











OWNER:  شرکت سست و سویی توستر ایرانیاان (سهایی نیاان)	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 توستر ایرانیاان سهایی نیاان	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
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COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT AIR COMPRESSOR

05	31/01/2022	Approved for Construction	KP	LDM	PW	
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:		COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT AIR COMPRESSOR						 CHEMICAL CONSTRUCTION PROJECT BUSHEHR PETROCHEMICAL COMPANY MEG PLANT PROJECT	
								VENDOR:	
Document Number:		Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445
		BU	20	VD	303	EL	DSH	0099	Rev.: 05
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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 Torque		Nm	VTA		96,9			
	Break Down Torque		%	VTA		360			
	Pull Up Torque		%	VTA		320			
	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		watt	VTA		Information not available			
Starting Characteristics	Starting Method			Direct on Line		DOL			
	Starting Performance (IEC60034-12)			VTA		8,6			
	Maximum Allowable Stall Time (Hot / Cold)		Sec.	VTA		19 / 34			
	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		5			
	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 _e Time	Sec.		VTA		N/A			
	Recommended Thermal O/L Relay			VTA		10			
Certifying Authority		--		VTA		as per IECex certificate			

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		Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
Document Number:		BU	20	VD	303	EL	DSH	0099	Rev.: 05	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		
Differential Protection CT's in Neutral Terminal Box			Yes/No	NO			No			
Terminal Box & Cable Connection	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.