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Energy Recovery, Inc.
Technical Data Sheet
CPXP 4

REV	BY	CKD	REVISION	DATE
00	SYB	EK	Initial Release	11/20/2025

DESCRIPTION:
TECHNICAL DATA SHEET
CPXP 4 High-Pressure Pump

Sheet
Page 1 of 1

Document number:
81001-01

1. Part number		81001-01		2. Service		SWRO		3. Reference	
1	OPERATING CONDITIONS	Medium	Seawater	37	CURVES	Flow -Pressure Curve	See Pump Curve Doc# 81031-01		
2		Operating Temperature	35.6°F-122°F (2-50°C)	38		Flow-Speed Curve	See Pump Curve Doc# 81031-01		
3		Operating State	Continuous	39		Shaft Power-Pressure Curve	See Pump Curve Doc# 81031-01		
4		Medium Characteristics	Corrosive	40					
5		Specific Gravity	1030 kg/m³	41	MATERIALS	Shaft / Shell / Wetted Metals	2507		
6		Viscosity	1.060 cP @ 70°F (21.1°C)	42		Shaft Coupling	Galv. Steel w/ Zn-Ni Alloy		
7		Filtration Requirement*	10 µm	43		Gaskets	FKM		
8				44		Mechanical Seal	Hastelloy Alloy		
9	Geometric Displacement	5 cm³/rev	45	Fasteners		2507			
10	Max Outlet Pressure	1200 psi (83 bar)	46	Required Motor Power* *		Refer to pump calculation results			
11	Min Outlet Pressure	290 psi (20 bar)	47	Motor Technical Details		Refer to Motor TDS document			
12	Inlet Pressure	14.5-72.5 psi (1-5 bar)	48						
13	Min Speed	1500 rpm	49	TYPICAL MOTOR SIZE	Space Heater/Fungus Proof/Tropicalization	Optional			
14	Max Speed	3000 rpm	50		Thermal Protection	Optional			
15	Rated Flow@3000rpm&80bar	0.85 m³/h	51						
16	Flow Control	Speed Regulated	52						
17	PUMP PERFORMANCE	Inlet	G1/2 (DN 25) Female Thread	53	DIMENSIONS	Shipping Dimensions & Weight	See Packaging Drawing Doc# 92501-01		
18		Outlet	G1/2 (DN 25) Female Thread	54					
19		Inlet & Outlet Piping Connections	Grooved-End Flexible Coupling DN25 (Optional)	55					
20		Discharge High-Pressure Flexible Hose	DN25, 1m (Optional)	57		Scope of Supply	Pump Head, Motor, Bell Housing, Shaft Coupling. (Optional: Inlet Joint, Outlet Check Valve, Discharge High-Pressure Flexible Hose)		
21		Pump Base	NO	58					
22		Internal Intergrated Flushing Valve	YES	59					
23		Sealing Cooling Method	Self-cooling	60					
24		Bearing Lubrication Method	Self-lubricating	61		INSPECTION & TESTS	Material Conformance	Material Certificate	
25	Rotation Direction	Clockwise (viewed from the motor towards the pump head)	62	Dimensional and Visual Inspection	Certified Drawing				
26			63	External Leakage Test	Test Reports				
27			64	Performance Test	Test Reports				
28			65	Shipping Authorization	Client Shipment Release				
29			66						
30			67						
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NOTES:
 * ERI recommends to use a precision depth filter cartridge with efficiency of 99.98% at 10 micron and β10>5000 to protect the key components of the pump. Bag filters or string-wound filter cartridges are not recommended.
 ** The required motor power depends on your flow rate and pressure. Please contact ERII for accurate motor power information.

PRICE: sales@energyrecovery.com		
MANUFACTURER: Energy Recovery, Inc	MODEL: CPXP 4	