

# APD 110 C

Engine : Cummins  
 Alternator : Aksa  
 Control System : P 602



## ISO8528

This generator set has been designed to meet ISO 8528 regulation.

## SZUTEST

This generator set is manufactured in facilities certified to ISO 9001.



This generator set is available with CE certification.

## 2000/14/EC

Enclosed product is tested according to EU noise legislation 2000/14/EC

### 3 Phase Ratings, 50 Hz, PF 0,8

Voltage	Standby Rating (ESP)		Prime Rating (PRP)		
	kVA	kW	kVA	kW	Amp
400/230	110,00	88,00	100,00	80,00	144,00

**Standby Rating (ESP):** Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. ESP is in accordance with ISO 8528. Overload is not allowed.

**Prime Rating (PRP):** Applicable for supplying power to varying electrical load for unlimited hours. PRP is in accordance with ISO 8528. 10 % overload capability is available for a period of 1 hour within 12-hour period of operation, in accordance with ISO 3046.

### STANDARD SPECIFICATIONS

- Water cooled, Diesel engine
- Radiator with mechanical fan
- Protective grille for fan and rotating parts
- Electric starter and charge alternator
- Starting battery (with lead acid) including rack and cables
- Engine jacket cooling heater
- Base frame design incorporates an integral fuel tank and anti-vibration isolators
- Flexible fuel connection hoses
- Single bearing, class H alternator
- Industrial exhaust silencer and steel belows supplied separately
- Static battery charger
- Manual for use and installation.

### OPTIONAL EQUIPMENTS

#### ENGINE

- Remote Radiator Cooling
- Fuel-Water Separator Filter
- Oil heater

#### ALTERNATOR

- Anti-Condensation Heater
- Main line circuit breaker

#### CONTROL SYSTEM

- Charge Ammeter

#### OTHER ACCESSORIES

- Manual oil drain pump
- Enclosure: weater protective or sound attenuated
- Trailer
- Tool kit for maintenance
- Main Fuel Tank

#### TRANSFER SWITCH

- Four Pole Contactor

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## 1 DIESEL ENGINE SPECIFICATIONS

Manufacturer		Cummins
Model		6 BT 5,9-G2
No. of Cylinders and Build		6 Cylinder, In Line
Aspiration and Cooling		Turbo Charged
Maximum Standby Power		1500 rpm
		100 kW[134HP]
Total Displacement	L	5,90
Bore and Stroke	mm	102 X 120
Compression Ratio		17,5:1
Rated Speed (rpm)	rpm	1500
Governor		Electronic
Oil Capacity	L	16,50
Coolant Capacity	L	25,00
Intake Air Flow	m <sup>3</sup> /min.	5,60
Radiator Cooling Air	m <sup>3</sup> /min.	136
Exhaust Gas Flow	m <sup>3</sup> /min.	17,00
Start System		24 V d.c.
Fuel Consumption	Load	%100
	L/h	23,00

## 2 ALTERNATOR SPECIFICATIONS

Make		Aksa
Model		AK480
Frequency	Hz	50
Power	kVA	100
Design		Brushless, 4 poles
Cos Phi		0,80
Phase		3
Voltage	V	400/230
Current	A	144
Insulation Class		H
Rotor		Single Bearing System, Flexible Disc
Excitation System		Electronic ( AVR )

## 3 DIEMENSIONS AND WEIGHT

Open Type	Dry Weight	Lenght	Width	Height	Tank Capacity
	kg.	mm.	mm.	mm.	L
APD 110 C	1280	2150	1000	1500	195
Sound Attenuated Type	Dry Weight	Lenght	Width	Height	Tank Capacity
	kg.	mm.	mm.	mm.	L
APD 110 C	1700	3130	1070	1750	195

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## 1 P 602 - Control System



- 1 A U]b'gHh g'X]gd'Um'
- 2 8]gd'UmgVc''Vi Hrcb''
- 3 DU[ Yf]bZcfa U]cbE'Vi Hrcb''
- 4 7 ca a cb U'Ufa ]bX]W]rcf''
- 5 GHh g'@98fj''
- 6 C dYfU]cb'gY'YV]b[ 'Vi Hrcbg''

## 2 Devices

8G9ža cXY''\$\$'5i hc'A U]bg: U]i fy Vēbfc''a cXi 'Y'  
 6UHYfmVUf[ Yf]bdi h%, !&\*( 'j c'hžci rdi h''&+ž' 'j ) '5'f&( 'j E'cf%' ž 'j c'h) 5'f&& ž  
 9a Yf[ YbVhrcd' di g\ 'Vi Hrcb'UbX ž gYg Zc'fVēbfc''V]fV ]rg''

## 3 Construction and Finish

7 ca dcbYbrg ]bgt'YX ]b'g\YYgh'Y'YbWcgi fy''D\cgd\UHY'WYa ]WždfY!VēU]b[ 'cZghY' d'fcj ]XYg Vēffcg]cb  
 fYg]g]Ubhgi fZUW''Dc'mYgYfVēa d'cg]Y' d'ck XYf'rcdVēU]hZcfa g\ ] [ 'cgg'UbX'Yi HfYa Y'mXi fUY'Y ž]b]g\''@cV]UVY  
 UbX\]b[ YX'dUbY'Xccf' d'fcj ]XYg YUgmUWV]gg'hc' Vēa dcbYbrg''

## 4 Installation

7 cblfc' d'UbY' ]g'a ci bHYX'cb VUgYZUa Y'k ]h' gHY'g'UbX''@cW]HYX'Uhi'Y'f] [ \hig]XY'cZ'HY [ YbYfUrcf'gYhfk \Yb'mci  
 'cc\_'Uhi'Y'; Yb''GYH'Zca '5'HYfbUrcfE

## 5 Generating Set Control Unit

H'Y'8G9''\$\$' ]g'U'g'UbXUfX Vēbfc''a cXi 'Y'Zc'ci f [ YbYfUrcf'gYhg'i d'hc'&\$\$\_j 5'UbX'ih\Uj Y'VYYb'XYg] [ bYX'hc  
 ghUfhUbX'ghcd'X]YgY' UbX' [ Ug[ YbYfUrcf'gYhg''H'Y'8G9''\$\$' a cXi 'Y'Ug'VYYb'XYg] [ bYX'hc'a cb]rcf [ YbYfUrcf  
 Z'Yei YbVhžj c'ž'W'fYbž'Yb[ ]bY'c' d'fYggi fYžVēc'UbhiYa d'YfUhi fy' fi bb]b[ \ci fg'UbX' VUHY'fmj c'lg''A cXi 'Y  
 a cb]rcf'g'h'Y'a U]bg'gi dd'mUbX'gk ]H'W'c] Yf'hc'h'Y' [ YbYfUrcf'k \Yb'h'Y'a U]bg'd'ck Yf'ZU]g''H'Y'8G9''\$\$' U'gc  
 ]bX]W]HY'g'cdYfU]cbU'ghUhi g'UbX'ZUj 'hVēbX]h]cbgž'5i hca U]W]mg\i H]b[ 'Xck b'h'Y'; Yb''GYhUbX' [ ] ]b[ 'Hf'Y'Z]fghi d  
 ZUj 'hVēbX]h]cb'cZ; Yb''GYhZU]i fy''H'Y'@78'X]gd'Um]bX]W]HY'g'h'Y'ZUj 'H'

### Standard Specifications

A ]Vēd'fc'W'ggcf'Vēbfc''YX"  
 @78'X]gd'Uma U\_Yg ]bZcfa U]cb'YUgmhc'fYUX"  
 (!]bYž\*( '1'%'&d] ]Y'X]gd'Um'

5i hca U]W]mif'UbgZ'fg'VYh'YYb'a U]bg'fi H]mhc'UbX' [ YbYfUrcf'd'ck Yf'  
 A Ubi U'dfc[ fUa a ]b[ 'cb'Z'cbhd'UbY''  
 I gYf]Z]YbX'mgYH'i d'UbX'Vi Hrcb''Unci H'  
 : fcbhd'UbY'dfc[ fUa a ]b[ ''  
 FYa cHY'ghUff'

9j Ybh'c[ [ ]b[ 'f]sg\ck ]b[ 'XUHY'UbX'h'a Y''  
 7 cblfc'g' Ghcd#F'YgYhZ'Ubi U'ž'5i hcž'HYgh'GHUf'z'Vi Hrcbg''5b'UXX]h]cbU'di g\ 'Vi Hrcb'bYi hrc'h'Y'@78'X]gd'Um]g  
 i gYX'hc'gVc''h'fci [ \h'Y'a cXi 'Yg'f'a YH'f]b[ 'X]gd'Um]g''

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## Instruments

9B: #9  
 9b[ ]bY'gdYYX"  
 C]'dFYggi fY"  
 7cc'UbhY'a dYfUhi fY"  
 F i b' hja Y"  
 6UHYfmj c'rg"  
 7cbZ[ i fUV'Y hja ]b[ "  
 ; 9B9F 5HCF  
 J c' hU[ Y f@ @B' "  
 7i ffYbhf@ @& @ E"  
 : fYei YbVW"  
 A 5-BG  
 J c' hU[ Y f@ @B' "  
 : fYei YbVW"  
 A U]bg'fYUXn'  
 A U]bg'YbUV'YX"  
 ; Yb"GYhfYUXn'  
 ; Yb"GYhYbUV'YX"

## Protection Circuits

K 5F B-B;  
 7\Uf[ Y Z]i fY"  
 6UHYfm@ck # [ \ ] c' hU[ Y"  
 : U] h' ghcd"  
 @ck # [ \ [ YbYfUhc'f j c' hU[ Y"  
 I bXYf#j Yf [ YbYfUhc'f ZYei YbVW"  
 Cj Yf# bXYf'gdYYX"  
 @ck c]'dFYggi fY"  
 <] \ V'c' UbhY'a dYfUhi fY"  
 G<I H8CK BG  
 : U] h' ghUff"  
 9a Yf [ YbVW'ghcd"  
 @ck c]'dFYggi fY"  
 <] \ V'c' UbhY'a dYfUhi fY"  
 Cj Yf# bXYf'gdYYX"  
 I bXYf#j Yf [ YbYfUhc'f ZYei YbVW"  
 I bXYf#j Yf [ YbYfUhc'f j c' hU[ Y"  
 C]'dFYggi fY'gYbgcf'cdYb"  
 7cc'UbhY'a dYfUhi fY'gYbgcf'cdYb"  
 9@97 HF =75@HF -D  
 ; YbYfUhc'f c' j YfW ffYbh'

## Options

: 'YI J'Y'gYbgcf'WVb VY V'c' bfc' 'YX' k ]h' h'Ya dYfUhi fYz  
 dfYggi fYz dYfVW'bhU[ Y f'k Ufb]b[ #]i h'Xck b# 'YVW'VW' h'f'dL  
 @c'W' gYh]b[ 'dUfUa YHfg'UbX'a cb]h'f]b[ 'Zca 'D7' h'  
 V'c' bfc' 'a cXi 'Y' k ]h' I G6 V'c' bbYVW'cb' f'a Ul '\* 'a H'

## Standards

9'YVW'VW' 'GUZYhm#9A 7 'V'a dUfV']hm6G'9B '\* \$- ) \$  
 9'YVW'VW' 'Vi g]bYgg' 'Yei ]da Ybh'  
 6G'9B '\*%\$ \$! \*! & 9A 7 'ja a i b]mighUbxUfX"  
 6G'9B '\*%\$ \$! \*! ( '9A 7 'Ya jgg]cb' ghUbxUfX"

## Static Battery Charger

'6UHYfmVUf[ Yf ]g'a Ubi ZVW' fYX' k ]h' 'gk ]h'W]b[ !a cXY'UbX'GA 8 'YVW'bc'c[ mUbx'ih\Ug\ ] [ \ YZ]VbYVW' 6UHYfmVUf[ Yf  
 a cXY'gfci hdi hJ !=VUfUWV'f]gh]W]g'j YfmV'cgY' h'c'gei UfY'UbX'ci hdi h]g' ] 'Ua dYfz% z 'J 'Zcf'%&j' c'hUbX' &+Z' 'J 'Zcf'&' ( 'J '  
 #bdi h% , ' ! &\* ( j c'h57 "' Dfc]'bY' &(\$) \Ug'Z' 'mici hdi hg\chV'VW]hdfchVW]cb'UbX'ihVWb'VY' i gYX'Ug'U'VW'ffYbhgci fVW"  
 Dfc]'bY' %&\$) #&(\$) 'VXUf[ Yf'\Ug'\ ] [ \ YZ]VbYVW'cb[ ' ]Z'Z' 'ck' ZU]i fY'fUfYz' ] [ \ hk Y] [ \ hUbX' 'ck' \YUhfUX]UfYX' ]b  
 UVV'cfXUbW' k ]h' ' ]bYUf'U'fYfbU]j Yg' H\Y' VUf[ Yf ]g' Z]h'YX' k ]h' 'U'dfchVW]cb'X]cXY'UV'cgg'h'Y'ci hdi h'7 cbbYVW'VUf[ Y'Z]  
 fY'UmV'c' ] VYh'YYb'dcg]h]j Y'ci hdi hUbX'7: 'ci hdi h' H\Y'mUfY'Yei ]ddYX' k ]h' F: =Z]h'f' h'c' fYXi VV'Y'YVW'VW' 'bc]gY' fUX]UfYX  
 Zca 'h'Y'XY' jVW'; Uj Ub]W' m]gc'UfYX' ]bdi hUbX'ci hdi h]md]VW' m( \_J 'Zcf'\ ] [ \ fY' ]UV' ]h'f'

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## APD 110 C - Canopy



- 1 Steel structures
- 2 Emergency stop push button
- 3 Control panel is right side of the set.
- 4 Corrosion-resistant locks and hinges
- 5 Exhaust system in the canopy
- 6 Lockable, large doors on each side
- 7 Base frame -tank
- 8 Lifting Points

## Introduction

Sound-attenuated and weather protective enclosures for generating sets from Aksa, meet even the sound requirements and provide optimum protection from inclement weather and development by our specialist acoustic engineers. Our modular designed sound insulated canopies (8 - 275kVA) fit directly to the open generator set to provide ease of access for servicing and general maintenance and interchangeable components permitting on-site repair. Enclosures are designed to optimize genset cooling performance, providing you with confidence that genset ratings and ambient capability.

## Standard Specifications

Compact footprint, low profile design.

Enclosure, generator set, exhaust system and base-tank are pre-assembled, pre-integrated and shipped as one package

Body made from steel components treated with polyester powder coating

Fire retardant foam insulation

Easy access to all service points

Exhaust system inside canopy

Large doors on each side

Control panel viewing window in a lockable access door

Emergency stop push button mounted on enclosure exterior

Cooling fan and battery charging alternator fully guarded

Fuel fill and battery can only be reached via lockable access doors.

Lifting points on the top of canopy and base frame

Customer options available to meet your applications needs.

Width	mm.	1070
Length	mm.	3130
Height	mm.	1750