

## Model – Cummins - APS C110



### Salient Features

#### **Power:**

- ✓ Prime Power @ 50Hz : 80kw/ 100kVA
- ✓ Stand By Power @ 50Hz : 88kw/110kVA

#### **Features:**

- ✓ Engine (Cummins 6BT5.9G2)
- ✓ Charge alternator 12V Governor: Mechanical
- ✓ Alternator (Stamford UCI274C)
- ✓ Single bearing alternator IP 23, insulation class H/H
- ✓ Radiator 50 C (122 F) max
- ✓ Skid and vibration isolators
- ✓ Dry type air filter
- ✓ Main line circuit breaker
- ✓ 12V battery, rack and cable
- ✓ Industrial silencer
- ✓ User manual

### Engine Options:

#### **Engine & Radiator:**

- ✓ Heat shield protection
- ✓ Oil drain extension
- ✓ Heavy duty oil filter
- ✓ Lube oil drain pump
- ✓ Radiator core guard
- ✓ Battery charger
- ✓ Block header

#### **Fuel:**

- ✓ 24 hour day tank
- ✓ Bulk fuel tank connections
- ✓ Water separator fuel filter

**Alternator:**

- ✓ Anti-Condensation Heater
- ✓ Enforced impregnation
- ✓ Oversized alternator

**Exhaust:**

- ✓ Residential silencer
- ✓ Flexible exhaust connection

**Enclosure:**

- ✓ EM-1,5
- ✓ 83dba @ 1m silent canopy

**Control Panel:**

- ✓ Paralleling System
- ✓ Co-Map
- ✓ Remote annunciator
- ✓ Key start panel

**Literature:**

- ✓ Parts
- ✓ Maintenance

<b>Engine Data</b>			
MANUFACTURER/MODEL	Cummins 6BT5.9G2	PISTON SPEED	7.7 MS
CYLINDER ARRANGEMENT	6 inline	Max. standby power at rated RPM	88 KW
DISPLACEMENT	5.9 L	Frequency regulation, steady state	+/- 2.5%
BORE AND STROKE	102.0 x 120 mm	BMEP	5.62bar (81psi)
COMPRESSION RATIO	17.5:1	Governor: type	Electronic
RATED RPM	1500Rpm		

<b>Alternator Data</b>			
MANUFACTURER / TYPE	Stamford UCI274C	EXCITER TYPE	NO
NUMBER OF PHASE	3	INSULATION: CLASS, TEMPERATURE RISE	HH

POWER FACTOR COS PHI	0.8	VOLTAGE REGULATOR	+ / - 0.5%
ALTITUDE	1000	BEARING NUMBER	1 (AT NO LOAD)
OVER SPEED	RPM	COUPLING	DIRECT
POLE: NUMBER	4	RECOVERY TIME (20% VOLT DIP) MS	MS

<b>Other Alternator Data</b>			
CONTINUOUS NOMINAL RATING @ 40° C	100 KVA	DIRECT AXIS TRANSIENT REACTANCE ATURATED (X'd)	18.5%
STANDBY RATING @ 27° C	110 KVA	SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	18ms
EFFICIENCIES @ 4/4 LOAD	83.5%	DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	13.3%
AIR FLOW	3.5 m3/S (7416.05cfm)	SUBTRANSIENT TIME CONSTANT (T'd)	12ms
SHORT CIRCUIT RATIO: 50 (Kcc)	0.78	QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	72.7%
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	206%	ZERO SEQUENCE REACTACE UNSATURATED (Xo)	6.4%
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	68%	NEGATIVE SEQUENCE REACTANCE SATURATED (X2)	18.3%
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	0.78ms	ARMATURE TIME CONSTANT (Ta)	13ms
NO LOAD EXCITATION CURRENT (io)	A	TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	%
FULL LOAD EXCITATION VOLTAGE (uc)	A	NO LOAD LOSSES	N/A
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	ms	HEAT REJECTION	kW
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	kVA		

<b>Exhaust System</b>			
EXHAUST GAS FLOW	23.60 L	EXHAUST TEMPERATURE	490° C

<b>Fuel System</b>			
110% (OF THE PRIME POWER)	35 L/H	100% (OF THE PRIME POWER)	22 L/H
75% (OF THE PRIME POWER)	17 L/H	50% (OF THE PRIME POWER)	11 L/H

<b>Oil System</b>			
Total oil capacity w/filters	29dm <sup>3</sup>	Oil consumption 100% load	<0.3g/kwh
Oil Pressure low idle	0.7bar	Oil capacity carter	3.6L (1.0 gal)
Oil Pressure rated RPM	3-6 bar		

<b>Thermal Balance</b>			
Heat rejection to exhaust	7kW (398 Btu/ mn)	Heat rejection to coolant	8kw (455 Btu/ mn)
Radiated heat to ambient	0.5kW (28 Btu/ mn)		

<b>Air Intake</b>			
MAX. INTAKE RESTRICTION	COMBUSTION AIR FLOW: 310mm CE (12in.WG)	ENGINE AIR FLOW	COOLING AIR FLOW: 9.9L/s (21cfm)

<b>Coolant System</b>			
Radiator & engine capacity	20dm <sup>3</sup>	Fan air flow	4.3m <sup>3</sup> /s (848cfm)
Max water temperature	83-95°C	Available restriction on air flow	22mm CE
Outlet water temperature	93°C (199°F)	Type of coolant	Gen cool
Fan power	5kW	Thermostat	76.5-90°C

<b>EMISSIONS</b>			
HC	30 mg/Nm3	Nox	960 mg/Nm3
CO	250 mg/Nm3	PM	120 mg/Nm3

<b>Generator Ratings</b>						
<b>VOLTAGE</b>	<b>HZ</b>	<b>PHASE</b>	<b>P.F.</b>	<b>STANDBY AMPS</b>	<b>STAND BY RATINGS KW/KVA</b>	<b>PRIME RATINGS KW/KVA</b>
415/240	50	3	1	150	88/110	80/100
220/110	50	3	1	150	88/110	80/100

RRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12hour period of operation, in accordance with ISO 3046-1.

ESP: The standby power rating is applicable for supplying emergency power in variable load applications i accordance with ISO 8528-1. Overload is not allowed

## Model – Cummins - APS C150



### Salient Features

#### **Power:**

- ✓ Prime Power @ 50Hz : 105.6kw/ 132kVA
- ✓ Stand By Power @ 50Hz : 116kw/150kVA

#### **Features:**

- ✓ Engine (Cummins 6BTAA5.9G2)
- ✓ Charge alternator 12V Governor: Mechanical
- ✓ Alternator (Stamford UCI274E)
- ✓ Single bearing alternator IP 23, insulation class H/H
- ✓ Radiator 50 C (122 F) max
- ✓ Skid and vibration isolators
- ✓ Dry type air filter
- ✓ Main line circuit breaker
- ✓ 12V battery, rack and cable
- ✓ Industrial silencer
- ✓ User manual

#### **Engine Options:**

#### **Engine & Radiator:**

- ✓ Heat shield protection
- ✓ Oil drain extension
- ✓ Heavy duty oil filter
- ✓ Lube oil drain pump
- ✓ Radiator core guard
- ✓ Battery charger
- ✓ Block header

**Fuel:**

- ✓ 24 hour day tank
- ✓ Bulk fuel tank connections
- ✓ Water separator fuel filter

**Alternator:**

- ✓ Anti-Condensation Heater
- ✓ Enforced impregnation
- ✓ Oversized alternator

**Exhaust:**

- ✓ Residential silencer
- ✓ Flexible exhaust connection

**Enclosure:**

- ✓ EM-1,5
- ✓ 83dba @ 1m silent canopy

**Control Panel:**

- ✓ Paralleling System
- ✓ Co-Map
- ✓ Remote annunciator
- ✓ Key start panel

**Literature:**

- ✓ Parts
- ✓ Maintenance

<b>Engine Data</b>			
MANUFACTURER/MODEL	Cummins 6BTAA5.9G2	PISTON SPEED	7.7 MS
CYLINDER ARRANGEMENT	6 inline	Max. standby power at rated RPM	116 KW
DISPLACEMENT	5.9 L	Frequency regulation, steady state	+/- 2.5%
BORE AND STROKE	102.0 x 120 mm	BMEP	5.62bar (81psi)
COMPRESSION RATIO	17.5:1	Governor: type	Electronic
RATED RPM	1500Rpm		

<b>Alternator Data</b>			
MANUFACTURER / TYPE	Stamford UCI274E	EXCITER TYPE	NO
NUMBER OF PHASE	3	INSULATION: CLASS, TEMPERATURE RISE	HH
POWER FACTOR COS PHI	0.8	VOLTAGE REGULATOR	+ / - 0.5%
ALTITUDE	1000	BEARING NUMBER	1 (AT NO LOAD)
OVER SPEED	RPM	COUPLING	DIRECT
POLE: NUMBER	4	RECOVERY TIME (20% VOLT DIP) MS	MS

<b>Other Alternator Data</b>			
CONTINUOUS NOMINAL RATING @ 40° C	132 KVA	DIRECT AXIS TRANSIENT REACTANCE ATURATED (X'd)	18.5%
STANDBY RATING @ 27° C	145 KVA	SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	18ms
EFFICIENCIES @ 4/4 LOAD	83.5%	DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	13.3%
AIR FLOW	3.5 m3/S (7416.05cfm)	SUBTRANSIENT TIME CONSTANT (T'd)	12ms
SHORT CIRCUIT RATIO: 50 (Kcc)	0.78	QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	72.7%
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	206%	ZERO SEQUENCE REACTACE UNSATURATED (Xo)	6.4%
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	68%	NEGATIVE SEQUENCE REACTANCE SATURATED (X2)	18.3%
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	0.78ms	ARMATURE TIME CONSTANT (Ta)	13ms
NO LOAD EXCITATION CURRENT (io)	A	TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	%
FULL LOAD EXCITATION VOLTAGE (uc)	A	NO LOAD LOSSES	N/A
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	ms	HEAT REJECTION	kW
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	kVA		



<b>Exhaust System</b>			
EXHAUST GAS FLOW	23.60 L	EXHAUST TEMPERATURE	490° C

<b>Fuel System</b>			
110% (OF THE PRIME POWER)	40 L/H	100% (OF THE PRIME POWER)	30 L/H
75% (OF THE PRIME POWER)	22.50 L/H	50% (OF THE PRIME POWER)	15 L/H

<b>Oil System</b>			
Total oil capacity w/filters	29dm3	Oil consumption 100% load	<0.3g/kwh
Oil Pressure low idle	0.7bar	Oil capacity carter	3.6L (1.0 gal)
Oil Pressure rated RPM	3-6 bar		

<b>Thermal Balance</b>			
Heat rejection to exhaust	7kW (398 Btu/ mn)	Heat rejection to coolant	8kw (455 Btu/ mn)
Radiated heat to ambient	0.5kW (28 Btu/ mn)		

<b>Air Intake</b>			
MAX. INTAKE RESTRICTION	COMBUSTION AIR FLOW: 310mm CE (12in. WG)	ENGINE AIR FLOW	COOLING AIR FLOW: 9.9L/s (21cfm)

<b>Coolant System</b>			
Radiator & engine capacity	20dm3	Fan air flow	4.3m3/s (848cfm)
Max water temperature	83-95°C	Available restriction on air flow	22mm CE
Outlet water temperature	93°C (199°F)	Type of coolant	Gen cool

Fan power	5kW	Thermostat	76.5-90°C
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<b>EMISSIONS</b>			
HC	30 mg/Nm3	Nox	960 mg/Nm3
CO	250 mg/Nm3	PM	120 mg/Nm3

<b>Generator Ratings</b>						
<b>VOLTAGE</b>	<b>HZ</b>	<b>PHASE</b>	<b>P.F.</b>	<b>STANDBY AMPS</b>	<b>STAND BY RATINGS KW/KVA</b>	<b>PRIME RATINGS KW/KVA</b>
415/240	50	3	1	218	116/145	105.6/132
220/110	50	3	1	218	116/145	105.6/132

RRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12hour period of operation, in accordance with ISO 3046-1.

ESP: The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed

## Model – Cummins - APS C175



### Salient Features

#### **Power:**

- ✓ Prime Power @ 50Hz : 128kw/ 160kVA
- ✓ Stand By Power @ 50Hz : 140kw/175kVA

#### **Features:**

- ✓ Engine (Cummins 6CTA8.3G2)
- ✓ Charge alternator 12V Governor: Mechanical
- ✓ Alternator (Stamford UC274F)
- ✓ Single bearing alternator IP 23, insulation class H/H
- ✓ Radiator 50 C (122 F) max
- ✓ Skid and vibration isolators
- ✓ Dry type air filter
- ✓ Main line circuit breaker
- ✓ 12V battery, rack and cable
- ✓ Industrial silencer
- ✓ User manual

### Engine Options:

#### **Engine & Radiator:**

- ✓ Heat shield protection
- ✓ Oil drain extension
- ✓ Heavy duty oil filter
- ✓ Lube oil drain pump
- ✓ Radiator core guard
- ✓ Battery charger
- ✓ Block header

**Fuel:**

- ✓ 24 hour day tank
- ✓ Bulk fuel tank connections
- ✓ Water separator fuel filter

**Alternator:**

- ✓ Anti-Condensation Heater
- ✓ Enforced impregnation
- ✓ Oversized alternator

**Exhaust:**

- ✓ Residential silencer
- ✓ Flexible exhaust connection

**Enclosure:**

- ✓ EM-1,5
- ✓ 83dba @ 1m silent canopy

**Control Panel:**

- ✓ Paralleling System
- ✓ Co-Map
- ✓ Remote annunciator
- ✓ Key start panel

**Literature:**

- ✓ Parts
- ✓ Maintenance

<b>Engine Data</b>			
MANUFACTURER/MODEL	Cummins 6CTA8.3G2	PISTON SPEED	7.7 MS
CYLINDER ARRANGEMENT	6 inline	Max. standby power at rated RPM	140 KW
DISPLACEMENT	8.3 L	Frequency regulation, steady state	+/- 2.5%
BORE AND STROKE	114 x 135 mm	BMEP	5.62bar (81psi)
COMPRESSION RATIO	17 :1	Governor: type	Electronic
RATED RPM	1500Rpm		

<b>Alternator Data</b>			
MANUFACTURER / TYPE	Stamford UC274F	EXCITER TYPE	NO
NUMBER OF PHASE	3	INSULATION: CLASS, TEMPERATURE RISE	HH
POWER FACTOR COS PHI	0.8	VOLTAGE REGULATOR	+ / - 0.5%
ALTITUDE	1000	BEARING NUMBER	1 (AT NO LOAD)
OVER SPEED	RPM	COUPLING	DIRECT
POLE: NUMBER	4	RECOVERY TIME (20% VOLT DIP) MS	MS

<b>Other Alternator Data</b>			
CONTINUOUS NOMINAL RATING @ 40° C	160 KVA	DIRECT AXIS TRANSIENT REACTANCE ATURATED (X'd)	18.5%
STANDBY RATING @ 27° C	175 KVA	SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	18ms
EFFICIENCIES @ 4/4 LOAD	83.5%	DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	13.3%
AIR FLOW	3.5 m3/S (7416.05cfm)	SUBTRANSIENT TIME CONSTANT (T'd)	12ms
SHORT CIRCUIT RATIO: 50 (Kcc)	0.78	QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	72.7%
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	206%	ZERO SEQUENCE REACTACE UNSATURATED (Xo)	6.4%
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	68%	NEGATIVE SEQUENCE REACTANCE SATURATED (X2)	18.3%
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	0.78ms	ARMATURE TIME CONSTANT (Ta)	13ms
NO LOAD EXCITATION CURRENT (io)	A	TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	%
FULL LOAD EXCITATION VOLTAGE (uc)	A	NO LOAD LOSSES	N/A
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	ms	HEAT REJECTION	kW
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	kVA		

<b>Exhaust System</b>			
EXHAUST GAS FLOW	23.60 L	EXHAUST TEMPERATURE	490° C

<b>Fuel System</b>			
110% (OF THE PRIME POWER)	45 L/H	100% (OF THE PRIME POWER)	35 L/H
75% (OF THE PRIME POWER)	26.6 L/H	50% (OF THE PRIME POWER)	17.5 L/H

<b>Oil System</b>			
Total oil capacity w/filters	29dm <sup>3</sup>	Oil consumption 100% load	<0.3g/kwh
Oil Pressure low idle	0.7bar	Oil capacity carter	3.6L (1.0 gal)
Oil Pressure rated RPM	3-6 bar		

<b>Thermal Balance</b>			
Heat rejection to exhaust	7kW (398 Btu/ mn)	Heat rejection to coolant	8kw (455 Btu/ mn)
Radiated heat to ambient	0.5kW (28 Btu/ mn)		

<b>Air Intake</b>			
MAX. INTAKE RESTRICTION	COMBUSTION AIR FLOW: 310mm CE (12in. WG)	ENGINE AIR FLOW	COOLING AIR FLOW: 9.9L/s (21cfm)

<b>Coolant System</b>			
Radiator & engine capacity	20dm <sup>3</sup>	Fan air flow	4.3m <sup>3</sup> /s (848cfm)
Max water temperature	83-95°C	Available restriction on air flow	22mm CE
Outlet water temperature	93°C (199°F)	Type of coolant	Gen cool

Fan power	5kW	Thermostat	76.5-90°C
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<b>EMISSIONS</b>			
HC	30 mg/Nm3	Nox	960 mg/Nm3
CO	250 mg/Nm3	PM	120 mg/Nm3

<b>Generator Ratings</b>						
<b>VOLTAGE</b>	<b>HZ</b>	<b>PHASE</b>	<b>P.F.</b>	<b>STANDBY AMPS</b>	<b>STAND BY RATINGS KW/KVA</b>	<b>PRIME RATINGS KW/KVA</b>
415/240	50	3	1	263	140/175	128/160
220/110	50	3	1	263	140/175	128/160

RRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12hour period of operation, in accordance with ISO 3046-1.

ESP: The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed

## Model – Cummins - APS C200



### Salient Features

#### **Power:**

- ✓ Prime Power @ 50Hz : 144kw/ 180kVA
- ✓ Stand By Power @ 50Hz : 160kw/ 200kVA

#### **Features:**

- ✓ Engine (Cummins 6CTA8.3G2)
- ✓ Charge alternator 12V Governor: Mechanical
- ✓ Alternator (Stamford UC274H)
- ✓ Single bearing alternator IP 23, insulation class H/H
- ✓ Radiator 50 C (122 F) max
- ✓ Skid and vibration isolators
- ✓ Dry type air filter
- ✓ Main line circuit breaker
- ✓ 12V battery, rack and cable
- ✓ Industrial silencer
- ✓ User manual

### Engine Options:

#### **Engine & Radiator:**

- ✓ Heat shield protection
- ✓ Oil drain extension
- ✓ Heavy duty oil filter
- ✓ Lube oil drain pump
- ✓ Radiator core guard
- ✓ Battery charger
- ✓ Block header



**Fuel:**

- ✓ 24 hour day tank
- ✓ Bulk fuel tank connections
- ✓ Water separator fuel filter

**Alternator:**

- ✓ Anti-Condensation Heater
- ✓ Enforced impregnation
- ✓ Oversized alternator

**Exhaust:**

- ✓ Residential silencer
- ✓ Flexible exhaust connection

**Enclosure:**

- ✓ EM-1,5
- ✓ 83dba @ 1m silent canopy

**Control Panel:**

- ✓ Paralleling System
- ✓ Co-Map
- ✓ Remote annunciator
- ✓ Key start panel

**Literature:**

- ✓ Parts
- ✓ Maintenance

<b>Engine Data</b>			
MANUFACTURER/MODEL	Cummins 6CTA8.3G2	PISTON SPEED	7.7 MS
CYLINDER ARRANGEMENT	6 inline	Max. standby power at rated RPM	160 KW
DISPLACEMENT	8.3 L	Frequency regulation, steady state	+/- 2.5%
BORE AND STROKE	114 x 135 mm	BMEP	5.62bar (81psi)
COMPRESSION RATIO	17 :1	Governor: type	Electronic
RATED RPM	1500Rpm		

<b>Alternator Data</b>			
MANUFACTURER / TYPE	Stamford UC274H	EXCITER TYPE	NO
NUMBER OF PHASE	3	INSULATION: CLASS, TEMPERATURE RISE	HH
POWER FACTOR COS PHI	0.8	VOLTAGE REGULATOR	+ / - 0.5%
ALTITUDE	1000	BEARING NUMBER	1 (AT NO LOAD)
OVER SPEED	RPM	COUPLING	DIRECT
POLE: NUMBER	4	RECOVERY TIME (20% VOLT DIP) MS	MS

<b>Other Alternator Data</b>			
CONTINUOUS NOMINAL RATING @ 40° C	180 KVA	DIRECT AXIS TRANSIENT REACTANCE ATURATED (X'd)	18.5%
STANDBY RATING @ 27° C	200 KVA	SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	18ms
EFFICIENCIES @ 4/4 LOAD	83.5%	DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	13.3%
AIR FLOW	3.5 m3/S (7416.05cfm)	SUBTRANSIENT TIME CONSTANT (T'd)	12ms
SHORT CIRCUIT RATIO: 50 (Kcc)	0.78	QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	72.7%
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	206%	ZERO SEQUENCE REACTACE UNSATURATED (Xo)	6.4%
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	68%	NEGATIVE SEQUENCE REACTANCE SATURATED (X2)	18.3%
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	0.78ms	ARMATURE TIME CONSTANT (Ta)	13ms
NO LOAD EXCITATION CURRENT (io)	A	TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	%
FULL LOAD EXCITATION VOLTAGE (uc)	A	NO LOAD LOSSES	N/A
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	ms	HEAT REJECTION	kW
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	kVA		

<b>Exhaust System</b>			
EXHAUST GAS FLOW	23.60 L	EXHAUST TEMPERATURE	490° C

<b>Fuel System</b>			
110% (OF THE PRIME POWER)	50 L/H	100% (OF THE PRIME POWER)	40 L/H
75% (OF THE PRIME POWER)	30 L/H	50% (OF THE PRIME POWER)	20 L/H

<b>Oil System</b>			
Total oil capacity w/filters	29dm <sup>3</sup>	Oil consumption 100% load	<0.3g/kwh
Oil Pressure low idle	0.7bar	Oil capacity carter	3.6L (1.0 gal)
Oil Pressure rated RPM	3-6 bar		

<b>Thermal Balance</b>			
Heat rejection to exhaust	7kW (398 Btu/ mn)	Heat rejection to coolant	8kw (455 Btu/ mn)
Radiated heat to ambient	0.5kW (28 Btu/ mn)		

<b>Air Intake</b>			
MAX. INTAKE RESTRICTION	COMBUSTION AIR FLOW: 310mm CE (12in. WG)	ENGINE AIR FLOW	COOLING AIR FLOW: 9.9L/s (21cfm)

<b>Coolant System</b>			
Radiator & engine capacity	20dm <sup>3</sup>	Fan air flow	4.3m <sup>3</sup> /s (848cfm)
Max water temperature	83-95°C	Available restriction on air flow	22mm CE
Outlet water temperature	93°C (199°F)	Type of coolant	Gen cool

Fan power	5kW	Thermostat	76.5-90°C
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<b>EMISSIONS</b>			
HC	30 mg/Nm3	Nox	960 mg/Nm3
CO	250 mg/Nm3	PM	120 mg/Nm3

<b>Generator Ratings</b>						
<b>VOLTAGE</b>	<b>HZ</b>	<b>PHASE</b>	<b>P.F.</b>	<b>STANDBY AMPS</b>	<b>STAND BY RATINGS KW/KVA</b>	<b>PRIME RATINGS KW/KVA</b>
415/240	50	3	1	300	160/200	144/180
220/110	50	3	1	300	160/200	144/180

RRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12hour period of operation, in accordance with ISO 3046-1.

ESP: The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed

## Model – Cummins - APS C220



### Salient Features

#### **Power:**

- ✓ Prime Power @ 50Hz : 160kw/ 200kVA
- ✓ Stand By Power @ 50Hz : 176kw/ 220kVA

#### **Features:**

- ✓ Engine (Cummins 6LTAA8.9G2)
- ✓ Charge alternator 12V Governor: Mechanical
- ✓ Alternator (Stamford UC274H)
- ✓ Single bearing alternator IP 23, insulation class H/H
- ✓ Radiator 50 C (122 F) max
- ✓ Skid and vibration isolators
- ✓ Dry type air filter
- ✓ Main line circuit breaker
- ✓ 12V battery, rack and cable
- ✓ Industrial silencer
- ✓ User manual

### Engine Options:

#### **Engine & Radiator:**

- ✓ Heat shield protection
- ✓ Oil drain extension
- ✓ Heavy duty oil filter
- ✓ Lube oil drain pump
- ✓ Radiator core guard
- ✓ Battery charger
- ✓ Block header

**Fuel:**

- ✓ 24 hour day tank
- ✓ Bulk fuel tank connections
- ✓ Water separator fuel filter

**Alternator:**

- ✓ Anti-Condensation Heater
- ✓ Enforced impregnation
- ✓ Oversized alternator

**Exhaust:**

- ✓ Residential silencer
- ✓ Flexible exhaust connection

**Enclosure:**

- ✓ EM-1,5
- ✓ 83dba @ 1m silent canopy

**Control Panel:**

- ✓ Paralleling System
- ✓ Co-Map
- ✓ Remote annunciator
- ✓ Key start panel

**Literature:**

- ✓ Parts
- ✓ Maintenance

<b>Engine Data</b>			
MANUFACTURER/MODEL	Cummins 6LTAA8.9G2	PISTON SPEED	7.7 MS
CYLINDER ARRANGEMENT	6 inline	Max. standby power at rated RPM	176 KW
DISPLACEMENT	8.9 L	Frequency regulation, steady state	+/- 2.5%
BORE AND STROKE	114 x 144 mm	BMEP	5.62bar (81psi)
COMPRESSION RATIO	17 :1	Governor: type	Electronic
RATED RPM	1500Rpm		

<b>Alternator Data</b>			
MANUFACTURER / TYPE	Stamford UC274H	EXCITER TYPE	NO
NUMBER OF PHASE	3	INSULATION: CLASS, TEMPERATURE RISE	HH
POWER FACTOR COS PHI	0.8	VOLTAGE REGULATOR	+ / - 0.5%
ALTITUDE	1000	BEARING NUMBER	1 (AT NO LOAD)
OVER SPEED	RPM	COUPLING	DIRECT
POLE: NUMBER	4	RECOVERY TIME (20% VOLT DIP) MS	MS

<b>Other Alternator Data</b>			
CONTINUOUS NOMINAL RATING @ 40° C	200 KVA	DIRECT AXIS TRANSIENT REACTANCE ATURATED (X'd)	18.5%
STANDBY RATING @ 27° C	220 KVA	SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	18ms
EFFICIENCIES @ 4/4 LOAD	83.5%	DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	13.3%
AIR FLOW	3.5 m3/S (7416.05cfm)	SUBTRANSIENT TIME CONSTANT (T'd)	12ms
SHORT CIRCUIT RATIO: 50 (Kcc)	0.78	QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	72.7%
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	206%	ZERO SEQUENCE REACTACE UNSATURATED (Xo)	6.4%
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	68%	NEGATIVE SEQUENCE REACTANCE SATURATED (X2)	18.3%
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	0.78ms	ARMATURE TIME CONSTANT (Ta)	13ms
NO LOAD EXCITATION CURRENT (io)	A	TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	%
FULL LOAD EXCITATION VOLTAGE (uc)	A	NO LOAD LOSSES	N/A
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	ms	HEAT REJECTION	kW
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	kVA		

<b>Exhaust System</b>			
EXHAUST GAS FLOW	23.60 L	EXHAUST TEMPERATURE	490° C

<b>Fuel System</b>			
110% (OF THE PRIME POWER)	63 L/H	100% (OF THE PRIME POWER)	53 L/H
75% (OF THE PRIME POWER)	40 L/H	50% (OF THE PRIME POWER)	26.5 L/H

<b>Oil System</b>			
Total oil capacity w/filters	29dm3	Oil consumption 100% load	<0.3g/kwh
Oil Pressure low idle	0.7bar	Oil capacity carter	3.6L (1.0 gal)
Oil Pressure rated RPM	3-6 bar		

<b>Thermal Balance</b>			
Heat rejection to exhaust	7kW (398 Btu/ mn)	Heat rejection to coolant	8kw (455 Btu/ mn)
Radiated heat to ambient	0.5kW (28 Btu/ mn)		

<b>Air Intake</b>			
MAX. INTAKE RESTRICTION	COMBUSTION AIR FLOW: 310mm CE (12in.WG)	ENGINE AIR FLOW	COOLING AIR FLOW: 9.9L/s (21cfm)

<b>Coolant System</b>			
Radiator & engine capacity	20dm3	Fan air flow	4.3m3/s (848cfm)
Max water temperature	83-95°C	Available restriction on air flow	22mm CE
Outlet water temperature	93°C (199°F)	Type of coolant	Gen cool



Fan power	5kW	Thermostat	76.5-90°C
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<b>EMISSIONS</b>			
HC	30 mg/Nm3	Nox	960 mg/Nm3
CO	250 mg/Nm3	PM	120 mg/Nm3

<b>Generator Ratings</b>						
<b>VOLTAGE</b>	<b>HZ</b>	<b>PHASE</b>	<b>P.F.</b>	<b>STANDBY AMPS</b>	<b>STAND BY RATINGS KW/KVA</b>	<b>PRIME RATINGS KW/KVA</b>
415/240	50	3	1	330	176/220	160/200
220/110	50	3	1	330	176/220	160/200

RRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12hour period of operation, in accordance with ISO 3046-1.

ESP: The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed

## Model – Cummins - APS C250



### Salient Features

#### **Power:**

- ✓ Prime Power @ 50Hz : 184kw/ 230kVA
- ✓ Stand By Power @ 50Hz : 200kw/ 250kVA

#### **Features:**

- ✓ Engine (Cummins 6LTAA8.9G2)
- ✓ Charge alternator 12V Governor: Mechanical
- ✓ Alternator (Stamford UCD274J)
- ✓ Single bearing alternator IP 23, insulation class H/H
- ✓ Radiator 50 C (122 F) max
- ✓ Skid and vibration isolators
- ✓ Dry type air filter
- ✓ Main line circuit breaker
- ✓ 12V battery, rack and cable
- ✓ Industrial silencer
- ✓ User manual

### Engine Options:

#### **Engine & Radiator:**

- ✓ Heat shield protection
- ✓ Oil drain extension
- ✓ Heavy duty oil filter
- ✓ Lube oil drain pump
- ✓ Radiator core guard
- ✓ Battery charger
- ✓ Block header

**Fuel:**

- ✓ 24 hour day tank
- ✓ Bulk fuel tank connections
- ✓ Water separator fuel filter

**Alternator:**

- ✓ Anti-Condensation Heater
- ✓ Enforced impregnation
- ✓ Oversized alternator

**Exhaust:**

- ✓ Residential silencer
- ✓ Flexible exhaust connection

**Enclosure:**

- ✓ EM-1,5
- ✓ 83dba @ 1m silent canopy

**Control Panel:**

- ✓ Paralleling System
- ✓ Co-Map
- ✓ Remote annunciator
- ✓ Key start panel

**Literature:**

- ✓ Parts
- ✓ Maintenance

<b>Engine Data</b>			
MANUFACTURER/MODEL	Cummins 6LTAA8.9G2	PISTON SPEED	7.7 MS
CYLINDER ARRANGEMENT	6 inline	Max. standby power at rated RPM	184 KW
DISPLACEMENT	8.9 L	Frequency regulation, steady state	+/- 2.5%
BORE AND STROKE	114 x 144 mm	BMEP	5.62bar (81psi)
COMPRESSION RATIO	17 :1	Governor: type	Electronic
RATED RPM	1500Rpm		

<b>Alternator Data</b>			
MANUFACTURER / TYPE	Stamford UCD274J	EXCITER TYPE	NO
NUMBER OF PHASE	3	INSULATION: CLASS, TEMPERATURE RISE	HH
POWER FACTOR COS PHI	0.8	VOLTAGE REGULATOR	+ / - 0.5%
ALTITUDE	1000	BEARING NUMBER	1 (AT NO LOAD)
OVER SPEED	RPM	COUPLING	DIRECT
POLE: NUMBER	4	RECOVERY TIME (20% VOLT DIP) MS	MS

<b>Other Alternator Data</b>			
CONTINUOUS NOMINAL RATING @ 40° C	230 KVA	DIRECT AXIS TRANSIENT REACTANCE ATURATED (X'd)	18.5%
STANDBY RATING @ 27° C	253 KVA	SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	18ms
EFFICIENCIES @ 4/4 LOAD	83.5%	DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	13.3%
AIR FLOW	3.5 m3/S (7416.05cfm)	SUBTRANSIENT TIME CONSTANT (T'd)	12ms
SHORT CIRCUIT RATIO: 50 (Kcc)	0.78	QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	72.7%
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	206%	ZERO SEQUENCE REACTACE UNSATURATED (Xo)	6.4%
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	68%	NEGATIVE SEQUENCE REACTANCE SATURATED (X2)	18.3%
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	0.78ms	ARMATURE TIME CONSTANT (Ta)	13ms
NO LOAD EXCITATION CURRENT (io)	A	TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	%
FULL LOAD EXCITATION VOLTAGE (uc)	A	NO LOAD LOSSES	N/A
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	ms	HEAT REJECTION	kW
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	kVA		

<b>Exhaust System</b>			
EXHAUST GAS FLOW	23.60 L	EXHAUST TEMPERATURE	490° C

<b>Fuel System</b>			
110% (OF THE PRIME POWER)	63 L/H	100% (OF THE PRIME POWER)	53 L/H
75% (OF THE PRIME POWER)	40 L/H	50% (OF THE PRIME POWER)	26.5 L/H

<b>Oil System</b>			
Total oil capacity w/filters	29dm <sup>3</sup>	Oil consumption 100% load	<0.3g/kwh
Oil Pressure low idle	0.7bar	Oil capacity carter	3.6L (1.0 gal)
Oil Pressure rated RPM	3-6 bar		

<b>Thermal Balance</b>			
Heat rejection to exhaust	7kW (398 Btu/ mn)	Heat rejection to coolant	8kw (455 Btu/ mn)
Radiated heat to ambient	0.5kW (28 Btu/ mn)		

<b>Air Intake</b>			
MAX. INTAKE RESTRICTION	COMBUSTION AIR FLOW: 310mm CE (12in. WG)	ENGINE AIR FLOW	COOLING AIR FLOW: 9.9L/s (21cfm)

<b>Coolant System</b>			
Radiator & engine capacity	20dm <sup>3</sup>	Fan air flow	4.3m <sup>3</sup> /s (848cfm)
Max water temperature	83-95°C	Available restriction on air flow	22mm CE
Outlet water temperature	93°C (199°F)	Type of coolant	Gen cool

Fan power	5kW	Thermostat	76.5-90°C
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<b>EMISSIONS</b>			
HC	30 mg/Nm3	Nox	960 mg/Nm3
CO	250 mg/Nm3	PM	120 mg/Nm3

<b>Generator Ratings</b>						
<b>VOLTAGE</b>	<b>HZ</b>	<b>PHASE</b>	<b>P.F.</b>	<b>STANDBY AMPS</b>	<b>STAND BY RATINGS KW/KVA</b>	<b>PRIME RATINGS KW/KVA</b>
415/240	50	3	1	380	202/253	184/230
220/110	50	3	1	380	202/253	184/230

RRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12hour period of operation, in accordance with ISO 3046-1.

ESP: The standby power rating is applicable for supplying emergency power in variable load applications i accordance with ISO 8528-1. Overload is not allowed

## Model – Cummins - APS C275



### Salient Features

#### **Power:**

- ✓ Prime Power @ 50Hz : 200kw/ 250kVA
- ✓ Stand By Power @ 50Hz : 220kw/ 275kVA

#### **Features:**

- ✓ Engine (Cummins NTA855G1A)
- ✓ Charge alternator 12V Governor: Mechanical
- ✓ Alternator (Stamford UCD274K)
- ✓ Single bearing alternator IP 23, insulation class H/H
- ✓ Radiator 50 C (122 F) max
- ✓ Skid and vibration isolators
- ✓ Dry type air filter
- ✓ Main line circuit breaker
- ✓ 12V battery, rack and cable
- ✓ Industrial silencer
- ✓ User manual

### Engine Options:

#### **Engine & Radiator:**

- ✓ Heat shield protection
- ✓ Oil drain extension
- ✓ Heavy duty oil filter
- ✓ Lube oil drain pump
- ✓ Radiator core guard
- ✓ Battery charger
- ✓ Block header

**Fuel:**

- ✓ 24 hour day tank
- ✓ Bulk fuel tank connections
- ✓ Water separator fuel filter

**Alternator:**

- ✓ Anti-Condensation Heater
- ✓ Enforced impregnation
- ✓ Oversized alternator

**Exhaust:**

- ✓ Residential silencer
- ✓ Flexible exhaust connection

**Enclosure:**

- ✓ EM-1,5
- ✓ 83dba @ 1m silent canopy

**Control Panel:**

- ✓ Paralleling System
- ✓ Co-Map
- ✓ Remote annunciator
- ✓ Key start panel

**Literature:**

- ✓ Parts
- ✓ Maintenance

<b>Engine Data</b>			
MANUFACTURER/MODEL	Cummins NTA855G1A	PISTON SPEED	7.7 MS
CYLINDER ARRANGEMENT	6 inline	Max. standby power at rated RPM	220 KW
DISPLACEMENT	14 L	Frequency regulation, steady state	+/- 2.5%
BORE AND STROKE	140 x 152 mm	BMEP	5.62bar (81psi)
COMPRESSION RATIO	14.5 : 1	Governor: type	Electronic
RATED RPM	1500Rpm		



<b>Alternator Data</b>			
MANUFACTURER / TYPE	Stamford UCD274K	EXCITER TYPE	NO
NUMBER OF PHASE	3	INSULATION: CLASS, TEMPERATURE RISE	HH
POWER FACTOR COS PHI	0.8	VOLTAGE REGULATOR	+ / - 0.5%
ALTITUDE	1000	BEARING NUMBER	1 (AT NO LOAD)
OVER SPEED	RPM	COUPLING	DIRECT
POLE: NUMBER	4	RECOVERY TIME (20% VOLT DIP) MS	MS

<b>Other Alternator Data</b>			
CONTINUOUS NOMINAL RATING @ 40° C	250 KVA	DIRECT AXIS TRANSIENT REACTANCE ATURATED (X'd)	18.5%
STANDBY RATING @ 27° C	275 KVA	SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	18ms
EFFICIENCIES @ 4/4 LOAD	83.5%	DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	13.3%
AIR FLOW	3.5 m3/S (7416.05cfm)	SUBTRANSIENT TIME CONSTANT (T'd)	12ms
SHORT CIRCUIT RATIO: 50 (Kcc)	0.78	QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	72.7%
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	206%	ZERO SEQUENCE REACTACE UNSATURATED (Xo)	6.4%
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	68%	NEGATIVE SEQUENCE REACTANCE SATURATED (X2)	18.3%
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	0.78ms	ARMATURE TIME CONSTANT (Ta)	13ms
NO LOAD EXCITATION CURRENT (io)	A	TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	%
FULL LOAD EXCITATION VOLTAGE (uc)	A	NO LOAD LOSSES	N/A
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	ms	HEAT REJECTION	kW
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	kVA		

<b>Exhaust System</b>			
EXHAUST GAS FLOW	23.60 L	EXHAUST TEMPERATURE	490° C

<b>Fuel System</b>			
110% (OF THE PRIME POWER)	71 L/H	100% (OF THE PRIME POWER)	61 L/H
75% (OF THE PRIME POWER)	46 L/H	50% (OF THE PRIME POWER)	31 L/H

<b>Oil System</b>			
Total oil capacity w/filters	29dm <sup>3</sup>	Oil consumption 100% load	<0.3g/kwh
Oil Pressure low idle	0.7bar	Oil capacity carter	3.6L (1.0 gal)
Oil Pressure rated RPM	3-6 bar		

<b>Thermal Balance</b>			
Heat rejection to exhaust	7kW (398 Btu/ mn)	Heat rejection to coolant	8kw (455 Btu/ mn)
Radiated heat to ambient	0.5kW (28 Btu/ mn)		

<b>Air Intake</b>			
MAX. INTAKE RESTRICTION	COMBUSTION AIR FLOW: 310mm CE (12in. WG)	ENGINE AIR FLOW	COOLING AIR FLOW: 9.9L/s (21cfm)

<b>Coolant System</b>			
Radiator & engine capacity	20dm <sup>3</sup>	Fan air flow	4.3m <sup>3</sup> /s (848cfm)
Max water temperature	83-95°C	Available restriction on air flow	22mm CE
Outlet water temperature	93°C (199°F)	Type of coolant	Gen cool

Fan power	5kW	Thermostat	76.5-90°C
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<b>EMISSIONS</b>			
HC	30 mg/Nm3	Nox	960 mg/Nm3
CO	250 mg/Nm3	PM	120 mg/Nm3

<b>Generator Ratings</b>						
<b>VOLTAGE</b>	<b>HZ</b>	<b>PHASE</b>	<b>P.F.</b>	<b>STANDBY AMPS</b>	<b>STAND BY RATINGS KW/KVA</b>	<b>PRIME RATINGS KW/KVA</b>
415/240	50	3	1	413	220/ 275	200/ 250
220/110	50	3	1	413	220/ 275	200/ 250

RRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12hour period of operation, in accordance with ISO 3046-1.

ESP: The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed