











OWNER:  شرکت سست و سوزی آبرسانان (سهایی نظامی)	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR:  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		
	COMPRESSOR MOTOR DATA SHEET FOR NITROGEN GAS BOOSTER								
MC : 	Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
Owner Document Number: 17811-10A	BU	20	VD	303	EL	DSH	0051	Rev.:	Page
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## COMPRESSOR MOTOR DATA SHEET FOR NITROGEN GAS BOOSTER

 شرکت سست و سوزی آبرسانان	 Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT
<b>Document Review</b>		
Issue Purpose:	AB	
Result Code: AP,AN,CM,RE,NC	AP	
Next Status : IFC,IFA,IFI,AFC,AB	-	
Responsible Department	MECHANICAL	
Commented Date	May.06,2023	
<b>Approval or review hereunder shall not be construed to relieve Vendor / Subcontractor of his responsibilities and liability under the contract.</b>		

06	26/04/2023	As Built	KP	LDM	PW	
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	For approval	KP	LDM	PW	
01	20/09/2021	For approval	KP	LDM	PW	
00	08/12/2020	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>Motor Data Sheet (Item No: P-2007 A/B)</b>						VENDOR: 	
Document Number:		Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445
		BU	20	VD	303	EL	DSH	0051	Rev.: 06
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General Design Data	Tag Nos :	20-C-1002-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			225S/M		
	Rated Voltage		V	400			400		
	Rated Frequency		Hz	50			50		
	Required Shaft Brake Power		KW	*			37		
	Rated Power		KW	*			45		
	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			IP55			
Cooling Type (IEC 60034-6)			TEFC, IC 411			TEFC			
Performance Characteristics	Full Load Current	A	VTA			85,1			
	Efficiency (FL / 3/4 FL / 1/2FL)	PU	VTA			95,4 / 94,8 / 94,1			
	Power Factor (FL / 3/4 FL / 1/2FL)	PU	VTA			0,80 / 0,74 / 0,61			
	Full Load Torque	Nm	VTA			290			
	Break Down Torque	%	VTA			400			
	Pull Up Torque	%	VTA			370			
	Full Load Speed	rpm	VTA			1484			
	Slip at Full Load / 75% Load	%	VTA			1,07			
	Over Speed Capability		VTA			No overspeed capability			
	No Load Losses	watt	VTA			290			
Starting Characteristics	Starting Method		Direct on Line			DOL			
	Starting Performance (IEC60034-12)		VTA			8,3			
	Maximum Allowable Stall Time (Hot / Cold)		VTA			19 / 35			
	Maximum No. of Successive Starts		VTA			3			
	Starting Current	PU	VTA			9,4			
	Starting Current	A	VTA			800			
	Locked Rotor Power Factor	PU	VTA			0,42			
	Locked Rotor Torque	%	VTA			370			
	Run-Up Time	Sec.	VTA			6			
	Allowable Run-Up Time from Cold State	Sec.	VTA			35			
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			

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	Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
<b>Document Number:</b>	BU	20	VD	303	EL	DSH	0051	Rev.: 06	Page: 4 of 4

	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>	561
	Rotor (Uncoupled) Inertia	Kg.m2	<b>VTA</b>	0,7346
	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>	63
	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>	6314-C3
	No. of Drive End Bearings		<b>VTA</b>	1
	None Drive End Bearing Type / Make & Size		<b>VTA</b>	6314-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>	7000
	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>	Phase (Air) Insulated
	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 25 Sqmm
	Power Cable Gland & Entries	--	<b>**</b>	1 x M40
	Power Cable Entry Direction	--	<b>**</b>	Side
	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.