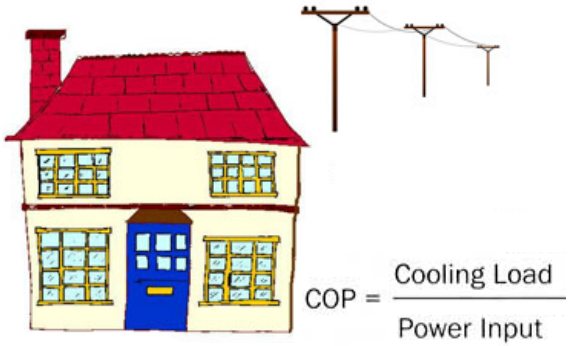
Guide for buying an air-conditioner

Things to consider when buying an air conditioner

Running Current

- It is the current consumed during operation of the AC (measured in Amperes)
- Lower running current results in lesser electricity consumption
- Lower running current puts lesser load on electricity circuits

Coefficient of Performance (COP)



- COP indicates how efficiently AC uses energy
- Higher COP is equal to superior airconditioning performance

Power Consumption

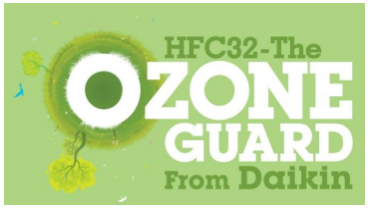
- Is measured in kilowatt-hour, commonly known as “unit”
- Determines the electricity units consumed by AC
- Low power consumption means low electricity bills

Things to consider when buying an air conditioner

Compressor

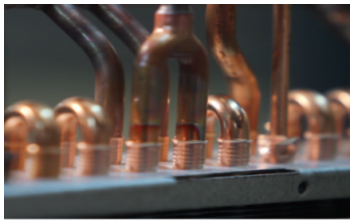
- Moves the refrigerant between the indoor unit and the outdoor unit
- Is like the heart of an AC
- Technologically advanced compressor ensures better cooling & lower noise

Refrigerant



- If compressor is the heart then refrigerant is like the blood of an AC
- Green refrigerant ensures cleaner environment
- Refrigerant also affects the cooling and power consumption

Condenser coils



- Condenser coils are used to transfer heat
- One of the most important components of any AC

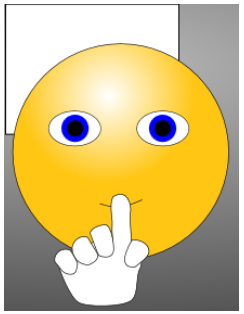
Things to consider when buying an air conditioner

Airflow Rate

- Higher Airflow rate means that given area will be cooled faster
- Generally airflow rate is measured in cubic feet per minute (CFM)
- Higher Airflow rate ensures wider room coverage and better comfort

Noise level

- Lower noise level ensures more comfort while your AC cools the room
- Noise level is measured in decibels (dB)



Inverter models comparison

- Following series from Daikin, LG, Panasonic, Samsung & Voltas are considered for comparison on various parameters

Daikin

FTKM Inverter

FTKP Inverter

LG

Deluxe Inverter

InverterV

Panasonic

Jade Inverter

Crystal Inverter

Models under 1.5 TR are considered

Inverter models comparison

Samsung

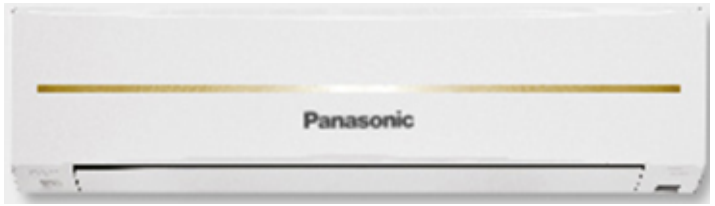
Digital Inverter

Running Current

Daikin FTKM Inverter-5.8 Ampere

LG Deluxe InverterV-6.8 Ampere

Samsung-Digital Inverter-6.7 Ampere



Panasonic Jade Inverter-7 Ampere

- Daikin's FTKM has lowest amperage compared to LG Deluxe InverterV, Samsung Digital Inverter and Panasonic Jade Inverter
- Lower amperage puts lesser load on electricity circuits

Running Current

Daikin FTKP Inverter-6.5 Ampere

LG InverterV-6.8 Ampere

Panasonic Crystal Inverter-7 Ampere

- Daikin's FTKP has lowest amperage compared to LG InverterV and Panasonic Crystal Inverter
- Lower amperage puts lesser load on electricity circuits

Coefficient of Performance

Daikin FTKM Inverter-3.8

LG Deluxe InverterV-3.67

Samsung-Digital Inverter-3.55

$$COP = \frac{\text{Cooling Load}}{\text{Power Input}}$$

Panasonic Jade Inverter-3.44

- Daikin's FTKM has the best COP; translates directly into better air conditioning performance compared to any other brand shown
- Daikin FTKM is the most efficient air conditioner

Coefficient of Performance

Daikin FTKP Inverter-3.46

LG InverterV-3.41

Panasonic Crystal Inverter-3.16

$$COP = \frac{\text{Cooling Load}}{\text{Power Input}}$$

- Daikin's FTKP has better COP than LG Inverter V and Panasonic Crystal Inverter
- Again Daikin FTKP series stands out with superior airconditioning performance

Power Consumption

Daikin FTKM Inverter-1.315 kWh

LG Deluxe InverterV-1.470 kWh

Samsung-Digital Inverter-1.410 kWh

Panasonic Jade Inverter-1.490 kWh

- Daikin's FTKM consumes least units of electricity compared to LG, Samsung and Panasonic models shown
- Lower unit consumption means lower electricity bills

Power Consumption

Daikin FTKP Inverter-1.445 kWh

LG InverterV-1.460 kWh

Panasonic Crystal Inverter-1.580kWh

- Daikin's FTKP uses fewer units when in operation compared to LG InverterV & Panasonic crystal
- Pay lower electricity bills while enjoying Daikin airconditioner

Refrigerant

Daikin FTKM Inverter-R-32

LG Deluxe InverterV-R410A

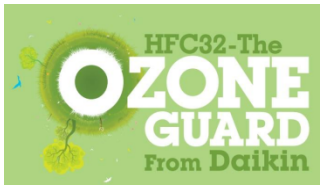
Samsung-Digital Inverter-R410A

Panasonic Jade Inverter-R410A

- R-32 is the most balanced refrigerant
- R-32 offers ~1.6 times more cooling compared to R410A
- R-32 offers ~5% more power savings compared to R410A

Refrigerant

Daikin FTKP Inverter-R-32



LG InverterV-R410A

Panasonic Crystal Inverter-R410A

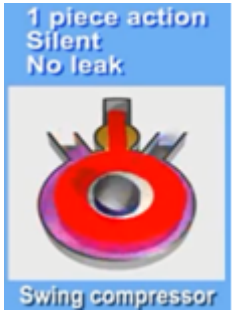
- R-32 is the most balanced refrigerant
- R-32 offers ~1.6 times more cooling compared to R410A
- R-32 offers ~5% more power savings compared to R410A

Compressor

INVERTER

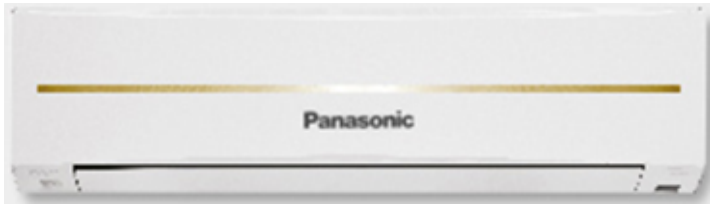
DAIKIN

Daikin FTKM Inverter-Swing



LG Deluxe InverterV-Rotary

Samsung-Digital Inverter-Rotary

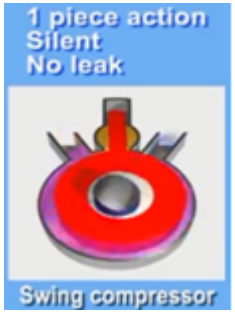


Panasonic Jade Inverter-Rotary

- Only Daikin uses swing compressor; it has smoother rotation & quiet operation
- Swing compressor has one piece action which avoids pressure leakage, making the compressor more efficient

Compressor

Daikin FTKP Inverter-Swing



LG InverterV-Rotary

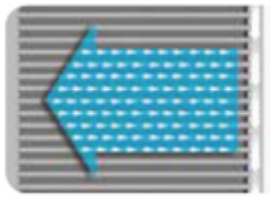
Panasonic Crystal Inverter-Rotary

- Only Daikin uses swing compressor; it has smoother rotation & quiet operation
- Swing compressor has one piece action which avoids pressure leakage, making the compressor more efficient

Condenser coil

Daikin FTKM Inverter-Copper

LG Deluxe InverterV-
Aluminium alloy



Samsung-Digital Inverter-Aluminium alloy

Panasonic Jade Inverter-Copper

- Copper condenser coils are more durable compared to condenser coils made of aluminium alloy
- Daikin FTKM and Panasonic Jade use copper coils

Condenser coil

Daikin FTKP Inverter-Copper

LG InverterV-Aluminium alloy

Panasonic Crytsal Inverter-Copper

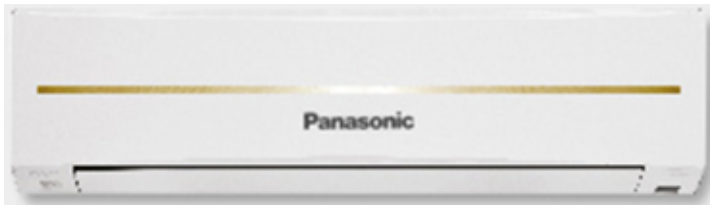
- Copper condenser coils are more durable compared to condenser coils made of aluminium alloy
- Daikin FTKP and Panasonic Crystal use copper coils

Airflow Rate

Daikin FTKM Inverter- 614 CFM

LG Deluxe InverterV-579 CFM

Samsung-Digital Inverter-494 CFM



Panasonic Jade Inverter-605 CFM

- Daikin FTKM has better airflow rate compared to LG, Samsung and Panasonic models shown
- Higher Airflow rate means given area will be cooled faster

Airflow Rate

Daikin FTKP Inverter-614 CFM

LG InverterV-607 CFM

Panasonic Crystal Inverter-465 CFM

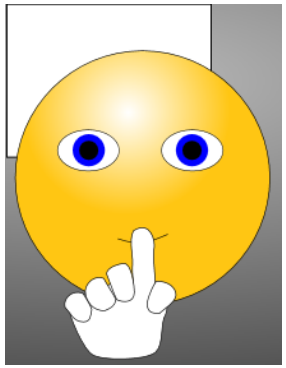
- Daikin FTKP has better airflow rate compared to LG and Panasonic models shown
- Higher Airflow rate results in maximum coverage of the room

Noise Level

Daikin FTKM Inverter- 29 dB

LG Deluxe InverterV-29dB

Samsung-Digital Inverter- 28 dB



Panasonic Jade Inverter-32 dB

- Daikin FTKM and LG Deluxe have second lowest noise level preceded by Samsung Digital

Non-Inverter models comparison

- Following series from Daikin, LG, Panasonic, Samsung & Voltas are considered for comparison on various parameters

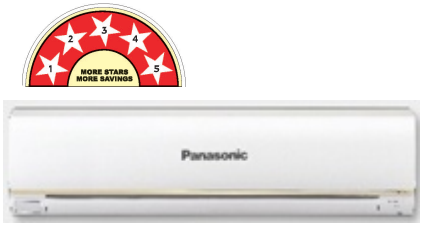
Daikin

FTF

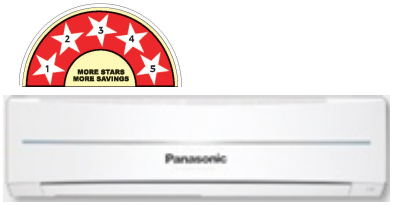
FTC

FTQ

Panasonic



Virusfigther



Sapphire

Pearl

LG

Aura Plus

Nova Plus

Ivory

Models under 1.5 Ton are considered

Non-Inverter models comparison

Voltas

Executive

Classic

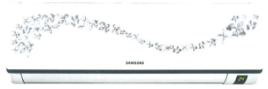
Deluxe

Classic

Deluxe

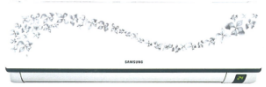
Classic

Samsung



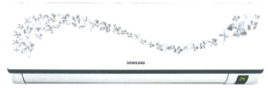
Purista pattern

Purista



Purista pattern

Max



Purista pattern

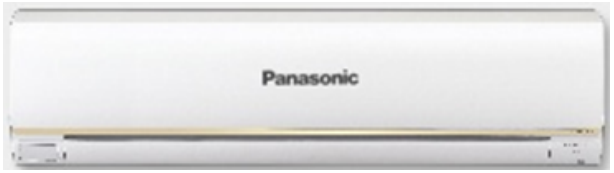
Max

Models under 1.5 Ton are considered

Running Current

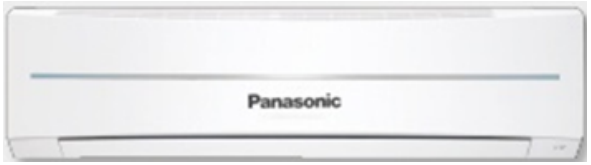
Daikin FTF - 6.60 Ampere

LG Aura Plus -6.7 Ampere



Panasonic Virusfighter- 6.8 Ampere

LG Nova Plus- 6.7 Ampere

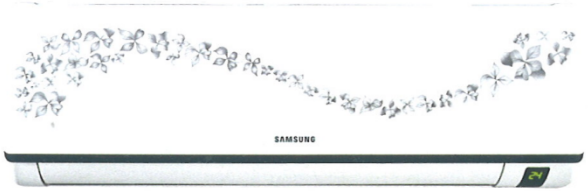


Panasonic Sapphire- 6.9 Ampere

- Daikin FTF series has lower running current compared to LG & Panasonic models
- Lower amperage puts lesser load on electricity circuits

Running Current

Daikin FTF - 6.60 Ampere



Samsung Purista Pattern-7 Ampere

Samsung Purista -7 Ampere

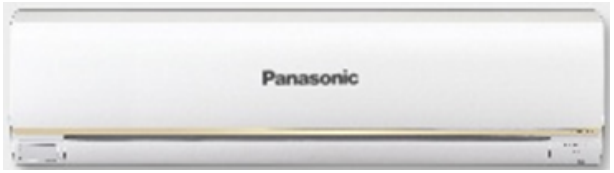
- Daikin FTF series has lower running current compared to Samsung Purista and Purista Pattern also
- Lower amperage results in lesser load on electricity circuits

Coefficient of Performance

Daikin FTF - 3.60

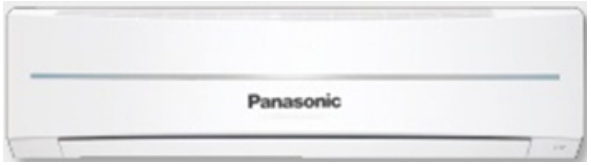
LG Aura Plus- 3.60

$$COP = \frac{\text{Cooling Load}}{\text{Power Input}}$$



Panasonic Virusfighter-3.58

LG Nova Plus- 3.60

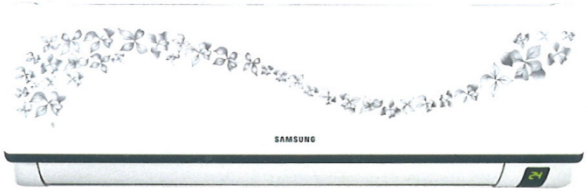


Panasonic Sapphire- 3.53

- Daikin FTF COP is higher than Panasonic Sapphire & Virusfigther models
- Daikin FTF COP is equal to LG Aura Plus & Nova Plus
- Higher COP means superior airconditioning performance

Coefficient of Performance

Daikin FTF - 3.60



Samsung Purista Pattern- 3.53

Voltas Executive-3.51

Samsung Purista-3.53

$$COP = \frac{\text{Cooling Load}}{\text{Power Input}}$$

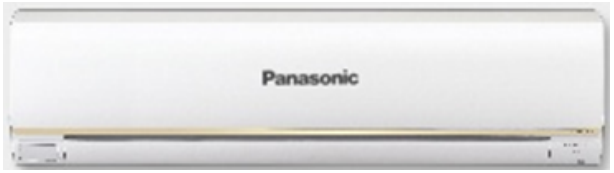
Voltas Classic-3.51

- Daikin FTF COP is higher than Samsung Purista Pattern & Purista and Voltas Executive and Classic models
- Enjoy Daikin FTF series with superior performance

Power Consumption

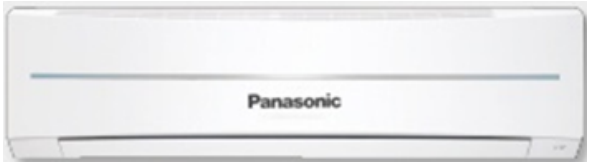
Daikin FTF - 1.444 kWh

LG Aura Plus -1.465 kWh



Panasonic Virusfighter-1.540 kWh

LG Nova Plus- 1.465 kWh

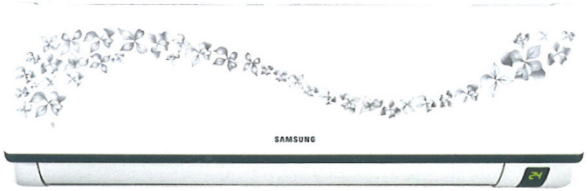


Panasonic Sapphire-1.560 kWh

- Daikin FTF has lowest power consumption
- Daikin ensures you pay lower electricity bills for FTF model compared to LG & Panasonic models shown above

Power Consumption

Daikin FTF - 1.444 kWh



Samsung Purista Pattern-1.530 kWh

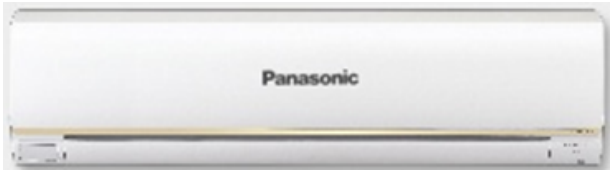
Samsung Purista-1.530 kWh

- Daikin FTF has lower power consumption compared to Samsung Purista Pattern and Purista models
- Enjoy Daikin FTF series without worrying for electricity bills

Refrigerant

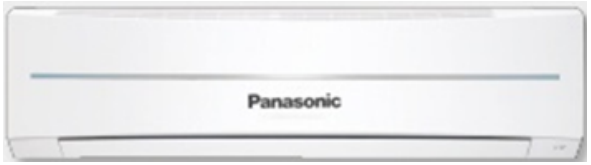
Daikin FTF - R-32

LG Aura Plus-R22



Panasonic Virusfighter- R22

LG Nova Plus-R22

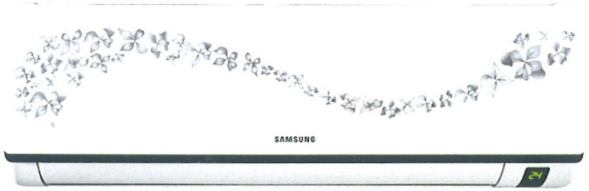


Panasonic Sapphire-R22

- R-32 is eco-friendly, most balanced, next generation refrigerant
- R-32 has zero Ozone depletion potential (ODP)
- R-32 has ~1/3 global warming potential (GWP) of R22

Refrigerant

Daikin FTF - R-32



Samsung Purista Pattern-R22

Voltas Executive-R22

Samsung Purista-R22

Voltas Classic-R22

- R-32 is eco-friendly, most balanced, next generation refrigerant
- R-32 has zero Ozone depletion potential (ODP)
- R-32 has ~1/3 global warming potential (GWP) of R22

Condenser coils

Daikin FTF - Copper

LG Aura Plus*- Aluminium alloy

Panasonic Virusfighter- Copper

LG Nova Plus*- Aluminium alloy

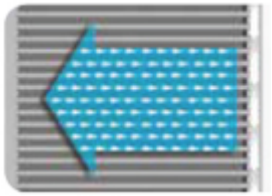
Panasonic Sapphire- Copper

- Copper condenser coils are more durable compared to aluminium alloy coils
- Daikin air conditioners use copper coils for your complete peace of mind

*Aura and Nova in 2013 LG catalog

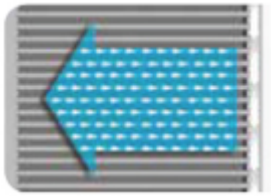
Condenser coils

Daikin FTF - Copper



Samsung Purista Pattern-Aluminium alloy

Voltas Executive-Aluminium Alloy



Samsung Purista-Aluminium alloy

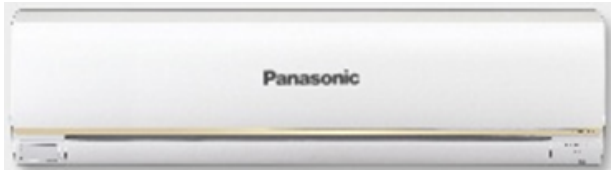
Voltas Classic-Aluminium Alloy

- Copper condenser coils are more durable compared to coils made of aluminium alloy
- Daikin air conditioners use copper coils for best performance

Airflow Rate

Daikin FTF -639 CFM

LG Aura Plus -565 CFM



Panasonic Virusfighter- 565 CFM

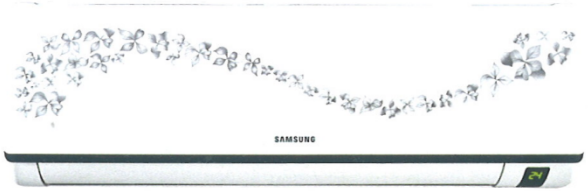
LG Nova Plus- 565 CFM

Panasonic Sapphire- 565 CFM

- Daikin FTF airflow rate is 13% higher compared to LG & Panasonic models shown
- Daikin air conditioning covers wide areas for everybody's comfort

Airflow Rate

Daikin FTF -639 CFM



Samsung Purista Pattern-565 CFM

Voltas Executive-500 CFM

Samsung Purista-565 CFM

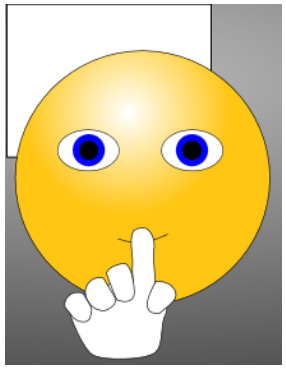
Voltas Classic-500 CFM

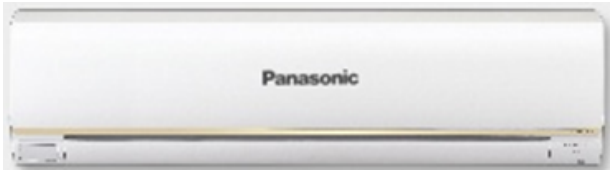
- Daikin FTF's airflow rate is much higher than Samsung and Voltas models shown
- Daikin air conditioning covers wider area for complete comfort of anybody in the room

Noise level

Daikin FTF -35 dB

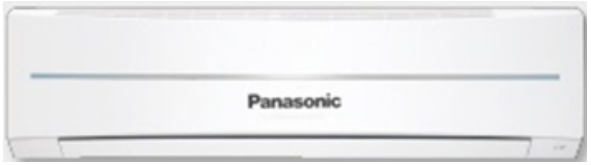
LG Aura Plus-36 dB





Panasonic Virusfighter- 35 dB

LG Nova Plus- 36 dB



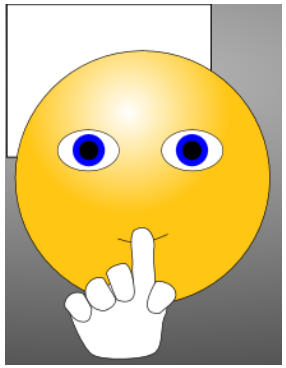
Panasonic Sapphire- 38 dB

- Daikin FTF has lower noise level as compared to LG Aura Plus & Nova Plus and Panasonic Sapphire model

Noise level

Daikin FTF -35 dB

Voltas Executive-37 dB



Voltas Classic-42 dB

- Daikin FTF has lower noise level as compared Voltas Executive and Classic models shown

Running Current

Daikin FTC -7.31 Ampere

LG Aura Plus-7.4 Ampere

Panasonic Pearl-7.7 Ampere

LG Nova Plus- 7.4 Ampere

Panasonic Ivory-7.7 Ampere

- Daikin FTC has lower running current as compared to LG & Panasonic series shown
- Lower Amperage puts lesser load on electricity circuits

Coefficient of Performance

Daikin FTC -3.25

LG Aura Plus -3.2

Panasonic Pearl-3.15

LG Nova Plus-3.2

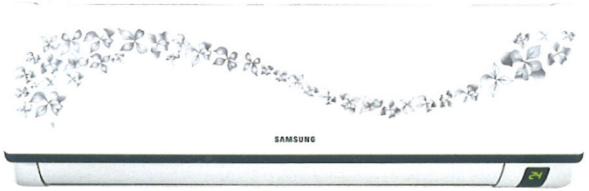
$$COP = \frac{\text{Cooling Load}}{\text{Power Input}}$$

Panasonic Ivory-3.15

- Daikin FTC series offers higher COP compared to LG Aura Plus & Nova Plus and Panasonic Pearl and Ivory models
- Daikin offers superior airconditioning performance as a result of higher COP

Coefficient of Performance

Daikin FTC -3.25



Samsung Purista Pattern-3.11

$$COP = \frac{\text{Cooling Load}}{\text{Power Input}}$$

Voltas Deluxe-3.21

Samsung Max-3.11

Voltas Classic-3.15

- Daikin FTC series offers higher COP compared to Samsung Purista Pattern & Purista and Voltas Deluxe & Classic models
- Enjoy superior airconditioning performance by Daikin FTC

Power Consumption

Daikin FTC -1.605 kWh

LG Aura Plus- 1.615 kWh

Panasonic Pearl-1.730 kWh

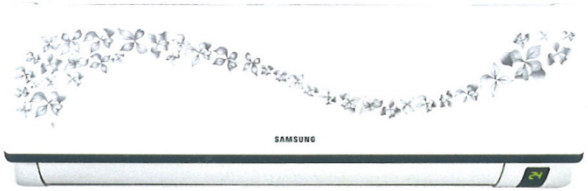
LG Nova Plus- 1.615 kWh

Panasonic Ivory-1.730 kWh

- Daikin FTC has lesser unit consumption as compared to Panasonic & LG models shown
- Lower unit consumption results in lower electricity bills

Power Consumption

Daikin FTC -1.605 kWh



Samsung Purista Pattern-1.61 kWh

Samsung Max- 1.61 kWh

- Daikin FTC has lesser unit consumption as compared to Samsung models shown
- Lower unit consumption results in lesser electricity unit consumption and lower bills

Refrigerant

Daikin FTC -R-32

LG Aura Plus-R22

Panasonic Pearl-R22

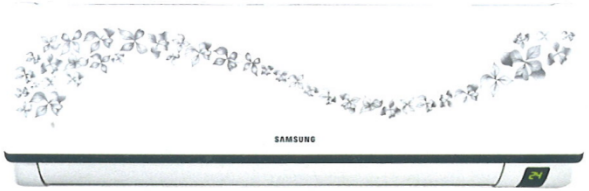
LG Nova Plus- R22

Panasonic Ivory-R22

- R-32 is eco-friendly, most balanced, next generation refrigerant
- R-32 has zero Ozone depletion potential (ODP)
- R-32 has ~1/3 global warming potential (GWP) of R22

Refrigerant

Daikin FTC -R-32



Samsung Purista Pattern-R22

Voltas Deluxe-R22

Samsung Max-R22

Voltas Classic-R22

- R-32 is eco-friendly, most balanced, next generation refrigerant
- R-32 has zero Ozone depletion potential (ODP)
- R-32 has ~1/3 global warming potential (GWP) of R22

Condenser Coils

Daikin FTC - Copper

LG Aura Plus*-Copper

LG Nova Plus*- Aluminium alloy

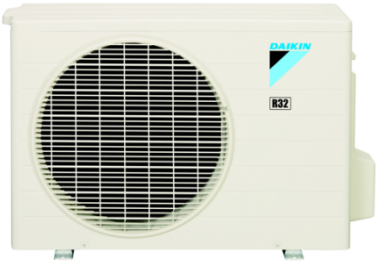
Panasonic Pearl-Copper

Panasonic Ivory- Copper

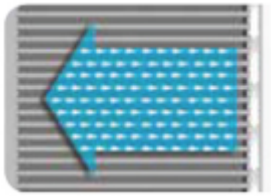
- LG offers multi channel condenser in Nova & copper in Aura
- Panasonic offers copper condenser coils in Pearl & ivory
- Daikin offers copper condenser coils in FTC for complete peace of mind

Aura and Nova in 2013 LG catalog

Condenser coils

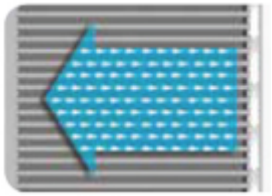


Daikin FTC - Copper



Samsung Purista Pattern-Aluminium alloy

Voltas Deluxe-Aluminium Alloy



Samsung Max-Aluminium alloy

Voltas Classic-Copper

- Samsung offers aluminium alloy in Purista Pattern and Max models
- Voltas offers copper condenser coils in Classic & aluminium alloy in Deluxe
- Daikin offers copper condenser coils in FTC series

Airflow rate

Daikin FTC -639 CFM

LG Aura Plus- 530 CFM

Panasonic Pearl-579 CFM

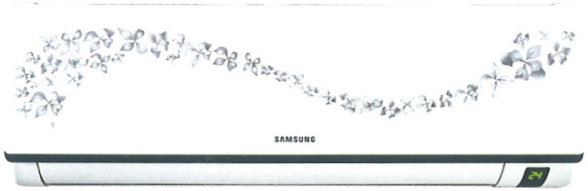
LG Nova Plus- 530 CFM

Panasonic Ivory-579 CFM

- Daikin FTC has higher airflow rate compared to LG & Panasonic models
- Daikin FTC ensures room will be cooled faster as compared to LG & Panasonic models

Airflow rate

Daikin FTC -639 CFM



Samsung Purista Pattern- 495 CFM

Voltas Deluxe-553 CFM

Samsung Max- 495 CFM

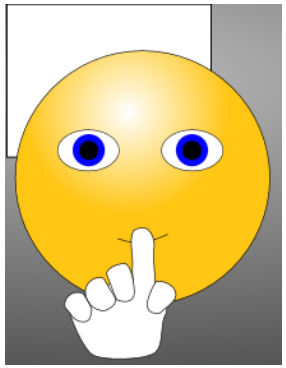
Voltas Classic-500 CFM

- Daikin FTC has higher airflow rate compared to Samsung and Voltas models
- Daikin FTC ensures better room coverage compared to Samsung and Voltas models

Noise Level

Daikin FTC -35 dB

LG Aura Plus -36 dB



Panasonic Pearl-41 dB

LG Nova Plus-36 dB

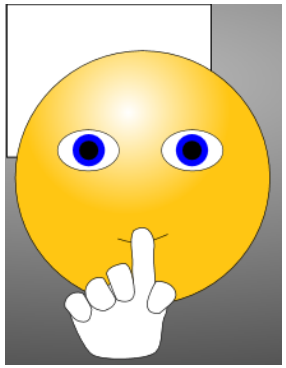
Panasonic Ivory-41 dB

- Daikin FTC offers lower noise level compared to LG Aura Plus & Nova Plus and Panasonic Pearl & Ivory models shown

Noise Level

Daikin FTC -35 dB

Voltas Classic-48 dB



Voltas Deluxe- 48 dB

- Daikin FTC offers lower noise level compared to Voltas Classic and Deluxe models

Running Current

Daikin FTQ -7.76 Ampere

LG Aura Plus-7.2 Ampere

Panasonic Pearl-7.8 Ampere

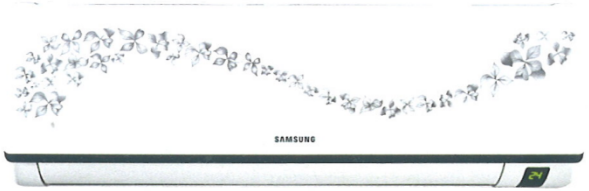
LG Nova Plus-7.2 Ampere

Panasonic Ivory-8.1 Ampere

- Daikin FTQ series has lower running current compared to Panasonic models
- Daikin's running current is more than LG; however Daikin's cooling capacity is also more than LG (5.2 kW vs 4.69 kW)

Running Current

Daikin FTQ -7.76 Ampere



Samsung Purista Pattern- 8.2 Ampere

Samsung Max- 8.2 Ampere

- Daikin FTQ series has lower running current as compared to Samsung Purista Pattern and Max; this results in lesser load on electricity circuits

Coefficient of Performance

Daikin FTQ -3.05

LG Aura Plus -3.0

$$COP = \frac{\text{Cooling Load}}{\text{Power Input}}$$

Panasonic Pearl-2.97

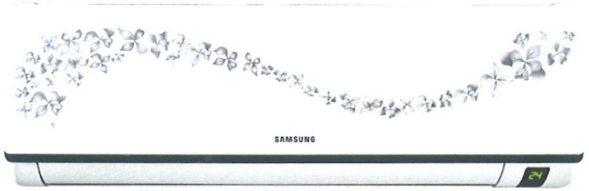
LG Nova-Plus-3.0

Panasonic Ivory-2.99

- Daikin FTQ has higher COP as compared to LG & Panasonic models
- Daikin offers superior airconditioning performance in the 2 star-rated category also

Coefficient of Performance

Daikin FTQ -3.05



Samsung Purista Pattern- 3.01

$$COP = \frac{\text{Cooling Load}}{\text{Power Input}}$$

Voltas Deluxe- 2.91

Samsung Max- 3.01

Voltas Classic- 2.91

- Daikin FTQ has higher COP as compared to Samsung & Voltas models
- Daikin offers superior airconditioning performance compared to Voltas and Samsung models shown

Power Consumption

Daikin FTQ -1.705 kWh

LG Aura Plus -1.565 kWh

Panasonic Pearl-1.730 kWh

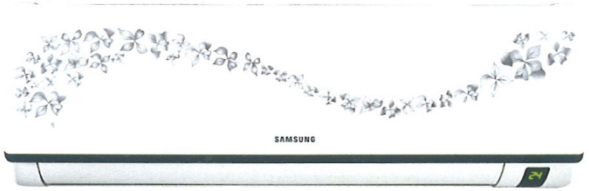
LG Nova Plus-1.565 kWh

Panasonic Ivory-1.820 kWh

- Daikin FTQ series has lower unit consumption compared to Panasonic models
- Daikin's power consumption is more than LG; however Daikin's cooling capacity is also more than LG models shown (5.2 kW vs 4.69 kW)

Power Consumption

Daikin FTQ -1.705 kWh



Samsung Purista Pattern-1.730 kWh

Samsung Max- 1.730 kWh

- Daikin FTQ series has lower unit consumption compared to Samsung Purista Pattern and Max series
- This results in lower electricity bills when you run Daikin AC

Refrigerant

Daikin FTQ -R-32

LG Aura Plus-R22

Panasonic Pearl-R22

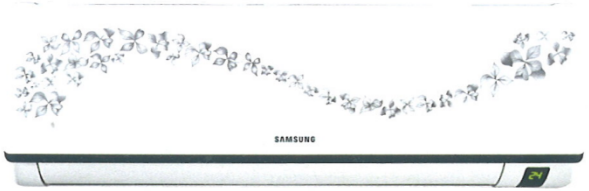
LG Nova Plus-Rs22

Panasonic Ivory-R22

- R-32 is eco-friendly, most balanced, next generation refrigerant
- R-32 has zero Ozone depletion potential (ODP)
- R-32 has ~1/3 global warming potential (GWP) of R22

Refrigerant

Daikin FTQ -R-32



Samsung Purista Pattern-R22

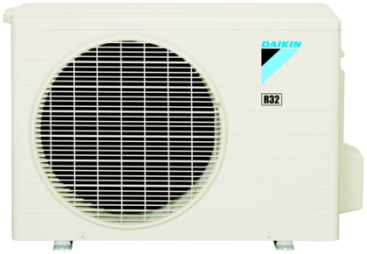
Voltas Deluxe-R22

Samsung Max-R22

Voltas Classic-R22

- R-32 is eco-friendly, most balanced, next generation refrigerant
- R-32 has zero Ozone depletion potential (ODP)
- R-32 has ~1/3 global warming potential (GWP) of R22

Condenser coils

Daikin FTQ -Copper

LG Aura Plus*-Aluminium alloy

LG Nova Plus- Data Not Available

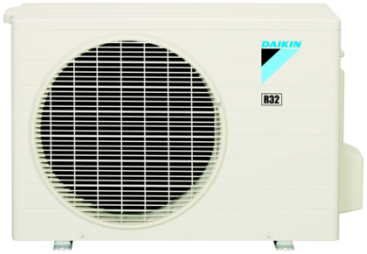

Panasonic Pearl- Copper


Panasonic Ivory- Aluminium

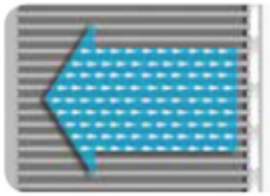
- Daikin offers copper condenser coils in FTQ series
- LG offers aluminium alloy condenser coils in Aura
- Panasonic provides aluminium condenser coils in Ivory

*Aura in LG 2013 catalog

Condenser coils

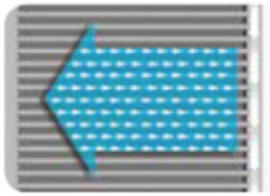


Daikin FTQ -Copper



Samsung Purista Pattern-Aluminium alloy

Voltas Deluxe-Aluminium Alloy



Samsung Max-Aluminium alloy

Voltas Classic-Aluminium Alloy

- Daikin offers copper condenser coils in FTQ series
- Samsung offers aluminium condenser coils in Purista Pattern and Max models
- Voltas provides aluminium condenser coils in Deluxe and Classic models

Airflow Rate

Daikin FTQ -653 CFM

LG Aura Plus - 425 CFM

Panasonic Pearl- 579 CFM

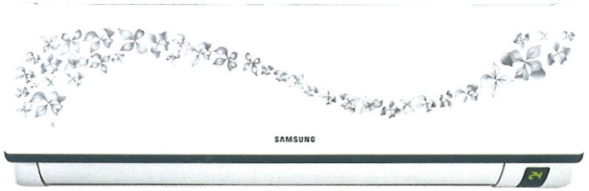
LG Nova Plus- 425 CFM

Panasonic Ivory- 597 CFM

- Daikin FTQ airflow rate is more than 50% higher compared to LG Aura Plus & Nova Plus
- Daikin FTQ airflow rate is also superior than Panasonic models shown
- Enjoy comfort of Daikin AC in any corner of the room

Airflow rate

Daikin FTQ -653 CFM



Samsung Purista Pattern- 495 CFM

Voltas Deluxe-500 CFM

Samsung Max- 495 CFM

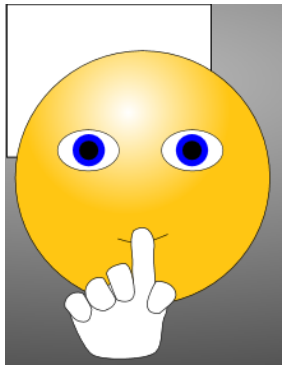
Voltas Classic-500 CFM

- Daikin FTQ airflow rate is superior than Samsung Purista pattern and Max series
- Daikin FTQ airflow rate is better than Voltas Classic and Deluxe models
- Daikin FTQ ensures room will be cooled faster with its high airflow rate

Noise level

Daikin FTQ -35 dB

LG Aura Plus - 35 dB



Panasonic Pearl-41 dB

LG Nova Plus- 35 dB

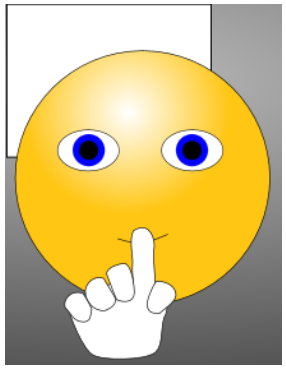
Panasonic Ivory-41 dB

- Daikin FTQ offers lower noise level compared to Panasonic Pearl and Ivory
- Daikin FTQ offers same noise level compared to LG models

Noise Level

Daikin FTQ -35 dB

Voltas Classic-37 dB



Voltas Deluxe- 37 dB

- Daikin FTQ offers lower noise level compared to Voltas Classic and Deluxe models

Daikin launches unique features for the Indian market

Intelligent Eye

Stabilizer Free Operation

Coanda Airflow

Good Sleep-off Timer

Silver Particle Anti-Bacterial Filter

Indoor Temperature Display on Remote Control

INTELLIGENT EYE

FTKM Inverter series

- Infra red sensor automatically controls air conditioner operation according to human movement
- Can adjust temperature by upto 2° C for energy savings

STABILIZER FREE OPERATION

FTKM Inverter series

FTKP Inverter series

Stabilizer Free

- Protects vital components of machine from power fluctuations
- Installing stabilizer becomes needless (160~264V guaranteed operation)
- High reliability without extra cost

COANDA AIRFLOW

FTKM Inverter series

FTKP Inverter series

FTF series

FTC series

FTQ series

- Draft from AC, instead of falling on the head, blows upwards
- Coanda airflow provides pleasant airconditioning in the entire room

GOOD SLEEP OFF TIMER

FTKM Inverter series

FTKP Inverter series

FTF series

FTC series

FTQ series

- Customize each step to get uninterrupted sleep
- Set temperature to increase at regular intervals for comfortable cooling
- Enjoy undisturbed sleep

SILVER PARTICLE ANTI-BACTERIAL FILTER

FTKM Inverter series

FTKP Inverter series*

FTF series*

FTC series*

FTQ series*

- The filter is embedded with silver particles
- Kills bacteria
- Deodorizes the air also for a pleasant airconditioning experience

*Optional

INDOOR TEMP. DISPLAY ON REMOTE CONTROL

FTKM Inverter series

FTKP Inverter series

FTF series

- Indoor temperature is displayed on the remote
- See the indoor temperature without straining your eyes

Thank You

DAIKIN

Disclaimer

The data is collected from the catalogues & websites of the companies involved for years 2013 & 2014. Pictures used are for representative purpose only and are not to scale; actual products might differ from the ones shown. This is just a guide to make informed decisions. Customers are advised to you their own discretion to make purchase decision