

INTRODUCTION

The ACT3 ESP VFD is designed to control, monitor and protect the ESP system, process discrete and analogue signals from external devices such as sensors and pressure switches, and provide connectivity to SCADA enabled devices for remote monitoring. Models are available in custom designed NEMA 3R indoor enclosures to suit a wide range of power ratings.

ELECTRICAL SPECIFICATIONS

Available sizes:	50HP to 775HP
Supply voltage:	3-phase, 480V, 50/60Hz
Output voltage:	Variable 3-phase, up to 460V
Output frequency:	30Hz to 90Hz (operational)
Current rating:	70A to 1094A
Overload rating:	120% 60s, 150% 3s, 50°C

ENCLOSURE SPECIFICATIONS

- NEMA 3R outdoor rating
- Side mounted termination box for line, load and field I/O connections
- 12 gauge mild steel construction
- ANSI 1147 white powder paint finish.
- 4 lifting lugs for secure and easy transportation

HMI SPECIFICATIONS

- 10" colour touchscreen operator interface, sunlight readable
- Four control modes: Fixed, PID, Remote Terminal and Network
- Connectivity for USB pen drive for easy data transfer from HMI
- Data/Event logging and trending information
- I-limit function for gassy wells
- Pressure bypass mode for periodic testing/commissioning of well head pressure switch



Exterior - 145kVa model



Interior - 145kVa model

Please visit our website at www.cai-esp.com for more information.

FEATURES

- Mitsubishi F700 series inverter
- DC reactor and line reactor to minimise Total Harmonic Current Distortion (THID)
- Thermostat controlled fans with high volumetric flow of air for heat dissipation
- Panel space heater for low temperature environments
- Motor current monitoring using Bristol ampchart recorders
- Backspin relay and shunt for motor backspin detection
- Advanced HMI touch screen with logging
- Rated for -40°C to 50°C ambient temperature conditions
- Incoming lighting arrestors
- Incoming power isolation using circuit breaker
- Door mounted indicating lights and emergency stop
- 480V/120V control transformer for control supply
- Start, stop, reset, local/remote and speed references terminal
- Output sine wave filter with 2kHz to 8kHz switching frequency for filtering PWM output of inverter



Exterior - 485kVa model

OPTIONAL FEATURES

- UPS power supplies
- CAESP Advanced Monitoring System (AMT) (SCADA System)
- 380V, 50Hz models are available
- NEMA 4 & NEMA 12 indoor enclosures
- Zenith and Oxford interface unit for downhole monitoring
- External harmonic input filters



Interior - 485kVa model

Every ACT3 is factory tested and certified to
Canadian Standards Association (CSA) standards.

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