PROTECT POWER SYSTEMS

PCL33

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	33
Standby Power (kW)	26
Prime Power (kVA)	30
Prime Power (kW)	24
Power Factor (Cos Phi)	0.8
Diesel Engine	4B3.9-G12
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

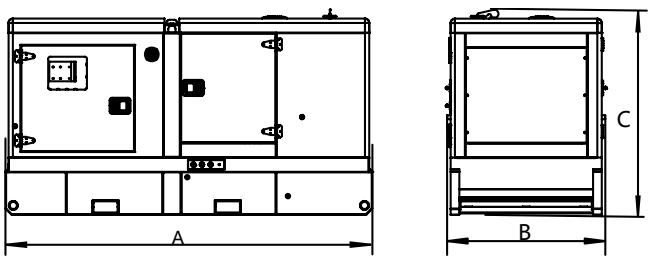
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL33-O	Open set	1800	902	1477	963	140
PCL33-C	Silent set	2330	970	1250	1010	70

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	4B3.9-G12
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Naturally Aspirated
Number of cylinders and arrangement	4-L
Bore and stroke (mm*mm)	102X120
Displacement (L)	3.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	18:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	8
Fuel Consumption @100% load PRP (L/H)	7.4
Fuel Consumption @75% load PRP (L/H)	6.1
Fuel Consumption @50% load PRP (L/H)	4.5
Air System	
Intake air flow (L/s)	34.5
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	420
Exhaust gas flow (L/s)	76.5
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	3.7
Recommended battery (Ah)	60
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	10.9
Cooling System	
Total coolant capacity (L)	15.2

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL44

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	44
Standby Power (kW)	35
Prime Power (kVA)	40
Prime Power (kW)	32
Power Factor (Cos Phi)	0.8
Diesel Engine	4BT3.9-G1
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

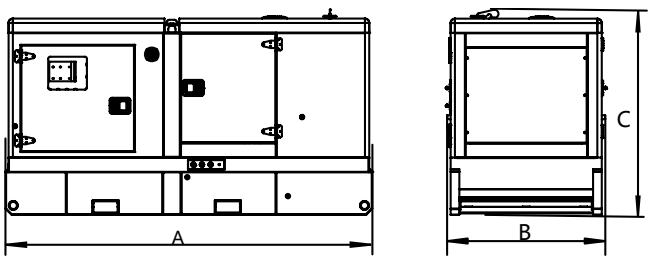
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL44-O	Open set	1800	902	1477	963	140
PCL44-C	Silent set	2330	970	1250	1060	70

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	4BT3.9-G1
Engine type	4-stroke diesel
Governor type	Mechanical
Injection type	Direct
Aspiration type	Turbocharged
Number of cylinders and arrangement	4-L
Bore and stroke (mm*mm)	102X120
Displacement (L)	3.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17.3:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	11.1
Fuel Consumption @100% load PRP (L/H)	10
Fuel Consumption @75% load PRP (L/H)	7.9
Fuel Consumption @50% load PRP (L/H)	5.9
Air System	
Intake air flow (L/s)	45
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	487
Exhaust gas flow (L/s)	108
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	3.7
Recommended battery (Ah)	60
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	10.9
Cooling System	
Total coolant capacity (L)	7.2(engine only)

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL44A

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	44
Standby Power (kW)	35
Prime Power (kVA)	40
Prime Power (kW)	32
Power Factor (Cos Phi)	0.8
Diesel Engine	4BT3.9-G2
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

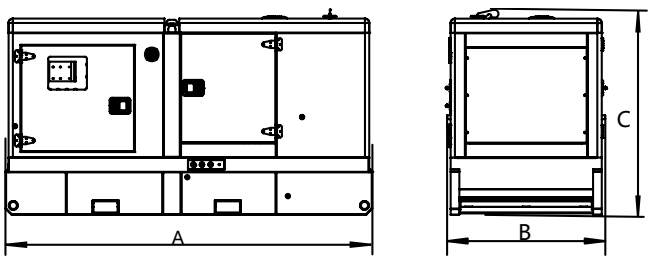
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL44A-O	Open set	1800	902	1477	963	140
PCL44A-C	Silent set	2330	970	1250	1060	70

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	4BT3.9-G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged
Number of cylinders and arrangement	4-L
Bore and stroke (mm*mm)	102X120
Displacement (L)	3.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	18:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	10.3
Fuel Consumption @100% load PRP (L/H)	9.3
Fuel Consumption @75% load PRP (L/H)	7.3
Fuel Consumption @50% load PRP (L/H)	5.3
Air System	
Intake air flow (L/s)	45
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	487
Exhaust gas flow (L/s)	108
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	3.7
Recommended battery (Ah)	60
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	10.9
Cooling System	
Total coolant capacity (L)	19

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL55

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	55
Standby Power (kW)	44
Prime Power (kVA)	50
Prime Power (kW)	40
Power Factor (Cos Phi)	0.8
Diesel Engine	4BTA3.9-G2
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

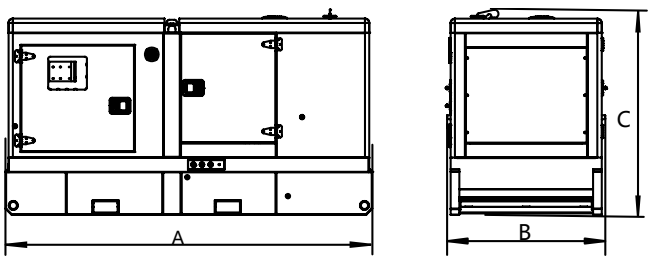
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL55-O	Open set	1900	902	1482	973	140
PCL55-C	Silent set	2500	1050	1250	1220	100

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	4BTA3.9G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged
Number of cylinders and arrangement	4-L
Bore and stroke (mm*mm)	102X120
Displacement (L)	3.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17.3:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	14.1
Fuel Consumption @100% load PRP (L/H)	12.9
Fuel Consumption @75% load PRP (L/H)	10
Fuel Consumption @50% load PRP (L/H)	7
Air System	
Intake air flow (L/s)	52
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	548
Exhaust gas flow (L/s)	134
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	3.7
Recommended battery (Ah)	60
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	10.9
Cooling System	
Total coolant capacity (L)	21.9

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL66

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	66
Standby Power (kW)	53
Prime Power (kVA)	60
Prime Power (kW)	48
Power Factor (Cos Phi)	0.8
Diesel Engine	4BTA3.9-G2
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

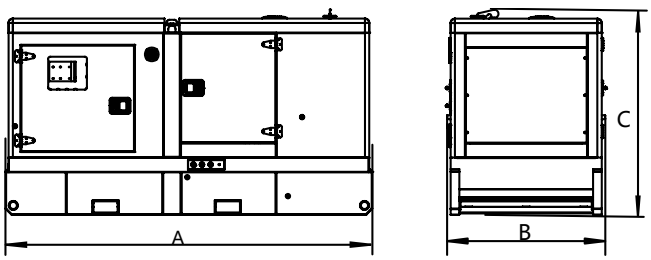
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL66-O	Open set	1900	902	1482	907	140
PCL66-C	Silent set	2500	1050	1250	1250	100

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	4BTA3.9G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged
Number of cylinders and arrangement	4-L
Bore and stroke (mm*mm)	102X120
Displacement (L)	3.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17.3:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	14.1
Fuel Consumption @100% load PRP (L/H)	12.9
Fuel Consumption @75% load PRP (L/H)	10
Fuel Consumption @50% load PRP (L/H)	7
Air System	
Intake air flow (L/s)	52
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	548
Exhaust gas flow (L/s)	134
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	3.7
Recommended battery (Ah)	60
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	10.9
Cooling System	
Total coolant capacity (L)	21.9

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL88

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	88
Standby Power (kW)	70
Prime Power (kVA)	80
Prime Power (kW)	64
Power Factor (Cos Phi)	0.8
Diesel Engine	4BTA3.9-G11
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

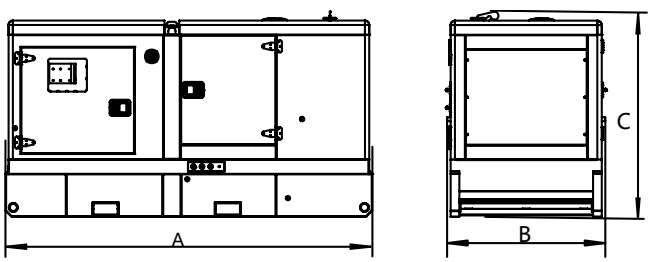
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL88-O	Open set	1900	902	1482	930	140
PCL88-C	Silent set	2500	1050	1250	1310	145

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	4BTA3.9-G11
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged & Aftercooled
Number of cylinders and arrangement	4-L
Bore and stroke (mm*mm)	102X120
Displacement (L)	3.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17.3:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	20
Fuel Consumption @100% load PRP (L/H)	17.6
Fuel Consumption @75% load PRP (L/H)	13.2
Fuel Consumption @50% load PRP (L/H)	9.1
Air System	
Intake air flow (L/s)	70
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	548
Exhaust gas flow (L/s)	134
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	3.7
Recommended battery (Ah)	60
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	10.9
Cooling System	
Total coolant capacity (L)	21.9

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL110

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	110
Standby Power (kW)	88
Prime Power (kVA)	100
Prime Power (kW)	80
Power Factor (Cos Phi)	0.8
Diesel Engine	6BT5.9G2
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

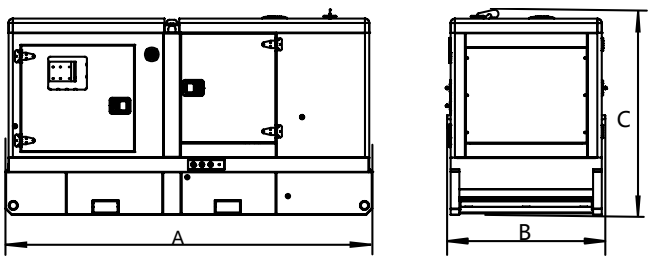
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL110-O	Open set	2150	982	1485	1080	260
PCL110-C	Silent set	3050	1135	1730	1600	175

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	6BT5.9G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	102X120
Displacement (L)	5.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17.3:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	26.5
Fuel Consumption @100% load PRP (L/H)	24.2
Fuel Consumption @75% load PRP (L/H)	18.2
Fuel Consumption @50% load PRP (L/H)	12.5
Air System	
Intake air flow (L/s)	108
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	564
Exhaust gas flow (L/s)	280
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	4.5
Recommended battery (Ah)	60
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	16.4
Cooling System	
Total coolant capacity (L)	22.4

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL125

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	125
Standby Power (kW)	100
Prime Power (kVA)	113
Prime Power (kW)	90
Power Factor (Cos Phi)	0.8
Diesel Engine	6BTA5.9-G2
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

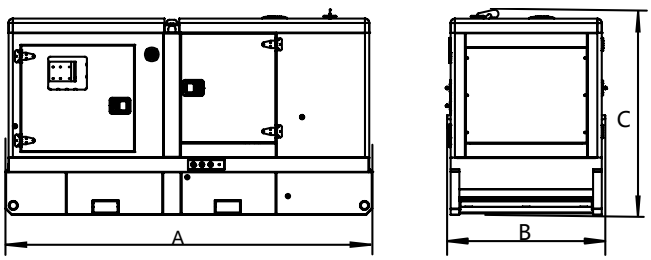
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL125-O	Open set	2150	980	1555	1180	260
PCL125-C	Silent set	3350	1135	1775	1729	270

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	6BTA5.9-G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged & Aftercooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	102X120
Displacement (L)	5.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17.3:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	30
Fuel Consumption @100% load PRP (L/H)	27
Fuel Consumption @75% load PRP (L/H)	20
Fuel Consumption @50% load PRP (L/H)	14
Air System	
Intake air flow (L/s)	118
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	570
Exhaust gas flow (L/s)	334
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	4.5
Recommended battery (Ah)	60
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	16.4
Cooling System	
Total coolant capacity (L)	25.9

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL138

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	138
Standby Power (kW)	110
Prime Power (kVA)	125
Prime Power (kW)	100
Power Factor (Cos Phi)	0.8
Diesel Engine	6BTAA5.9G2
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

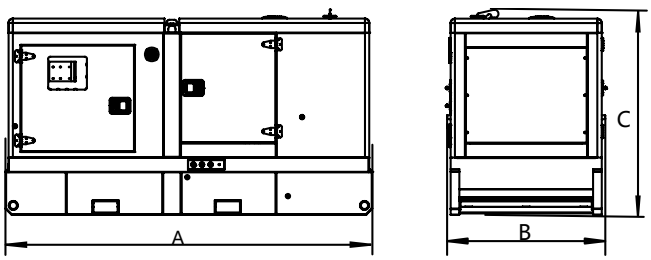
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL138-O	Open set	2150	980	1515	1229	270
PCL138-C	Silent set	3350	1135	1775	1800	280

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	6BTAA5.9G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Cooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	102X120
Displacement (L)	5.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17.3:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	34
Fuel Consumption @100% load PRP (L/H)	30
Fuel Consumption @75% load PRP (L/H)	23
Fuel Consumption @50% load PRP (L/H)	16
Air System	
Intake air flow (L/s)	120
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	540
Exhaust gas flow (L/s)	328
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	4.5
Recommended battery (Ah)	60
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	16.4
Cooling System	
Total coolant capacity (L)	26.4

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL150

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	150
Standby Power (kW)	120
Prime Power (kVA)	138
Prime Power (kW)	110
Power Factor (Cos Phi)	0.8
Diesel Engine	6BTAA5.9-G2
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

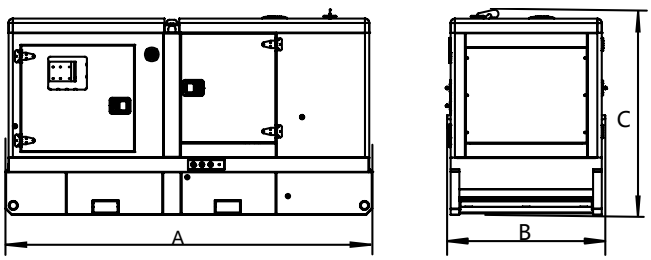
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL150-O	Open set	2150	980	1515	1205	270
PCL150-C	Silent set	3350	1135	1775	1883	280

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	6BTAA5.9-G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Cooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	102X120
Displacement (L)	5.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17.3:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	34
Fuel Consumption @100% load PRP (L/H)	30
Fuel Consumption @75% load PRP (L/H)	23
Fuel Consumption @50% load PRP (L/H)	16
Air System	
Intake air flow (L/s)	120
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	540
Exhaust gas flow (L/s)	328
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	4.5
Recommended battery (Ah)	60
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	16.4
Cooling System	
Total coolant capacity (L)	26.4

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL165

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	165
Standby Power (kW)	132
Prime Power (kVA)	150
Prime Power (kW)	120
Power Factor (Cos Phi)	0.8
Diesel Engine	6BTAA5.9-G12
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

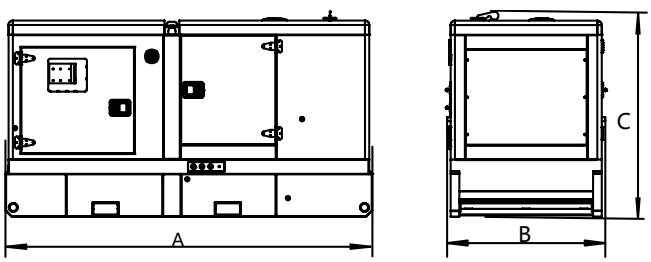
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL165-O	Open set	2350	980	1595	1270	270
PCL165-C	Silent set	3350	1135	1950	2070	340

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	6BTAA5.9-G12
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Cooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	102X120
Displacement (L)	5.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17.3:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	38
Fuel Consumption @100% load PRP (L/H)	34
Fuel Consumption @75% load PRP (L/H)	26
Fuel Consumption @50% load PRP (L/H)	17
Air System	
Intake air flow (L/s)	150
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	507
Exhaust gas flow (L/s)	357
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	4.5
Recommended battery (Ah)	60
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	16.4
Cooling System	
Total coolant capacity (L)	26.4

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL200

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	200
Standby Power (kW)	160
Prime Power (kVA)	180
Prime Power (kW)	144
Power Factor (Cos Phi)	1
Diesel Engine	6CTA8.3-G2
Frequency (Hz)	60
Rated Speed (rpm)	1800
Phase	3
Standard Voltage (V)	220V
Available Voltages (V)	208 ·240

- **Power Definition**

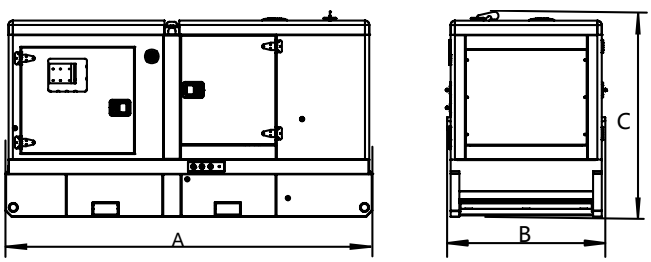
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL200-O	Open set	2370	1058	1700	1720	390
PCL200-C	Silent set	3600	1150	2012	2435	340

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	6CTA8.3G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Cooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	114X135
Displacement (L)	8.3
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17.3:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	48
Fuel Consumption @100% load PRP (L/H)	42
Fuel Consumption @75% load PRP (L/H)	31
Fuel Consumption @50% load PRP (L/H)	21
Air System	
Intake air flow (L/s)	206
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	563
Exhaust gas flow (L/s)	578
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	7.8
Recommended battery (Ah)	100
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	27.6
Cooling System	
Total coolant capacity (L)	30.6

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL220

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	220
Standby Power (kW)	176
Prime Power (kVA)	200
Prime Power (kW)	160
Power Factor (Cos Phi)	1
Diesel Engine	6CTAA8.3-G2
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

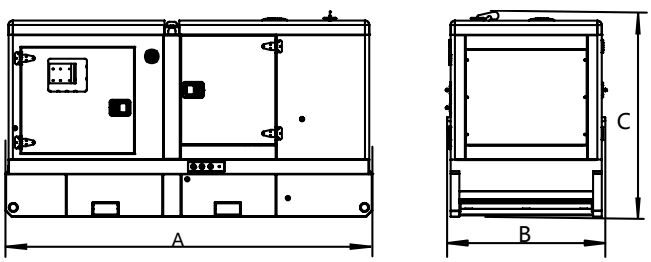
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL220-O	Open set	2510	1058	1710	1720	390
PCL220-C	Silent set	3600	1150	2012	2435	340

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	6CTAA8.3-G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Cooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	114X135
Displacement (L)	8.3
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	18:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	51
Fuel Consumption @100% load PRP (L/H)	45
Fuel Consumption @75% load PRP (L/H)	34
Fuel Consumption @50% load PRP (L/H)	23
Air System	
Intake air flow (L/s)	191
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	580
Exhaust gas flow (L/s)	547
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	7.8
Recommended battery (Ah)	100
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	23.8
Cooling System	
Total coolant capacity (L)	33.5

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL275

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	275
Standby Power (kW)	220
Prime Power (kVA)	250
Prime Power (kW)	200
Power Factor (Cos Phi)	0.8
Diesel Engine	6LTAA8.9-G2
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

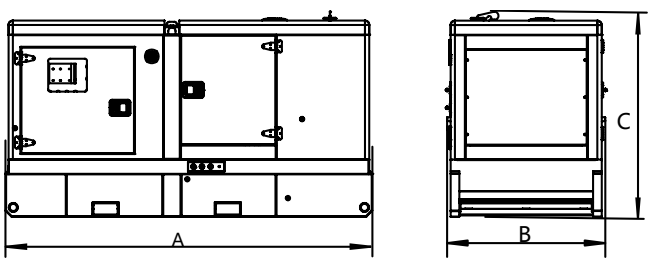
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL275-O	Open set	2690	1175	1860	1887	450
PCL275-C	Silent set	3660	1175	2095	2750	470

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	6LTAA8.9-G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Cooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	114X145
Displacement (L)	8.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	16.6：1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	58
Fuel Consumption @100% load PRP (L/H)	53
Fuel Consumption @75% load PRP (L/H)	39
Fuel Consumption @50% load PRP (L/H)	27
Air System	
Intake air flow (L/s)	254
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	470
Exhaust gas flow (L/s)	634
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	7.8
Recommended battery (Ah)	100
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	27.6
Cooling System	
Total coolant capacity (L)	34

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL300

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	300
Standby Power (kW)	240
Prime Power (kVA)	275
Prime Power (kW)	220
Power Factor (Cos Phi)	0.8
Diesel Engine	6LTAA9.5-G3
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

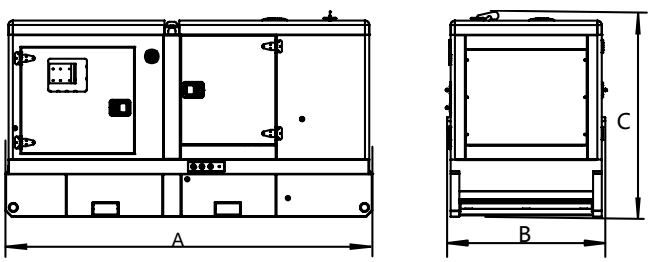
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL300-O	Open set	2690	1175	1860	2018	450
PCL300-C	Silent set	4350	1450	2327	3327	460

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	6LTAA9.5-G3
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Cooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	116.5X145
Displacement (L)	9.5
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	16.6：1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	66
Fuel Consumption @100% load PRP (L/H)	58
Fuel Consumption @75% load PRP (L/H)	40
Fuel Consumption @50% load PRP (L/H)	30
Air System	
Intake air flow (L/s)	235
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	542
Exhaust gas flow (L/s)	634
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	9
Recommended battery (Ah)	100
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	27.6
Cooling System	
Total coolant capacity (L)	34

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL330

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	330
Standby Power (kW)	264
Prime Power (kVA)	300
Prime Power (kW)	240
Power Factor (Cos Phi)	0.8
Diesel Engine	6LTAA9.5-G1
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

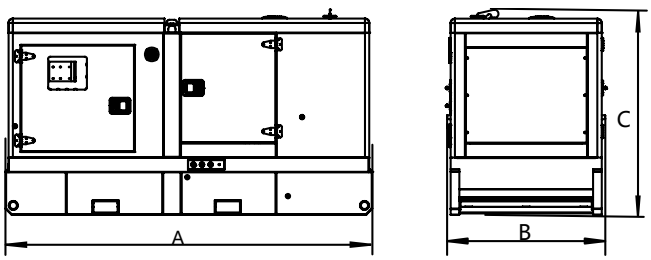
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL330-O	Open set	2690	1175	1860	2019	450
PCL330-C	Silent set	4350	1450	2327	3350	460

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	6LTAA9.5-G1
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Cooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	114X145
Displacement (L)	8.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	16.6：1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	78
Fuel Consumption @100% load PRP (L/H)	70
Fuel Consumption @75% load PRP (L/H)	52
Fuel Consumption @50% load PRP (L/H)	35
Air System	
Intake air flow (L/s)	310
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	600
Exhaust gas flow (L/s)	332
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	9
Recommended battery (Ah)	100
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	32.4
Cooling System	
Total coolant capacity (L)	57.1

PROTECT POWER SYSTEMS

PCL330

Industrial Range | Powered by Cummins

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL358

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	358
Standby Power (kW)	286
Prime Power (kVA)	325
Prime Power (kW)	260
Power Factor (Cos Phi)	0.8
Diesel Engine	6LTAA9.5G1
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

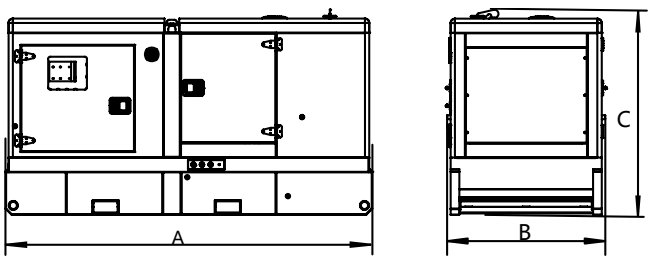
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL358-O	Open set	2840	1180	1820	2389	600
PCL358-C	Silent set	4350	1450	2327	3462	650

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	6LTAA9.5G1
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Cooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	116.5X148
Displacement (L)	9.5
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	16.6：1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	78
Fuel Consumption @100% load PRP (L/H)	70
Fuel Consumption @75% load PRP (L/H)	52
Fuel Consumption @50% load PRP (L/H)	35
Air System	
Intake air flow (L/s)	310
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	600
Exhaust gas flow (L/s)	332
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	9
Recommended battery (Ah)	100
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	32.4
Cooling System	
Total coolant capacity (L)	57.1

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL385

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	385
Standby Power (kW)	308
Prime Power (kVA)	350
Prime Power (kW)	280
Power Factor (Cos Phi)	0.8
Diesel Engine	NTA855-G4
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

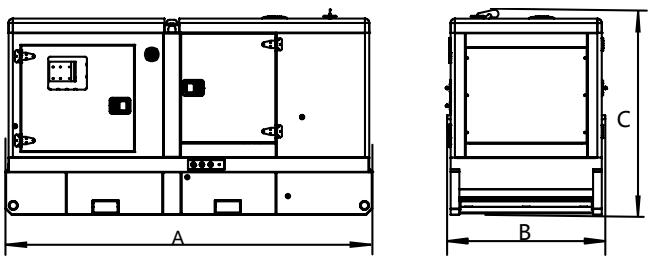
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL385-O	Open set	3050	1151	2240	/	450
PCL385-C	Silent set	4365	1450	2260	/	625

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	NTA855-G4
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Aftercooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	140X152
Displacement (L)	14
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	14：1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	84
Fuel Consumption @100% load PRP (L/H)	76
Fuel Consumption @75% load PRP (L/H)	57
Fuel Consumption @50% load PRP (L/H)	39
Air System	
Intake air flow (L/s)	408
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	524
Exhaust gas flow (L/s)	1128
Maximum allowed back pressure (kPa)	10.1
Starting System	
Starting power(kW)	7.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	36
Cooling System	
Total coolant capacity (L)	49.2

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL440

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	440
Standby Power (kW)	352
Prime Power (kVA)	400
Prime Power (kW)	320
Power Factor (Cos Phi)	0.8
Diesel Engine	QSNT-G3
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

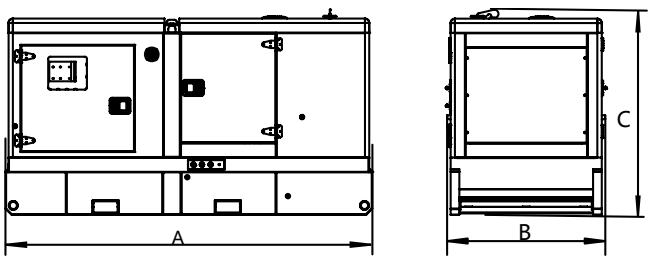
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL440-O	Open set	3050	1151	2240	/	600
PCL440-C	Silent set	4350	1450	2327	/	750

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	QSNT-G3
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Air to Air charge cooling
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	140X152
Displacement (L)	14
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	16.3.1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	87.7
Fuel Consumption @100% load PRP (L/H)	78.6
Fuel Consumption @75% load PRP (L/H)	61.2
Fuel Consumption @50% load PRP (L/H)	43.3
Air System	
Intake air flow (L/s)	408
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	524
Exhaust gas flow (L/s)	1128
Maximum allowed back pressure (kPa)	10.1
Starting System	
Starting power(kW)	7.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	36
Cooling System	
Total coolant capacity (L)	49.2

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL500

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	500
Standby Power (kW)	400
Prime Power (kVA)	450
Prime Power (kW)	360
Power Factor (Cos Phi)	0.8
Diesel Engine	QSZ13-G5
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

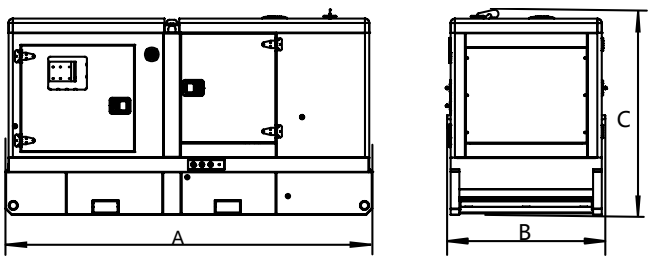
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL500-O	Open set	2980	1360	2290	/	600
PCL500-C	Silent set	4365	1650	2465	/	750

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	QSZ13-G5
Engine type	4-stroke diesel
Governor type	ECU
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Cooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	130X163
Displacement (L)	13
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17.1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	107.1
Fuel Consumption @100% load PRP (L/H)	93.2
Fuel Consumption @75% load PRP (L/H)	69.9
Fuel Consumption @50% load PRP (L/H)	19
Air System	
Intake air flow (L/s)	492
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	524
Exhaust gas flow (L/s)	1128
Maximum allowed back pressure (kPa)	10.1
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	75.33
Cooling System	
Total coolant capacity (L)	23.1(engine only)

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL513

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	513
Standby Power (kW)	410
Prime Power (kVA)	500
Prime Power (kW)	400
Power Factor (Cos Phi)	0.8
Diesel Engine	QSZ13-G3
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230V
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

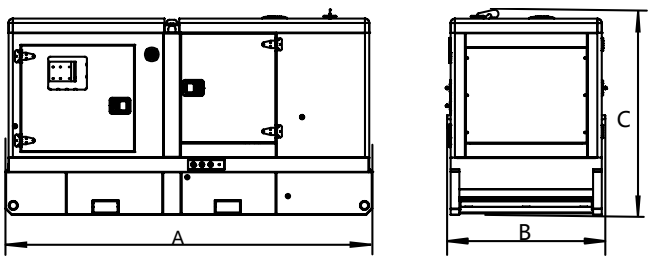
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL513-O	Open set	3190	1390	2135	3410	800
PCL513-C	Silent set	4365	1650	2465	4464	1100

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	QSZ13-G3
Engine type	4-stroke diesel
Governor type	ECU
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Cooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	130X163
Displacement (L)	13
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	17:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	105.5
Fuel Consumption @100% load PRP (L/H)	101
Fuel Consumption @75% load PRP (L/H)	74.2
Fuel Consumption @50% load PRP (L/H)	48.9
Air System	
Intake air flow (L/s)	505
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	547
Exhaust gas flow (L/s)	481
Maximum allowed back pressure (kPa)	13
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	75.33
Cooling System	
Total coolant capacity (L)	23.1(engine only)

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL650

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	650
Standby Power (kW)	520
Prime Power (kVA)	600
Prime Power (kW)	480
Power Factor (Cos Phi)	0.8
Diesel Engine	KTA19-G8
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

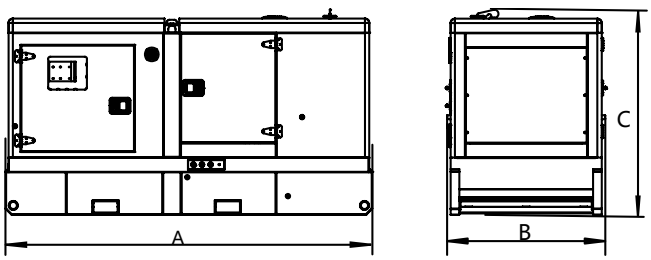
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL650-O	Open set	3310	1375	2230	3860	650
PCL650-C	Silent set	4912	1650	2465	5520	810

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	KTA19-G8
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Aftercooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	159X159
Displacement (L)	18.9
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	13.9:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	144
Fuel Consumption @100% load PRP (L/H)	120
Fuel Consumption @75% load PRP (L/H)	90
Fuel Consumption @50% load PRP (L/H)	60
Air System	
Intake air flow (L/s)	772
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	571
Exhaust gas flow (L/s)	1975
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	50
Cooling System	
Total coolant capacity (L)	102

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL650A

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	650
Standby Power (kW)	520
Prime Power (kVA)	600
Prime Power (kW)	480
Power Factor (Cos Phi)	0.8
Diesel Engine	KTAA19-G6A
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

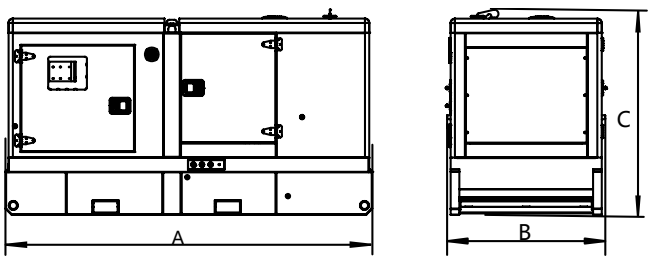
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL650A-O	Open set	3310	1375	2230	3860	1100
PCL650A-C	Silent set	5012	1950	2540	5520	1000

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	KTAA19-G6A
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Air to air Aftercooled
Number of cylinders and arrangement	6-L
Bore and stroke (mm*mm)	159X159
Displacement (L)	19
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	13.9:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	158
Fuel Consumption @100% load PRP (L/H)	129.3
Fuel Consumption @75% load PRP (L/H)	96
Fuel Consumption @50% load PRP (L/H)	63.5
Air System	
Intake air flow (L/s)	850
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	446
Exhaust gas flow (L/s)	2478
Maximum allowed back pressure (kPa)	8.4
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	50
Cooling System	
Total coolant capacity (L)	102

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL825

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	825
Standby Power (kW)	660
Prime Power (kVA)	750
Prime Power (kW)	600
Power Factor (Cos Phi)	0.8
Diesel Engine	KTA38G2
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

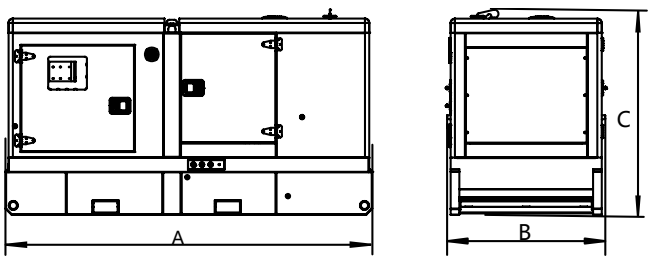
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL825-O	Open set	4170	1800	2250	6950	/
PCL825-C	Silent set	5812	2090	2550	8950	/

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	KTA38G2
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Aftercooled
Number of cylinders and arrangement	12-V
Bore and stroke (mm*mm)	159X159
Displacement (L)	37.8
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	14.5:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	187
Fuel Consumption @100% load PRP (L/H)	170
Fuel Consumption @75% load PRP (L/H)	130.5
Fuel Consumption @50% load PRP (L/H)	92
Air System	
Intake air flow (L/s)	1126
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	536
Exhaust gas flow (L/s)	3225
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	/
Cooling System	
Total coolant capacity (L)	/

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL880

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	880
Standby Power (kW)	704
Prime Power (kVA)	800
Prime Power (kW)	640
Power Factor (Cos Phi)	0.8
Diesel Engine	KTA38G2B
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

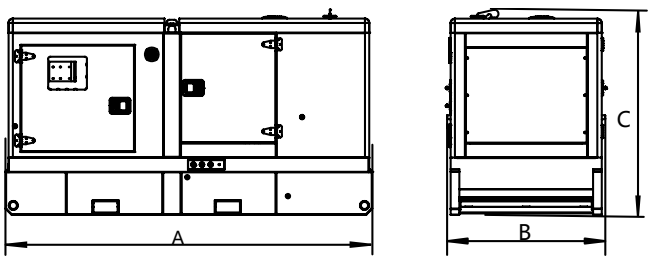
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL880-O	Open set	4170	1800	2250	7250	/
PCL880-C	Silent set	5812	2090	2550	9250	/

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	KTA38G2B
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Charge Air Aftercooled
Number of cylinders and arrangement	12-V
Bore and stroke (mm*mm)	159X159
Displacement (L)	37.8
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	14.5:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	187
Fuel Consumption @100% load PRP (L/H)	170
Fuel Consumption @75% load PRP (L/H)	130.5
Fuel Consumption @50% load PRP (L/H)	92
Air System	
Intake air flow (L/s)	920
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	552
Exhaust gas flow (L/s)	2634
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	/
Cooling System	
Total coolant capacity (L)	/

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL1000

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	1000
Standby Power (kW)	800
Prime Power (kVA)	900
Prime Power (kW)	720
Power Factor (Cos Phi)	0.8
Diesel Engine	KTA38G2A
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

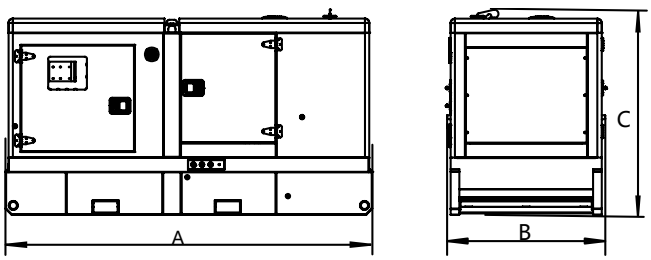
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL1000-O	Open set	4170	1800	2250	7250	/
PCL1000-C	Silent set	5812	2090	2550	10870	/

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	KTA38G2A
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Aftercooled
Number of cylinders and arrangement	12-V
Bore and stroke (mm*mm)	159X159
Displacement (L)	37.8
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	14.5:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	219
Fuel Consumption @100% load PRP (L/H)	197.6
Fuel Consumption @75% load PRP (L/H)	153.3
Fuel Consumption @50% load PRP (L/H)	109
Air System	
Intake air flow (L/s)	1126
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	536
Exhaust gas flow (L/s)	3225
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	/
Cooling System	
Total coolant capacity (L)	/

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL1100

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	1100
Standby Power (kW)	880
Prime Power (kVA)	1000
Prime Power (kW)	800
Power Factor (Cos Phi)	0.8
Diesel Engine	KTA38G5
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

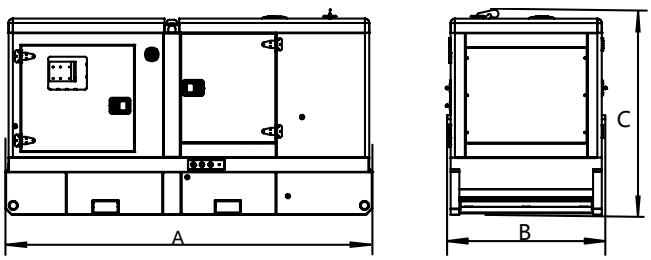
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL1100-O	Open set	4270	2060	2200	7250	REQ
PCL1100-C	Silent set	5812	2290	2550	10870	1000
PCL1100-P	20ft Container	6058	2438	2591	11490	REQ

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	KTA38G5
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Air to Air Aftercooled
Number of cylinders and arrangement	12-V
Bore and stroke (mm*mm)	159X159
Displacement (L)	37.8
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	13.9:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	228
Fuel Consumption @100% load PRP (L/H)	209
Fuel Consumption @75% load PRP (L/H)	161
Fuel Consumption @50% load PRP (L/H)	113
Air System	
Intake air flow (L/s)	1213
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	513
Exhaust gas flow (L/s)	3360
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	/
Cooling System	
Total coolant capacity (L)	/

PROTECT POWER SYSTEMS

PCL1100

Industrial Range | Powered by Cummins

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL1250

Industrial Range | Powered by Cummins

General Characteristics

Item	Data
Standby Power (kVA)	1250
Standby Power (kW)	1000
Prime Power (kVA)	1125
Prime Power (kW)	900
Power Factor (Cos Phi)	0.8
Diesel Engine	KTA38G9
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

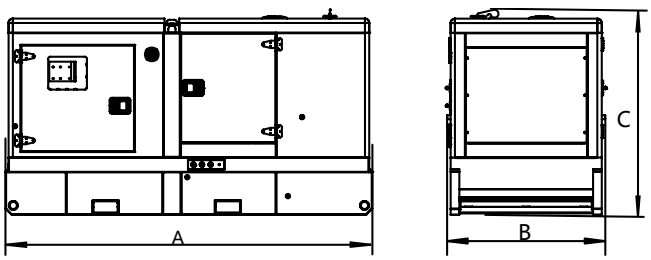
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL1250-O	Open set	4170	1800	2250	7725	/
PCL1250-C	Silent set	5812	2090	2550	10870	/

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	KTA38G9
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Aftercooled
Number of cylinders and arrangement	12-V
Bore and stroke (mm*mm)	159X159
Displacement (L)	37.8
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	14.5:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	-
Fuel Consumption @100% load PRP (L/H)	256
Fuel Consumption @75% load PRP (L/H)	196
Fuel Consumption @50% load PRP (L/H)	137
Air System	
Intake air flow (L/s)	1309
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	529
Exhaust gas flow (L/s)	3540
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	/
Cooling System	
Total coolant capacity (L)	/

PROTECT POWER SYSTEMS

PCL1250

Industrial Range | Powered by Cummins

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

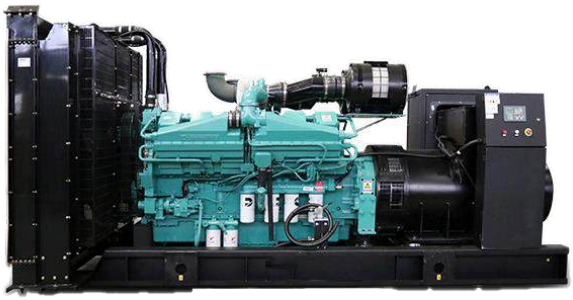
Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL1375

Industrial Range | Powered by Cummins



General Characteristics

Item	Data
Standby Power (kVA)	1375
Standby Power (kW)	1100
Prime Power (kVA)	1250
Prime Power (kW)	1000
Power Factor (Cos Phi)	0.8
Diesel Engine	KTA50G3
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

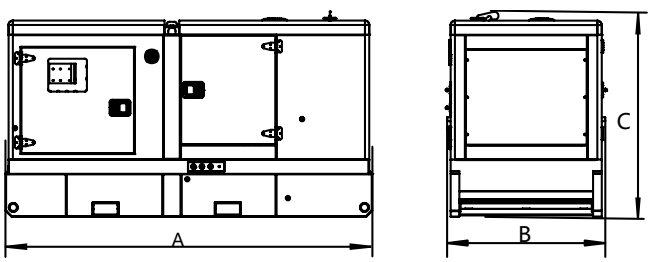
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL1375-O	Open set	4960	2060	2220	7725	/
PCL1375-P	20ft container	6058	2438	2591	-	/

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	KTA50G3
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Aftercooled
Number of cylinders and arrangement	16-V
Bore and stroke (mm*mm)	159X159
Displacement (L)	50.3
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	14.5:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	293
Fuel Consumption @100% load PRP (L/H)	261
Fuel Consumption @75% load PRP (L/H)	199
Fuel Consumption @50% load PRP (L/H)	139
Air System	
Intake air flow (L/s)	1746
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	525
Exhaust gas flow (L/s)	4011
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	177
Cooling System	
Total coolant capacity (L)	270

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

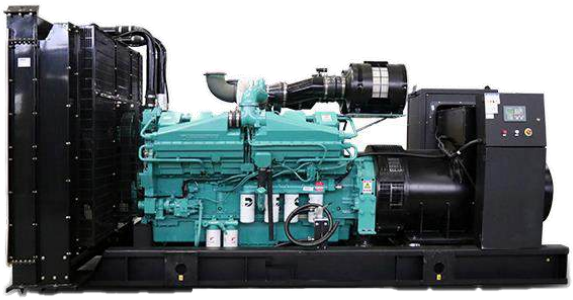
Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL1675

Industrial Range | Powered by Cummins



General Characteristics

Item	Data
Standby Power (kVA)	1675
Standby Power (kW)	1340
Prime Power (kVA)	1400
Prime Power (kW)	1120
Power Factor (Cos Phi)	0.8
Diesel Engine	KTA50G8
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

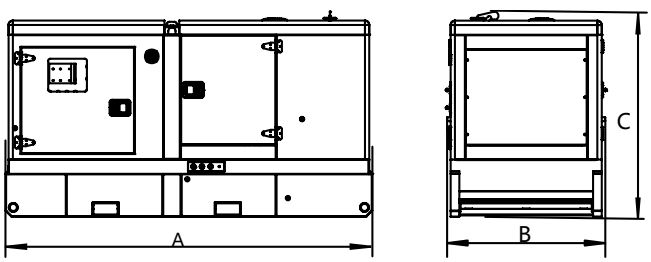
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

Prime Power(PRP): The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

- **Terms of use**

According to the standard, the nominal power assigned by the genset is given for 25 ℃ air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL1675-O	Open set	5520	2270	2450	10951	/
PCL1675-P	20ft High container	6058	2438	2896	-	/

Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	KTA50G8
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Low Temperature Aftercooled
Number of cylinders and arrangement	16-V
Bore and stroke (mm*mm)	159X159
Displacement (L)	50.3
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	15:1
Air Filter	Dry
Fuel Consumption	
Fuel Consumption @100% load ESP (L/H)	345
Fuel Consumption @100% load PRP (L/H)	289
Fuel Consumption @75% load PRP (L/H)	222
Fuel Consumption @50% load PRP (L/H)	155
Air System	
Intake air flow (L/s)	1655
Cooling air flow (L/s)	/
Exhaust System	
Maximum exhaust temperature (°C)	510
Exhaust gas flow (L/s)	4350
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	177
Cooling System	
Total coolant capacity (L)	348

PROTECT POWER SYSTEMS

PCL1675

Industrial Range | Powered by Cummins

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Digital Instrumentation
- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

Commands and other
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Protections with shutdown
- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

PROTECT POWER SYSTEMS

PCL1675A

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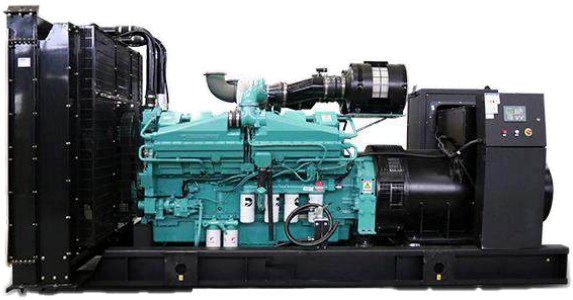

General Characteristics

Item	Data
Standby Power (kVA)	1675
Standby Power (kW)	1340
Prime Power (kVA)	1400
Prime Power (kW)	1120
Power Factor (Cos Phi)	0.8
Diesel Engine	KTA50GS8
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

- **Power Definition**

Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

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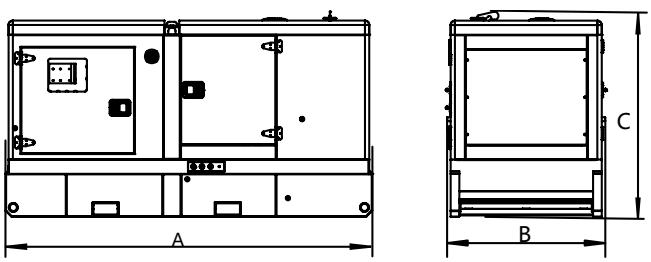
Dimensions & Weights & Fuel Tank



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL1675A-O	Open set	5520	2270	2450	10951	/
PCL1675A-P	20ft High container	6058	2438	2896	-	/

■ Engine Data

General Engine Data	
Engine brand	Cummins
Engine model	KTA50GS8
Engine type	4-stroke diesel
Governor type	Electronic
Injection type	Direct
Aspiration type	Turbocharged and Low Temperature Aftercooled
Number of cylinders and arrangement	16-V
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Exhaust gas flow (L/s)	4350
Maximum allowed back pressure (kPa)	10
Starting System	
Starting power(kW)	8.5
Recommended battery (Ah)	120
Number of Batteries	2
Auxiliary voltage (Vdc)	24
Oil System	
Engine oil capacity (L)	177
Cooling System	
Total coolant capacity (L)	348

PROTECT POWER SYSTEMS

PCL1675A

Industrial Range | Powered by Cummins

Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

Control Module

Protections with alarm
- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

Other Protections
- Emergency stop button.
- Panel protected through door with lockable handle

Digital Instrumentation
- Generating set voltage.
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- Engine protections: low fuel level, low oil pressure, high engine temperature,
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