### CP180-TD1 DATA SHEET





50HZ - THREE PHASE - PERKINS ENGINE	
Standby Power (kVA)	182
Standby Power (kW)	145
Prime Power (kVA)	165
Prime Power (kW)	144
Tank Size (I)	330
Noise (dB(A) @7m)	70
Weight (kg)	2,257
Dimensions LxWxH (mm)	3,860 x 1,200 x 1,850

## STANDARD FEATURES

- 4P ABB breaker
- Deepsea DSE7320 controller (AMF start)
- Double walled chassis (bunded)
- Emergency stop
- Factory filled with anti freeze/coolant
- Electric fuel level sensor
- Low fuel alarm

- Battery isolator
- Neutral bar
- Battery charger & jacket water heater
- Pre-wired for auto start
- Rain cap on exhaust
- Mechanical fuel gauge
- Lifting points
- 50 deg C tropical radiator

### CANOPY FEATURES

- Compatible with 2000/14/EC directives, certified noise emission level
- Two or four lifting points depending on enclosure size
- Hidden exhaust inside the canopy with rain cap.
- Two emergency stop buttons. One on canopy and one on the controller.
- Improved air suction channel to ensure maximum cooling in the canopy
- Radiator air outlet and exhaust safely directed upwards
- Convenient access cover in enclosure for topping up radiator coolant.
- Durable powder coating on cabinet to protect against corrosion and rust
- Solid sound insulated cabinet for quiet operation



# ENGINE DATA

CAPS generator sets use leading engine brands that have state of the art technology and have compliance with ISO 8528, ISO 3046, BS 5514, DIN 6271 standards. These engines offer low fuel consumption, provide accurate speed control with have mechanical or electronic type governors.

Manufacturer  Model P086TI  Cylinder Configuration N° of Cylinders 6 Displacement (I) Bore (mm) 1111 Stroke (mm) 139 Compression Ratio 16, 4:1 Aspiration TURBOCHARGE-INTERCOOLER Governor Type ELECTRONIC Cooling System WATER Coolant Capacity (I) Lubrication Oil Capacity (I) 15.5 Electrical System VDC Speed / Frequency (rpm / Hz) Engine Gross Power (Standby 50 Hz) (kW) Fuel Consumption %100 PRP (I/h) Fuel Consumption %100 PRP (I/h) Fuel Consumption %50 PRP (I/h) Exhaust Outlet Temperature (°C) Exhaust Gas Flow (m³/min) Combustion Air Flow (m³/min) 1NLINE 101 101 101 101 101 101 101 101 101 10		
Model P086TI  Cylinder Configuration INLINE  N° of Cylinders 6  Displacement (I) 8.1  Bore (mm) 111  Stroke (mm) 139  Compression Ratio 16, 4:1  Aspiration TURBOCHARGE-INTERCOOLER  Governor Type ELECTRONIC  Cooling System WATER  Coolant Capacity (I) 44  Lubrication Oil Capacity (I) 15.5  Electrical System VDC 24  Speed / Frequency (rpm / Hz) 1500 rpm / 50 Hz  Engine Gross Power (Standby 50 Hz) (kW) 199  Fuel Consumption %100 PRP (I/h) 48.4  Fuel Consumption %50 PRP (I/h) 31.7  Fuel Consumption %50 PRP (I/h) 21.1  Exhaust Outlet Temperature (°C) 580  Exhaust Gas Flow (m³/min) 33.9		
Cylinder Configuration  N° of Cylinders 6 Displacement (I) Bore (mm) 1111 Stroke (mm) 139 Compression Ratio 16, 4:1 Aspiration TURBOCHARGE-INTERCOOLER Governor Type ELECTRONIC Cooling System WATER Coolant Capacity (I) 44 Lubrication Oil Capacity (I) 15.5 Electrical System VDC Speed / Frequency (rpm / Hz) Engine Gross Power (Standby 50 Hz) (kW) Fuel Consumption %100 PRP (I/h) Fuel Consumption %50 PRP (I/h) Fuel Consumption %50 PRP (I/h) Exhaust Outlet Temperature (°C) Exhaust Gas Flow (m³/min)  111  112 113 113 114 115 115 115 111 115 111 111 111 111	Manufacturer	DOOSAN
N° of Cylinders Displacement (I) Bore (mm) 111 Stroke (mm) 139 Compression Ratio 16, 4:1 Aspiration TURBOCHARGE-INTERCOOLER Governor Type ELECTRONIC Cooling System WATER Coolant Capacity (I) 44 Lubrication Oil Capacity (I) Electrical System VDC Speed / Frequency (rpm / Hz) Engine Gross Power (Standby 50 Hz) (kW) Fuel Consumption %100 PRP (I/h) Fuel Consumption %75 PRP (I/h) Fuel Consumption %50 PRP (I/h) Exhaust Outlet Temperature (°C) Exhaust Gas Flow (m³/min) 139 110 111 111 111 111 111 111 111 111 11	Model	P086TI
Displacement (I)  Bore (mm)  Stroke (mm)  Compression Ratio  Aspiration  TURBOCHARGE-INTERCOOLER  Governor Type  ELECTRONIC  Cooling System  WATER  Coolant Capacity (I)  Lubrication Oil Capacity (I)  Electrical System VDC  Speed / Frequency (rpm / Hz)  Engine Gross Power (Standby 50 Hz) (kW)  Fuel Consumption %110 ESP (I/h)  Fuel Consumption %75 PRP (I/h)  Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  139  TURBOCHARGE-INTERCOOLER  TURBOCHARGE-INTERCOOLER  TURBOCHARGE-INTERCOOLER  16, 4:1  10, 4:1	Cylinder Configuration	INLINE
Bore (mm) Stroke (mm) Compression Ratio 16, 4:1  Aspiration TURBOCHARGE-INTERCOOLER Governor Type ELECTRONIC Cooling System WATER Coolant Capacity (I) 44  Lubrication Oil Capacity (I) 55  Electrical System VDC Speed / Frequency (rpm / Hz) Engine Gross Power (Standby 50 Hz) (kW) Fuel Consumption %110 ESP (I/h) Fuel Consumption %100 PRP (I/h) Fuel Consumption %50 PRP (I/h) Fuel Consumption %50 PRP (I/h) Exhaust Outlet Temperature (°C) Exhaust Gas Flow (m³/min)  111  121  139  149  150  16, 4:1  141  151  152  153  154  155  155  155  156  157  157  1580  1580  1580  158	N° of Cylinders	6
Stroke (mm) Compression Ratio 16, 4:1  Aspiration TURBOCHARGE-INTERCOOLER Governor Type ELECTRONIC Cooling System WATER Coolant Capacity (I) 44  Lubrication Oil Capacity (I) 15.5  Electrical System VDC 24  Speed / Frequency (rpm / Hz) Engine Gross Power (Standby 50 Hz) (kW) 199  Fuel Consumption %110 ESP (I/h) Fuel Consumption %75 PRP (I/h) Fuel Consumption %50 PRP (I/h) Exhaust Outlet Temperature (°C) Exhaust Gas Flow (m³/min)  139  139  139  148  150  150  10, 4:1  148  15.5  ELECTRONIC  WATER  15.5  ELECTRONIC  15.5  ELECTRONIC  15.5  ELECTRONIC  15.5  ELECTRONIC  44  44  44  44  44  44  44  45  46  47  48  48  48  48  48  48  48  48  48	Displacement (I)	8.1
Compression Ratio  Aspiration  TURBOCHARGE-INTERCOOLER  Governor Type  ELECTRONIC  Cooling System  WATER  Coolant Capacity (I)  44  Lubrication Oil Capacity (I)  55  Electrical System VDC  Speed / Frequency (rpm / Hz)  Engine Gross Power (Standby 50 Hz) (kW)  Fuel Consumption %110 ESP (I/h)  Fuel Consumption %75 PRP (I/h)  Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  TURBOCHARGE-INTERCOOLER  ELECTRONIC  15.5  ELECTRONIC  44  44  44  44  44  44  44  44  44	Bore (mm)	111
Aspiration TURBOCHARGE-INTERCOOLER Governor Type ELECTRONIC  Cooling System WATER  Coolant Capacity (I) 44  Lubrication Oil Capacity (I) 15.5  Electrical System VDC 24  Speed / Frequency (rpm / Hz) 1500 rpm / 50 Hz  Engine Gross Power (Standby 50 Hz) (kW) 199  Fuel Consumption %110 ESP (I/h) 48.4  Fuel Consumption %75 PRP (I/h) 31.7  Fuel Consumption %50 PRP (I/h) 21.1  Exhaust Outlet Temperature (°C) 580  Exhaust Gas Flow (m³/min) 33.9	Stroke (mm)	139
Governor Type Cooling System WATER Coolant Capacity (I) 44 Lubrication Oil Capacity (I) 55 Electrical System VDC 24 Speed / Frequency (rpm / Hz) 1500 rpm / 50 Hz Engine Gross Power (Standby 50 Hz) (kW) 199 Fuel Consumption %110 ESP (I/h) 48.4 Fuel Consumption %75 PRP (I/h) 43.1 Fuel Consumption %50 PRP (I/h) 500 rpm / 50 Hz 500 rpm	Compression Ratio	16, 4:1
Cooling System  Coolant Capacity (I)  Lubrication Oil Capacity (I)  Electrical System VDC  Speed / Frequency (rpm / Hz)  Engine Gross Power (Standby 50 Hz) (kW)  Fuel Consumption %110 ESP (I/h)  Fuel Consumption %100 PRP (I/h)  Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  MATER  WATER  WATER  WATER  WATER  44  44  44  44  44  44  44  44  44	Aspiration	TURBOCHARGE-INTERCOOLER
Coolant Capacity (I)  Lubrication Oil Capacity (I)  Electrical System VDC  Speed / Frequency (rpm / Hz)  Engine Gross Power (Standby 50 Hz) (kW)  Fuel Consumption %110 ESP (I/h)  Fuel Consumption %100 PRP (I/h)  Fuel Consumption %75 PRP (I/h)  Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  15.5  24  1500 rpm / 50 Hz  1500 rpm / 50 Hz  143.1  1500 rpm / 50 Hz  1	Governor Type	ELECTRONIC
Lubrication Oil Capacity (I)  Electrical System VDC  Speed / Frequency (rpm / Hz)  Engine Gross Power (Standby 50 Hz) (kW)  Fuel Consumption %110 ESP (I/h)  Fuel Consumption %100 PRP (I/h)  Fuel Consumption %75 PRP (I/h)  Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  15.5  24  1500 rpm / 50 Hz  1699  1899  1899  1817  1817  1817  1818	Cooling System	WATER
Electrical System VDC  Speed / Frequency (rpm / Hz)  Engine Gross Power (Standby 50 Hz) (kW)  Fuel Consumption %110 ESP (I/h)  Fuel Consumption %100 PRP (I/h)  Fuel Consumption %75 PRP (I/h)  Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  24  1500 rpm / 50 Hz  199  48.4  43.1  Fuel Consumption %75 PRP (I/h)  21.1  580  33.9	Coolant Capacity (I)	44
Speed / Frequency (rpm / Hz)  Engine Gross Power (Standby 50 Hz) (kW)  Fuel Consumption %110 ESP (I/h)  Fuel Consumption %100 PRP (I/h)  Fuel Consumption %75 PRP (I/h)  Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  1500 rpm / 50 Hz  199  48.4  43.1  51.7  521.1  580  533.9	Lubrication Oil Capacity (I)	15.5
Engine Gross Power (Standby 50 Hz) (kW)  Fuel Consumption %110 ESP (I/h)  Fuel Consumption %100 PRP (I/h)  Fuel Consumption %75 PRP (I/h)  Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  199  48.4  43.1  51.7  580  580	Electrical System VDC	24
Fuel Consumption %110 ESP (I/h)  Fuel Consumption %100 PRP (I/h)  Fuel Consumption %75 PRP (I/h)  Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  48.4  43.1  51.7  51.1  580  580	Speed / Frequency (rpm / Hz)	1500 rpm / 50 Hz
Fuel Consumption %100 PRP (I/h)  Fuel Consumption %75 PRP (I/h)  Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  43.1  21.1  580  33.9	Engine Gross Power (Standby 50 Hz) (kW)	199
Fuel Consumption %75 PRP (I/h)  Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  31.7  580  33.9	Fuel Consumption %110 ESP (I/h)	48.4
Fuel Consumption %50 PRP (I/h)  Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  33.9	Fuel Consumption %100 PRP (I/h)	43.1
Exhaust Outlet Temperature (°C)  Exhaust Gas Flow (m³/min)  580  33.9	Fuel Consumption %75 PRP (I/h)	31.7
Exhaust Gas Flow (m³/min) 33.9	Fuel Consumption %50 PRP (I/h)	21.1
	Exhaust Outlet Temperature (°C)	580
Combustion Air Flow (m³/min) 16.95	Exhaust Gas Flow (m³/min)	33.9
	Combustion Air Flow (m³/min)	16.95
Cooling Air Flow (m³/min)	Cooling Air Flow (m³/min)	190



### ALTERNATOR DATA

CAPS use global market leading Leroy Somer alternators with state of the art technology and manufactured to the highest quality for productivity and durability. Leroy Somer alternators, meet appropriate International Standards for alternators: EC 60034-1; CEI EN 60034-1; BS 4999-5000; VDE 0530, NF 51- 100,111; OVE M-10, NEMA MG 1.22.

They also feature maintenance free bearings with electronic type voltage regulators for voltage setting.

Nº of Phases	3
Power Factor	0,8
N° of Bearings	SINGLE
N° of Poles	4
N° of Leads	6-12
Insulation Class	H-F
Degree of Protection	IP 23
Excitation System	AVR (Automatic Voltage Regulator), Brushless



# CONTROL PANEL

#### **FEATURES**

- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection
- Customisable status screens
- Power save mode
- Support for up to three remote display units
- 9 configurable inputs
- 8 configurable outputs
- Flexible sender inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time scheduler
- Configurable event log (250)
- Tier 4 CAN engine support
- Integral PLC editor
- Easy access diagnostic page
- CAN and Magnetic Pick-up/Alt. sensing
- Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- Manual speed control (on compatible CAN engines)
- Manual fuel pump control
- Engine exerciser
- "Protections disabled" feature
- kW & kV Ar protection
- Reverse power (kW & kV Ar) LED and LCD alarm indication
- Power monitoring (kW h, kV Ar, kV A h, kV Ar h)
- Load switching (load shedding and dummy load outputs)
- Automatic load transfer (DSE7320)
- Unbalanced load protection
- Independent Earth Fault trip
- True dual mutual standby with load balancing timer (DSE7310 only)
- USB connectivity
- Backed up real time clock
- Fully configurable via DSE Configuration Suite PC software
- Configurable display languages
- Remote SCADA monitoring via DSE Configuration Suite PC software
- User selectable RS232 and RS485 communications
- Configurable Gencomm pages
- Advanced SMS messaging (additional external modem required)
- Start & stop capability via SMS messaging
- Additional display screens to help with modem diagnostics
- Idle control for starting & stopping.
- DSENet® expansion compatible
- Heated display option available



#### **FUNCTIONS**

- AMF unit
- Remote start controller
- Manuel start controller
- Engine controller
- Remote display & control unit
- CTs at genset or load side

### **COMMUNICATION**

- Web monitoring
- GSM-SMS (require externally modem)
- Email
- USB Device
- RS-232
- J1939-CANBUS

#### **TOPOLOGIES**

- 2 phase 3 wires, L1-L2
- 2 phase 3 wires, L1-L3
- 3 phase 3 wires
- 3 phase 4 wires, star
- 3 phase 4 wires, delta
- 1 phase 2 wires

Due to a policy continuous improvement CAPS reserves the right to amend details and specifications without notice and all information given is subject to the CAPS" current condition of sales

