













OWNER:  شرکت سست و سویی توهمه ایران (سهامی خاص)	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						 Netherlands		
MC :  شرکت سست و سویی توهمه ایران (سهامی خاص)	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

		<span style="border: 1px solid red; padding: 2px;">Approve For Construction</span>					
02	14/10/2021	<del>For approval</del>		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: 		<b>BUSHEHR PETROCHEMICAL COMPANY MEG PLANT</b>						EPC CONTRACTOR: 		
MC: 		<b>COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT AIR COMPRESSOR</b>						VENDOR: 		
		Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
<b>Document Number:</b>		BU	20	VD	303	EL	DSH	0099	Rev.: 02	Page: 3 of 4
<b>General Design Data</b>	Tag Nos :	<b>20-C-7080-M</b>			Manufacturer :	<b>WEG</b>				
	QTY. :	<b>1</b>			Plant Location :	<b>Busher</b>				
	Client :	<b>Bushehr Petrochemical Company</b>			Purchase Order No. :	<b>-</b>				
	<b>Applicable Document</b>				<b>Environmental Condition</b>					
	Project Specification :	BU-20-D-000-EL-SPC-521			Location :	<b>Outdoor</b>				
	Paint Specification :	BU-20-D-000-PI-SPC-409			Ambient Air Temperature :	<b>Min. 5°C</b>		<b>Max. 52°C</b>		
	Applicable Standard :	<b>IEC 60034</b>			Humidity :	<b>80%</b>				
					Altitude :	<b>8.5m above Sea Level</b>				
					Area Classification(IEC 60079-10) :	<b>Zone 2, IIB, T3</b>				
	<b>Power System</b>									
System Voltage & Variations :	<b>400V ± 5%</b>			System Earthing :	<b>Solidly Earthed</b>					
System Frequency & Variations :	<b>50Hz ± 2%</b>			Short circuit capacity at input :						
<b>Basic Data</b>	<b>Particulars of Equipment</b>		<b>Unit</b>	<b>Purchaser's Requirements</b>			<b>Vendor's Data</b>			
	Frame Size			<b>VTA</b>			160ML			
	Rated Voltage		V	<b>400</b>			400			
	Rated Frequency		Hz	<b>50</b>			50			
	Required Shaft Brake Power		KW	<b>*</b>			11,5			
	Rated Power		KW	<b>*</b>			15			
	No. of Phases			<b>3 phases</b>			3			
	Duty / Service Factor			<b>S1 / 1</b>			S1			
	No. of Poles / Synchronous Speed			<b>*</b>			4 / 1500			
	Stator Connection			<b>Delta</b>			Delta			
	Insulation Class			<b>Class F</b>			F			
	Design Temperature			<b>48 °C</b>			55			
	Temperature Rise			<b>Class B</b>			B			
	Ingress Protection Classification (IEC 60529)			<b>IP55</b>			IP56			
Cooling Type (IEC 60034-6)			<b>TEFC, IC 411</b>			TEFC				
<b>Performance Characteristics</b>	Full Load Current		A	<b>VTA</b>			28,5			
	Efficiency (FL / 3/4 FL / 1/2FL)		PU	<b>VTA</b>			93,9 / 96,6 / 92,7			
	Power Factor (FL / 3/4 FL / 1/2FL)		PU	<b>VTA</b>			0,81 / 0,75 / 0,63			
	Full Load Torque		Nm	<b>VTA</b>			97,2			
	Break Down Torque		%	<b>VTA</b>			320			
	Pull Up Torque		%	<b>VTA</b>			255			
	Full Load Speed		rpm	<b>VTA</b>			1475			
	Slip at Full Load / 75% Load		%	<b>VTA</b>			1,67			
	Over Speed Capability			<b>VTA</b>			No overspeed capability			
	No Load Losses		watt	<b>VTA</b>			Information not available			
<b>Starting Characteristics</b>	Starting Method			<b>Direct on Line</b>			DOL			
	Starting Performance (IEC60034-12)			<b>VTA</b>			8,4			
	Maximum Allowable Stall Time ( Hot / Cold)			<b>VTA</b>			3 / 2			
	Maximum No. of Successive Starts			<b>VTA</b>			3			
	Starting Current		PU	<b>VTA</b>			8,4			
	Starting Current		A	<b>VTA</b>			239			
	Locked Rotor Power Factor		PU	<b>VTA</b>			0,5			
	Locked Rotor Torque		%	<b>VTA</b>			300			
	Run-Up Time		Sec.	<b>VTA</b>			8			
	Allowable Run-Up Time from Cold State		Sec.	<b>VTA</b>			56			
	Allowable Run-Up Time from Hot State		Sec.	<b>VTA</b>			31			
	<b>Hazardous Area Certification</b>	Motor Explosion Protection Type / Gas Group / Temp. Class		--	<b>Ex d IIB T3</b>			Ex d IIB T4		
Terminal Boxes Explosion Protection Type / Gas Group / Temp. Class		--	<b>Ex d IIB T3</b>			Ex d IIB T4				
Ex "e" Motor t <sub>e</sub> Time		Sec.	<b>VTA</b>			N/A				
Recommended Thermal O/L Relay			<b>VTA</b>			10				
Certifying Authority		--	<b>VTA</b>			as per IECex certificate				

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