



Oil -Gas

OH2

Chemical process pump

Model

FS-ZE50-2250

((4-P08 A/B))

SR.NO. FS-ZE 19811020

EBARA pumps Europe S.P.A
SEDE LEGALE
38023 CLES (TN)- italy -via Campo Sportivo ,30 Telefono +39 0463 660411
PART. IVA IT 01234660221
R.E.A.N. 124581 TRENTO

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SEDE OPERATIVA E COMMERCIAIE
36053 CABELLARA(VI)- Italy -Via Torri di Confine 2/1int. c Telefono
:+390444706811
E-mail: ebarapums.epe@ebaracom
PEC: amministrazione@pec.ebaraeurope.com

Contact to
Galiano Palatella
Export Sales Manger
+393356423310



Oil -Gas

4-P08A/B	
Requested flow rate	42 m ³ /h
Requested developed head	61.01 m
Pumped medium	heavy gas oil
Temperature	308.0 °C
Fluid density	678 kg/m ³
Fluid viscosity (cP)	0.13
Vapour pressure	2.62 kg/cm ² a
Suction pressure max.	3.18 kg/cm ² g
Efficiency	56.00%
Power Absorbed	15
Pump speed of rotation	2900rpm
NPSH required	2m
Discharge press.	7.21 bar.g
Stuffing box press.	VTA
Shutoff head	70m
Shutoff pressure	8kg/cm ²
Differential pressure	4.03 bar
NPSH available	3.80 m
Ratio Q/Q _{bep}	93.00%
Max. power on curve	14KW
low for continuous stab	VTA
Suction Flange Size & Rating	DN80 5MPa
Discharge Flange Size & Rating	DN050 5MPa
Shaft seal	As Per API 682
Shaft seal manufacture	EBARA
Sealing plan	API plan 23 (VTC)
Bearing bracket size	No. 2bearing box
Coupling Manufacturer	EBARA
Coupling type	Diaphragm coupling
Spacer length	140mm
Driver type	Electric Motor
Drive standard mech.	3-phase Electric Motor
Motor const. type	IBM-160M2-2-15
Motor speed	2985
Frequency	50 Hz
Rated voltage	380
Rated power P2	15KW
Type of protection	EEx de IIC T4
Motor enclosure	IP55
Volute casing (102)	Cast Steel
Casing cover (161)	Cast Steel
Shaft (210)	2Cr13
Impeller (230)	Cast Steel

EBARA pumps Europe S.P.A



User Name :	
Device Name :	
4-PO8 A/B	Quantity : 1
Equipment Name: Chemical Process Pumps	Pump Manufacturer : Ebara oil-Gas
Pump Model: FS-ZE50-2250	

Working Conditions		Material(s)	
Flow rate: 42	m3/h	Pump body: Cast steel	Impeller: Cast steel
Inlet gauge pressure: (rated/maximum)	MPa.G	Shaft: 2Cr13	
Outlet gauge pressure:	MPa.G	Mechanical seal flushing plan: PLAN23+53B	
Lift(H,m) 61.01 m	(NPSH) _a : 3.8 m	Bearing: SKF	Brand: SKF
Usage : <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> intermittent (Number of starts/per day)		Coupling: 180	

Medium

Name: heavy gas oil

Working temperature: 308 °C

Medium density: 678 kg/m³

Viscosity (CP): 0.13

H2S (Hydrogen Sulfide) Concentration (PPM)	Medium Characteristics: <input type="checkbox"/> Corrosive <input type="checkbox"/> Abrasive <input type="checkbox"/> Toxic
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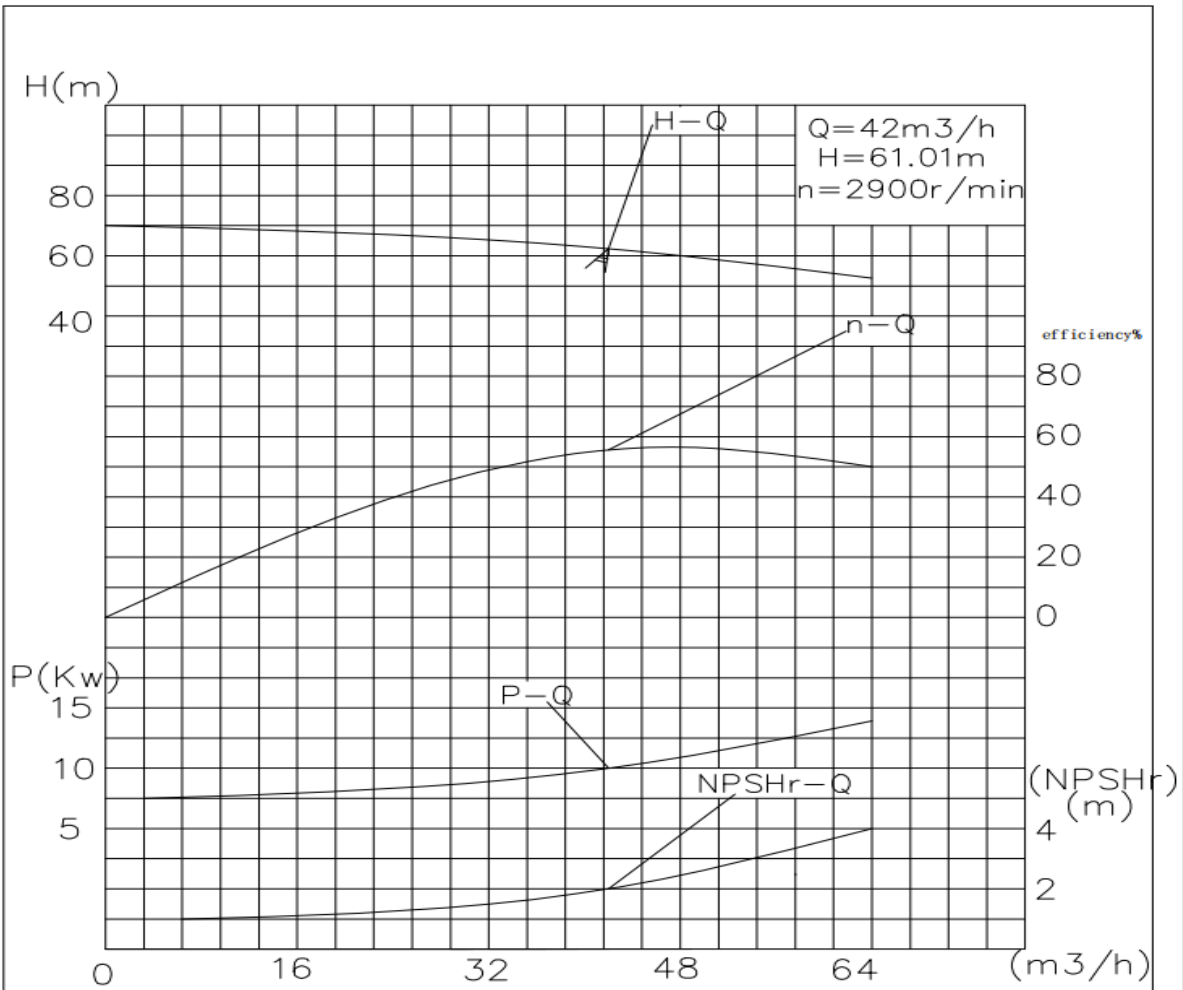
Pump performance and structure

Pump speed of rotation: 2985rpm	Efficiency: 56 %	Shaft power: 10kW
Impeller diameter (rated): 200mm	Impeller diameter (maximum): 250 mm	
Impeller diameter (minimum): 180 mm		
MCSF: 21 m ³ /h	NPSH _r : 2 m	
Maximum head at rated diameter: 68 m		
From rated head to shutoff head: 87%	Head ratio (rated/maximum): 90%	
Flow rate (Best Efficiency Point, BEP): 48 m ³ /h	Flow ratio (rated/BEP): 88 %	
Installation form: <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Horizontal		
Impeller form: <input checked="" type="checkbox"/> Closed <input type="checkbox"/> Open <input checked="" type="checkbox"/> Semi-open		
Pump Casing Split: Axial <input checked="" type="checkbox"/> Radial		
Pump casing type: <input checked="" type="checkbox"/> Single volute <input type="checkbox"/> Double volute <input type="checkbox"/> Guide casing (guide vane)		

Flange standard: GB9111.1-2000	caliber mm	Flange pressure rating	Sealing Face Type	Orientation position	Electric Motor		
					Model: ■	IBM-160M2-2-15	
Suction port	80	5MPa	RF	Horizontal	Explosion-Proof High-Voltage Motor		
Discharge port	50	5MPa	RF	Vertical	Rated power: 15kW	Maximum power:	
Drain port	/	/	/	/	Number of Poles: 2	Speed 2985 rpm	Frequency: 50 Hz
Pump casing design pressure: 5 MPa		Pump Casing Hydrostatic Test: 7.5 MPa			Voltage: 380 V	Number of phases : 3 PH	Frequency: 50 Hz
Maximum working pressure: 0.7MP		Maximum permissible suction pressure: 4.3MPa Maximum permissible working pressure: 5MPa			Protection Rating: IP55	Explosion proof grade: BT4	Insulation grade: F
Bearing type: <input type="checkbox"/> Sliding bearing <input checked="" type="checkbox"/> Radial rolling					Incoming line of junction box:	Method:	Number:
Bearing Lubrication: <input checked="" type="checkbox"/> Oil Bath/Grease <input checked="" type="checkbox"/> Oil Slinger							



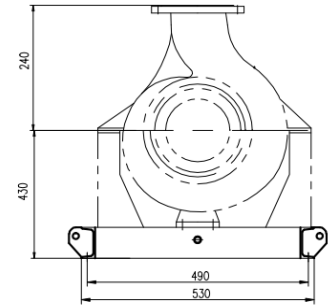
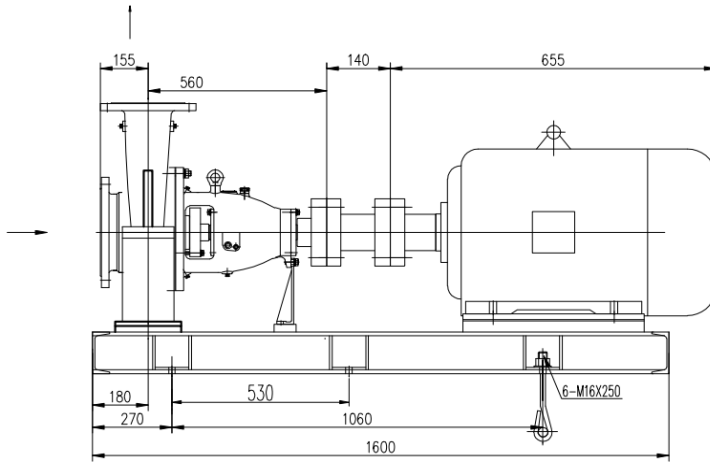
Oil - Gas



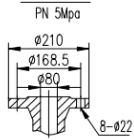
4-P08A/B	(OH2) Chemical Process Pump	ZE50-2250-00	42	61.01	2	API610 standard production, mechanical seal meets API682 standard, material: cast steel, cartridge mechanical seal, mechanical seal flushing plan PLAN 23+53B SKF bearings, supply scope pump head + base + diaphragm coupling,
	Explosion -proof motor	IBM-160M2-2-15	15KW	2985r/min	2	"Drive standard machine: three-phase motor Motor model: IBM-160M2-2-15 Motor speed: 2985 Frequency: 50 Hz Rated voltage: 380V Rated power: 15KW Protection level: EEx de IIB T4 Motor protection level: IP55



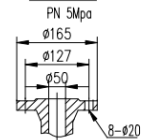
Oil -Gas



Imported flange



Outlet flange



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