


# PCM IPAC

INTELLIGENT VARIABLE SPEED  
DRIVE FOR PCP APPLICATIONS

keep it moving 



Designed by a PCP expert and with the latest technologies, PCM IPAC offers you the most efficient way to drive your PCP and maximize your well performances.

PCM IPAC is an intelligent VSD (Variable Speed Drive) controlled via a combined PLC (Programmable Logic Controller) and HMI (Human Machine Interface).

## MAIN FUNCTIONS

- Drive & protect PCP equipment
- Optimize well production
- Monitor PCP operating data
- Communicate data to and from external systems

## HIGHLIGHTS

- VSD 11 to 90 kW (15 to 120 HP)
- PCP oriented user-friendly interface on 10,1" touchscreen
- Internal storage data
- Settable alarms



Artificial Lift Solutions

## PCM IPAC BENEFITS

### PCP expert:

- Dedicated interface conceived by PCP specialist
- Settable alarms from VSD and I/O data
  - Min/Max with 2 levels (warning/stop)
  - Torque, flow rate, pressure, PTC, temperature...
- Acceleration & deceleration ramp (up to 3600 s)
- Start/stop and speed modification
- Internal data memory (FIFO principle)
  - Last 6 hours - 1 record/second
  - Last 6 months - 1 record/5 mins
  - Alarms, events and PCP completions

### User-friendly:

- Simple and intuitive touch screen
- Quick download of data through USB stick
- Easy transmission and communication

## PCP RUNNING MODE

### Speed control

- Target RPM

### Fluid level control

- Target PIP / required downhole gauge

### Progressive start

- Automatic step-up speed

### Torque control

- Protect your rod string

### Auto restart

- Automatic Start up after power shutdown



## SPECIFICATIONS

VSD range	<ul style="list-style-type: none"> <li>• DANFOSS 11-90 KW (15 to 120 HP)</li> <li>• Standard (110% )/ Heavy duty (160%)</li> <li>• Power factor &gt; = 0.9 / Efficiency: 98%</li> </ul>
Input supply	<ul style="list-style-type: none"> <li>• 380-480 VAC or 525-690 VAC</li> <li>• 3 phases / 50/60 Hz (+/-5%)</li> </ul>
Output rated	<ul style="list-style-type: none"> <li>• 0 to Max input voltage</li> <li>• VSD: 0.1 to 500 Hz</li> <li>• HMI limit to 60 Hz for PCP application</li> </ul>
HMI	<ul style="list-style-type: none"> <li>• PCP dedicated software</li> <li>• 10.1" touchscreen 1024x600</li> <li>• Internal memory: 6 months data records</li> </ul>
Enclosure	<ul style="list-style-type: none"> <li>• IP55 or NEMA 3R</li> <li>• CEI61439-1&amp;2 (UL/CSA on request)</li> <li>• (LxWxH) 1000x400x1200 &amp; 750mm stand</li> </ul>
Environment	<ul style="list-style-type: none"> <li>• Ambient: -10°C/+50°C (+14°F/+120°F)</li> <li>• Option for cold weather [-40°C/-40°F]</li> <li>• Max. relative humidity: 95% non-condensing</li> </ul>
Harmonics	<ul style="list-style-type: none"> <li>• 40% of THiD (Option for 10% or 5% THiD)</li> </ul>
Connectivity	<ul style="list-style-type: none"> <li>• 1 ethernet TCP/IP (SCADA)</li> <li>• 1 serial port RS485 (communication HMI/VSD)</li> <li>• 1 USB port (to extract data from HMI)</li> <li>• Option for WIFI and GSM modules</li> <li>• I/O's: 8 x IA / 8 x ID / 7 x OD</li> </ul>

Note: Hardware could be customized as per client needs

PCM ipac	
	<b>HOME</b> Quick visibility on well status Display key PCP parameters
	<b>DRIVE MODE</b> Speed or fluid level control - Rod protection, progressive start, auto-restart
	<b>DATA RECORD</b> Display min/max and average Downhole/ surface/ energy data
	<b>DATA CHART</b> Display tendency chart Last 6 hours or last 6 months
	<b>COMPLETION</b> Downhole/surface information Set up motor, ratio specifications
	<b>ALARM</b> Ongoing / History / Settings Set up alarms (warning / stop)
	<b>EXPORT DATA</b> Easy data collection Select data for USB extraction
	<b>PARAMETERS</b> Set up I/O scaling, HMI,... Level access, language...