

# APD 90 A

Engine : Aksa  
 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	93,00	74,00	85,00	68,00	122,00

**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

- Heavy duty, 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
- Steel base frame and anti-vibration isolators
- Spare Fuel Tank
- Flexible fuel connection hoses
- Two bearing, class H alternator
- Industrial exhaust silencer and steel belows supplied separately
- Static battery charger
- Manual for use and installation

### OPTIONAL EQUIPMENTS

#### ENGINE

- Fuel-Water Separator Filter
- Oil heater

#### ALTERNATOR

- Anti-Condensation Heater
- Single Phase ( 4 lead)
- Main line circuit breaker

#### CONTROL SYSTEM

- Earth fault, single set
- Charge Ammeter

#### OTHER ACCESSORIES

- Automatic or manual fuel filling system
- Manual oil drain pump
- Low and high fuel level alarm
- Residential silencer
- Enclosure: weather protective or sound attenuated
- Trailer
- Tool kit for maintenance
- Main Fuel Tank

#### TRANSFER SWITCH

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- Four Pole Contactor
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## 1 DIESEL ENGINE SPECIFICATIONS

Manufacturer		Akxa
Model		A4CRX46TI
No. of Cylinders and Build		4 Cylinder, In Line
Aspiration and Cooling		Turbo Charged and After Cooled
Maximum Standby Power		1500 rpm
		82 kW[110HP]
Total Displacement	L	4,58
Bore and Stroke	mm	110 X 125
Compression Ratio		17:1
Rated Speed (rpm)	rpm	1500
Governor		Electronic
Oil Capacity	L	14,00
Coolant Capacity	L	26,00
Intake Air Flow	m <sup>3</sup> /min.	4,90
Radiator Cooling Air	m <sup>3</sup> /min.	132
Exhaust Gas Flow	m <sup>3</sup> /min.	15,50
Start System		24 V d.c.
Fuel Consumption	Load	%100
	L/h	19,30

## 2 ALTERNATOR SPECIFICATIONS

Make		Akxa
Frequency	Hz	50
Design		Brushless, 4 poles
Cos Phi		0,80
Phase		3
Voltage	V	400/230
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 90 A	1290	2150	1000	1600	195
Sound Attenuated Type	Dry Weight	Lenght	Width	Height	Tank Capacity
	kg.	mm.	mm.	mm.	L
APD 90 A	1620	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 Vēbfcc''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&&J E  
9a Yf[ YbVhgrcd' di g\ 'Vi Hrcb'UbX ž gYg Zc'fVēbfcc''V]fV ]rg''

## 3 Construction and Finish

7 ca dcbYbrj ]bgU''YX ]b'g\YYgh''Y'YbWcgi fy''D\cgd\UHY'WYa ]WždfY!VēU]b[ 'cZghY''dfcj ]XYg Vēffcg]cb  
fyg]ghUbhgi fZUW''Dc'mYghY'Vēa dcm]Y' dck XYf'rcdVēU]hZcfa g\]] [ 'cgg'UbX'Yi HYa Y'mXi fUY'Y ž]b]g''@cV]UV'Y  
UbX\]b[ YX dUbY'Xccf' dfcj ]XYg YUgmUWV]gg'hc''Vēa dcbYbrj''

## 4 Installation

7 cblfc' dUbY''jg'a ci bHYX'cb VUgYZUa Y'k ]h' ghY''ghUbX''@cW]HYX'UhiH'Y'f[ \hig]XY'cZH'Y [ YbYfU]rcf'gyHfK \Yb'mci  
'cc\_'UhiH'Y; Yb''GYH'Zca '5'HYfbU]rcfE

## 5 Generating Set Control Unit

H'Y''8G9''\$&\$'jg'U'ghUbXUfX Vēbfcc''a cXi 'Y'Zc'ci f [ YbYfU]rcf'gyHgi d'hc'&\$\$\_J 5'UbX'ih\Uj Y'VYYb'XYg][ bYX'hc  
ghUfhUbX'ghcd'X]YgY' UbX' [ Ug[ YbYfU]rcf'gyHgi''H'Y'8G9''\$&\$'a cXi 'Y\Ug'VYYb'XYg][ bYX'hc'a cb]rcf [ YbYfU]rcf  
Z'Yei YbVhžj c'iz'W'fYbHžYb[ ]bY'c]'dfYggi fyZ'Vēc'UbhiYa dYfUhi 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 [ YbYfU]rcf'k \Yb'h'Y'a U]bg'dck Yf'ZU]g''H'Y'8G9''\$&\$'U'gc  
]bX]W]HY'g'cdYfU]cbU'ghUhi g'UbX'Zi 'hVēbX]h]cbgž'5i hca U]hW'mg\i H]b[ 'Xck b'h'Y; Yb''GYhUbX' [ ] ]b[ 'H'i Y'Z]fghi d  
Zi 'hVēbX]h]cb'cZ; Yb''GYhZU]i fy''H'Y'@7 8'X]gd'Um]bX]W]HY'g'h'Y'Zi 'H'

### Standard Specifications

A ]VēdfcW'ggcf'Vēbfcc''YX"  
@7 8'X]gd'Uma U\_Yg ]bZcfa U]cb'YUgmhc'fYUX"  
(!'j]bYž\*( '1'%'&d] ]Y'X]gd'Um'

5i hca U]hW'mifUbgZ'fg'VYk'YYb'a U]bg'fi H]h'hc'UbX' [ YbYfU]rcf'dck Yf'  
A Ubi U'dfc[ fUa a ]b[ 'cb'ZcbhdUbY''  
I gYf]Z]YbX'mgYHi d'UbX'Vi Hrcb''Unci H'  
: fcbhdUbY'dfc[ fUa a ]b[ ''  
F Ya cHY'ghUff'

9j Ybh'c[ [ ]b[ 'f]g'g'ck ]b[ 'XUHY'UbX'h'a Y''  
7 cblfc'g' Ghcd#F'YgYhZ'A Ubi U'ž'5i hcž'HYgh'GHf'f'Vi Hrcbg''5b'UXX]h]cbU'di g\ 'Vi Hrcb'bYi hrc'h'Y'@7 8'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@ @& @' "  
 : 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] 'hc' 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] 'hc' 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'V'Y'gYbgcf'WVb VY V'c'bfcc'YX'k ]h' h'Ya dYfUhi fYz  
 dfYggi fYz dYfVW'bH[ 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 'hc  
 V'c'bfcc'a cXi 'Y'k ]h' I G6 V'c'bbYVW'cb'fa 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 !=VUfUW'f]gh]W]g'j YfmV'cgY'hc'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'W'ffYbhgci fVW"  
 Dfc]bY' %&\$) #&(\$) VUf[ Yf\Ug\ ] [ \ YZ]VbYVW'cb[ ' ]Z'Z' 'ck ZU]i fY'fUYZ' ] [ \ hk Y] [ \ hUbX' 'ck \YUhfUX]UfYX' ]b  
 UVV'cfXUbW'k ]h' ' ]bYUf'U'fYfbU]j Yg' H\Y'VUf[ Yf ]g'Z'hYX'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'hc' fYXi V'Y'YVW'VW'bc]gY'fUX]UfYX  
 Zca 'h'Y'XY'jVW'; Uj Ub]W' m]gc'UfYX' ]bdi hUbX'ci hdi h]m]d]VW'm( \_J 'Zcf\ ] [ \ fY' ]UV' ]h'f

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## APD 90 A - Canopy

### 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