



DUNNAIR
(Aust) Pty Ltd

R410a Refrigerant

SHS30

Split Ducted Model

Performance Data

INDOOR COIL ENTERING AIR TEMP °C		OUTDOOR COIL ENTERING AIR TEMPERATURE °C											
		30°C			35°C			40°C			45°C		
		Tot Cap KW	Sens Cap KW	LWB °C	Tot Cap KW	Sens Cap KW	LWB °C	Tot Cap KW	Sens Cap KW	LWB °C	Tot Cap KW	Sens Cap KW	LWB °C
DB °C	WB °C												
21	17	30.1	18.8	11.5	28.6	18.2	11.8	27.1	17.5	12.1	26.0	17.5	12.3
	18	31.2	16.6	12.1	29.7	15.9	12.8	28.2	15.3	13.2	27.1	14.8	13.4
	19	32.3	14.6	13.6	30.8	13.9	13.9	29.1	13.3	14.3	28.1	12.8	14.5
	20	33.4	12.6	14.8	31.8	11.9	15.2	30.2	11.2	15.5	29.1	10.8	15.7
23	17	30.1	22.5	11.5	28.6	21.9	11.8	27.1	21.2	12.1	26.0	20.7	12.3
	18	31.1	20.5	12.6	29.6	19.9	12.9	28.0	19.2	13.2	26.9	18.7	13.4
	19	32.3	18.4	13.6	30.7	17.7	13.9	29.1	17.1	14.2	28.1	16.6	14.4
	20	33.4	16.4	14.8	31.8	15.7	15.1	30.1	15.0	15.5	29.1	14.6	15.7
	21	34.5	14.5	15.8	32.9	13.8	16.1	31.2	13.2	16.4	30.2	12.8	16.6
25	17	30.2	26.4	11.4	28.8	25.8	11.7	27.3	25.1	12.0	26.2	24.6	12.2
	18	31.1	25.3	12.5	29.7	23.7	12.8	28.1	23.1	13.1	27.0	22.6	13.4
	19	32.1	24.2	13.7	30.6	21.6	14.0	29.0	21.0	14.4	27.9	20.5	14.6
	20	33.4	22.8	14.8	31.8	19.5	15.1	30.1	18.8	15.4	29.1	18.4	15.6
	21	34.5	21.4	15.8	32.9	17.6	16.1	31.2	17.0	16.4	30.2	16.6	16.6
27	17	30.8	29.1	11.3	29.4	28.3	11.6	27.9	26.3	12.0	27.0	27.0	12.2
	18	31.3	28.2	12.6	29.8	27.5	12.9	28.3	25.7	13.2	27.2	24.5	13.5
	19	32.1	26.1	13.7	30.6	25.4	14.0	29.0	24.8	14.3	27.9	24.3	14.6
	20	33.2	24.1	14.7	31.7	23.4	15.0	30.0	22.7	15.4	29.0	22.3	15.6
	21	34.5	22.0	15.8	32.9	21.4	16.1	31.2	20.7	16.4	30.2	20.4	16.6
29	17	31.7	31.2	11.2	30.4	29.9	11.5	28.7	28.7	11.8	27.9	27.3	12.0
	18	31.8	30.8	12.4	30.4	30.3	12.7	28.7	28.7	13.1	27.8	26.9	13.3
	19	32.3	30.1	13.6	30.8	29.5	13.9	29.2	28.7	14.2	28.2	26.6	14.4
	20	33.2	27.9	14.7	31.6	27.2	15.0	30.0	26.5	15.3	28.4	26.1	15.4
	21	34.4	25.9	15.7	32.8	25.3	16.0	31.0	24.6	16.3	30.0	24.2	16.4
31	17	32.8	32.7	11.0	31.3	31.2	11.3	30.0	30.0	11.6	29.0	28.9	11.8
	18	32.8	32.1	12.1	31.4	30.7	12.4	30.0	29.5	12.7	29.0	28.6	12.9
	19	32.8	31.4	13.5	31.3	30.2	13.8	30.0	29.3	14.1	29.0	28.4	14.4
	20	33.4	29.9	14.7	31.8	28.6	15.0	30.2	29.0	15.3	29.1	26.0	15.5
	21	34.4	29.6	15.7	32.8	28.0	16.0	31.1	28.3	16.4	30.0	27.9	16.6

Capacity multipliers should be applied to the above capacities to adjust for reduced or increased air flow.



Technical Specification SHS30 Split Ducted Model

Indoor Unit Model Number	SHS30N	Nominal Evaporator Air Flow (l/s)	1800
Outdoor Unit Model Number	SHS30W	Number of Compressors	1
Total Cooling Capacity (kW)*	30.6	Power Requirements (Volt / Phase)	415 / 3
Sensible Cooling Capacity (kW)*	25.4	Normal Max. Current (Amps / Phase)	23.3
Heating Capacity (kW)**	30.6		

*Entering air @ 27/19°C and ambient 35°C

** Entering air @ 21°C DB and 7°C ambient

Air Quantity Multiplying Factors

	% Rated Air Quantity-Nominal 1800 l/s				
Capacity	80	90	100	110	120
Total	0.95	0.98	1.00	1.02	1.04
Sensible	0.89	0.95	1.00	1.05	1.09

Heating Performance Data

	Outdoor Coil Entering DB temp				
	0	4	8	12	18
Heating Capacity kW	26.3	28.4	31.3	33.7	38.4

Heating Performance Correction

% Rated Air Quality	Multiplier	Return Air Temp °C	Multiplier	Outdoor Air Temp °C	Approx. Defrost Factor
80	0.93	15	1.05	0	0.80
90	0.97	18	1.03	2	0.78
100	1.00	21	1.00	4-6	0.75
110	1.03	24	0.97	7	0.87
120	1.05	27	0.95	8	1.00

Compressor

Number Per Unit	1
Type	Scroll
RPM (Nom)	2900
Normal Max. Current (Amps / Phase)	17.4
Locked Rotor Current (Amps / Phase)	125
Displacement (m³/h)	34.2

Electrical Controls and Safeties

High Pressure Switch (Setting kPa)	2800	Defrost	
Low Pressure Switch (Setting kPa)	100	Initiation Temperature (°C)	-4
Indoor Fan Overload	Internal	Termination Temperature (°C)	10
Outdoor Fan Overload	Internal	Min. Period Between De-Ice (min)	33
Compressor Delay Timer	300 sec	Max. De-Ice Period (min)	4

Standard Features

Manual reset high pressure and auto reset low pressure cutouts	
Thermal overload protection on all motors	Suction line accumulator
Compressor crankcase heater	Automatic de-ice system
Limit start timer (anti short cycling)	Thermally insulated indoor unit

Indoor Coil

Type	Copper Tube / Aluminium Fins
Face Area (m)	0.69
Air Quantity (l/s)	1800

Indoor Fan

Number of Fans	2
Type	Centrifugal
Drive	Direct
Motor Voltage / Phase / Frequency	415 / 3 / 50
Motor (kW) Standard	2 x 0.55
Max. Fan Speed (rpm)	1045

Electrical

Power Requirements	3 Phase / 415V / 50Hz
Normal Max. Current (Amps / Phase)	23.3

Outdoor Coil

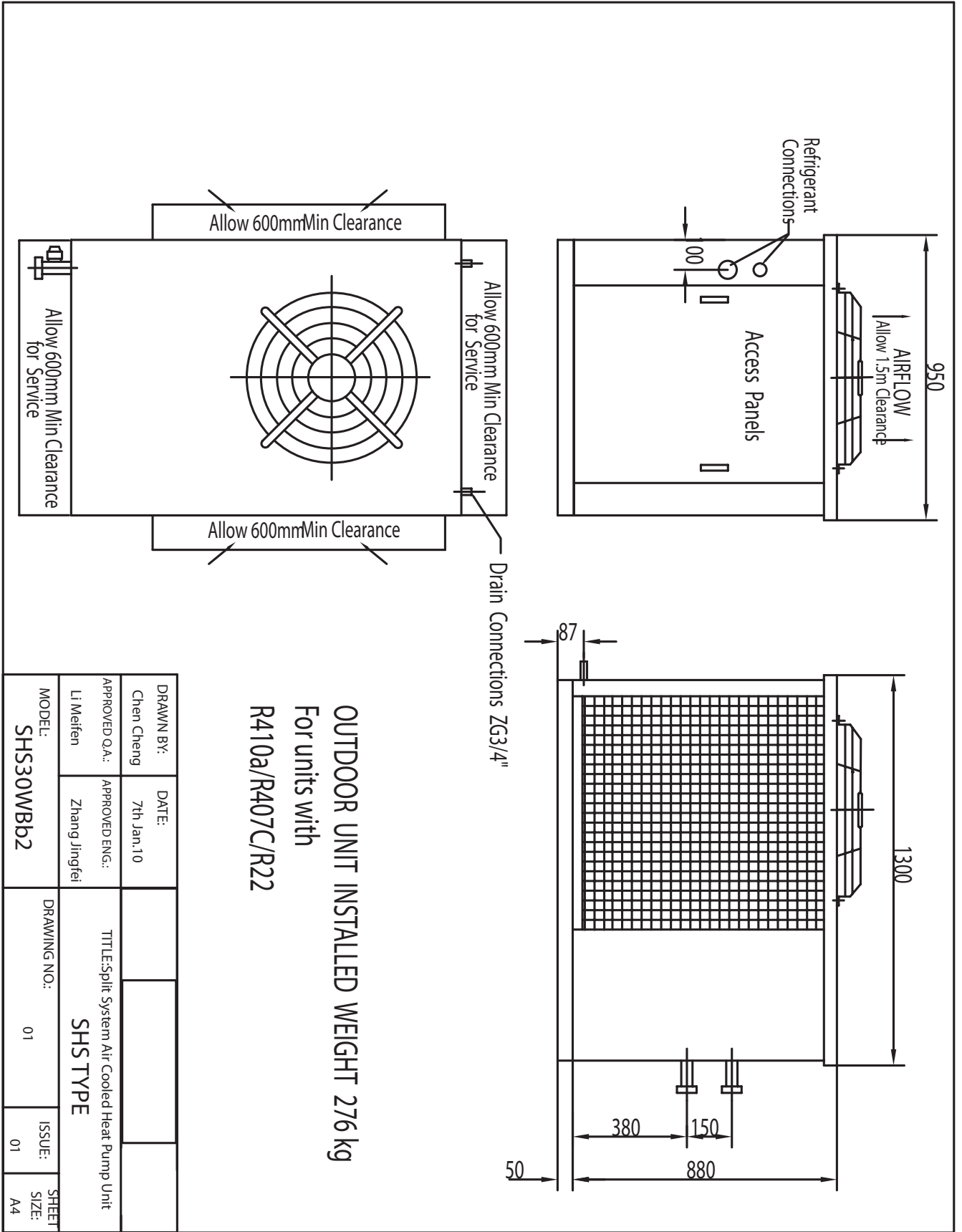
Type	Copper Tube / Aluminium Fins
Face Area	2 x 0.61

Outdoor Fan

Number of Fans	1
Type	Axial
Drive	Direct
Motor Watts / rpm	750 / 940
Motor Voltage / Phase / Frequency	415 / 3 / 50

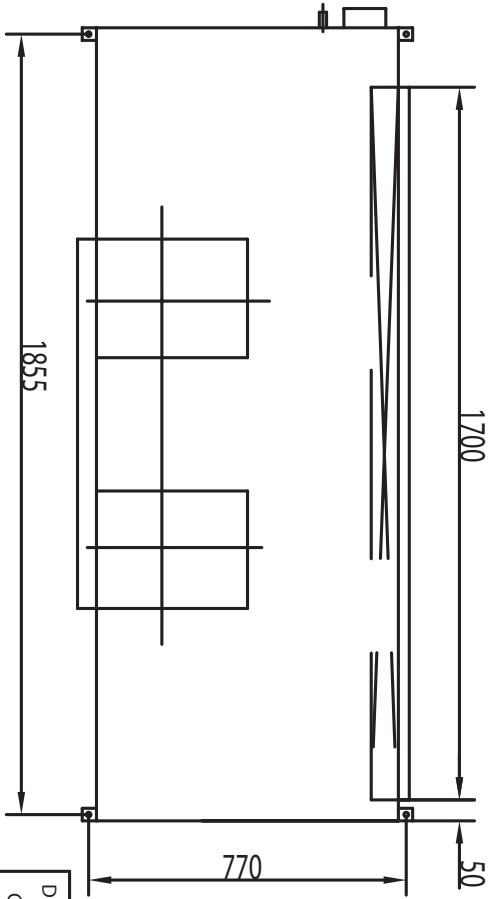
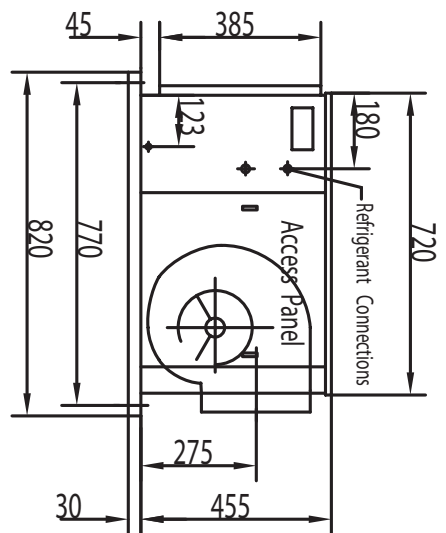
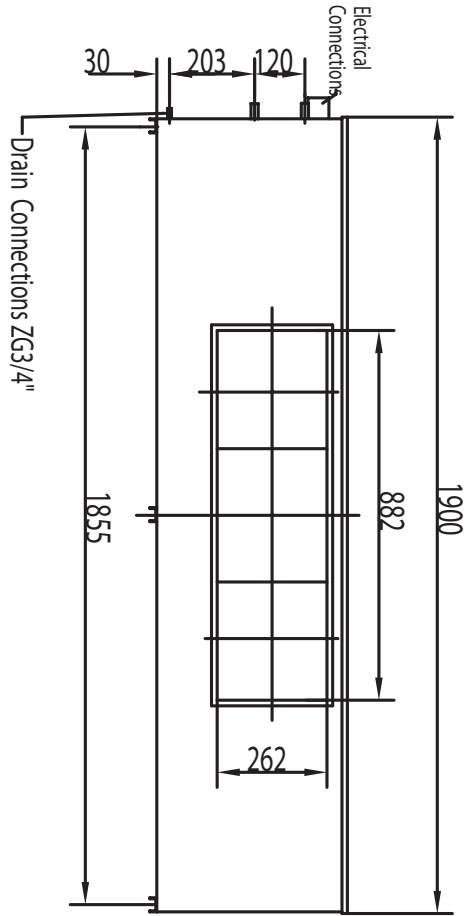
Refrigerant System

Refrigerant Type	R410a
Charge (kg)	7.4
Line Size (mm)	
Liquid 0-10 metres	22
Gas 0-10 metres	28
Liquid 10-20 metres	22
Gas 10-20 metres	28
Service Connections	Rotor Lock Valve
Expansion Control – in outdoor unit	TX Valve



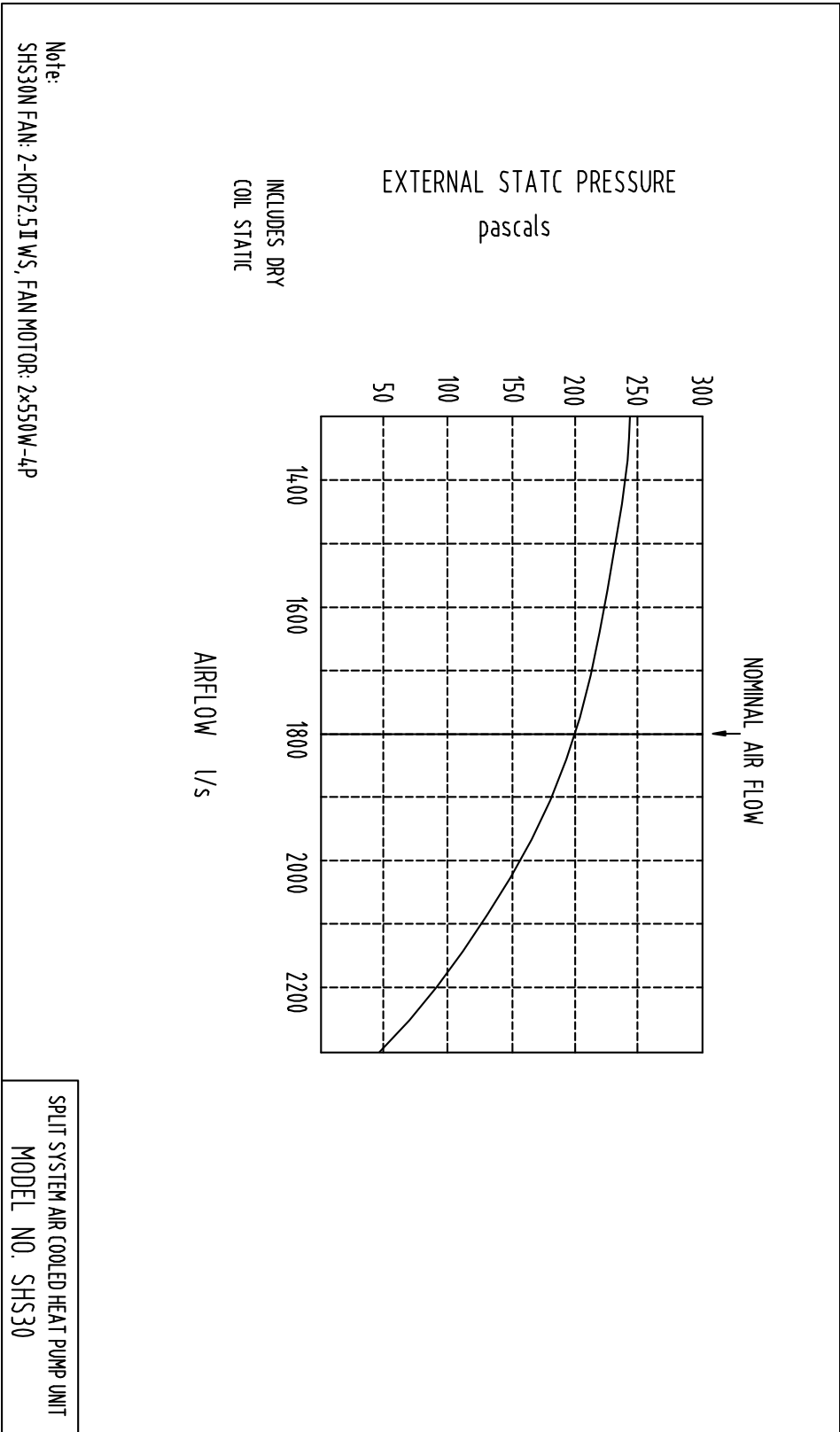
OUTDOOR UNIT INSTALLED WEIGHT 276 kg
For units with
R410a/R407C/R22

DRAWN BY: Chen Cheng	DATE: 7th Jan.10	TITLE: Split System Air-Cooled Heat Pump Unit	
APPROVED O.A.: Li Meifen	APPROVED ENG.: Zhang Jingfei	SHS TYPE	
MODEL: SHS30WBb2	DRAWING NO.: 01	ISSUE: 01	SHEET SIZE: A4



Evaporator Fan : 2 * KDF2.5 WS
 Evaporator Motor: 2 * YDW550w-4P
INDOOR UNIT INSTALLED WEIGHT 132kg
 For units with
 R410a/R407C/R22

DRAWN BY: Chen Cheng	DATE: 7th Jan.10	TITLE: Split System Air Cooled Heat Pump Unit	
APPROVED Q.A.: Li Meifen	APPROVED ENG.: Zhang Jingfei	SHS TYPE	
MODEL: SHS30NBb2	DRAWING NO.: 01	ISSUE: 01	SHEET SIZE: A4

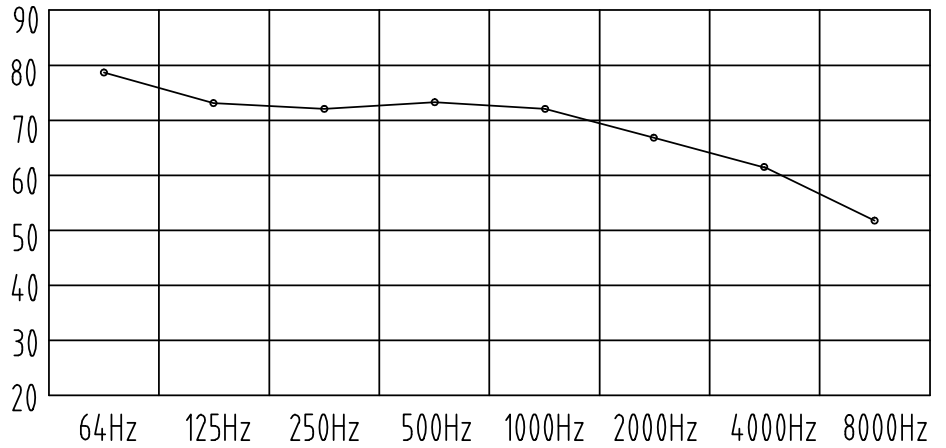


SHS30W Noise rate analysing chart

A Class: 75.5dB

Hz	dB
64Hz	79.0
125Hz	72.8
250Hz	71.6
500Hz	73.5
1000Hz	72.0
2000Hz	67.7
4000Hz	60.6
8000Hz	50.5

Noise rate analysing chart (A Class: 75.5dB) dB



SHS30N Noise rate analysing chart

A Class: 69.8 dB

Hz	dB
64Hz	79.5
125Hz	78.0
250Hz	72.0
500Hz	67.0
1000Hz	65.2
2000Hz	60.6
4000Hz	54.0
8000Hz	46.6

Noise rate analysing chart (A Class: 69.8dB) dB

