







OWNER:  شرکت سست و سویی توهمه ایرانیان (سهامی عامه)	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR:  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		
	COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT AIR COMPRESSOR								
MC :  شرکت سست و سویی توهمه ایرانیان (سهامی عامه)	Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
Owner Document Number: 17811-10B	BU	20	VD	303	EL	DSH	0099	Rev.:	Page
								04	1 of 4

## COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT AIR COMPRESSOR

 شرکت سست و سویی توهمه ایرانیان (سهامی عامه)	 Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT
<b>Document Review</b>		
Issue Purpose:	AFC	
Result Code: AP,AN,CM,RE,NC	AN	
Next Status : IFC,IFA,IFI,AFC,AB	AFC	
Responsible Department	MECHANICAL	
Commented Date	Jan/20/2022	
<b>Approval or review hereunder shall not be construed to relieve Vendor / Subcontractor of his responsibilities and liability under the contract.</b>		

04	06/01/2022	Approved for Construction	KP	LDM	PW	
03	09/11/2021	Approved for Construction	KP	LDM	PW	
02	14/10/2021	Approved for Construction	KP	LDM	PW	
01	20/09/2021	For approval	KP	LDM	PW	
00	24/06/2020	For approval	KP	LdM	PW	
Rev	Date	Purpose of Issue	Prepared	Checked	Approved	AC Code
					Class: 1	Phase: P






OWNER: 		BUSHEHR PETROCHEMICAL COMPANY MEG PLANT					EPC CONTRACTOR: 			
MC: 		<b>COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT AIR COMPRESSOR</b>					VENDOR: 			
Project							Area	Phase	Unit	Dis.
Document Number:		BU	20	VD	303	EL	DSH	0099	Rev.: 04	Page: 3 of 4
General Design Data	Tag Nos :		20-C-7080-M		Manufacturer :		WEG			
	QTY. :		1		Plant Location :		Busher			
	Client :		Bushehr Petrochemical Company		Purchase Order No. :		-			
	Applicable Document					Environmental Condition				
	Project Specification :			BU-20-D-000-EL-SPC-521		Location :		Outdoor		
	Paint Specification :			BU-20-D-000-PI-SPC-409		Ambient Air Temperature :		Min. 5°C		Max. 52°C
	Applicable Standard :			IEC 60034		Humidity :		80%		
						Altitude :		8.5m above Sea Level		
						Area Classification(IEC 60079-10) :		Zone 2, IIB, T3		
	Power System									
System Voltage & Variations :			400V ± 5%		System Earthing :		Solidly Earthed			
System Frequency & Variations :			50Hz ± 2%		Short circuit capacity at input :					
Basic Data	Particulars of Equipment		Unit	Purchaser's Requirements			Vendor's Data			
	Frame Size			VTA			160ML			
	Rated Voltage		V	400			400			
	Rated Frequency		Hz	50			50			
	Required Shaft Brake Power		KW	*			11,5			
	Rated Power		KW	*			15			
	No. of Phases			3 phases			3			
	Duty / Service Factor			S1 / 1			S1			
	No. of Poles / Synchronous Speed			*			4 / 1500			
	Stator Connection			Delta			Delta			
	Insulation Class			Class F			F			
	Design Temperature			48 °C			55			
	Temperature Rise			Class B			B			
	Ingress Protection Classification (IEC 60529)			IP55			IP56			
Cooling Type (IEC 60034-6)			TEFC, IC 411			TEFC				
Performance Characteristics	Full Load Current		A	VTA			29,2			
	Efficiency (FL / 3/4 FL / 1/2FL)		PU	VTA			93,9 / 92,7 / 91,9			
	Power Factor (FL / 3/4 FL / 1/2FL)		PU	VTA			0,79 / 0,72 / 0,79			
	Full Load Turque		Nm	VTA			96,9			
	Break Down Torque		%	VTA			360			
	Pull Up Torque		%	VTA			255			
	Full Load Speed		rpm	VTA			1479			
	Slip at Full Load / 75% Load		%	VTA			1,4			
	Over Speed Capability			VTA			No overspeed capability			
	No Load Losses			VTA			Information not available			
Starting Characteristics	Starting Method			VTA			DOL			
	Starting Performance (IEC60034-12)			VTA			8,6			
	Maximum Allowable Stall Time (Hot / Cold)			VTA			3 / 2			
	Maximum No. of Successive Starts			VTA			3			
	Starting Current		PU	VTA			8,6			
	Starting Current		A	VTA			251,2			
	Locked Rotor Power Factor		PU	VTA			0,5			
	Locked Rotor Torque		%	VTA			320			
	Run-Up Time		Sec.	VTA			8			
	Allowable Run-Up Time from Cold State		Sec.	VTA			34			
Allowable Run-Up Time from Hot State		Sec.	VTA			19				
Hazardous Area Certification	Motor Explosion Protection Type / Gas Group / Temp. Class		--	Ex d IIB T3			Ex d IIB T4			
	Terminal Boxes Explosion Protection Type / Gas Group / Temp. Class		--	Ex d IIB T3			Ex d IIB T4			
	Ex "e" Motor t <sub>0</sub> Time		Sec.	VTA			N/A			
	Recommended Thermal O/L Relay			VTA			10			
	Certifying Authority		--	VTA			as per IECex certificate			

According to Curve document:  
320%

It is not logical !  
Allowable Run-up time is greater than this!

It shall be checked by vendor again.

OWNER:		BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR:		
		<b>COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT AIR COMPRESSOR</b>								
										
MC :		Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
Document Number:		BU	20	VD	303	EL	DSH	0099	Rev.: 04	Page: 4 of 4
Mechanical Detail	Particulars of Equipment		Unit	Purchaser's Requirements			Vendor's Data			
		Mounting (IEC 60034-7)			*			B3T		
	Stator Frame Material			Ferromagnetic Material			Ferromagnetic Material			
	Enclosure Material			Sheet Steel/ Cast Iron			cast iron			
	Rotor Cage Material			Copper/ Die Cast Aluminium			Die cast aluminium			
	Cooling Fan Material			Aluminium, Cast Iron, Steel, Brass, Bronze			aluminium			
	Rotation Facing Drive End (CW/CCW)			*			Both			
	Finish Color			Gentian Blue RAL-5010			Ral 5010			
	Motor Weight		Kg	VTA			211			
	Rotor (Uncoupled) Inertia		Kg.m2	VTA			0,1813			
	Driven Load Inertia (Related to Motor Speed )		Kg.m2	*			TBC			
	Coupling Type			Direct/ Gear Box/ Pulley			Pulley			
	Maximum Sound Pressure Level at one Meter (Full Load)		dB(A)	Comply with IEC 60034-9 & Note 5			61			
	Sound Power level		dB	VTA			N/A			
	Noise Silencer		Yes/No	VTA			No			
	Integral Breather / Drain (IEC60034-5)		Yes/No	VTA			No			
	Drive End Bearing Type/ Make & Size			VTA			NU309-C3			
	No. of Drive End Bearings			VTA			1			
	None Drive End Bearing Type / Make & Size			VTA			6308-C3			
	No. of None Drive End Bearings			VTA			1			
	Method of Bearing Lubrication			VTA			grease nipple			
	Bearing Ingress Protection (IEC 60529)			IP55			IP55			
	Minimum Bearing Lifetime, Motor Only		hr	40000			40000			
	Maximum Relubrication Interval		hr	4000/2000 for horizontal/vertical motors			20000			
	Shaft			Extended / Solid / Hollow			solid			
	Max. Shaft Voltage		mV rms	VTA			N/A			
	Insulated Bearings		Yes/No	(Note 4)			No			
	Bearing Insulation Rating		KV	VTA			N/A			
	Rotor Axial Float		+ / - mm	VTA (If applicable)			N/A			
	Vibration at No Load, Self Mounted, Peak to Peak		mm/S	VTA (Comply with IEC 60034-14)			as per IEC 60034-14			
	Critical Speed		rpm	(Note 6 )			N/A			
	Lifting Lug		Yes/No	Yes			Yes			
Accessories	Anti Condensation Heater		Yes/No	No			No			
	Anti Condensation Heater Power		W	-			N/A			
	Anti Condensation Heater Voltage		VAC	-			N/A			
	Winding Temperature Detector		Yes/No	No			No			
	Bearing Temperature Detector		Yes/No	No			No			
	Frame Earth / Terminal Box Earth		Yes/No	Yes (External Stud /Internal Terminal)			Yes (External Stud /Internal Terminal)			
	Accelerometer Shock Pulse Measurement Device		Yes/No	VTA			No			
	Anti Rotational Device		Yes/No	VTA			No			
	Vibration Switch		Yes/No	VTA			No			
	Sun Canopy		Yes/No	VTA			No			
Terminal Box & Cable Connection	Differential Protection CT's in Neutral Terminal Box		Yes/No	NO			No			
	Ingress Protection of Terminal Box		--	IP55			IP56			
	Power Terminal Box Type		--	Phase Insulated			Phase (air) Insulated			
	Power Terminal Box Location (IEC 60034-7)		--	Top or Right (looking from drive end)			Top			
	Power Cable Type		--	Cu/XLPE/SWA/PVC			Cu/XLPE/SWA/PVC			
	Power Cable No. & Size		--	**			4 x 6 Sqmm			
	Power Cable Gland & Entries		--	**			1 x M25			
	Power Cable Entry Direction		--	**			side entry			
	Heater Cable Type		--	-			N/A			
	Heater Cable No. & Size		--	-			N/A			
Heater Cable Gland & Entry		--	-			N/A				
Instrument Cable Type		--	**			N/A				
Instrument Cable No. & Size		--	**			N/A				
Instrument Cable Gland & Entry		--	**			N/A				

Note 1: Vendor to Advise

Note 2: (\*) in "Purchaser Requirement" column should be filled out by driven equipment vendor.

Note 3: (\*\*) Will be informed to motor vendor after receiving preliminary motor data.

Note 4: The shaft voltage shall not exceed 300mV RMS, unless bearings shall be fully insulated from the motor carcass and/or bedplate to prevent a flow of shaft current.

Note 5: The sound pressure level of the loaded machine shall not exceed 77 dB(A) in the work area, measured in accordance with ISO 1680.

Note 6: The machine shall have a rigid, under critical rotor-bearing system with first critical speed not lower than 125 % of the synchronous speed.