
















OWNER:  شرکت سست و سویی توهم ایرانیان (سهامی خاص)	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR:  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		
	COMPRESSOR MOTOR DATA SHEET FOR NITROGEN GAS BOOSTER							 Netherlands	
MC :   شرکت سست و سویی توهم ایرانیان (سهامی خاص)	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 سویی توهم ایرانیان  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		BUSHEHR PETROCHEMICAL COMPANY MEG PLANT	
Document Review			
Issue Purpose:	AFC		
Result Code: AP,AN,CM,RE,NC	AP		
Next Status : IFC,IFA,IFI,AFC,AB	AB		
Responsible Department	MECHANICAL		
Commented Date	11/16/2021		
Approval or review hereunder shall not be construed to relieve Vendor / Subcontractor of his responsibilities and liability under the contract.			

Rev	Date	Purpose of Issue	Prepared	Checked	Approved	AC Code
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	
Class: 1 Phase: P						

OWNER: 		BUSHEHR PETROCHEMICAL COMPANY MEG PLANT					EPC CONTRACTOR: 			
MC: 		Motor Data Sheet (Item No: P-2007 A/B)					VENDOR: 			
Document Number:		Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
		BU	20	VD	303	EL	DSH	0051	Rev.: 03	Page: 3 of 4
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			83				
	Efficiency (FL / 3/4 FL / 1/2FL)	PU	VTA			95,4 / 95,0 / 94,2				
	Power Factor (FL / 3/4 FL / 1/2FL)	PU	VTA			0,82 / 0,74 / 0,62				
	Full Load Torque	Nm	VTA			290				
	Break Down Torque	%	VTA			330				
	Pull Up Torque	%	VTA			245				
	Full Load Speed	rpm	VTA			1485				
	Slip at Full Load / 75% Load	%	VTA			1				
	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			3 / 2				
	Maximum No. of Successive Starts		VTA			3				
	Starting Current	PU	VTA			8,3				
	Starting Current	A	VTA			688				
	Locked Rotor Power Factor	PU	VTA			0,5				
	Locked Rotor Torque	%	VTA			290				
	Run-Up Time	Sec.	VTA			8				
	Allowable Run-Up Time from Cold State	Sec.	VTA			27				
	Allowable Run-Up Time from Hot State	Sec.	VTA			15				
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 ₀ 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	
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	Particulars of Equipment	Unit	Purchaser's Requirements	Vendor's Data
Mechanical Detail	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	561
	Rotor (Uncoupled) Inertia	Kg.m2	VTA	0,7346
	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	63
	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	6314-C3
	No. of Drive End Bearings		VTA	1
	None Drive End Bearing Type / Make & Size		VTA	6314-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	7000
	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 25 Sqmm
	Power Cable Gland & Entries	--	**	1 x M40
	Power Cable Entry Direction	--	**	Side
	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.