AIRPORT EQUIPMENT SERVICES PTE. LTD.
41 Kallang Pudding Road, #03-10 Golden Wheel Building,
Singapore 349316 Phone: (65) 65421160 Fax: (65) 65421160
Email: aessg@singnet.com.sg Website: www.aessg.com
(Business Registration No: 199400661M)

AES P580 Passenger Steps

Technical Specification

1. Vehicle Description:

The **AES** P580 Aircraft Passenger Steps is designed for servicing aircraft with doorsill heights between 2250mm and 5800mm. Stair assembly is mounted on a self-propelled chassis with diesel engine and automatic transmission. Four straight down type stabilizers located at front and rear to provide maximum stability and prevent rocking of front platform. P580 uses the latest technology with simple electric and hydraulic circuits. Location and accessibility of all components have been designed to reduce maintenance time to a minimum.

2. Specifications

Overall dimension (L×W×H)	7900mm×3100mm×3750mm
Platform height	2250mm – 5800mm
Platform width	3000mm
Stair height	190mm
Stair width	1500mm
Stair depth	290mm
Unladen weight	7500kg
Stair capacity	230kg (3 persons for each stair)
Platform capacity	1820kg (26 persons)
Max load capacity	5920kg (74 persons)
Height of platform railings	1000mm
Ground clearance	150mm
Wheelbase	3200mm
Turning radius	6200mm
Max drive speed	30km/h
Maximum wind speed	125km/h
Maximum slope	20%

3. Chassis

1) Engine

Model	Isuzu C240, 36KW/2500rpm, Euro 3 emission

2) Transmission

Type	PST2 power shift with torque converter, F2/R1

Optional	Okamura Y43250H power shift with torque converter, F2/R1
3) Front Axle	
Type	Steering axle, disc brake
Suspension	Rigid mounted
Capacity	4,700 kg
4) Rear Axle,	
Type	Drive axle, drum brake.
Suspension	Rigid mounted
Capacity	5,000 kg
5) Service brake	Dual circuit, hydraulic power assisted brake
6) Parking Brake	Drum type acting on rear axle
7) Steering	Hydrostatic
8) Tires	215/75R17.5
9) Cab	1 seat, LHD

4. Stair

a) The stair consists of two stair assemblies, a lower stationary stair assembly, and a movable upper main stair assembly and a hydraulic positioning system.
b) Telescopic stair design with positive mechanical locks.
c) Aluminum steps, anti-skidding.
d) The hand rail is made of Aluminum, shining silver.

5. Vertical Column

a) The vertical system controls platform azimuth by utilizing a hydraulic positioning system.
b) Two vertical lifting cylinder installed on a "H" frame support.
c) Two pilot operated check valves installed on each of the cylinders.
d) The throttle check valve is installed in the tilt system to control the stair lowering speed.

6. Platform

a) Spring mounted platform extension (300mm).
b) Two sets of rollers are installed on either side of platform. Handrail height 1000mm.
c) There is rubber bumper mounted on the front of the platform with 100mm diameter, 15mm thick.
d) Sliding hand rails on both side of the platform with rubber protective bumpers fitted on to the front edge.

7. Electric system

a) 24 Volt DC systems.
b) The toggle switches are water-proof.
c) A “pressure hold” button installed on both control panels.

d) Directional working lights mounted under the platform.
e) Emergency engine stop push buttons are installed on the cab control panel as well as on the platform pendant control. Pressing down any one of these push buttons will kill the engine.

8. Hydraulic system

a) Max system pressure is 14Mpa, adjustable by relief valve.
b) All hydraulic control components are located on the side of the chassis. This allows easy access for steam cleaning and maintenance.
c) Four stabilizers are installed at the front, and rear of the chassis.
d) A hand pump that can provide the system with hydraulic pressure in case of an engine failure. In an emergency, retracting and lowering the stair, and retracting the stabilizers can be operated by the hand pump for evacuation purpose.

9. Interlocks

a) Prevent vehicle being driven with parking brake on.
b) Prevent vehicle being driven with stabilizers lowered.
c) In the event of an accident, there are remote engine stop switches located on control panels.
d) A warning buzzer sounds when either the platform is lowering or the vehicle is reversing.

10. Instruments

a) Gauges: Hour meter, fuel gauge
b) Indicator Lights: High coolant temperature, low oil pressure, parking brake, battery charging, turning signal
c) Lighting: Headlights, tail lights, turning signal, reverse light with beeper, brake light, rear reflector, flashing beacon
d) Ignition switch
e) Mushroom head emergency stop push button

11. Optional Equipment

a) Canopy, full enclosure or half enclosure
b) Cab with two seats
c) RHD
d) Air-con in cab