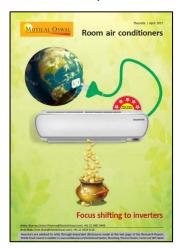


Room air conditioners

Please refer our previous report dated on April 2017



CY18 to be another year of strong industry growth

Inverters' share in industry volumes to rise to 50% by FY20

- Another scorching summer is coming, India!: The Indian Meteorological Division (IMD) has warned of above-normal temperatures in the CY18 summer season (April to June) across most parts of the country. We, thus, expect continued strong momentum in room air conditioner (AC) sales, which are highly levered to the soaring temperature. Led by healthy demand, the room air conditioner industry is likely to grow at 15% (in terms of volumes) in FY19/CY18, in our view.
- AC penetration to inch up from current low levels: Increasing disposable income, cheap financing and lower running costs for ACs are expected to further drive demand for air conditioners in India, in our view. We took a deep dive into the room AC market in urban India and discovered that AC penetration remains very low at 10%. There are 9.1m/24m households with washing machines/refrigerators but no ACs. Thus, as more households install ACs going forward, demand could reach 18-48m (which is equal to 3-8 years of annual industry AC sales) and penetration levels could increase significantly from current low levels of 10% in urban India.
- Brand, distribution, service network and dealer margins are key differentiators: Our discussion with channel partners/manufacturers indicates that brand, distribution (~50–55% of AC sales now in tier 2/3 cities), service network and dealer margins are the key success factors in the industry. In our view, Voltas has been able to retain/grow its market share in India's room AC industry, primarily due to its strong competitive positioning across all the aforementioned parameters.
- Shift toward inverter ACs accelerates estimated at 50% of industry by FY20 (30-35% in 4QFY18): We see three key factors driving the shift to inverter ACs: (1) the narrowing price gap between fixed and inverter ACs, which now stands at only INR3,000-4,000, 2) free installation (INR1,500/unit) and comprehensive 3-5 year warranty on inverter ACs and (3) rising electricity prices, which may persuade consumers to look for energy-efficient inverter ACs. Our channel checks indicate that the share of inverter ACs has already increased to >50% of overall sales in the metros/tier 1 cities. Moreover, the new energy ratings (effective from January 2018) would only accelerate this trend, as 4- and 5-star rated ACs would operate only on inverter technology.
- Valuation and risks: We prefer Blue Star (Neutral, TP: INR880, 35x FY20E UCP segment EPS, which we value at INR720; INR160 for the remaining business) over Voltas (Neutral, TP: INR660, 35x FY20E UCP segment EPS, which we value at INR530; INR130 for the remaining business). While Voltas is the market leader in the room AC segment, its share and margins are under threat from players like Daikin, Blue Star, Lloyd Electric and Panasonic. Moreover, we see increasing risks from: a) industry convergence to inverters, where Voltas has a relatively weak share, b) margin pressure due to rising commodity prices and inability to raise prices in inverters, and c) excise benefits going away from March 2018.

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Hotter summers, hotter demand

Expect 15% room AC industry CAGR over FY18-20

IMD expects above-normal temperature this summer

According to the IMD forecast, most parts of India are expected to witness warmer-than-normal temperatures in the April-June summer season. Moreover, heat wave conditions are likely to prevail in the states of Punjab, Himachal Pradesh, Uttarakhand, Delhi, Rajasthan, Haryana, UP, Gujarat, MP, Bihar, Telengana, Orissa, AP and Maharashtra. However, providing to relief, the IMD mentioned that east, east central and south India may witness slightly below maximum temperatures.

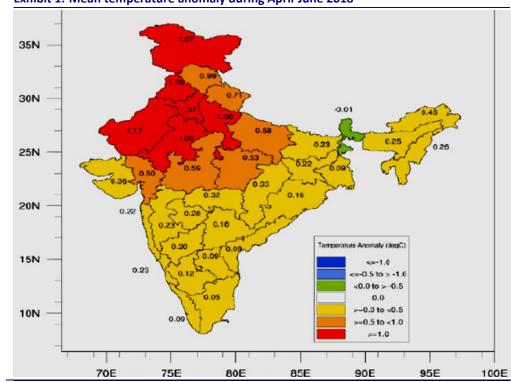
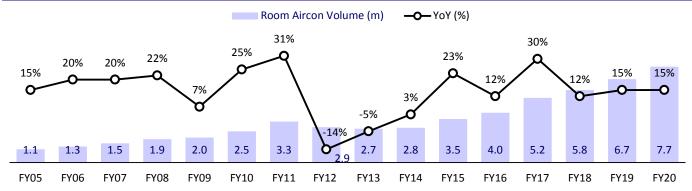


Exhibit 1: Mean temperature anomaly during April-June 2018

Source: Industry, MOSL

The soaring temperatures are likely to drive demand for air conditioners in CY18. A low base of the previous year (demonetization impact) may also provide support. We expect India's room AC industry to grow at a 15% CAGR over FY18-20.





Source: MOSL, Industry

Room AC penetration at only 3-4% pan India...

...but cheap financing, rising affordability and lower running cost may push up demand

From 5.2m units in FY18, India's AC sales are expected to increase to 7.7m units by FY20, implying a 15% CAGR. We have listed below some of the key factors that could contribute toward this growth.

- India significantly lags other countries in terms of AC penetration levels. Thus, progress on this front could drive sales significantly.
- Given the improving macroeconomic conditions, ACs are now considered as a necessary rather than a luxury item, with many houses even installing multiple ACs.
- An air conditioner was previously considered as a seasonal product (used mostly during summer months). However, manufacturers have now started offering heating/cooling options so that it can be used throughout the year.
- Manufacturers have come up with an increasing range of energy-efficient ACs.
 This addresses the Indian consumers' concerns about high electricity bills.

Exhibit 3: India remains under penetrated vis-à-vis other countries

Country	Penetration (%)
Taiwan	90%
US	87%
Korea	70%
China	100%**
Thailand	30%
Indonesia	8%
India	3-4%

Source: Industry, MOSL. ** for urban areas only

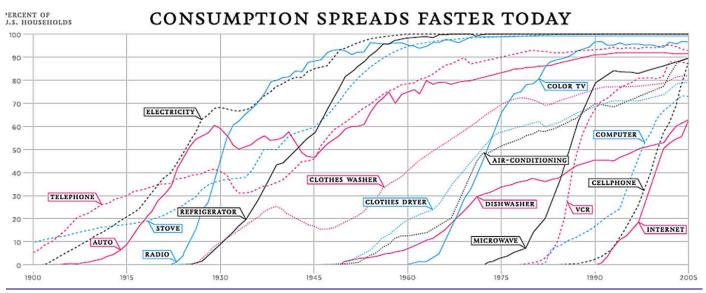
Exhibit 4: Consumer durables penetration across categories

Description	Penetration (%)
Fans	80%
Water Heaters	10%
Mixer - Grinder	35%
TV	60%
Fridge	20%
Air Cooler	17%
Microwave	5%
Washing machine	10%
Air Conditioner	6-7%

Source: Industry

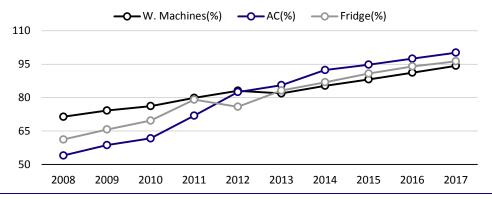
We take the example of the US to highlight penetration growth of ACs within households. As seen in the chart below, AC penetration started to pick up from 1950s – it then jumped to 15% in 1960 and to 50% by 1975. In contrast, penetration in China grew from 8% in 1995 to 70% in 2011 and to 100% in 2017, implying that penetration rates are increasing much faster than earlier years. We highlight that India's PPP per capita GDP at USD6,000 is similar to that of the US in 1960s.

Exhibit 5: US – penetration of consumer durables 1900-2005



Source:

Exhibit 6: China – growth in penetration of washing machines, AC and fridge (2008-17)



Source: MOSL, Industry

According to the Indian Weather Data Handbook, 2014, around 65% of the total numbers of hours in a year have a temperature above 24 degrees (based on the weather profile of 54 major cities in India). This, supported by rising income levels, has been the key driver of increasing demand for ACs. In our view, ACs could be one of the largest discretionary budget items in India over the next few years.

Deep dive into Indian household AC penetration

We took a deep dive into AC penetration levels in India for urban households (using the state-wise date available from SEC, 2011) to ascertain the number of potential households that could upgrade from only owning only refrigerators/washing machines to also owning ACs in the future. We followed the following steps in our analysis.

- We extracted the list of urban households currently owning an air conditioner. We discovered that only 6.3m out of the total of 65.1m households in India (as of 2011) own an AC.
- We extracted the number of households that have refrigerators but do not have an AC. Similarly, we extracted the number of households that own washing

17 April 2018

machines but do not own an AC. Our thesis here is that households owning at least a refrigerator or a washing machine are highly likely to also own an AC in the future.

- Our analysis shows that there are 9.1-24m households that would look to upgrade to buying an AC after having already bought a washing machine or a refrigerator.
- Lastly, we assume at least two ACs are bought by each household providing sales opportunity of 18.3-48m ACs or visibility of 3-8 years of sales purely on existing households upgrading to buying an AC.

Exhibit 7: Urban households owning a refrigerator and a washing machine but not an AC

State	Total Household	No of Household having AC	% with AC	No of Household not having AC	% not having AC	Region	Household with Ref. but not AC	Urban Household with WM but not AC
All India	65,133,952	6,285,809	9.7%	58,745,005	90.2%		37%	14%
ANDHRA PRADESH	2,925,984	198,465	6.8%	2,726,243	93.2%	South	815,494	292,180
BIHAR	2,245,176	89,818	4.0%	2,152,488	95.9%	East	310,302	88,765
CHHATTISGARH	1,173,799	57,248	4.9%	1,108,964	94.5%	Central	339,304	138,959
GOA	82,219	15,556	18.9%	66,563	81.0%	West	49,523	24,095
GUJARAT	4,708,936	492,853	10.5%	4,214,942	89.5%	West	1,937,466	231,176
HARYANA	1,661,450	278,626	16.8%	1,378,650	83.0%	North	834,884	531,029
JHARKHAND	997,697	82,960	8.3%	913,530	91.6%	East	279,015	94,458
KARNATAKA	5,090,399	216,924	4.3%	4,869,054	95.7%	South	1,878,083	1,012,923
KERALA	1,379,341	137,755	10.0%	1,241,492	90.0%	Central	738,733	293,949
MADHYA PRADESH	3,434,918	126,618	3.7%	3,255,976	94.8%	Central	1,123,599	443,520
MAHARASHTRA	9,120,640	913,692	10.0%	8,201,936	89.9%	West	4,190,632	1,242,214
ODISHA	1,264,486	107,772	8.5%	1,152,209	91.1%	East	359,656	113,395
PUNJAB	1,762,732	332,975	18.9%	1,429,757	81.1%	West	1,092,121	508,689
RAJASTHAN	2,913,518	176,953	6.1%	2,735,892	93.9%	West	1,175,555	432,610
TAMILNADU	7,433,837	1,071,868	14.4%	6,349,067	85.4%	South	1,907,687	763,845
TELANGANA	2,600,702	204,833	7.9%	2,395,232	92.1%	South	1,168,121	540,448
UTTAR PRADESH	6,460,192	528,282	8.2%	5,928,631	91.8%	North	2,921,800	1,449,266
WEST BENGAL	4,610,394	338,753	7.4%	4,271,217	92.6%	East	1,567,354	139,604
CHANDIGARH	198,576	53,482	26.9%	145,094	73.1%	West	88,556	44,004
DELHI	2,340,216	688,888	29.4%	1,651,214	70.6%	North	1,164,246	757,518
Potential for AC purchase							23,942,131	9,142,647
AC demand @2 AC's/house	e						47,884,262	18,285,294
No. of years of sales							8.0	3.0

Source: India Census 2011, MOSL

Competition to remain heated among AC players

Brand, distribution, service network, dealer margins are key success factors

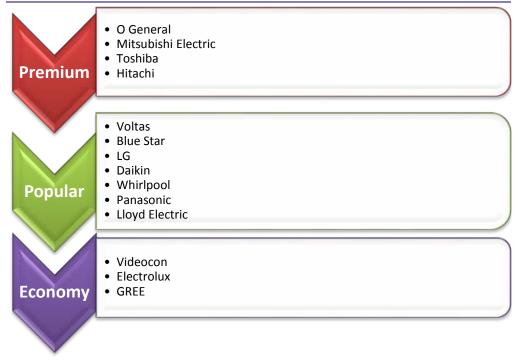
Competitive intensity in the room AC industry remains high, with more than 40 brands competing for market shares. We, thus, believe that brand, distribution, service center network and dealer margins are key to grab or even retain market shares. Based on various media articles, company interactions and reports, we have derived market shares of players in the room AC segment. According to GfK Nielsen's multi-brand outlet survey, Voltas ranked first with a share of ~23% as of 3QFY18, but this does not include sales by exclusive brand outlets of MNC players.

■ Daikin India 5% 11% ■ Lloyd Electric 6% 7% ■ Blue Star 11% Voltas 11% **■** LG 12% ■ Hitachi Samsung 16% ■ Carrier Midea 21% Others

Exhibit 8: Break-up of room AC market share (by volumes sold)

Source: Industry, MOSL, Channel checks,





Source: Dealer feedback, Industry, MOSL

We delve into each of these aforementioned key success factors in more detail:

Branding/advertisement spend: Brand name and trust are key differentiators in the AC industry. For example, Voltas, through its highly successful 'Murthy campaign' (launched in 2012), has strengthened its relationship with the Indian customers over past four years. The advertisement was also used to highlight the company's 'all-weather air conditioners' with both heating and cooling functionalities. In CY17, Voltas has bought back 'Mr Murthy' in its new TVCs with a focus on its 'All Star' inverter range of ACs. Blue Star has also used the 'Nobody cools better', 'Get office like cooling at home' and 'Daddy Cool' advertising campaigns to build a strong connect with the Indian customers. Companies typically spend 1-7% of their sales on advertising.

Exhibit 10: Advertising spends as % of UCP segment sales

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Name of company	% of FY17UCP sales	% of FY16 UCP sales
Hitachi	4.8%	5.2%
Blue Star	5.5%	4.0%
Voltas	2.1%	2.0%
Whirlpool	1.3%	1.7%
Lloyd Electric	4.0%	2.7%
Daikin	3.5%	3.0%

Source: Company, Industry

Dealer margins: Voltas, LG and Lloyd Electric are very dealer-oriented and provide high margins, while Samsung and Blue Star are not equally so. Voltas provides 35% margins to some of the bigger dealers and 28% to smaller dealers, while LG offers 28-30%. Blue Star, a relatively newcomer to the industry having entered the retail market only in CY11, provides lesser margins of 25-26%. O General and Mitsubishi Electric offer the lowest margins of 18-20%.

Exhibit 11: Dealer margins offered by various AC manufacturers

Name of company	Margin offered
Voltas	++++++
LG / Lloyd Electric	+++++
Blue Star/Samsung	++++
Daikin/Hitachi	++++
Mitsubishi	+++
O General	+++

Source: Industry, MOSL, **higher denotes better margins

Distribution: In our view, distribution/sales reach is the key differentiator in the Indian AC market. This has become all the more important, as ~50-55% of overall industry volumes are outside metros/tier-1 cities. In our view, Voltas has been able to command a leadership position mainly because it has managed to increase its pan-India touch points to more than 14,500, from 6,500 in FY14.

Exhibit 12: Dealer touch points across the industry

Company Name	No of touch points	
Voltas	~14,500	
Blue Star	4,500	
Daikin	5,000	
Intex	10,000	
Hitachi	8,500	
Lloyd Electric	>10000	
Whirlpool	35,000	
Micromax	4,000	
Carrier Midea	3,200	

Source: Company, Industry

Service network: LG has >1,000 service centers, much more than competitors. However, this is because LG is a multi-product company. Pure AC manufacturers like Voltas, Hitachi, Daikin and Blue Star have service centers in the range of 300-400 across the country.

Exhibit 13: Service centers by company (nos.)

Name of company	No. of centers
Voltas	300-350**
Blue Star	400
Hitachi Home and Life	400
Daikin	+300
LG	>1,000
Carrier	175
Lloyds Electric	485
Micromax	400
Panasonic	100

Source: Company, MOSL, ** Only for air conditioners

R&D spending: Most AC manufacturers in India follow the 'outsource and assembly' model, with low spending on R&D. Compressors are mostly sourced from China/Thailand and condensers from local vendors, with the complete AC being assembled at the AC manufacturer's factory. Typical, R&D spends are in the range of 0.2%-3% of sales.

Exhibit 14: R&D spending by company (INR m)

Name of company	FY17 (INR m)	% of total
Voltas	45	0.1%
Blue Star	537	2.7%
Hitachi Home and Life	114	0.6%
Whirlpool	349	0.8%
Daikin	NA	3%
Symphony	33	0.5%

Source: Company. MOSL

Shift toward inverter ACs accelerates

Inverter ACs to account for 50% of industry in FY20 (30-35% in 4QFY18)

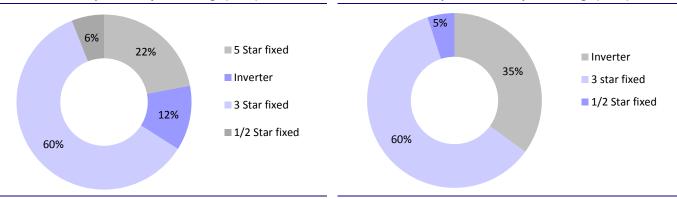
The room AC industry has been shifting toward energy-efficient models (i.e. 5-star/inverter ACs) over the past few years, as customers are increasingly becoming aware of lifetime costs of ACs vis-à-vis upfront costs. In our view, there are three key factors driving the shift toward inverter ACs:

- Narrowing price gap between fixed and inverter ACs, which now stands at only INR3,000-4,000
- Free installation (INR1,500/unit) and comprehensive 3-5 year warranty offered on inverter ACs (which usually costs INR3,000-3,500/unit annually)
- Rising electricity prices, which may persuade consumers to look for energyefficient inverter ACs

Our channel checks indicate that the share of inverter ACs has already increased to >50% of overall sales in metros/tier-1 cities. The new energy ratings (effective from January 2018) would only accelerate this trend, as 4- and 5-star rated ACs would operate only on inverter technology. This apart, the split AC market is expected to transition to inverter technology over the next few years. Consequently, the share of inverter ACs is expected to increase from 30-35% of the overall market in 4QFY18 to 50% by 2020.

Exhibit 15: Break-up of ACs by star ratings (FY17)

Exhibit 16: Breakup of AC sales by star ratings (FY18)



Source: Industry, MOSL

Exhibit 17: Inverter sales for key AC manufacturers v/s industry

Description	% of total sales
Industry	30-35%
LG	100%
Daikin	>50%
Blue Star	25-30%
Hitachi	40-50%
Lloyd Electric	<10%
Voltas	17%

Source: MOSL, Media reports, Company

Source: MOSL estimates

■ Window(%) ■ Split(%) 42% 55% 61% 67% 71% 75% 78% 82% 84% 84% 85% 85% 58% 45% 29% 25% 22% 18% 16% 16% 15% 15% FY06 FY07 FY08 **FY09** FY10 FY11 FY12 FY13 FY14 FY15 FY16 FY17 FY18

Exhibit 18: India room ACs - split ACs continue to gain share

Exhibit 19: Star rating for window ACs (valid from 1 January 2016-31st December, 2017)

Description	Energy Efficiency Ratios (Watt)		
Star Level	Minimum	Maximum	
1 Star *	2.5	2.69	
2 Star **	2.7	2.89	
3 Star **	2.9	3.09	
1 Star * 2 Star ** 3 Star ** 4 Star **** 5 Star *****	3.1	3.29	
5 Star ****	3.3		

Source: BEE; one-star rated ACs cannot be sold from January 1, 2016

Exhibit 20: Star rating for split ACs (from 1 January 2016)

Description	Energy Efficiency Ratios (Watt)		
Star Level	Minimum	Maximum	
1 Star *	2.7	2.89	
2 Star **	2.9	3.09	
3 Star **	3.1	3.29	
4 Star ****	3.3	3.49	
1 Star * 2 Star ** 3 Star ** 4 Star **** 5 Star *****	3.5		

Source: BEE; one-star rated ACs cannot be sold from January 1, 2016

Exhibit 21: Indian Seasonal Energy Efficiency ratio(ISEER) from 1st Jan'18 - Inverter and Split ACs ratings merged

Description	Energy Efficiency Ratios (Watt)		
Star Level	Minimum	Maximum	
1 Star *	3.1	3.29	
2 Star **	3.3	3.49	
3 Star **	3.5	3.99	
4 Star ****	4.0	4.49	
1 Star * 2 Star ** 3 Star ** 4 Star **** 5 Star *****	4.5		

Source: BEE; one-star rated ACs cannot be sold from January 1, 2016

Competitive landscape in inverter ACs

In the inverter AC segment, Japanese players like Daikin, Mitsubishi Electric and Hitachi had an edge over Indian peers as they were the early movers to introduce inverter models in the Indian market and had access to technology from their parent companies. LG was the first player to completely switch to inverters in January 2017 (a year before the new energy ratings came into force) with an aggressive pricing strategy (1.5-ton, 3-star inverter AC priced at INR36, 000-37,000 versus peers at >INR40,000) and a strong marketing drive. Consequently, it has claimed a market leadership position, with ∼50% share in the inverter AC segment.

Exhibit 22: Room AC prices across brands under new 2018 energy efficiency ratings

Name of company	1ton inverter 3 star	1.5ton inverter 3 star	1ton fixed 3 star	1.5ton fixed 3 star
Voltas	31,000	35,000	26,000	32,000
Daikin	33,000	38,000	31,000	35,000
LG	33,000	37,000	-	-
Blue Star	35,000	45,000	32,000	36,000

Source: Industry, MOSL

- Our recent channel checks indicate that Voltas and Daikin have also become very aggressive in inverter ACs. Voltas has now come up with the cheapest product in the market, with its 1-ton, 3-star inverter AC priced at INR31,000 and 1.5-ton, 3-star inverter AC priced at INR35,000. Daikin, too, has cut prices its products are now priced in line/marginally higher than Voltas and LG. Blue Star, on the other hand, has maintained a premium to Voltas/LG/Daikin, with its products priced around 5-10% higher across the fixed and inverter AC categories.
- In our view, inverter ACs should do well in metros and large cities/towns, where power is relatively reliable our channel checks indicate that inverter AC sales have already crossed 50% of overall AC sales in metros/tier-1 cities. The investor AC segment is not expected to do that well in smaller cities/towns, as power fluctuations can affect inverter/PCB chips, which cost INR3,000-3,500/unit.

Summer season strategy of key aircon manufacturers

Inverters to be a key focus category across brands

In FY19/CY18, competition is likely to intensify among AC manufacturers. Based on media articles/channel checks/company feedback, we highlight the key strategies adopted by various players with the onset of the summer season.

Blue Star – impressive line-up of AC models; targets market share of 12.5%

- Blue Star has a line-up of 100 models, 40 of which are equipped with the latest inverter technologies. The stellar array ranges from 0.75 TR to 4.5 TR across 2star and 3-star split ACs, as well as 3-star and 5-star inverter split ACs.
- Three models of the 5-star inverter split AC range have a smart Wi-Fi feature, enabling the user to operate the machine remotely.
- As far as distribution is concerned, in 2019, Blue Star's room air conditioners will be available at 4,500 outlets in 550 locations across the country, exclusive as well as multi-brand sales outlets, service dealers, retail showrooms and modern trade. Blue Star has 150 exclusive product stores in the country, and plans to increase it to 200 stores by end-FY19.
- The company plans to invest ~INRO.6b in the forthcoming summer season, as against INRO.5b in FY18. Marketing would be done via a set of TV commercials, as well as ads in mainline dailies, cinema halls and hoardings.
- Blue Star expects to outperform the market and achieve a market share of 12.5% in FY19.

Voltas – aggressively targeting the inverter segment

- The company has continued with its 'All Star Inverter' AC range in 2018 based on the unique 'two stage steady cool' compressor, which operates on a two-stage inverter technology, providing power saving across weather conditions. This cutting-edge technology leads to significant power savings vis-à-vis an ordinary compressor. In addition, All Star ACs are environment-friendly and efficient, with super-silent operations (noise levels as low as 18 decibels), high ambient cooling (efficient in temperatures as high as 54 degree celsius) and an advanced air purifier. The company is offering this unique range with a five-year warranty.
- Voltas has also continued with its range of advanced 'All Weather Smart ACs' by integrating three smart features: 1) Smart Access: Wi-Fi enabled ACs can be operated from anywhere and anytime through a smartphone using local Wi-Fi or GPRS connection. 2) Smart Sense: The AC senses outside weather conditions and adapts to the changing environment without any manual intervention. 3) Smart Analytics: It keeps a tab on energy usage and consumption trends. In addition, the company has revamped its Smart AC mobile app.
- The company has launched India's first window air conditioner that operates on the DC inverter technology. It works on a unique steady cool inverter compressor, which is a variable speed compressor, providing steady cooling and steady savings.

LG India – aiming for sales growth of 50% to 1.2m inverter units in CY18

- LG has several new product launches lined up for CY18, including 59 new inverter AC split models (which are 100% ISEER-compliant) and the first window inverter AC.
- The target is to sell 1.2m inverter ACs (+50% YoY), forming 53% share in overall industry inverter sales of 3.1m units.
- Because of LG's pioneering role, the inverter AC segment's share in the overall AC market has grown remarkably from 12% to 31%. Moreover, LG's inverter AC market share has increased from 19% to 53%.

Daikin India – target to expand reach and market share; doubled capacity at Neemrana to 1.2m units

- Daikin ACs run on a unique inverter technology, which improves efficiency and also adjusts the compressor speed based on the ambient weather, making it more powerful yet energy efficient.
- The company's plant in Neemrana was originally set up at a cost of INR11b and produces 0.5m ACs, 6,000 ductable and 18,000 chiller units. With the second facility operational, it has manufacturing capacity of 1.2m units per year.
- Daikin India has aggressive plans to expand its national dealership network to
 5,000 and develop 100 additional Daikin exclusive solution plazas.
- Daikin India is planning to introduce window ACs in selected markets, especially in tier-III and tier-IV cities.
- In 2016, Daikin had launched its marketing campaign under the tag "Fill the air with goodness". The campaign reiterates the company's commitment to provide state-of-the-art technology, which offers comfort, savings and is environment friendly. It continued with this campaign in CY17 as well.

Panasonic – aiming for 20% growth to INR15b in FY19

- Panasonic is eyeing business of around INR15b (+20% YoY), riding on its new range of air purifying ACs.
- The company's range of air purifying inverter ACs (inbuilt with a patented air purification system called Nanoe Technology that actively removes PM2.5 and airborne particles) gives up to 99% clean air.
- It also comes with Aerowings, which, according to the company, provides more control over the direction of the airflow across a wider area and ensures flow of cool/purified air evenly in every corner of the room.
- The new air purifying inverter ACs are available from a starting price of INR39,000-72,000 and in 0.8T, 1.0T, 1.5T, 2.0T variants.

Samsung – launches wind-free ACs in CY18

- The company has launched two new models for the coming summer season: 1) AC with wind free technology this has 21,000 micro holes to spread the flow of air. 2) Digital inverter with 8 pole motor for lower power consumption, noise and higher efficiency.
- The wind free range of ACs would be available in the price range of INR50,950 to INR74,260. The AC promises a comfortable cooling experience without the discomfort of direct airflow and also reduces energy consumption by up to 72%.

Exhibit 23: Key marketing campaigns being run by AC manufacturers for the CY18 summer season

Name of company Voltas	(All Star Invertor' AC	Key features offered Voltag has launched India's first window AC with inverter technology in CV19. The
	'All Star Inverter' AC Window Inverter AC	Voltas has launched India's first window AC with inverter technology in CY18. The company has continued with its 'All Star Inverter' AC campaign launched in 2016, but has got back Mr Murthy in its TVC. It focuses on the AC's significant power savings, environment friendly, super silent operations, advanced air purifier and ambient cooling at high temperature. Its 'All Weather Smart ACs' can be operated by a phone using Wifi/GPRS; these ACs sense outside temperature and adapt to the weather.
LG	Ocean Black Protection Window Inverter AC	Within split ACs, LG has completely switched to inverters, which are 100% copper with Ocean Black Protection that prevents coil rusting/corrosion and gas leakage, thereby resulting in durability and longevity. First-of-its-kind to offer WiFi technology, making it an appliance suited to today's fast-paced and connected life, stabilizer free operations, 10-year warranty on the compressor, including gas charging and cools up to 52 degrees Celsius. LG's ACs also offer "Mosquito Away" technology to drive away mosquitoes, "Himalaya Cool" technology for faster cooling, "Monsoon Comfort" for controlling humidity and "Hot & Cold" AC for all-weather usage. Window inverter ACs launched in 3/5 star in 1/1/.5 ton capacity.
Hitachi	'iCare' ACs with 'iClean', 'iSense' and 'iSee' technology	Hitachi's inverter ACs offer iClean Plus technology, which automatically cleans the dust in the air filter; iSense which regulates the temperature as per the person's active body movements; iSee which detects faces of people and directs air flow to everyone; Wi-fi technology to control AC from anywhere; R410 green refrigerant which is eco-friendly.
Lloyd	'Bring home Lloyd, Switch on happiness'	Lloyd has launched Wifi-enabled ACs with 10-year warranty on compressors and 5-year warranty on condensers. This enables the user to control the AC through the use of a smartphone. Wifi feature is available across inverter, 5-star and 3-star range of ACs. It has continued with Mr Amitabh Bachhan as the brand ambassador for its CY18 marketing campaign.
Panasonic	Quality air for Life Nanoe G Technology	Its air-conditioner comes with 'Aerowings' that give more control over the direction of the airflow across a wider area and ensures flow of cool and purified air evenly in every corner of the room. After reaching a set temperature, the Aerowings twin blades direct the air towards the ceiling to create a 'shower cooling effect'. The ACs use nano-sized electrostatic atomized water particles to deodorize inhibit bacteria and virus growth and remove dust and particulate matter in the room even when the cooling function of the AC is turned off.
Daikin	'Fill the air with Goodness'	Daikin has launched ACs with air purifiers which run on 'Streamer Technology" – these air purifiers helps eliminate bacteria, airborne particles and unpleasant odors. ACs offer 64% more power savings (Good for Savings), 15.3% more comfort (Good for Comfort), 75% less CO2 emission (Good for Environment) and Swing Inverter Technology (Good for living). Its ACs also have dehumidifiers, intelligent eye (adjusts cooling to human presence), smartphone connectivity for ACs, stabilizer-free operation and all-season ACs for heating/cooling. Daikin has also entered the window aircon space targeting the Tier3/4 cities.
Blue Star	'Nobody cools better'	FY19 market growth estimated at 15-20% with Blue Star growing at 30-40% in the upcoming summer season. Blue Star now introduced innovative models which deliver 30% extra cooling power, faster temperature pull-down and extra energy savings apart from precise temperature setting in steps of 0.1°C and 0.5°C. Has 100 models with 40 in inverter range and 17 in 5 star inverter range
Whirlpool	'Sixth Sense IntelliComfort' '3D Purafresh'	The AC has an in-built air purifier that comes with a PM 0.3 filtration to improve indoor air quality. The 3D Purafresh technology can remove pollutants present at home. The 3D Cool Inverter AC range comes with a 5-star rating and is also energy efficient. It comes with 6th Sense IntelliComfort Technology that bears advance humidity sensing mechanism that takes into consideration high humidity levels in coastal regions of India and reduces humidity 40% faster.
Samsung	Wind free technology Digital Inverter ACs	Launched two new models for the CY18 season with a) AC with wind free technology - this has 21,000 micro holes to spread the flow of air, b) Digital inverter with 8 pole motor for lower power consumption, noise and higher efficiency. Samsung's digital inverter compressor offer power savings, stabilizer free operation, virus doctor and easy filter to eliminate dust, Multi Jet Plus technology for better cooling efficiency, tropicalized compressor for cooling till 52 degrees, turbo cooling, good sleep for regulating temperature throughout the night, full HD filter and dry cool for comfort even in humidity.

Source: Industry, MOSL

MOTILAL OSWAL Consumer Durables I The heat is on

Marketing campaigns – focused on inverters

Aggressive marketing campaigns to gain market share

Exhibit 24: Voltas – betting on its "All Star" inverter range of aircon for CY18



Source: Industry

Exhibit 25: Lloyd Electric – continuing with its "Switch on happiness" brand promise



Source: Industry

Extreme Air Flow
Tropical Innovation Series

CONDITION OF THE PROPERTY OF THE

Exhibit 26: 'O General' – focusing on its inverter range

Exhibit 27: LG has launched window air conditioner and 100% copper models in CY18



Source: Industry

 $Motilal\ Oswal$ Consumer Durables I The heat is on

PRESENTING THE ALL-NEW WHIRLPOOL

NIVERTER AC

Exhibit 28: Whirlpool's 3D Cool Inverter with Sixth Sense and Air purifier

Source: Industry

Exhibit 29: Carrier - "Durafresh' range focusing on efficiency and cooling

INTEREST FREE FINANCE OFFER



Source: Industry

The partners in the partners i

Exhibit 30: Daikin - 'Fill the air with happiness' ad campaign

Exhibit 31: Hitachi focusing on inverter ACs - now present across mass and economy range



Source: Industry

Valuation and view

Strong growth in volumes factored into current valuations

In our view, the street is factoring in strong volume growth over the next few years as the low penetration of ACs, increasing affordability, easy EMI schemes and lower electricity costs drive demand. We prefer Blue Star (Neutral, TP: INR880, 35x FY20E UCP segment EPS, which we value at INR720; INR160 for the remaining business) over Voltas (Neutral, TP: INR660, 35x FY20E UCP segment EPS, which we value at INR530; INR130 for the remaining business). While Voltas is the market leader in the room AC segment, its share and margins are under threat from players like Daikin, Blue Star, Lloyd Electric and Panasonic.

Exhibit 32: Voltas - SOTP valuation

Name of segment	FY20E EPS	Multiple	Value/Share
Unitary Cooling Products	15.2	35	533
Engineered Products Services	2.6	15	40
Electro Mechanical Products(incl. non allocable)	6.1	15	91
Total			664

Source: MOSL, Company

Exhibit 33: Blue Star - SOTP valuation

Description	FY20E EPS	Multiple	Value/Share		
Electro Mechanical Projects	8.8	15	132		
Unitary Cooling Products	20.4	35	714		
Professional Electronics	2.2	15	33		
Total			880		

Source: MOSL, Company



5.0

2.5

0.0

Mar-08

Jun-09

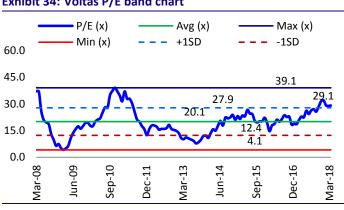


Exhibit 35: Blue Star P/E band chart



Source: MOSL Source: MOSL

Exhibit 36: Voltas P/B band chart P/B (x) Avg (x) Max (x) Min (x) +1SD -1SD 10.0 7.8 7.5

4.5

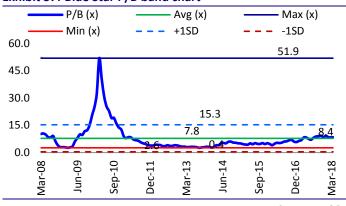
Jun-14

War-13

Sep-15

Dec-16

Exhibit 37: Blue Star P/B band chart



Source: MOSL Source: MOSL

17 April 2018 19

Mar-18

Explanation of Investment Rating

Investment Rating Expected return (over 12-month)

BLIY >=15% SELL < - 10% NEUTRAL > - 10 % to 15% UNDER REVIEW Rating may undergo a change

NOT RATED We have forward looking estimates for the stock but we refrain from assigning recommendation

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