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energy recovery

Energy Recovery, Inc.
Turbocharger
Specifications Sheet
AT-1100

Sheet
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Document number:
80380-01

DESCRIPTION:
TECHNICAL DATA SHEET, CENTRIFUGAL ENERGY RECOVERY DEVICE

REV	BY	CKD	DESCRIPTION	DATE
0	ERK	RBC	Initial Release	10/1/12
1	ERK	RAB	Added thrust bearing, weights updated	8/10/17

1.Part number		S/N:	2. Service	3. Reference

4	OPERATING CONDITIONS	Liquid	**Seawater/Concentrate**
5		Operating Temperature	**33°F-120°F (0.6-49°C)**
6		Max. Temperature	**120°F (49°C)**
7		Specific Gravity (Nominal)	**1030 kg/m3**
8		Allowable Hydraulic Envelope	**See Turbocharger Projection**
9		Maximum Turbocharger Operating Pressure	**1200 psig (82.7 bar)**
10		Maximum Outlet Low Pressure, Turbine-Side	**N/A**
11		Minimum Exhaust Pressure	**14.5 psig (1.0 bar)**
12		Filtration Requirement (Nominal)	**10µm**
13		Bearing Lubrication	**Process Lubricated**
14	PERFORMANCE	Peak Efficiency	**Contact ERI**
15		Maximum Boost Pressure	**Contact ERI**
16		Maximum Salinity Increase at Membranes	**0%**
17		Nominal Sound level	**85 dBA**
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20			
21	MATERIALS	Casing	**Duplex 2205 or better**
22		Rotating Assembly	**Duplex 2205 or better**
23		Bearings (non-thrust)	**Carbon Graphite**
24		Fasteners/Hardware (non-wetted)	**316SS**
25		O-rings	**EPDM**
26		Thrust Line Assembly	**Duplex 2205 or better**
27		Auxillary Line & Fittings	**Duplex 2205 or better**
28		Auxillary Valve	**Duplex 2205 or better**
29		Volute Inserts	**PET-P**
30		Thrust Bearing	**ERI Polymer 231**
31		Retaining Rings	**Passivated 316SS**
32	PIPING CONNECTIONS	Pump-Side Inlet Port Fitting	**4" Grooved-end Flexible Pipe Coupling**
33		Pump-Side Outlet Port Fitting	
34		Turbine-Side Inlet Port Fitting	**3" Grooved-end Flexible Pipe Coupling**
35		Turbine-Side Outlet Port Fitting	
36			
37			
38			

39	TESTS	Performance	**Standard**
40		Case Hydrotest	**Standard**
41		Balance Test Rotating Assy	**Standard**
42		Witnessed Test	**Optional**
43		Certified Test Data	**Optional**
44			
45	INSPECTION	Outside Dimensions	**Standard**
46		Internal Components	**Standard**
47		Casing Dimensions	**Standard**
48		Bearing Dimensions	**Standard**
49		Visual	**Standard**
50		Packing and Crating	**Standard**
51		Material Certificates	**Optional**
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56	SHIPPING WEIGHT & DIMENSIONS	Estimated Unit Weight	**325lbs. (147kgs.)**
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58		Unit Dimensions	**SEE DRAWING**
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60		Estimated Shipping Weight	**415lbs. (188kgs.)**
61		Estimated Shipping Dimensions	**38" x 30" x 32"**
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67	* OPTIONAL	*Complete Unit (wetted parts)	**Super Duplex 2507**
68		*Pipe Connections	**Flanges**
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Notes:

Flow capacities are typical or nominal for the selected model. Variations in pressures may shift the flow capacities up or down. Please contact ERI for final sizing. ERI reserves the right to make specification changes at any time without prior notice.

PRICE: desalsales@energyrecovery.com

Authorization:

MANUFACTURER: Energy Recovery Inc

MODEL: AT-1100