



**BUSHEHR PETROCHEMICAL COMPANY
MEG PLANT**



**COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT
AIR COMPRESSOR**






Owner Document Number:
17811-10B

Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
BU	20	VD	303	EL	DSH	0099	Rev.: 00	Page 1 of 5

~~**COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY
INSTRUMENT**~~

**COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT
AIR COMPRESSOR**




00	24/06/2021	For approval	KP	JL	JR		
Rev.	Date	Purpose of Issue	Prepared	Checked	Approved	AC Code	
							Class: 1 Phase: p

OWNER:  شرکت پتروشیمی بوشهر BPCC	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR:  Netherlands		
	COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT AIR COMPRESSOR								
MC :  شرکت سمت و سوی توسعه ایرانیان	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
								00	2 of 5




TABULATION OF REVISED PAGES

Page	D00	D01	D02	D03	D04
1.	X				
2.	X				
3.	X				
4.	X				
5.	X				
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					
31.					
32.					
33.					
34.					

Page	D00	D01	D02	D03	D04
35.					
36.					
37.					
38.					
39.					
40.					
41.					
42.					
43.					
44.					
45.					
46.					
47.					
48.					
49.					
50.					
51.					
52.					
53.					
54.					
55.					
56.					
57.					
58.					
59.					
60.					
61.					
62.					
63.					
64.					
65.					
66.					
67.					
68.					

OWNER: 		BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR: 			
MC: 		COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT AIR COMPRESSOR						VENDOR: LOGO VENDOR			
Project		Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445			
Document Number:		BU	20	VD	303	EL	DSH	0099	Rev.: 00	Page: 3 of 5	
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				
	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			28,5				
	Efficiency (FL / 3/4 FL / 1/2FL)		PU	VTA			93,9 / 96,6 / 92,7				
	Power Factor (FL / 3/4 FL / 1/2FL)		PU	VTA			0,81 / 0,75 / 0,63				
	Full Load Turque		Nm	VTA			97,2				
	Break Down Torque		%	VTA			320				
	Pull Up Torque		%	VTA			255				
	Full Load Speed		rpm	VTA			1475				
	Slip at Full Load / 75% Load		%	VTA			1,67				
	Over Speed Capability			VTA			N/A				
	No Load Losses		watt	VTA			N/A				
Starting Characteristics	Starting Method			Direct on Line			DOL				
	Starting Performance (IEC60034-12)			VTA			8,4				
	Maximum Allowable Stall Time (Hot / Cold)			VTA			3 / 2				
	Maximum No. of Successive Starts			VTA			3				
	Starting Current		PU	VTA			8,4				
	Starting Current		A	VTA			239				
	Locked Rotor Power Factor		PU	VTA			0,5				
	Locked Rotor Torque		%	VTA			300				
	Run-Up Time		Sec.	VTA			8				
	Allowable Run-Up Time from Cold State		Sec.	VTA			56				
Allowable Run-Up Time from Hot State		Sec.	VTA			31					

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

OWNER: 		BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR: 		
MC: 		COMPRESSOR MOTOR DATA SHEET FOR EMERGENCY INSTRUMENT AIR COMPRESSOR						VENDOR: LOGO VENDOR		
Project		Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445		
Document Number:		BU	20	VD	303	EL	DSH	0099	Rev.: 00	Page: 5 of 5
Mechanical Detail	Particulars of Equipment		Unit	Purchaser's Requirements			Vendor's Data			
	Mounting (IEC 60034-7)			*			B3T			
	Stator Frame Material			Ferromagnetic Material			cast iron			
	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 6002			
	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						
	Power Terminal Box Location (IEC 60034-7)		--	Top or Right (looking from drive end)			Top			
	Power Cable Type		--	Cu/XLPE/SWA/PVC			TBC			
	Power Cable No. & Size		--	**			TBC			
	Power Cable Gland & Entries		--	**			TBC			
	Power Cable Entry Direction		--	**			TBC			
	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.