## CILA2S Intelligent Controller for Artificial Lift System



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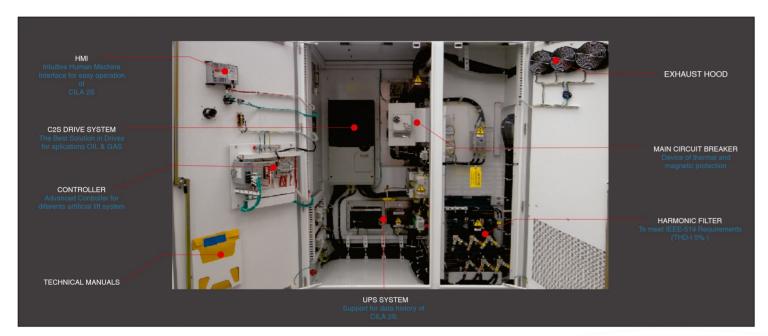




CILA 2S Intelligent Controller for Artificial Lift System

The CILA2S is a modular intelligent controller for Artificial Lift Methods (PCP, ESP, SRP) and multiphase system. The CILA2S analize, controls and optimize the oil well behavior using power electronic and Added Value Applications & Solucions (AVAS).

The CILA2S gathers and data processing coming from oil field sensors to maximize the quality of remote response to oil operators and take actions just in time on the oil wells.





Type B

**Energy Control** 

(For power sags or disappears)





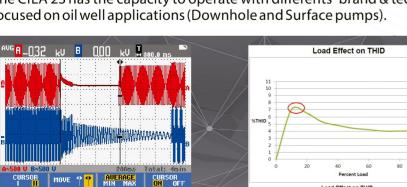
Type C





Type E

The CILA 2S has the capacity to operate with differents brand & technology of induction or permanent magnet motors, focused on oil well applications (Downhole and Surface pumps).



Load Effect on THID	Typical Harmonic Spectrum
11 10 9 8 7 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	35.0 25.0 EL 10.0 10.
0 20 40 60 80 100  Percent Load	0.0 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 4
Load Effect on THID	Typical Harmonic Spectrum with and without Harm
Level of harmonics a	according IEEE-519 at low loads



1 HEAT EXCHANGER Designed to efficiently transfer

② FILTER CHAMBER

Connections Field Instrumentation and Power Supply.

heat from one point to another.

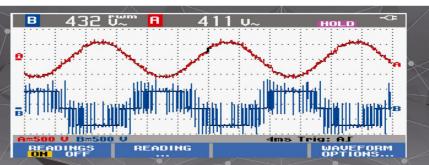
**4** FRONT ACCESS PANEL

**6** ELECTRICAL COMPONENT CHAMBER

NORMAL ENVIRONMENT CONSIDERATIONS	
Relative Humidity	0 95 % non-condensing
Altitude	1000m (3300 pies). Without derating
Temperature	• Environment: 0°X 50°C (32°F 122°F)
	• Operation $0^{\circ}\dots70^{\circ}\text{C}(32^{\circ}\text{F}\dots158^{\circ}\text{F})$ at $>$ 100% load.
	• Storage: -40°C 75°C (-40°F 167°F)
Contamination Support Level	Hard Contamination Support NEMA 3R enclosure
Seismic Level	Grade II

CILA-2S SIZES	Туре В	Type C	Type D	Type E
Power Range (380-480 Vac) Three-Phase (3) - ∆ or Y	60 - 75 HP	100 -200 HP	250 - 350 HP	400 - 650 HP
Height (mm)	2100	2100	2100	2100
Width (mm)	1000	1580	2107	2107
Depth (mm)	550	1016	1016	1500

DESCRIPTION	TECHNICAL FEATURES
Input Voltage	480 Vac / +/- 10% (432-528 Vac)
Output Voltage	0 to 480 [Vac]
Input Frequency	60 Hz (47 to 63 [Hz])
Output Frequency	0 a 300 [Hz]
Power Factor	0,98 across entire speed range
Input Technology	6 Pulses + Harmonic Filter
Drive (VSD)	IGBT with PWM technology Vector Control & V/F (SENSORLESS VECTOR), includes in the input Adaptive Passive Technology to meet IEEE-519 (THD-I < 5% ) requirements and output Sine wave Filter, capacity to operate with induction motors and permanent magnet motors
Enclosure	NEMA 3R
Main Breaker	Input circuit breaker according to Power Range of VSD (25, 35 and 65 KA @ 480 Vac short-circuit current)
Over-Load Capacity	• 150% for 3 sec. (Start)
	• 110% for 60 sec.
	• 100% Continuous Rating
Efficency	97,5% at rated amps, nominal line voltage
Output Waveform	Sine Wave (98%) with Filter



**BCP-GROUP** 

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**Equipment Builder Partner** 

Output sine wave CILA 2S for the Motor

## **Products Portfolio**



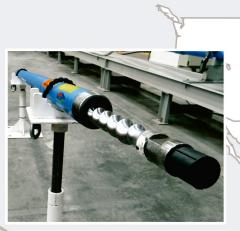
Wellpad Optimization System (WOS)



Multiphase Pumping (MPP)



Wells Optimization SCADA (WOS SCADA)



Progressive Cavity Pumping System



SLA COL



Intelligent Controller for Artificial Lift Systems JESP-IM, ESP-PMM, PCP, MPP, ISRP/ (CILA 2S)



BCP+VEN



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