	V	V	V	V	V	V	11 Make as per BOI list	
1.5	all Machinery Unit Assy	Back lash Axial play Run out at brake drum No Load Run Test to check. Vibration Temp rise Oil leakage Noise	Major Major Major Major Major Major Major	100%	100%	100%	Measurements Measurements Measurements Measurements visual Measurements	Approved VEND document Approved VEND document Approved VEND document Approved VEND document Approved VEND document Approved VEND document Approved VEND document	7	9	maximum- 0.2mm maximum- 0.02mm maximum- 0.3mm maximum 1mm/sec maximum 65 deg.C No oil leakage 65 to 70 db	P	V	V	P	V	V	ChP	
1.6	Brake Assembly	Insulation Resistance- before & after HV HV Test Coil resistance Temp. Rise	Major Major Major Major	100%	100%	100%	Measurements Measurements Measurements Measurements	VEND Drawings VEND Drawings VEND Drawings VEND Drawings	7	9	VEND Drawings VEND Drawings VEND Drawings VEND Drawings	V	V	V	V	V	V		
1.7	Travelling Cable (E.R.L.S)	All Routine Test Oxygen & Temp Index Smoke density test Major Lab test Major Lab test Major Hydrogen content Test	Major Major Major Major Major Major	Sample lot Sample lot Sample lot Sample lot Sample lot Sample lot	Sample lot Sample lot Sample lot Sample lot Sample lot Sample lot	Sample lot Sample lot Sample lot Sample lot Sample lot Sample lot	Measurement Lab test Lab test Lab test Lab test Lab test	EN 6014 - 2008 VEND Data sheet VEND Data sheet VEND Data sheet VEND Data sheet VEND Data sheet	7	9	EN 6014 - 2008 VEND Data sheet VEND Data sheet VEND Data sheet VEND Data sheet VEND Data sheet	V	V	V	V	V	V		
1.8	Microprocessor based Controller Assy. With V/F drive system.	Performance Test Functional check & simulation check	Major Major	100%	100%	100%	Visual & Electrical	QATP12 and VEND Wiring Diagram	7	9	QATP12 and VEND Wiring Diagram	P	W	W	W	W	ChP		
1.9	Steel Wire Rope	Diameter of ropes No. of Strands & construction Tensile grade Breaking strength	Major Major Major Major	Sample per lot Sample per lot Sample per lot Sample per lot	Sample per lot Sample per lot Sample per lot Sample per lot	Sample per lot Sample per lot Sample per lot Sample per lot	Measurement Visual Lab test Lab test	IS 2365 - 1977 VEND Data sheet IS 2365 - 1977 IS 2365 - 1977	7	9	IS 2365 - 1977 VEND Data sheet IS 2365 - 1977 IS 2365 - 1977	V	V	V	V	V	V		
1.10	Over Speed Governor.	Calibration	Major	100%	100%	100%	Measurement	WIS08 / IS 14665 - 2001	7	9	WIS08 / IS 14665 - 2001	P	W	W	W	W	ChP for Imported OSG Manufacturer's test Certificate will be provided		
1.11	LARD / UPS Controller & Battery	Functional Test Routine test	Major Major	100%	100%	100%	Visual Test	Approved VEND document IS 1554 - 1988	7	9	VEND Specification IS 1554 - 1988/VEND Specification	P	V	V	P	V	V		
1.12	Buffer Springs.	Dimension Spring Rate	Major Major	Sample per lot Sample per lot	Sample per lot Sample per lot	Sample per lot Sample per lot	Measurement Measurement	VEND Drawing, VEND Drawing,	7	9	VEND Drawing, VEND Drawing,	V	V	V	V	V	V		
1.13	AC Car Floor	Dimension	Major	100%	100%	100%	Measurements	Approved VEND document	7	9	VEND Drawings	P	V	V	P	V	V		
	AC Car Ceiling	Dimension	Major	100%	100%	100%	Measurements	Approved VEND document	7	9	VEND Drawings	P	V	V	P	V	V		
	AC Car panels	Dimension	Major	100%	100%	100%	Measurements	Approved VEND document	7	9	VEND Drawings	P	V	V	P	V	V		
				LEGEND : * RECORDS, IDENTIFIED WITH " TICK " SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION ** MANUFACTURER/ SUB SUPPLIER C:MAIN SUPPLIER,N:NTPC, P:PERFORM, W: WITNESS AND V: VERIFICATION AS APPROPRIATE, "ChP" NTPC SHALL INDICATED IN COLOUM "N" AS "W"										DOC.No. :			Rev No. :		
Sub Supplier				Main Supplier										REVIEWED BY					

MFR'S LOGO MANUFACTURER'S NAME & ADDRESS				REFERENCE QUALITY PLAN										PROJECT:	
				Item/Equipment: Elevator Sub-System: Passenger/Goods				QAP NO. : REV NO. : PAGE NO. :		PACKAGE : MAIN SUPPLIER :					
S/L NO.	COMPONENTS & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK		QUANTUM OF CHECK		REFERENCE DOCUMENTS	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY		REMARKS		
1	2	3	4	5	6	7	8	9	10	11	12	13	14		
1.1	Less than 30KW														
Note: Less than 30KW is based on COC of the manufacturer & the contractor confirming as follows: a) It is hereby confirmed that the above mentioned motor/motor was/were manufactured between temp. voltage & frequency variation, hot starts, pull out torque, starting KVA/KW, lamp rise, distance between centre of stud and gland plate & tested accordance with approved drawing/ datasheet. b) 30KW & above upto 50 KW acceptance of Motor rating between 30KW & 50KW based on NTPC review of routine test inspection report as per IS 325 witnessed by main contractor along with COC of the manufacturer & the contractor confirming as follows: c) It is hereby confirmed that the above mentioned motor/motor was/were manufactured taking care of NTPC specific requirement regarding ambient temp, voltage & frequency variation, hot starts, pull out torque, starting KVA/KW, lamp rise, distance between centre of stud & gland plate, space heater and tested in accordance with approved drawing/ data sheet															
1.14	Contactor Power & Control	Physical Operational	Major	Visual	100% Sample per lot	100% Sample per lot	100% Sample per lot	VEND Specification	VEND Specification	VEND Inspection Report	V -	V -			
1.15	Miniature Circuit Breakers	Physical Operational	Major	Visual	100% Sample per lot	100% Sample per lot	100% Sample per lot	IS 8828 - 1996	IS 8828 - 1996	Supplier TC	V -	V -			
1.16	Voltage Transformer	Physical Voltage Ratio IR/HV	Major	Visual	100% Sample per lot	100% Sample per lot	100% Sample per lot	IS 6297 - 1971	IS 6297 - 1971	Supplier TC	V -	V -			
1.17	Assembled PCB	Continuity / Performance / Burn test in energized condition/Routine Tests A) Component identity B) Orientation of components C) Soldering D) Functional test E) Temp. test 70 Deg C for 24 hrs power on F) Temp. test 40 Deg C, 95% RH, 24 Hrs	Major	Elect.	Sample per lot	Sample per lot	Sample per lot	VEND Work Instructions	VEND Work Instructions	VEND Inspection Report	P	V			
1.18	PVC Cables (EFLS)	All Routine Test Oxygen & Temp Index Smoke density test Halogen content Test Swedish Chimney Test	Major	Measurement	Sample per lot	Sample per lot	Sample per lot	IS 694 - 1990	IS 694 - 1990	SUPPLIER TC	V	V			
1.19	Infrared Door Curtain	Functional Test	Major	Visual	Sample per lot	Sample per lot	Sample per lot	VEND Specification	VEND Specification	SUPPLIER TC	P	V			
1.20	Rope Elk	Dimension, Chemical Composition Breaking strength	Major	Measurement	Sample per lot	Sample per lot	Sample per lot	VEND Drawings	VEND Drawings	VEND Inspection Report	P	V			
1.21	Car Sling a) Upper & lower beam b) Sling verticals	Dimension	Major	Measurements	100%	100%	100%	VEND Drawings	VEND Drawings	VEND Inspection Report	P	V			
1.22	Car & Land Doors	Dimensions	Major	Measurements	100%	100%	100%	VEND Drawings	VEND Drawings	VEND Inspection Report	P	V			
1.23	Car & Land Push Boxes	Floor Designation and Operational Check	Major	Visual/Electrical	100%	100%	100%	VEND Drawing	VEND Drawing	VEND Inspection Report	P	V			
1.24	Door operator assembly	Dimensions	Major	Measurements	100%	100%	100%	Approved VEND document	Approved VEND document	VEND Inspection Report	P	V			
LEGEND: * RECORDS, IDENTIFIED WITH "TICK" SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION ** M:MANUFACTURER/ SUB SUPPLIER C:MAIN SUPPLIER,N:NTPC, P:PERFORM, W: WITNESS and V: VERIFICATION AS APPROPRIATE. "CHP" NTPC SHALL INDICATED IN COLOUM "N" AS "W"															
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