

**Western Refrigeration Company**

PRODUCT LINE FOR

# ASIA PACIFIC DISTRIBUTION AND AFTERMARKET

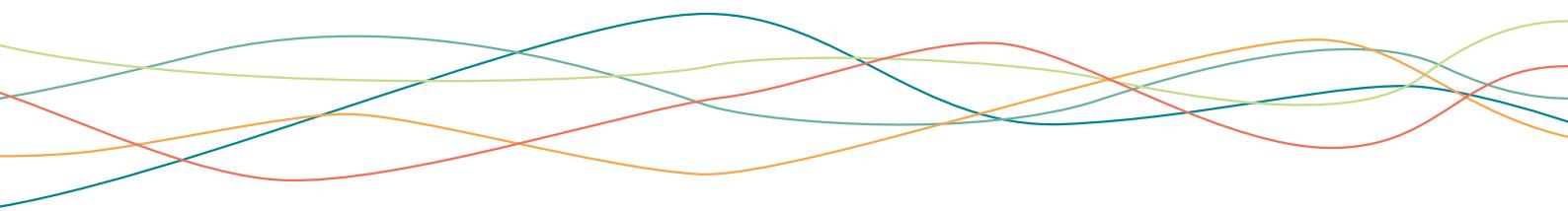


**embraco** POWER IN.  
CHANGE ON.





**embraco** POWER IN.  
CHANGE ON.





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FULLMOTION DRIVERS  
(INVERTERS)

# 01

We are refrigeration solution specialists and leaders in the segment of compressors for light commercial refrigeration. Our solutions designed for the light commercial segment aim to have low energy consumption and high level of robustness, providing people a better quality of life.

That is why technological leadership, operational excellence, sustainability, and focus on our customers are some of the pillars which define Embraco in the global market.

As a result of all of that, we have developed Embraco Fullmotion Inverter – a compressor that varies the cooling capacity according to the need, providing a reduction in energy consumption by up to 40%.

Nearly 12,000 professionals work in the factories and offices in Brazil (headquarters), the United States, Mexico, China, Italy, Slovakia, and Russia. We have a production capacity of more than 37 million compressor per year. Thus, we are constantly growing and always innovating in all places, especially in the Asia and Pacific Region anticipating changes in the market of Pakistan, India, Thailand, Malasya, Singapore, Indonesia, Philippines, South Korea, Japan, Australia and New Zealand, delivering the best solutions to the market.



- More than 12000 employees
- More than 400 professionals in R&D
- Production capacity of over 37 million compressors per year
- More than 500 million products produced to date
- More than 1200 patents worldwide
- Business conducted in more than 80 countries
- R&D laboratories on 4 continents

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# ABOUT EMBRACO



## HIGH EFFICIENCY



Energy efficiency drives our product development. This means producing compressors that consume less energy and less raw material in manufacturing, while at the same time maintaining Embraco brand quality. Thus, we continually invest in research and development to create products that are increasingly more economical, quieter and environmentally friendly. As a result of efforts to increase energy efficiency in our products, and to surpass our customers' highest expectations, we have developed Embraco Fullmotion Inverter – a compressor that varies the cooling capacity according to the need, providing a reduction in energy consumption by up to 40%.

We have a full product portfolio that offers compressors of the most diverse ranges of efficiency. We are a global benchmark in developing solutions that meet the most stringent international standards regarding energy consumption. With a commitment to seek continuous product and process improvement, each new generation of Embraco compressors is more efficient than the previous one.

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## GREEN SOLUTIONS

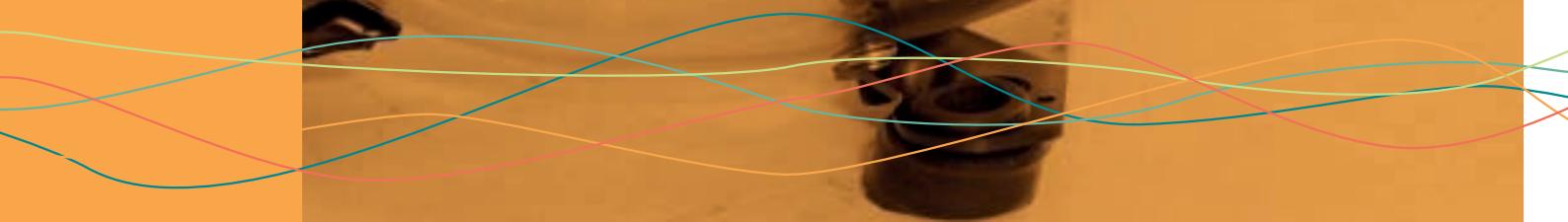


Consciously evolving, we are concerned with developing more environmentally friendly solutions. For more than 20 years, we have been developing products prepared for the use of natural refrigerant gases R290 and R600a, because we believe that they are the ideal gases for refrigeration. These refrigerant gases are alternatives for reducing the negative effects on the ozone layer and the greenhouse effect, and for improving the energy efficiency index, which meet the strictest environmental regulations.

02

## OUR PRODUCTS

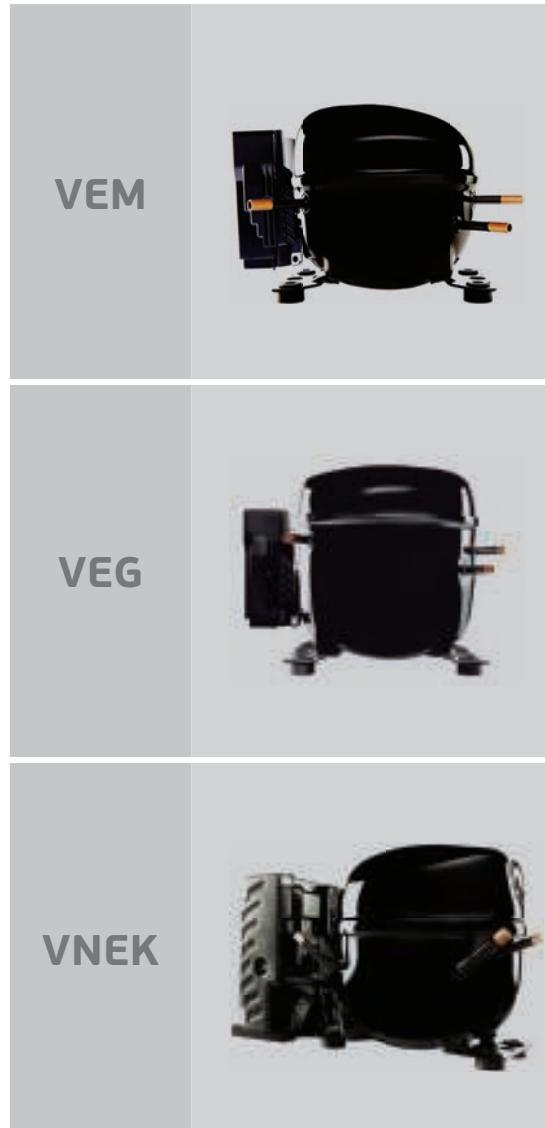




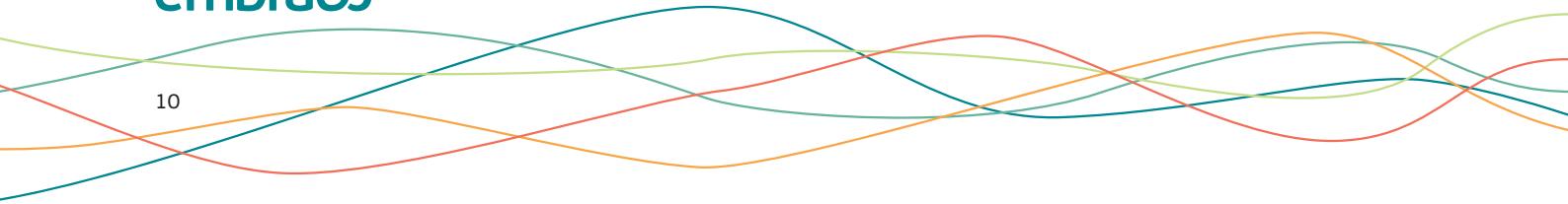
## SINGLE SPEED COMPRESSORS



## FULLMOTION INVERTER COMPRESSORS



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## CONDENSING UNITS



## PLUG N' COOL



## OUR PRODUCTS

EM		EM COMPRESSORS SUIT FOLLOWING APPLICATIONS:	
	<ul style="list-style-type: none"> <li>• High efficiency</li> <li>• Robustness</li> <li>• Wide application range</li> <li>• Small size</li> <li>• Low noise</li> <li>• Best in class up to 0.75 in³</li> </ul>	Water cooler Beverage cooler Ice maker Beer dispenser Reach-in Chest freezer Vending machine Wine Coolers Small dispenser Food exhibitor	
REFRIGERANTS	Displacement range (in³)	Capacity range (Btu/h)	Max efficiency (Btu/Wh)
R134a; R290; R600a; R404A	0.10 - 0.75	LBP: 100 - 1491 HBP: 910 - 3485	LBP: 6.24 HBP: 9.72

ASHRAELBP32 - ASHRAEHP46

F		F COMPRESSORS SUIT FOLLOWING APPLICATIONS:	
	<ul style="list-style-type: none"> <li>• High efficiency</li> <li>• Robustness</li> <li>• Wide application range</li> <li>• Small size</li> </ul>	Water cooler Beverage coolers Ice maker Beer dispenser Reach-in Chest freezer Professional Kitchen Vending machine Refrigerated island Show cases Wine coolers Heat Pumps Food exhibitor	
REFRIGERANTS	Displacement range ((in³))	Capacity range (Btu/h)	Max efficiency (Btu/Wh)
R134a; R290; R600a	0.36 - 0.68	LBP: 390 - 1670 HBP*: 2277- 5377	LBP: 5.40 HBP*: 9.97

ASHRAELBP32 - ASHRAEHP32

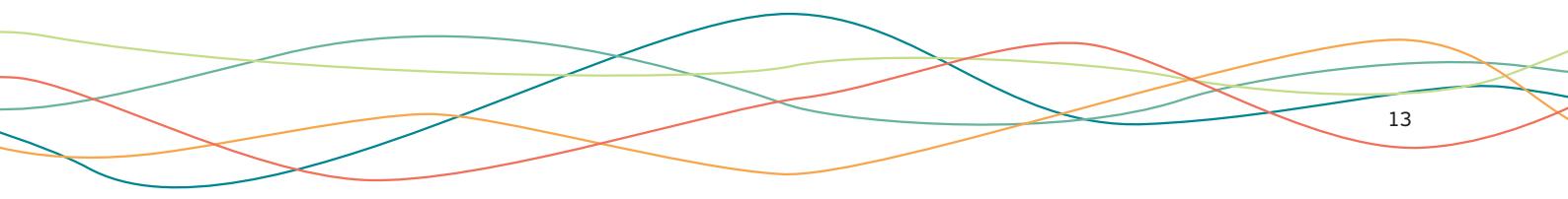
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NE		NE COMPRESSORS SUIT FOLLOWING APPLICATIONS:	
<ul style="list-style-type: none"> <li>• High efficiency</li> <li>• Robustness</li> <li>• Wide application range</li> <li>• Low noise</li> </ul>		Beverage cooler Ice maker Beer dispenser Reach-in Chest freezer Upright Cabinets Refrigerators and freezers Professional Kitchen Show cases Slushy machine	
REFRIGERANTS	Displacement range (in)	Capacity range (Btu/h)	Max efficiency (Btu/Wh)
R134a; R290; R404A; R600a	0.27 - 1.02	LBP: 638 - 3241 HPB: 1762 - 7821	LBP: 5.32 HPB: 9.51

ASHRAELBP32 - ASHRAEHP46

NT		NT COMPRESSORS SUIT FOLLOWING APPLICATIONS:	
<ul style="list-style-type: none"> <li>• High efficiency</li> <li>• Robustness</li> <li>• Wide application range</li> <li>• Low noise</li> <li>• Best in class up to 1.70 in<sup>3</sup></li> <li>• Designed for Medical &amp; Scientific ULT refrigerators</li> </ul>		Beverage coolers Ice maker Beer dispenser Reach-in Chest freezers Upright cabinets Ultra low temperature refrigerators Professional Kitchen Slushy machine	
REFRIGERANTS	Displacement range (in)	Capacity range (Btu/h)	Max efficiency (Btu/Wh)
R134a; R290; R404A	0.77 - 1.70	LBP: 1966 - 5710 HPB: 5484 - 13258	LBP: 5.01 HPB: 9.6

ASHRAELBP32 - ASHRAEHP46



OUR PRODUCTS

NTU	NTU COMPRESSORS SUIT FOLLOWING APPLICATIONS:		
 <ul style="list-style-type: none"> <li>• High efficiency</li> <li>• High robustness level for severe application</li> <li>• Continuous liquid return acceptance</li> <li>• Wide application range</li> <li>• Smallest size in this cooling capacity</li> </ul>			
REFRIGERANTS	Displacement range (in)	Capacity range (Btu/h)	Max efficiency (Btu/Wh)
R134a; R404A	1.25 - 1.70	HBP: 8271- 18199	HBP: 10.56

ASHRAELBP32 - ASHRAEHP46

NJ	NJ COMPRESSORS SUIT FOLLOWING APPLICATIONS:		
 <ul style="list-style-type: none"> <li>• High efficiency</li> <li>• Robustness</li> <li>• Wide application range</li> <li>• Low noise</li> </ul>			
REFRIGERANTS	Displacement range (in)	Capacity range (Btu/h)	Max efficiency (Btu/Wh)
R134a; R404A	1.32 - 2.10	LBP: 1940 - 5912 HBP: 8692 -19366	LBP: 5.12 HBP: 9.96

ASHRAELBP32 - ASHRAEHP46

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VEM			VEM COMPRESSORS SUIT FOLLOWING APPLICATIONS:			
	<ul style="list-style-type: none"> <li>• High efficiency</li> <li>• Robustness</li> <li>• Wide application range</li> <li>• Small size</li> <li>• Low noise</li> <li>• Better temperature control</li> <li>• Wide voltage range</li> </ul>		Wine coolers Heat Pumps Beverage coolers Reach-in Chest freezers Medical coolers			
REFRIGERANTS	Displacement range (in)	Capacity range (Btu/h)	Max efficiency (Btu/Wh)			
R134a; R600a	0.18 - 0.57	LBP: 141 - 852 HBP*: 1178 - 2800	LBP: 6.7 HBP*: 11.97			

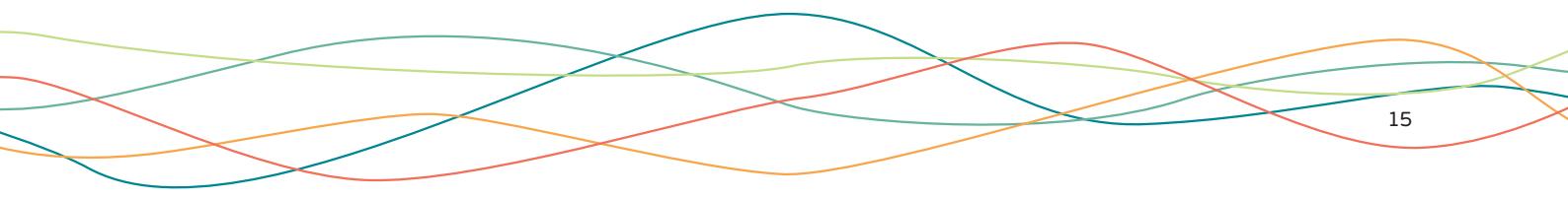
ASHRAELBP32 - ASHRAEHP32

VEG			VEG COMPRESSORS SUIT FOLLOWING APPLICATIONS:			
	<ul style="list-style-type: none"> <li>• High efficiency</li> <li>• Robustness</li> <li>• Wide application range</li> <li>• Small size</li> <li>• Low noise</li> <li>• Better temperature control</li> <li>• Wide voltage range</li> <li>• Unique for Coolers in R290</li> </ul>		Beverage cooler Ice maker Beer dispenser Reach-in Chest freezer Medical cooler			
REFRIGERANTS	Displacement range (in)	Capacity range (Btu/h)	Max efficiency (Btu/Wh)			
R134a; R600a; R290	0.39 - 0.68	LBP: 410 - 2000	LBP: 6.39			

ASHRAELBP32

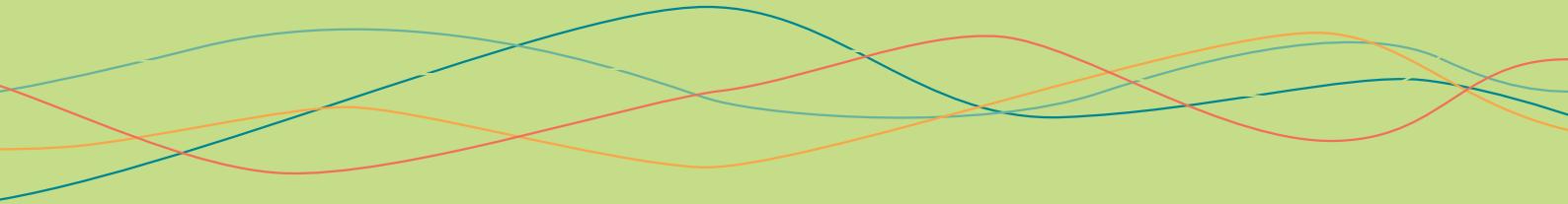
VNE			VNE COMPRESSORS SUIT FOLLOWING APPLICATIONS:			
	<ul style="list-style-type: none"> <li>• High efficiency</li> <li>• Robustness</li> <li>• Wide application range</li> <li>• Small size</li> <li>• Low noise</li> <li>• Better temperature control</li> <li>• Wide voltage range</li> <li>• Best in class in its range of cooling capacity</li> <li>• Unique in dual-voltage and frequency with the same SKU</li> </ul>		Beverage cooler Ice maker Beer dispenser Reach-in Big chest freezer			
REFRIGERANTS	Displacement range (in)	Capacity range (Btu/h)	Max efficiency (Btu/Wh)			
R134a; R290; R404A	0.38 - 0.87	LBP: 1431 - 3750	LBP: 5.11			

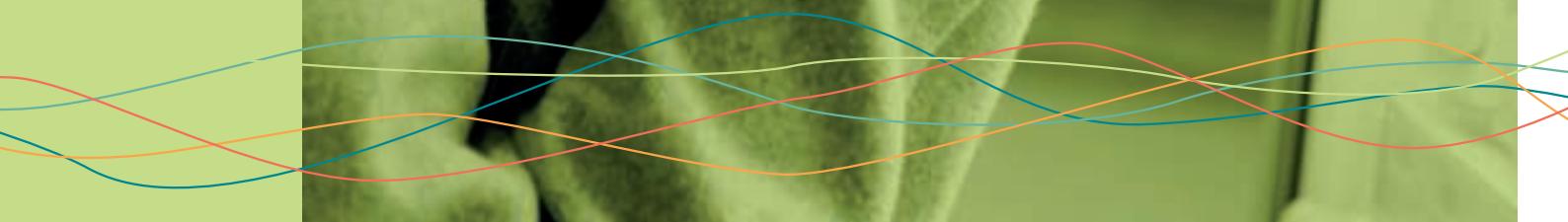
ASHRAELBP32



# APPLICATION GUIDE

Note: this chapter indicates the most used compressors for each application, in order to make your product selection process easier and faster. However it does not intend to assure that the specific compressor will fit any application in the same cluster worldwide, because there are several specific approval standards as well as different product designs.





## BEVERAGE COOLERS - 50Hz

GROSS CAPACITY		100 - 150l 3 - 5ft		150 - 200l 5 - 7,0ft		200 - 250l 7,0 - 9,0ft		250 - 300l 9,0 - 11ft		300 - 350l 11 - 13ft	
DOOR TYPE		SOLID	GLASS	SOLID	GLASS	SOLID	GLASS	SOLID	GLASS	SOLID	GLASS
<b>R134a</b>	PREMIUM EFFICIENCY	VEMY6HH ●●	VEMY6HH ●●	VEMY6HH ●●	VEMY6HH ●●	VEMY6HH ●●	VEMY6HH ●●	VEMY6HH ●●	VEMY6HH ●●	VEGT8HB ●●	VEGT8HB ●●
	HIGH EFFICIENCY	EMI60HER ●	EMI60HER ●	EMI60HER ●	EMI60HER ●	EMI70HER ●	EMI70HER ●	FFU80HAK ●●	FFU80HAK ●●	FFU100HAK ●●	FFU100HAK ●●
<b>R600a</b>	HIGH EFFICIENCY	EMX32CLC ●	EMT45CDP ●	EMZ46CLC ●	EMZ46CLC ●	EMX55CLC ●	EMX55CLC ●	EMX3118Y ●●	EMX3118Y ●●	EMX3118Y ●●	EMX3118Y ●●
<b>R290</b>	PREMIUM EFFICIENCY	EM2X3113U ●●●	EM2X3113U ●●●	EM2X3113U ●●●	EM2X3113U ●●●	EM2X3117U ●●●	EM2X3117U ●●●	EM2X3121U ●●●	EM2X3121U ●●●	EM2X3121U ●●●	EM2X3121U ●●●
	HIGH EFFICIENCY			EMT6144U ●●	EMT6144U ●●	EMT6152U ●●	EMT6152U ●●	EMT6165U ●●	EMT6165U ●●	NEU6210U ●●	NEU6210U ●●
<b>R404A</b>	HIGH EFFICIENCY										

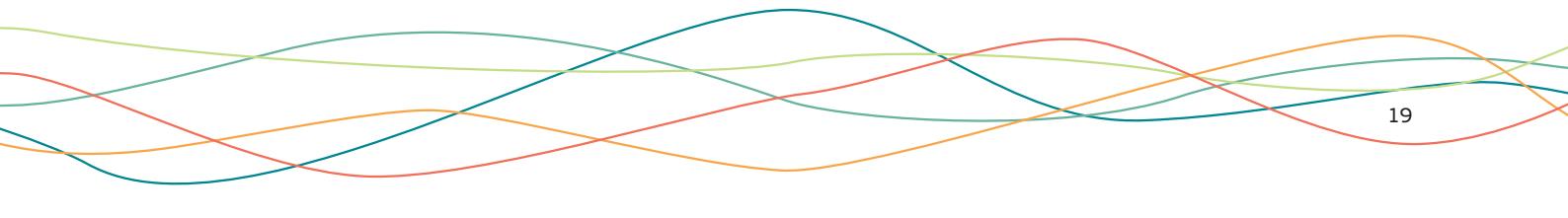
- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

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	350 - 450L 13 - 17ft		450 - 600L 17 - 21ft		600 - 750L 21 - 27ft		750 - 1000L 27 - 35ft		1000 - 1400L 35 - 49ft		1400 - 1700L 49 - 60ft		1700 - 2000L 60 - 71ft	
	SOLID	GLASS	SOLID	GLASS	SOLID	GLASS	SOLID	GLASS	SOLID	GLASS	SOLID	GLASS	SOLID	GLASS
VEGT8HB ●●	VEGT8HB ●●													
FFU130HAX ●●	FFU130HAX ●●	FFU160HAX ●●	FFU160HAX ●●	NEU6214Z ●●	NEU6214Z ●●	NEU6214Z ●●	NEU6214Z ●●	NT6217Z ●●	NT6217Z ●●	NTU6222Z ●●	NTU6222Z ●●	NJ6226Z ●●	NJ6226Z ●●	
NEU5118Y ●●	NEU5118Y ●●													
EM2X3125U ●●●●●	EM2X3125U ●●●●●													
NEU6210U ●●	NEU6210U ●●	NEU6212U ●●	NEU6212U ●●	NEU6212U ●●	NEU6212U ●●	NEU6214U ●●	NEU6214U ●●							
FFU130UAX ●●	FFU130UAX ●●	FFU160UAX ●●	FFU160UAX ●●											
							NEK6213GK ●●	NEK6213GK ●●	NE9213GK ●●	NEK6213GK ●●	NEK6217GK ●●	NEK6217GK ●●	NT6224GK ●●	NT6224GK ●●

## AVERAGE BOTTLE COOLER SPECIFICATION

Starting Type	LST
Application	MBP
Cooling Type	Fan
Door Type	Solid or Glass
Temperature	0 to 6°C

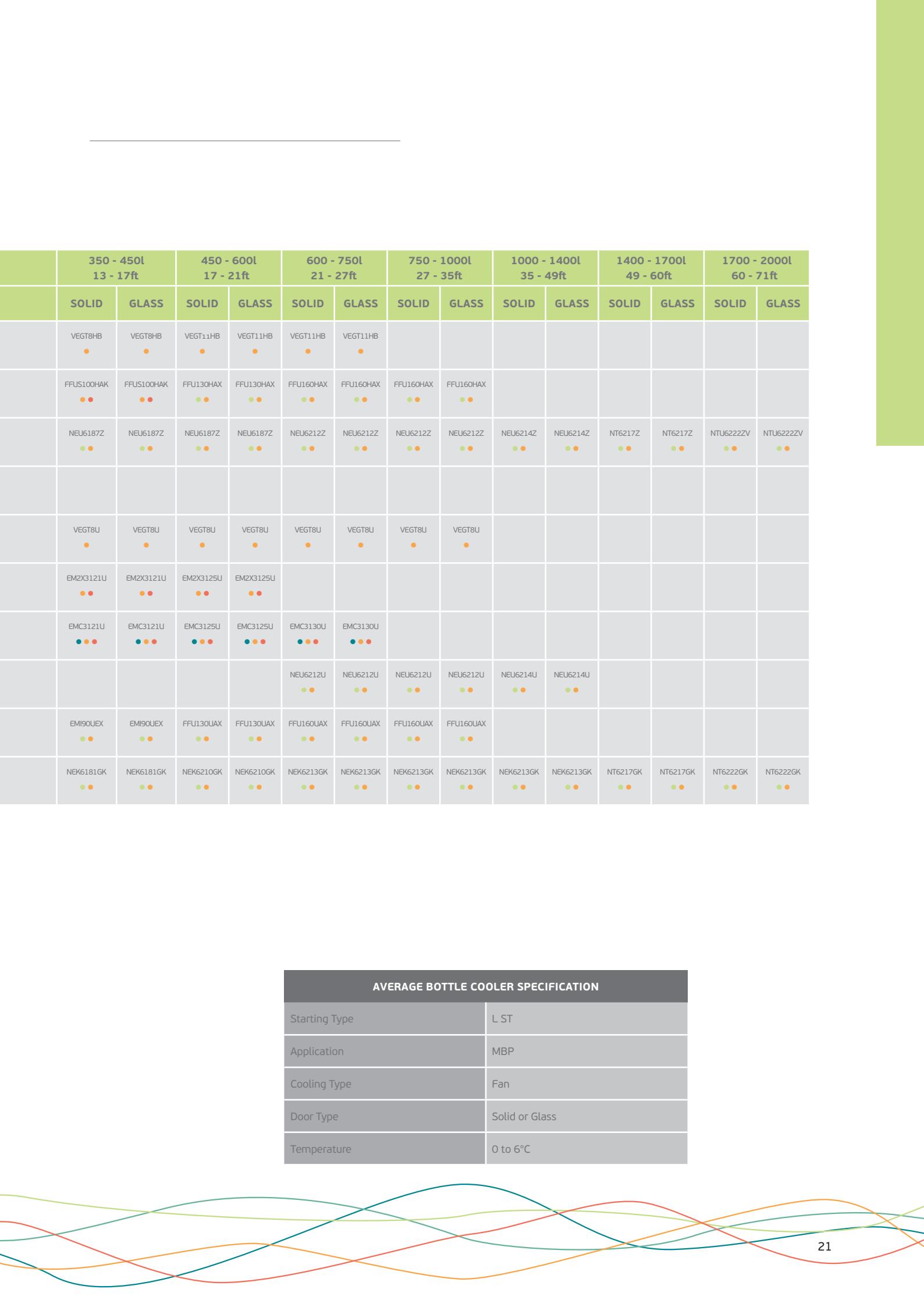


## BEVERAGE COOLERS - 60Hz

GROSS CAPACITY		100 - 150L 3 - 5ft		150 - 200L 5 - 7,0ft		200 - 250L 7,0 - 9,0ft		250 - 300L 9,0 - 11ft		300 - 350L 11 - 13ft	
DOOR TYPE		SOLID	GLASS	SOLID	GLASS	SOLID	GLASS	SOLID	GLASS	SOLID	GLASS
<b>R134a</b>	PREMIUM EFFICIENCY	VEMY6HH ●●	VEMY6HH ●	VEMY6HH ●	VEMY6HH ●	VEMY6HH ●	VEMY6HH ●	VEMY6HH ●	VEMY6HH ●	VEGT8HB ●	VEGT8HB ●
	HIGH EFFICIENCY							EMY70HER ●●	EMY70HER ●●	FFUS80HAK ●●	FFUS80HAK ●●
	STANDARD EFFICIENCY	EMIS30HHR ●●	EMIS30HHR ●●	EMI60HER ●●	EMI60HER ●●	EMI60HER ●●	EMI60HER ●●	EMIS70HHR ●●	EMIS70HHR ●●	EMIS70HHR ●●	EMIS70HHR ●●
<b>R290</b>	PREMIUM EFFICIENCY	EM2X3113U ●●●●	EM2X3113U ●●●●	EM2X3113U ●●●●	EM2X3113U ●●●●	EM2X3113U ●●●●	EM2X3113U ●●●●	EM2X3117U ●●●●	EM2X3117U ●●●●	VEGT8U ●	VEGT8U ●
	HIGH EFFICIENCY							EMC3115U ●●●●	EMC3115U ●●●●	EMC3121U ●●●●	EMC3121U ●●●●
		EMIS1QUER ●●	EMIS1QUER ●●	EMIS1QUER ●●	EMIS1QUER ●●	EMI70UER ●●	EMI70UER ●●	EMI70UER ●●	EMI90UEX ●●	EMI90UEX ●●	
<b>R404A</b>	STANDARD EFFICIENCY			NEK6144GK ●●	NEK6144GK ●●	NEK6152GK ●●	NEK6152GK ●●	NEK6165GK ●●	NEK6165GK ●●	NEK6181GK ●●	NEK6181GK ●●

- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

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## UPRIGHT FREEZERS (ICE-CREAM AND FROZEN FOOD) - 60Hz

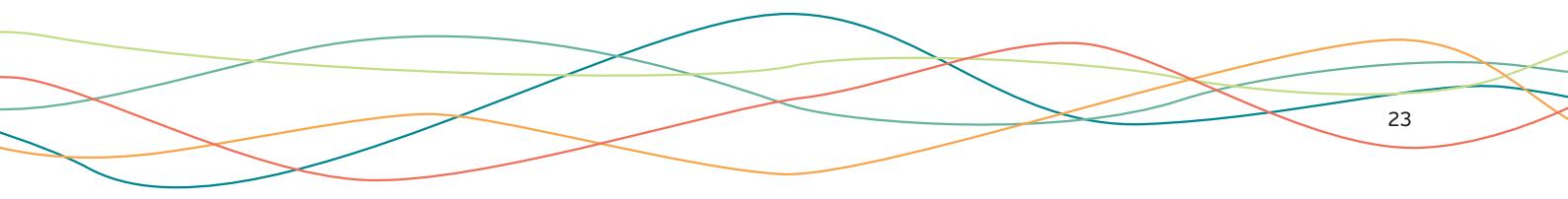
GROSS VOLUME (l)		<100L	100-200L	200 - 300L	300 - 400L	
GROSS VOLUME (ft )		3 ft	3 - 7 ft	7 - 11 ft	11 - 14 ft	
R290	PREMIUM EFFICIENCY					VNEU213U ● ●
	HIGH EFFICIENCY	EMT2125U ● ●	FFU130UAX ● ●	FFU160UAX ● ●	NEU2140U ● ●	NEU2155U ● ●
R404A	PREMIUM EFFICIENCY				VNEK206GK ● ●	VNEK212GK ● ●
	HIGH EFFICIENCY				NEU2140GK ● ●	NEU2155GK ● ●
R134a	PREMIUM EFFICIENCY	VEGT8HB ●	VEGT8HB ●	VEGT11HB ●		
		FFUS100HAK ● ●	FFU130HAX ● ●	FFU160HAX ● ●		

- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

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	400 - 500L	500 - 600L	600 -700L	700-800L	800-1000L	1000<L
	14 - 18 ft	18 - 21 ft	21 - 25 ft	25 - 29 ft	28 - 35 ft	35 < ft
VNEU217U ● ●	VNEU217U ● ●	VNEU217U ● ●				
NEU2168U ● ●	NT2180U ● ●	NT2180U ● ●	NT2210U ● ●			
VNEK212GK ● ●						
NEU2168GK ● ●						
NEK2168GK ● ●	NT2180GK ● ●	NT2180GK ● ●	NT2192GK ● ●	NT2212GK ● ●	NJ2212GK ● ●	

AVERAGE ICE CREAM FREEZERS SPECIFICATION	
Starting Type	HST
Application	LBP
Cooling Type	Fan
Door Type	Glass/Solid
Food Temp.	<-4 °F



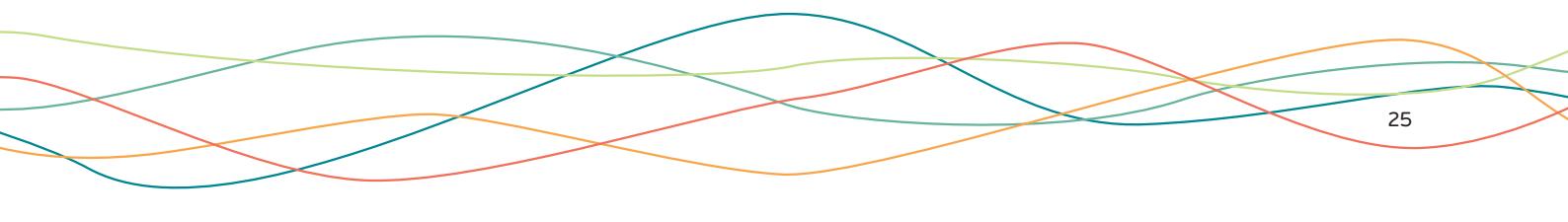
## UPRIGHT FREEZERS (ICE-CREAM AND FROZEN FOOD) - 50Hz

GROSS VOLUME (l)		<100L	100-200L	200 - 300L	300 - 400L	
GROSS VOLUME (ft.)		3 ft	3 - 7 ft	7 - 11 ft	11 - 14 ft	
R290	PREMIUM EFFICIENCY					VNEU213U <span style="color: green;">●</span> <span style="color: orange;">●</span>
			EMT2125U <span style="color: green;">●</span> <span style="color: orange;">●</span>	NEU2140U <span style="color: green;">●</span> <span style="color: orange;">●</span>	NEU2155U <span style="color: green;">●</span> <span style="color: orange;">●</span>	
		EMT2121U <span style="color: green;">●</span> <span style="color: orange;">●</span>				
		EMI90UEX <span style="color: green;">●</span> <span style="color: orange;">●</span>	FFU130UAX <span style="color: green;">●</span> <span style="color: orange;">●</span>	FFU160UAX <span style="color: green;">●</span> <span style="color: orange;">●</span>		
R404A	PREMIUM EFFICIENCY				VNEK206GK <span style="color: green;">●</span> <span style="color: orange;">●</span>	VNEK212GK <span style="color: green;">●</span> <span style="color: orange;">●</span>
					NEU2140GK <span style="color: green;">●</span> <span style="color: orange;">●</span>	NEU2155GK <span style="color: green;">●</span> <span style="color: orange;">●</span>
					NEK2134GK <span style="color: green;">●</span> <span style="color: orange;">●</span>	NEK2150GK <span style="color: green;">●</span> <span style="color: orange;">●</span>
R134a	PREMIUM EFFICIENCY	VEGT8HB <span style="color: orange;">●</span> <span style="color: red;">●</span>	VEGT8HB <span style="color: orange;">●</span> <span style="color: red;">●</span>			
		FFU100HAK <span style="color: orange;">●</span> <span style="color: red;">●</span>	FFU130HAX <span style="color: green;">●</span> <span style="color: orange;">●</span>	FFU160HAX <span style="color: green;">●</span> <span style="color: orange;">●</span>		

- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

	400 - 500l	500 - 600l	600 -700l	700-800l	800-1000l	1000< l
	14 - 18 ft	18 - 21 ft	21 - 25 ft	25 - 29 ft	28 - 35 ft	35 < ft
	VNEU217U ● ●	VNEU217U ● ●	VNEU217U ● ●			
	NEU2168U ● ●	NT2180U ● ●	NT2210U ● ●	NT2210U ● ●		
	VNEK212GK ● ●					
	NEU2168GK ● ●					
	NEK2168GK ● ●	NT2180GK ● ●	NT2180GK ● ●	NT2192GK ● ●	NT2212GK ● ●	NJ2212GK ● ●

AVERAGE ICE CREAM FREEZERS SPECIFICATION	
Starting Type	HST
Application	LBP
Cooling Type	Fan
Door Type	Glass/Solid
Food Temp.	<-4 °F



## ICE MAKERS (CUBERS) - 60Hz

ICE/DAY		UP TO 25Kg 55Lb	25-40Kg 55-90Lb	40-60Kg 90-130Lb	60-90Kg 130-200Lb	90-120Kg 200-260Lb	120-150Kg 260-330Lb	150-170Kg 330-375Lb	
R290	HIGH EFFICIENCY	EMC3115U ● ● ●	EMC3115U ● ● ●	EMC3121U ● ● ●	NEU6210U ● ●	NEU6214U ● ●	NT6220U ● ●	NT6220U ● ●	
R404A			NEK6152GK ● ●	NEK6181GK ● ●	NEK6210GK ● ●	NEK6213GK ● ●	NT6217GKV ● ●	NT6220GKV ● ●	
R134a		EM45HHR ● ●	EMIS70HHR ● ●	FFUS100HAK ● ●	NEU6212Z ● ●	NEU6214Z ● ●	NT6217ZV ● ●	NT6220ZV ● ●	

AHRI STANDARD:

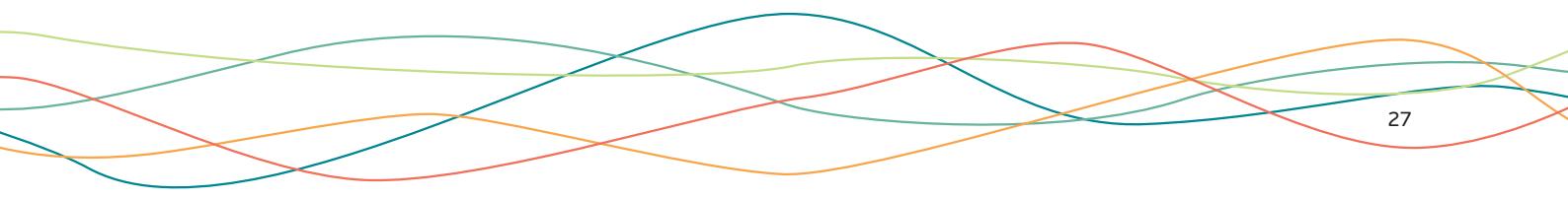
AMBIENT: 90°F

WATER INLET: 70°F

- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

	170-210Kg 375-460Lb	210-250Kg 460-550Lb	250-280Kg 550-620Lb	280-320Kg 620-700Lb	320-360Kg 700-790Lb	360-400Kg 790-880Lb	400-450Kg 880-990Lb	450-550Kg 990-1200Lb	550 - 700Kg 1200-1540Lb
	NT6222U ● ●	NT6224U ● ●							
	NT6222GKV ● ●	NT6224GKV ● ●	NT6226GKV ● ●	NTU6232GKV ● ●	NTU6234GKV ● ●	NTU6240GKV ● ●			
	NTU6222ZV ● ●	NTU6222ZV ● ●							

AVERAGE ICE MAKER SPECIFICATION	
Starting Torque	HST
Application	MBP
Cooling Type	FAN



## ICE MAKERS (FLAKED) - 60Hz

ICE/DAY		60-90Kg 130-200Lb	90-120Kg 200-260Lb	120-150Kg 260-330Lb	150-170Kg 330-375Lb	170-210Kg 375-460Lb	
<b>R290</b>	HIGH EFFICIENCY	FFU130UAX ●	NEU6212U ● ●	NEU6214U ● ●	NEU6220U ● ●	NT6220U ● ●	
		NEK6181GK ● ●	NEK6210GK ● ●	NEK6213GK ● ●	NT6217GKV ● ●	NT6220GKV ● ●	
		FFU130HAX ●	NEU6212Z ● ●	NEU6214Z ● ●	NT6217ZV ● ●	NT6220ZV ● ●	

AHRI STANDARD:  
 AMBIENT: 90°F  
 WATER INLET: 70°F

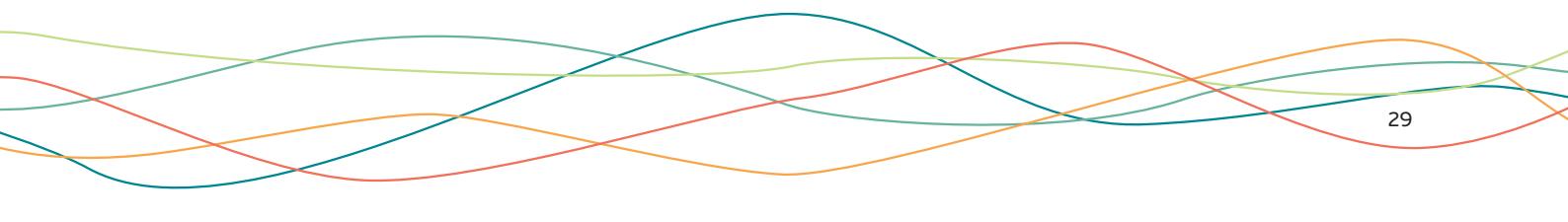
- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

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	210-250Kg 460-550Lb	250-280Kg 550-620Lb	280-320Kg 620-700Lb	320-360Kg 700-790Lb	360-400Kg 790-880Lb	400-450Kg 880-990Lb
	NT6222U ● ●	NT6224U ● ●				
	NT6222GKV ● ●	NT6224GKV ● ●	NT6226GKV ● ●	NTU6232GKV ● ●	NTU6234GKV ● ●	NTU6240GKV ● ●
	NTU6222ZV ● ●	NTU6222ZV ● ●				

## AVERAGE ICE MAKER SPECIFICATION

Starting Torque	HST
Application	MBP
Cooling Type	FAN



## ICE MAKERS (CUBERS) - 50Hz

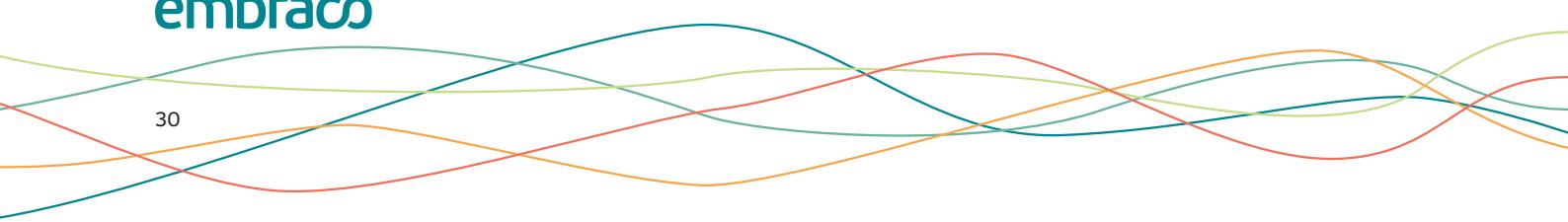
ICE/DAY		UP TO 25Kg 55Lb	25-40Kg 55-90Lb	40-60Kg 90-130Lb	60-90Kg 130-200Lb	90-120Kg 200-260Lb	120-150Kg 260-330Lb	150-170Kg 330-375Lb	
R290	HIGH EFFICIENCY	EMT6144U ●	EMT6144U ●	NEU6210U ● ●	NEU6214U ● ●	NEU6217U ● ●	NT6220U ● ●	NT6222U ● ●	
R404A		EMT6152GK ●	EMT6165GK ●	NEK6210GK ● ●	NEK6210GK ● ●	NEK6217GK ● ●	NT6220GKV ● ●	NT6222GKV ● ●	
R134a		EM65HHR ● ●	FFUS100HAK ● ●	NEU6212Z ● ●	NEU6214Z ● ●	NT6217ZV ● ●	NT6220ZV ● ●	NTU6222ZV ● ●	

AHRI STANDARD:  
AMBIENT: 90°F  
WATER INLET: 70°F

- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

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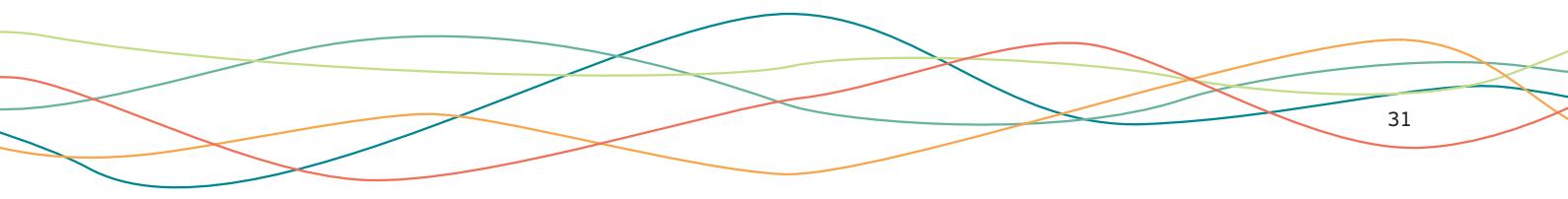
30



170-210Kg 375-460Lb	210-250Kg 460-550Lb	250-280Kg 550-620Lb	280-320Kg 620-700Lb	320-360Kg 700-790Lb	360-400Kg 790-880Lb	400-450Kg 880-990Lb	450-550Kg 990-1200Lb	550 - 700Kg 1200-1540Lb
NT6224U ● ●								
NT6224GK ● ●	NT6226GKV ● ●	NTU6232GK ● ●	NTU6234GKV ● ●	NTU6240GKV ● ●				
NTU6224ZV ● ●								

## AVERAGE ICE MAKER SPECIFICATION

Starting Torque	HST
Application	MBP
Cooling Type	FAN



## ICE MAKERS (FLAKED) - 50Hz

ICE/DAY		60-90Kg 130-200Lb	90-120Kg 200-260Lb	120-150Kg 260-330Lb	150-170Kg 330-375Lb	170-210Kg 375-460Lb	
<b>R290</b>	HIGH EFFICIENCY	NEU6210U ● ●	NEU6214U ● ●	NEU6217U ● ●	NT6220U ● ●	NT6222U ● ●	
		NEK6210GK ● ●	NEU6215GK ● ●	NT6217GKV ● ●	NT6220GKV ● ●	NT6222GKV ● ●	
		NEU6212Z ● ●	NEU6214Z ● ●	NT6217ZV ● ●	NT6220ZV ● ●	NTU6222ZV ● ●	

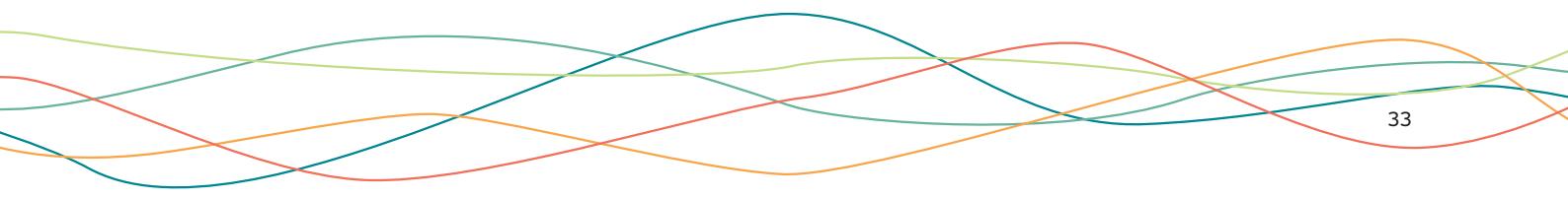
AHRI STANDARD:  
AMBIENT: 90°F  
WATER INLET: 70°F

- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

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	210-250Kg 460-550Lb	250-280Kg 550-620Lb	280-320Kg 620-700Lb	320-360Kg 700-790Lb	360-400Kg 790-880Lb	400-450Kg 880-990Lb	450-500Kg 990-1100Lb
	NT6224U  						
	NT6224GK  	NT6226GKV  	NJ2212GK  	NJ2212GK  	NJ2212GK  		
	NTU6224ZV  						

AVERAGE ICE MAKER SPECIFICATION	
Starting Torque	HST
Application	MBP
Cooling Type	FAN



## WATER FOUNTAINS/PURIFIERS - 60Hz

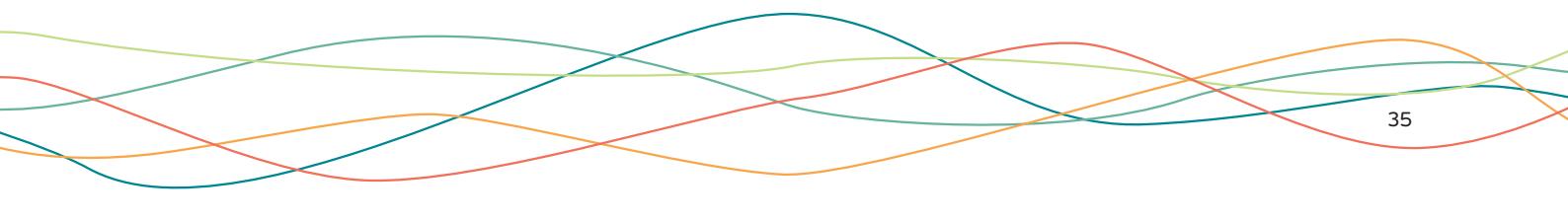
	COLD WATER OUTPUT FLOW - l/h - GPH		
	2 TO 4 l/h 0.5 TO 1 GPH	4 TO 6 l/h 1 TO 1.5 GPH	6 TO 10 l/h 1.5 TO 2.5 GPH
R134a	EMIS20HHR ●	EMIS30HHR ● ●	EM55HHR ●

- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

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	COLD WATER OUTPUT FLOW - l/h - GPH	RESERVOIR SIZE - l - G		
	10 TO 20 l/h 2.5 TO 5 GPH	20 TO 30 l/h 5 TO 8 GPH	40 TO 80 l 10 TO 21 GALLONS	80 TO 200 l 21 TO 50 GALLONS
	EM65HHR ●	EMIS70HHR ●	FFUS80HAK ● ●	FFI12HBX ● ●

AVERAGE WATER COOLER SPECIFICATION	
Starting Torch	LST
Application	MBP
Cooling Type	Static



## COMMERCIAL KITCHEN APPLICATIONS - 50HZ LBP

(Low temperature refrigerators)

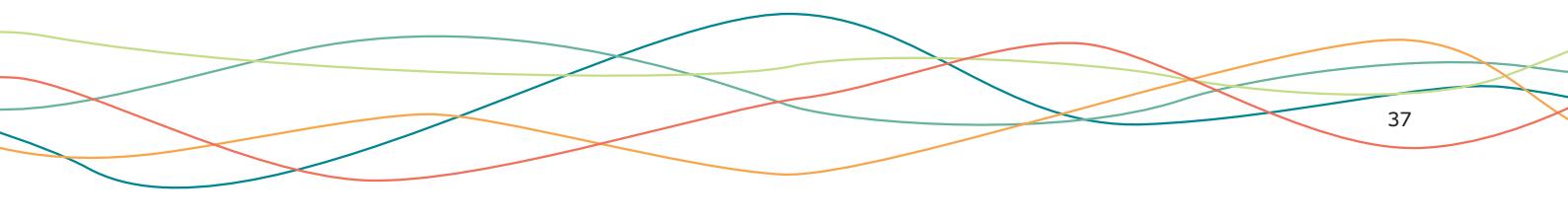
GROSS VOLUME (RANGE OF SIZES)		REACH-IN FREEZER	< 250L (9 FT )	250 - 325 (9 - 12 FT )	325 - 425 (12 - 15 FT )	
		UNDERCOUNTER FREEZER	< 120L (5 FT )	120 - 175 (5 - 7 FT )	175 - 275 (9 - 11 FT )	
		WORKTOP FREEZER BLAST CHILLER	-	-	-	
<b>R290</b>	PREMIUM EFFICIENCY - FULLMOTION INVERTER (VARIABLE SPEED COMPRESSOR)	VEGT8U	VEGT8U	VEGT8U		
		EMC3121U	EMC3125U	EMC3130U		
		EM2X3121U	EM2X3125U			
	HIGH EFFICIENCY	NEK2121U	NEK2125U	NEK2125U		
		EMI90UEX	FFU130UAX	FFU160UAX		
		VEGT8HB	VEGT11HB	VEGT11HB		
<b>R134a</b>	PREMIUM EFFICIENCY - FULLMOTION INVERTER (VARIABLE SPEED COMPRESSOR)	FFUS100HAK	FFU130HAX	FFU160HAX		
<b>R404A</b>	STANDARD EFFICIENCY	NEK2121GK	NEK2125GK	NEK2125GK		

- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

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	<b>425 - 550 (15 - 19 FT )</b>	<b>550 - 650 (19 - 23 ft )</b>	<b>650 - 850 (23 - 30 ft )</b>	<b>850 - 1150 (30 - 41 FT )</b>	<b>1150 - 1500 (41 - 52 FT )</b>	<b>1500 - 1700 (512- 63 FT )</b>	<b>1700 - 1900 (63 - 67 FT )</b>
	<b>275 - 350 (11 - 13 FT )</b>	<b>350 - 450 (13 - 17 ft )</b>	<b>450 - 500 (17 - 19 ft )</b>	<b>500 - 600 (19 - 23 FT )</b>	-	-	-
	-	-	-	<b>10 KG (22LB)</b>	<b>15 KG (33LB)</b>	<b>20 KG (44LB)</b>	<b>25 KG (55LB)</b>
VEGT8U	VNEU213U	VNEU213U	VNEU213U	VNEU213U	VNEU217U	VNEU217U	
NEU2140U	NEU2155U	NEU2168U					
NEK2134U	NEK2150U	NEK2160U	NT2180U	NT2180U	NT2210U	NT2210U	
NEU2140Z							
NEK2134GK	NEK2150GK	NEK2168GK	NEK2178GK	NT2180GK	NT2192GK	NT2212GK	

AVERAGE PROF. KITCHEN REFRIGERATOR SPECIFICATION	
Evap. Temperature	-30 to -15°C
Application	LBP
Starting Type	LST
Cooling Type	Fan
Door Type	Solid



## COMMERCIAL KITCHEN APPLICATIONS - 50HZ MBP

(Medium temperature refrigerators)

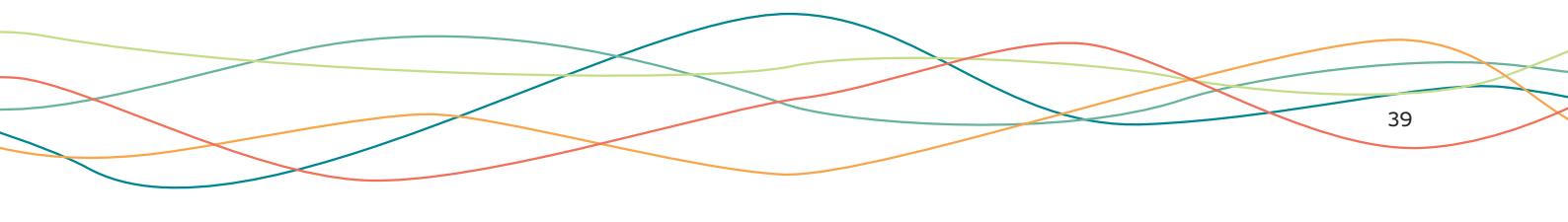
GROSS VOLUME (RANGE OF SIZES)		REACH-IN REFRIGERATOR	200 - 275L (7 - 10FT )	275 - 375L (10 - 14 FT )	175 - 500L (14 - 20 FT )
		FOOD PREPARATION TABLE REFRIGERATOR	70 CM (30 IN)	115 CM (45 IN)	140 CM (55 IN)
		UNDERCOUNTER REFRIGERATOR	100 - 200L (4 - 7 FT )	200 - 350L (7 - 13 ft )	350 - 500L (13 - 18 ft )
		WORKTOP REFRIGERATOR	100 - 200L (4 - 7 FT )	200 - 350L (7 - 13 ft )	350 - 500L (13 - 18 ft )
<b>R290</b>	PREMIUM EFFICIENCY - FULLMOTION INVERTER (VARIABLE SPEED COMPRESSOR)				VEGT8U ●
	PREMIUM EFFICIENCY				EMC3115U ● ● ○
	HIGH EFFICIENCY	EM2X3113U ● ● ○	EM2X3113U ● ● ○	EM2X3117U ● ● ○	EMI50UER ● ○
		EMI70UER ● ○	NEK6152U ● ○	NEK6165U ● ○	EMI90UEX ● ○ ○
<b>R134a</b>	PREMIUM EFFICIENCY - FULLMOTION INVERTER (VARIABLE SPEED COMPRESSOR)	VEMY6HH ●	VEMY6HH ●	VEMY6HH ●	VEMY6HH ●
	HIGH EFFICIENCY	EM45HHR ● ○	FFU70HAK ● ○	FFUS80HAK ● ○	
<b>R404A</b>	STANDARD EFFICIENCY	NEK6144GK ● ○	NEK6152GK ● ○	NEK6165GK ● ○	

- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

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	550 - 700 L (20 - 26 FT <sup>3</sup> )	700 - 950L (26 - 34 ft <sup>3</sup> )	950 - 1200L (34 - 43 ft <sup>3</sup> )	1200 - 1500L (43 - 53 FT <sup>3</sup> )
	165 CM (65 IN)	190 cm (75 in)	240 cm (95 in)	300 CM (120 IN)
	-500L (18 FT <sup>3</sup> )	-	-	-
VEGT8U	VEGT8U	VEGT8U	VEGT8U	VEGT8U
EMC3121U ● ● ○	EMC3125U ● ● ○	EMC3130U ● ● ○		
EM2X3121U ● ● ○	EM2X3125U ● ● ○			
EMI90UEX ● ○ ●	FFU130UAX ● ○ ●	FFU160UAX ● ○ ●		
NEK6181U ● ○ ●	NEU6181U ● ○ ●	NEU6212U ● ○ ●	NEU6214U ● ○ ●	
VEGT8HB	VEGT11HB	VEGT11HB		
FFUS100HAK ● ● ○	FFU130HAX ● ○ ●	FFU160HAX ● ○ ●		
	NEU6187Z ● ○ ●	NEU6212Z ● ○ ●	NEU6214Z ● ○ ●	
NEK6181GK ● ○ ●	NEK6210GK ● ○ ●	NEK6213GK ● ○ ●	NEK6213GK ● ○ ●	

AVERAGE PROF. KITCHEN REFRIGERATOR SPECIFICATION	
Evap. Temperature	-15 to -5°C
Application	MBP
Starting Type	LST
Cooling Type	Fan
Door Type	Solid



## COMMERCIAL KITCHEN APPLICATIONS - 60Hz MBP

(Medium temperature refrigerators)

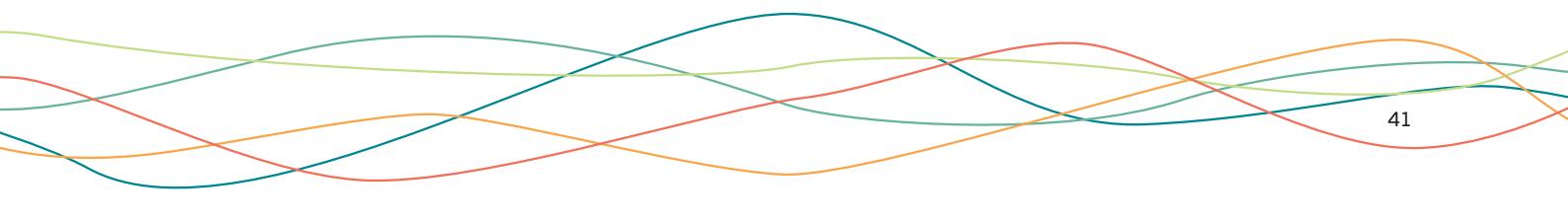
GROSS VOLUME (RANGE OF SIZES)		REACH-INS TRADITIONAL REFRIGERATOR	260 - 320L (9 - 11 ft )	320 - 420L (11 - 15 ft )	420 - 620L (15 - 21 ft )	
		UNDERCOUNTERS / WORKTOPS REFRIGERATOR	135 - 230L (5 - 9 ft )	230 - 380L (9 - 13 ft )	380 - 550L (13 - 19 ft )	
<b>R290</b>	PREMIUM EFFICIENCY				VEGT8U <span style="color: orange;">●</span>	
					EMC3115U <span style="color: blue;">●</span> <span style="color: orange;">●</span> <span style="color: red;">●</span>	
			EM2X3113U <span style="color: blue;">●</span> <span style="color: orange;">●</span> <span style="color: red;">●</span>	EM2X3113U <span style="color: blue;">●</span> <span style="color: orange;">●</span> <span style="color: red;">●</span>	EM2X3117U <span style="color: blue;">●</span> <span style="color: orange;">●</span> <span style="color: red;">●</span>	
	HIGH EFFICIENCY		EMI50UER <span style="color: orange;">●</span> <span style="color: red;">●</span>	EMI70UER <span style="color: orange;">●</span> <span style="color: red;">●</span>	EMI90UEX <span style="color: green;">●</span> <span style="color: orange;">●</span>	
				NEK6152U <span style="color: green;">●</span> <span style="color: orange;">●</span>	NEK6165U <span style="color: green;">●</span> <span style="color: orange;">●</span>	
			VEMY6HH <span style="color: orange;">●</span>	VEMY6HH <span style="color: orange;">●</span>	VEMY6HH <span style="color: orange;">●</span>	
<b>R134a</b>	PREMIUM EFFICIENCY		EM45HHR <span style="color: orange;">●</span> <span style="color: red;">●</span>	EMI570HHR <span style="color: orange;">●</span> <span style="color: red;">●</span>	FFUS80HAK <span style="color: orange;">●</span> <span style="color: red;">●</span>	
	HIGH EFFICIENCY					
<b>R404A</b>	STANDARD EFFICIENCY		NEK6144GK <span style="color: green;">●</span> <span style="color: orange;">●</span>	NEK6152GK <span style="color: green;">●</span> <span style="color: orange;">●</span>	NEK6165GK <span style="color: green;">●</span> <span style="color: orange;">●</span>	

- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

	620 - 800L (21 - 29 ft <sup>3</sup> )	800 - 1050L (29 - 37 ft <sup>3</sup> )	1050 - 1300L (37 - 45 ft <sup>3</sup> )	1300 - 1600L (45 - 55 ft <sup>3</sup> )
	~550L (19 ft <sup>3</sup> )	-	-	-
	VEGT8U ●	VEGT8U ●	VEGT8U ●	VEGT8U ●
	EMC3121U ● ● ●	EMC3125U ● ● ●	EMC3130U ● ● ●	
	EM2X3121U ● ●	EM2X3125U ● ●		
	EMI90UEX ● ●	FFU130UAX ● ●	FFU160UAX ● ●	
	NEK6181U ● ●	NEU6181U ● ●	NEU6212U ● ●	NEU6214U ● ●
	VEGT8HB ●	VEGT11HB ●	VEGT11HB ●	
	FFUS100HAK ● ●	FFU130HAX ● ●	FFU160HAX ● ●	
		NEU6187Z ● ●	NEU6212Z ● ●	NEU6214Z ● ●
	NEK6181GK ● ●	NEK6210GK ● ●	NEK6213GK ● ●	NEK6213GK ● ●

**AVERAGE BOTTLE COOLER SPECIFICATION**

Starting Type	L / HST
Application	L / M / HBP
Cooling Type	Static or Fan
Door Type	Solid or Glass
Temperature	0 to 6°C



## COMMERCIAL KITCHEN APPLICATIONS - 60Hz LBP

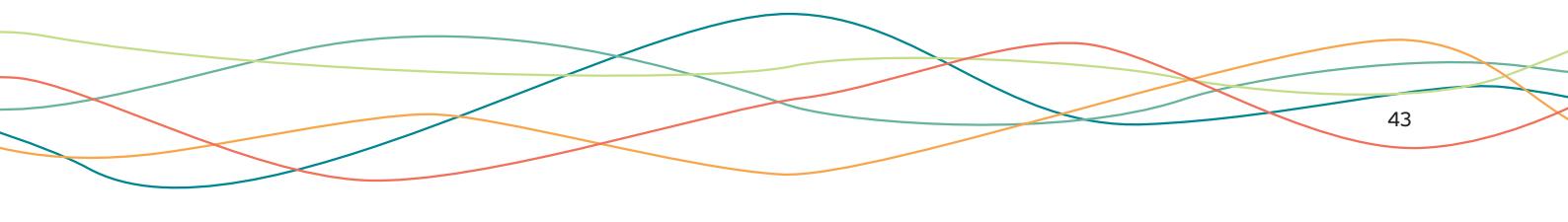
(Low temperature refrigerators)

		REACH-INS TRADITIONAL FREEZER	< 300L (11 ft )	300 - 375 (11 - 13 ft )	375 - 475 (13 - 17 ft )	
		UNDERCOUNTERS / WORKTOPS FREEZER	< 130L (5 ft )	150 - 200 (5 - 7 ft )	200 - 300 (9 - 11 ft )	
		BLAST CHILLERS	-	-	-	
<b>R290</b>	PREMIUM EFFICIENCY	VEGT8U ●	VEGT8U ●	VEGT8U ●		
		EMC3121U ● ● ●	EMC3125U ● ● ●	EMC3130U ● ● ●		
		EM2X3121U ● ●	EM2X3125U ● ●			
	HIGH EFFICIENCY	EMI90UEX ● ●	FFU130UAX ● ●	FFU160UAX ● ●		
	STANDARD EFFICIENCY	NEK2121U ● ●	NEK2125U ● ●	NEK2125U ● ●		
	PREMIUM EFFICIENCY	VEGT8HB ●	VEGT11HB ●	VEGT11HB ●		
<b>R134a</b>	HIGH EFFICIENCY	FFUS100HAK ● ●	FFU130HAX ● ●	FFU160HAX ● ●		
<b>R404A</b>	STANDARD EFFICIENCY	NEK2121GK ● ●	NEK2125GK ● ●	NEK2125GK ● ●		

- New Development
- High Starting Torque
- Fan Cooling Approved
- Static Cooling Approved

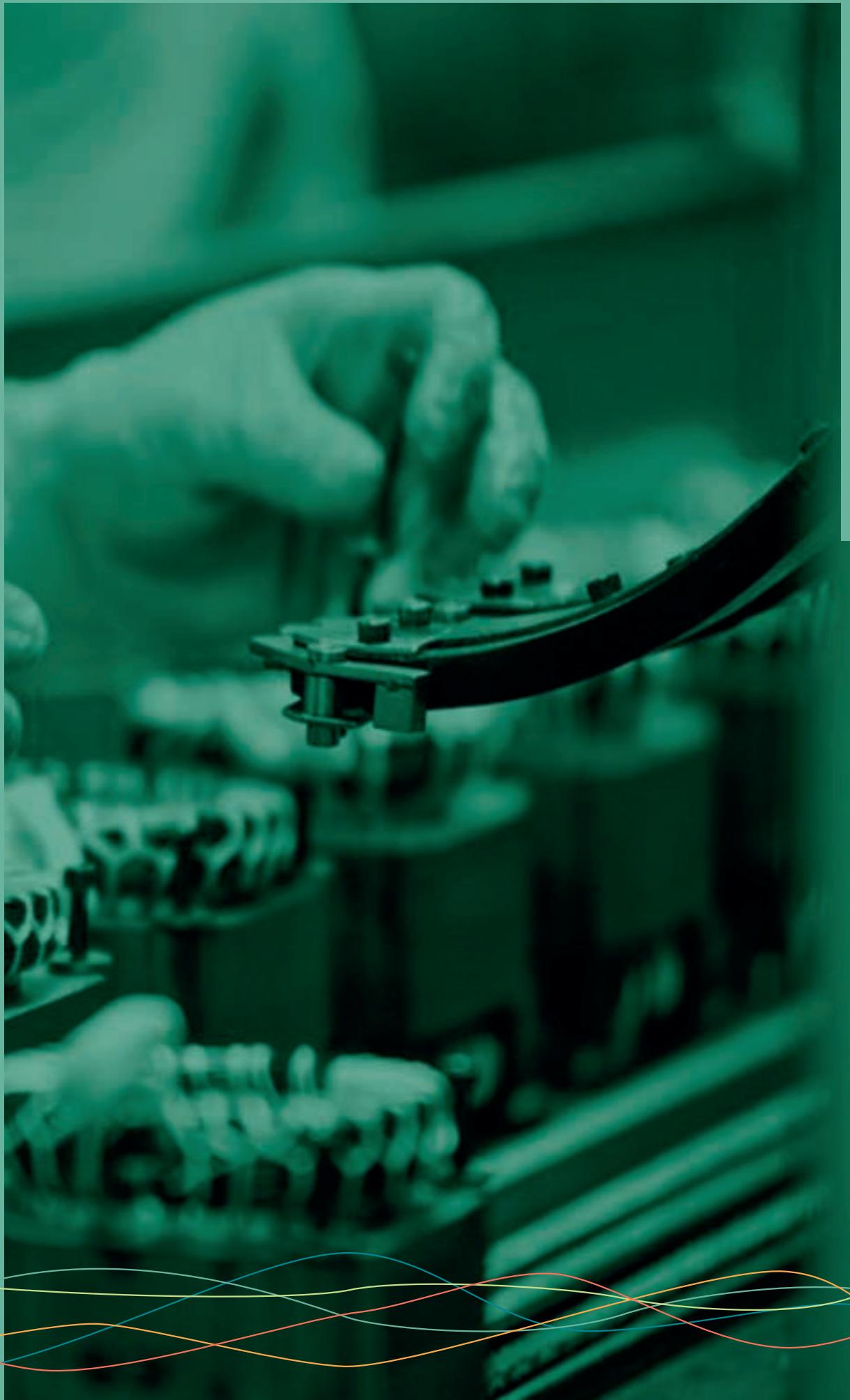
	<b>475 - 600 (17 - 21 ft )</b>	<b>600 - 750 (21 - 27 ft )</b>	<b>750 - 950 (21 - 33 ft )</b>	<b>950 - 1250 (33 - 45 ft )</b>	<b>1250 - 1600 (45 - 55 ft )</b>	<b>1600 - 1800 (55 - 63 ft )</b>	<b>1800 - 1900 (63 - 67 ft )</b>
	<b>300 - 375 (11 - 13 ft )</b>	<b>375 - 475 (13 - 17 ft )</b>	<b>475 - 550 (17 - 19 ft )</b>	<b>550 - 650 (19 - 23 ft )</b>	-	-	-
	-	-	-	<b>10 (22lb)</b>	<b>15 (33lb)</b>	<b>20 (44lb)</b>	<b>25 (55lb)</b>
VEGT8U	VNEU213U	VNEU213U	VNEU213U	VNEU213U	VNEU217U	VNEU217U	
	●	● ●	● ●	● ●	● ●	● ●	
NEU2140U	NEU2155U	NEU2168U					
● ● ●	● ● ●	● ● ●					
NEK2134U	NEK2150U	NEK2160U	NT2180U	NT2180U	NT2210U	NT2210U	
● ●	● ●	● ●	● ●	● ●	● ●	● ●	
NEU2140Z							
● ●							
NEK2134GK	NEK2150GK	NEK2168GK	NEK2178GK	NT2180GK	NT2192GK	NT2212GK	
● ●	● ●	● ●	● ●	● ●	● ●	● ●	

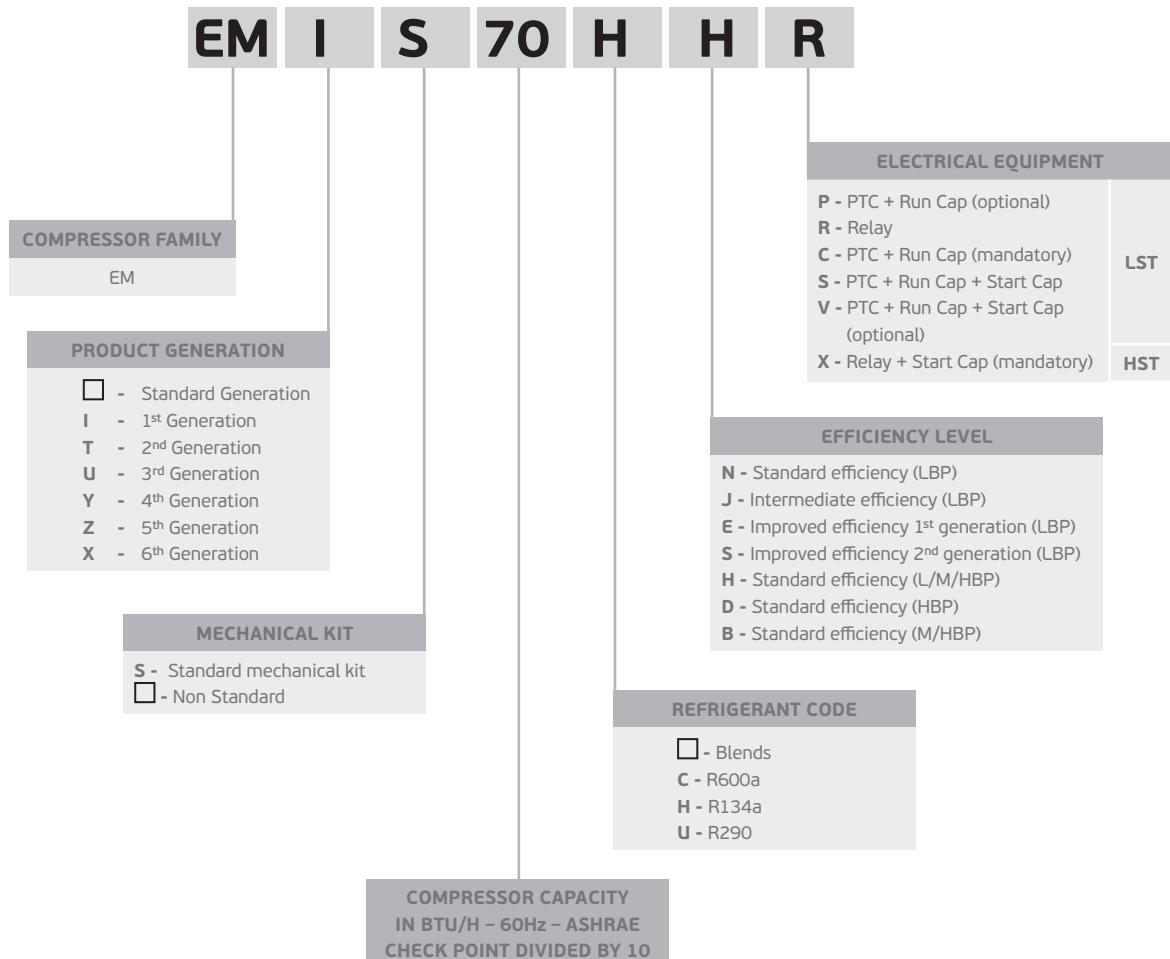
<b>AVERAGE BOTTLE COOLER SPECIFICATION</b>	
Starting Type	L / HST
Application	L / M / HBP
Cooling Type	Static or Fan
Door Type	Solid or Glass
Temperature	0 to 6°C



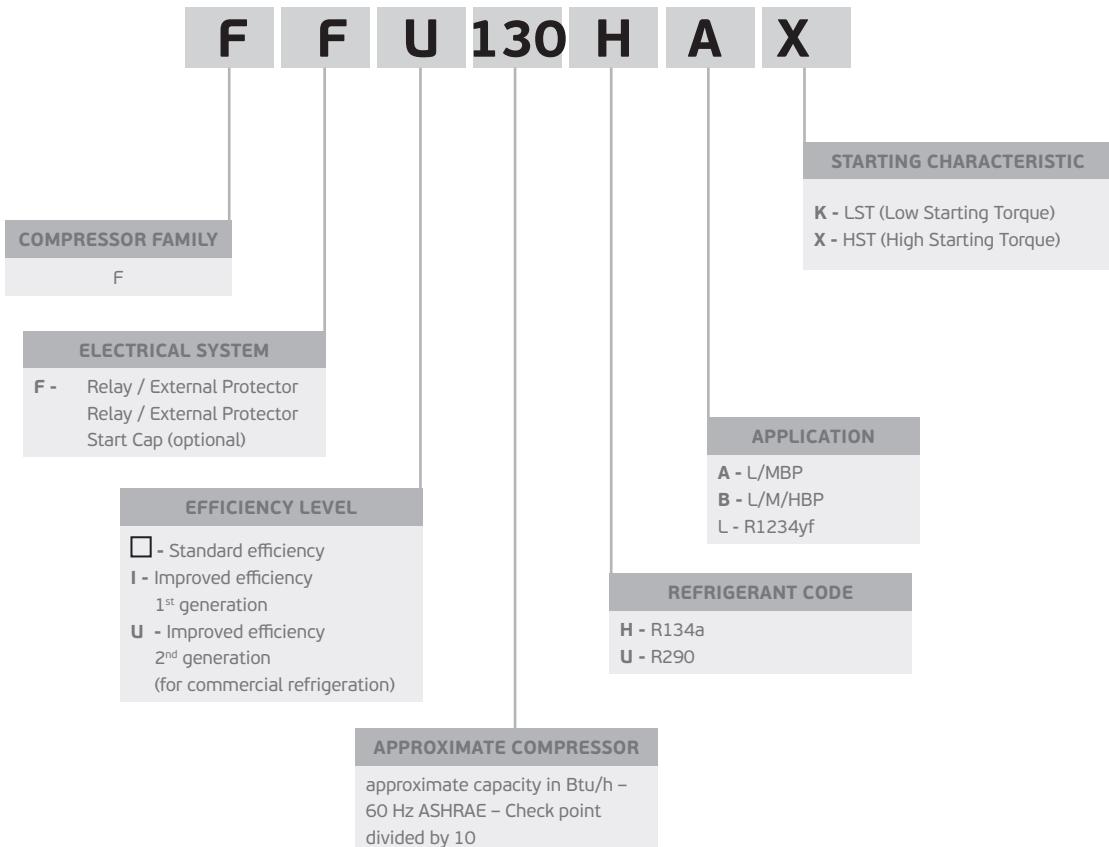
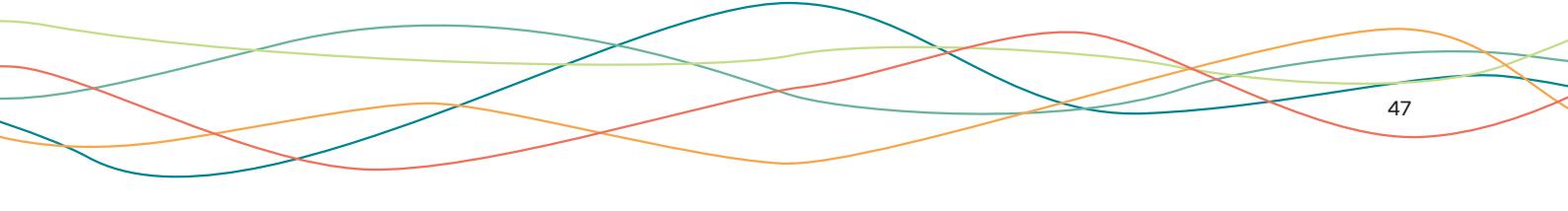
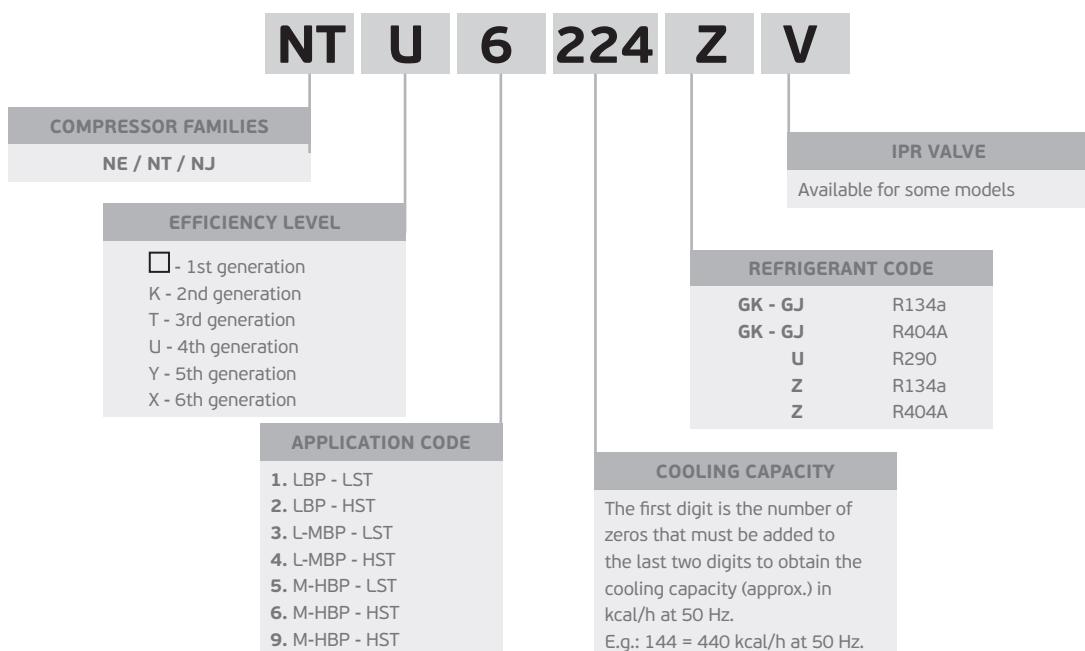
04

## NOMENCLATURE



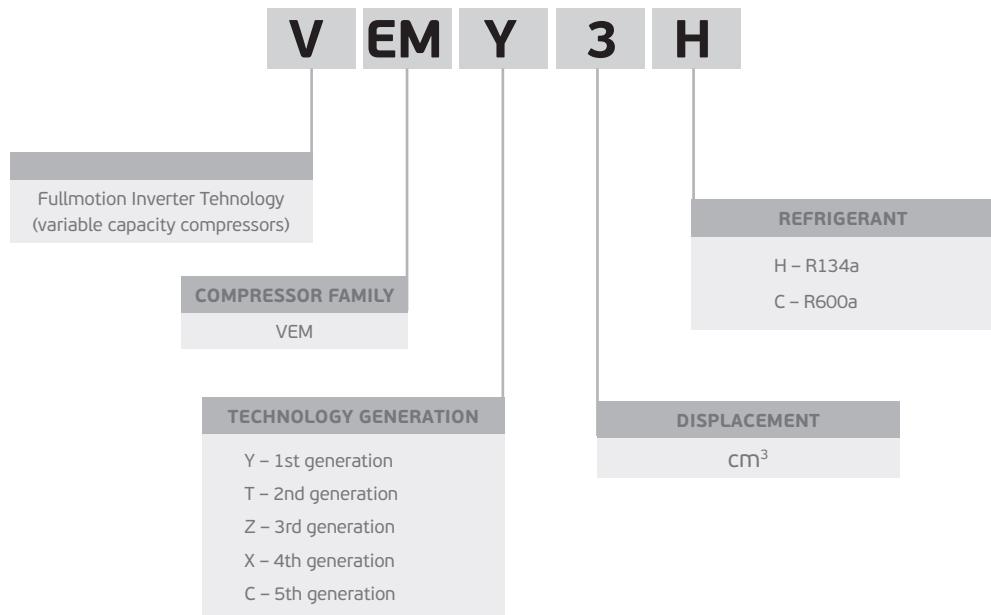
**EM**

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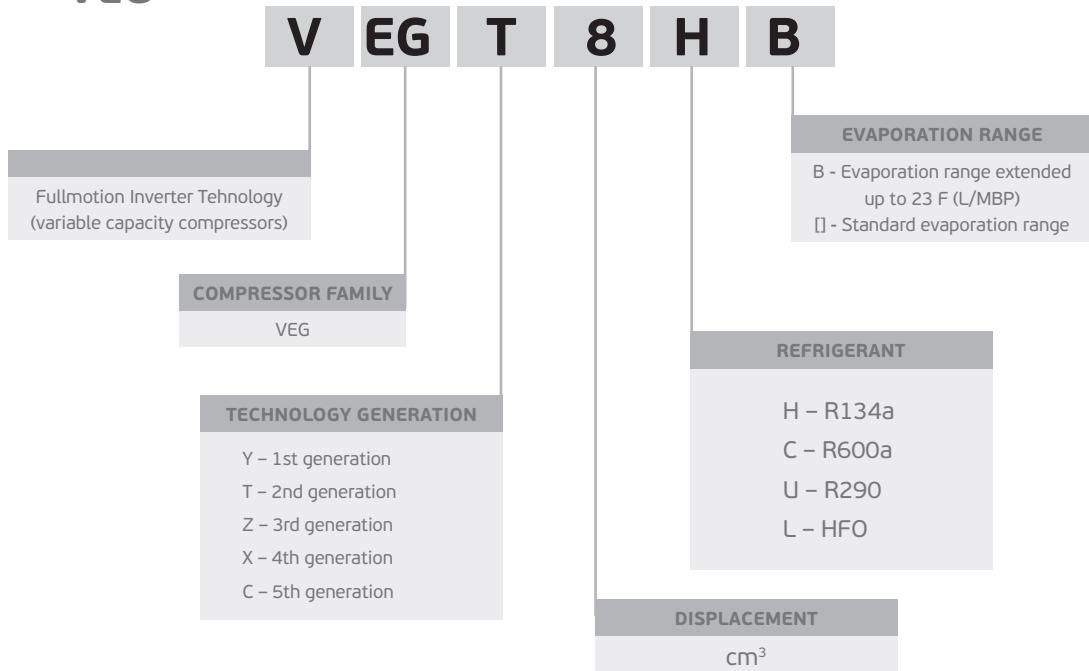
**F****NE / NT / NJ**

## NOMENCLATURE

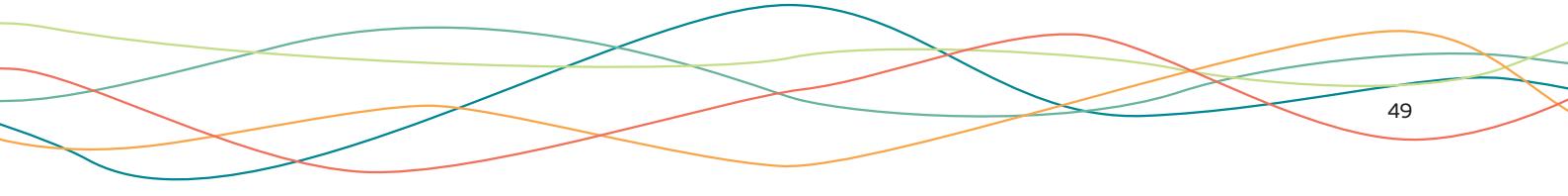
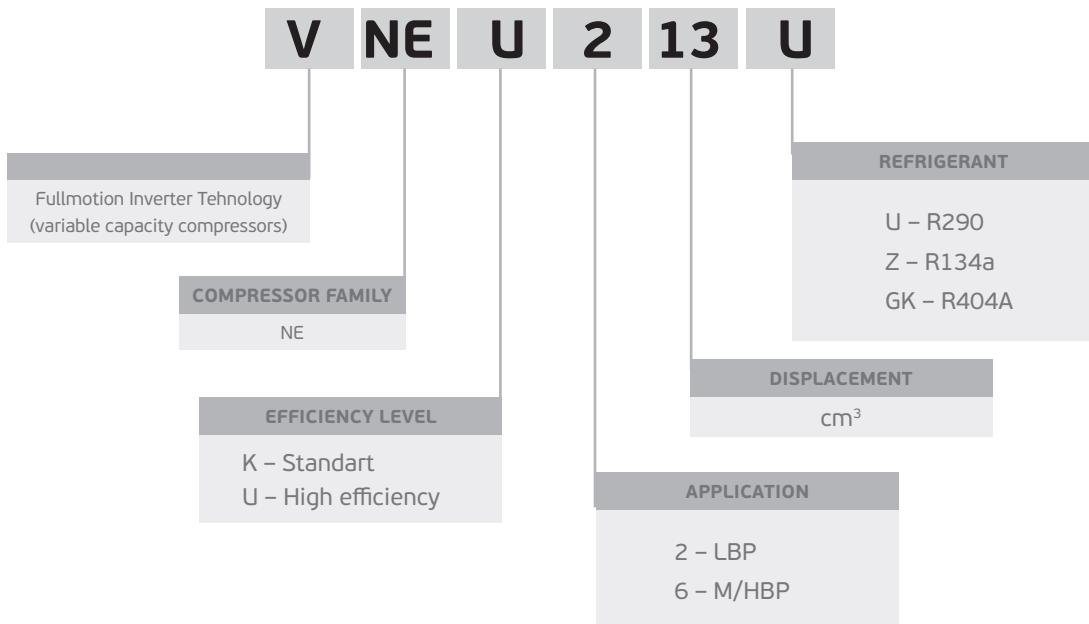
### VEM



### VEG

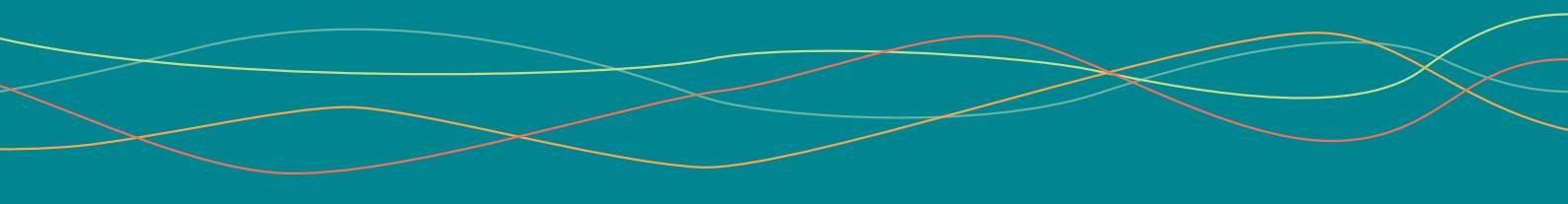


**embraco**

**VNE**

**05**

## TECHNICAL INFORMATION





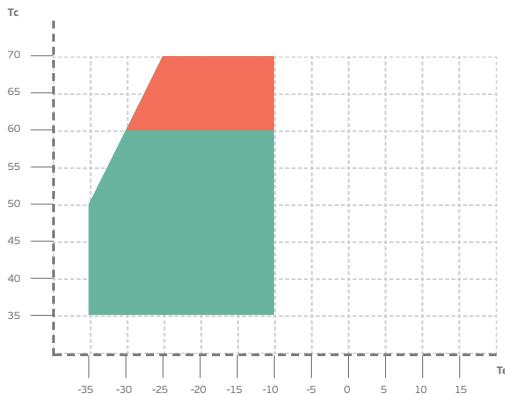
## RANGE OF APPLICATION

### EM, EG, F, VEM, VEG, VES

Ambient temperature: 42,7 °C

Return temperature: 32,2 °C

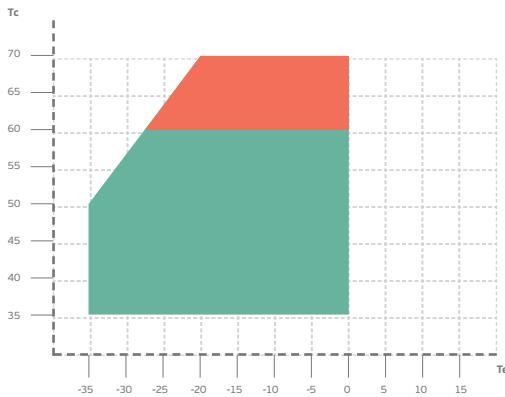
**LBP**  
R290 / R134a / R600a



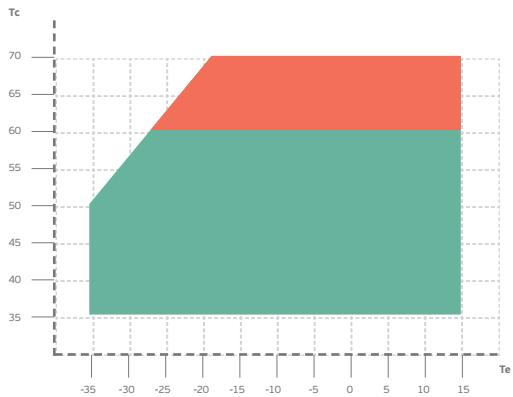
**L-MBP (STANDARD)**  
R290/R134a



**L-MBP EXTENDED RANGE**  
FFUS, EM2 E EM3\*

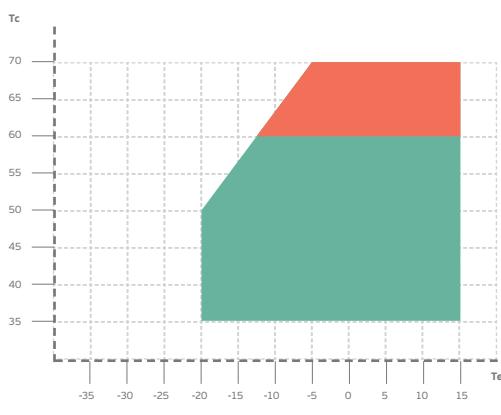


**L-M-HBP**  
R134a



\*New families with extended L-MBP range of application, up to 32 °F

**M-HBP**  
R134a



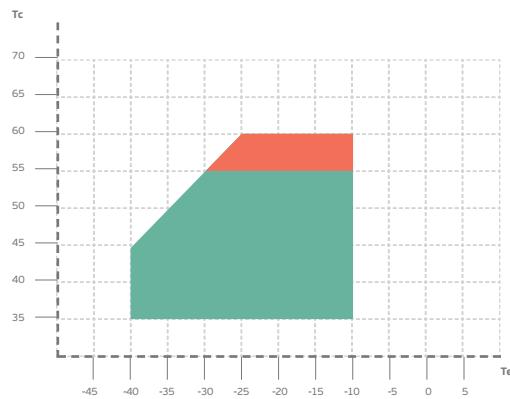
■ Operation Condition  
■ Transient Condition

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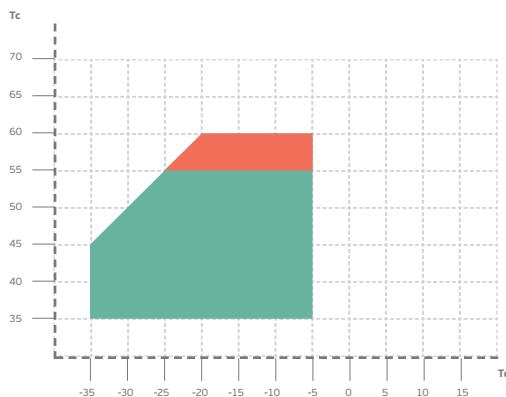
**NE, NT, NJ**

Ambient temperature: 32,2 °C  
Return temperature: 20 °C

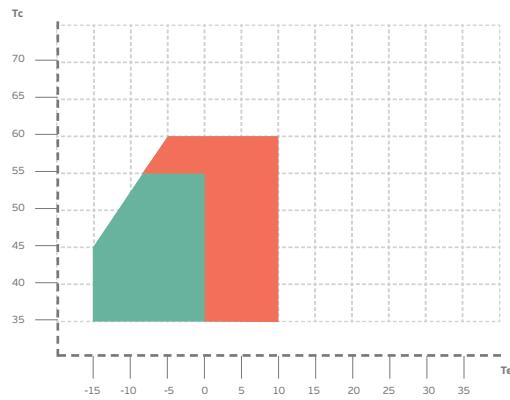
**LBP**  
**R290/R404A/R507**



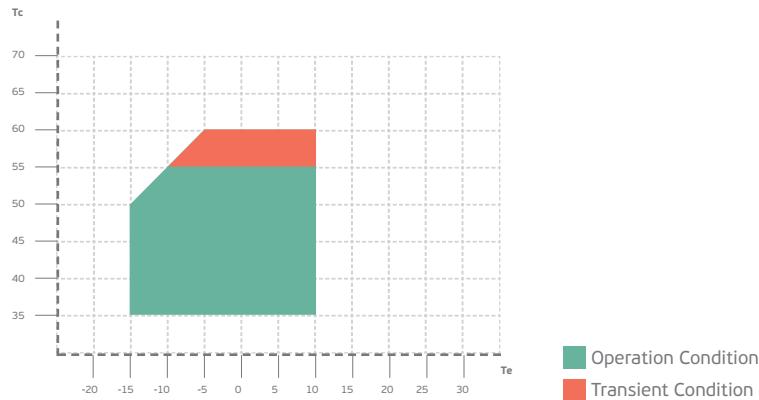
**LBP**  
**R600a/R134a**



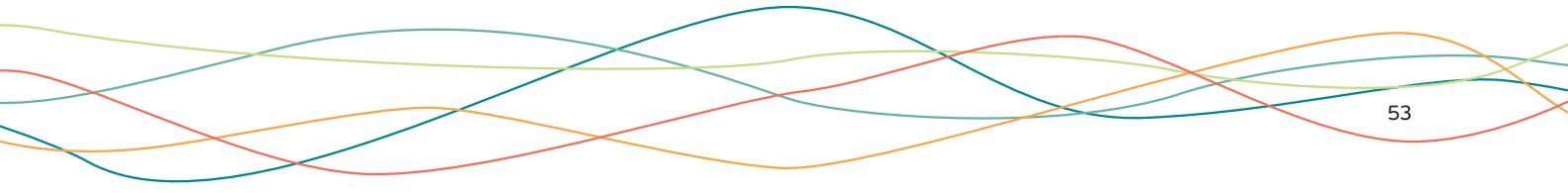
**MBP**  
**R290/R404A/R507**



**HBP**  
**R600a/R134a**



■ Operation Condition  
■ Transient Condition



## APPLICATIONS

	LOW BACK PRESSURE	APPLICATIONS:
LBP	Evaporating temperature between -40 °C / -40 °F and -10 °C / 14 °F	refrigerators, island coolers, etc.
MBP	MEDIUM BACK PRESSURE	APPLICATIONS:
	Evaporating temperature between -15 °C / 5 °F and 0 °C / 32 °F	self-service coolers, beverage display, etc.
HBP	HIGH BACK PRESSURE	APPLICATIONS:
	Evaporating Temperature between 5 °C / 41 °F and 15 °C / 59 °F	self-service coolers, GDM, wine coolers, etc.

## TEST CONDITIONS

TEST CONDITIONS	APPLICATION	EVAPORATING TEMPERATURE °C / °F	CONDENSING TEMPERATURE °C / °F	RETURN TEMPERATURE °C / °F	SUB-COOLING K	AMBIENT TEMPERATURE °C / °F
ASHRAE	LBP	-23.3 / 10	54.4 / 130	32.2 / 90	22.2	32.2 / 90
	M/HBP	7.2 / 45	54.4 / 130	35 / 95	8.3	35 / 95

## COOLING TYPE

STATIC (S)	Compressors approved for static cooling are those that don't allow operation of a fan motor associated with the condenser.
FAN	Compressors approved for forced cooling are those that require the operation of a fan motor associated with the condenser.
STATIC/ FAN (S/F)	Compressors approved for static and forced cooling are those which may or may not be used with a fan motor associated with the condenser.

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## MOTOR TORQUE

LST	(Low Starting Torque) Low starting torque: LBP/MBP/HBP/AC applications with RSIR/RSCR/PSC electric motors. Appropriate for systems with a capillary tube (C) expansion type device and equalized pressures on start up.
HST	(High Starting Torque) High starting torque: LBP/MBP/HBP applications with CSIR/CSR electric motors. Appropriate for systems with expansion valve (V) or capillary tube expansion type device with disequalized pressures on start up.

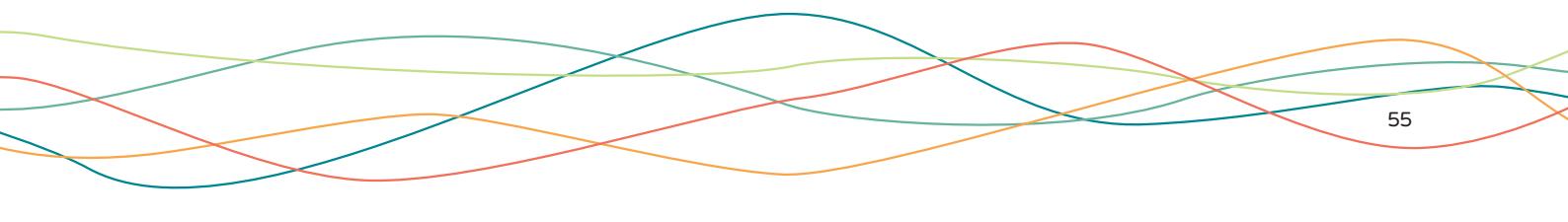
## ELECTRICAL MOTOR TYPES

RSIR	Resistive Start– Inductive Run: no start capacitor; no run capacitor.
RSCR	Resistive start – Capacitive Run: no start capacitor; run capacitor is needed to improve the efficiency.
CSIR	Capacitive Start – Inductive Run: no run capacitor; start capacitor is needed to improve the torque.
CSR	Capacitive Start and Run – CSR version with capacitive run and start windings.
PSC	Permanent Split Capacitor - no starting device. Run capacitor is directly connected to the winding.

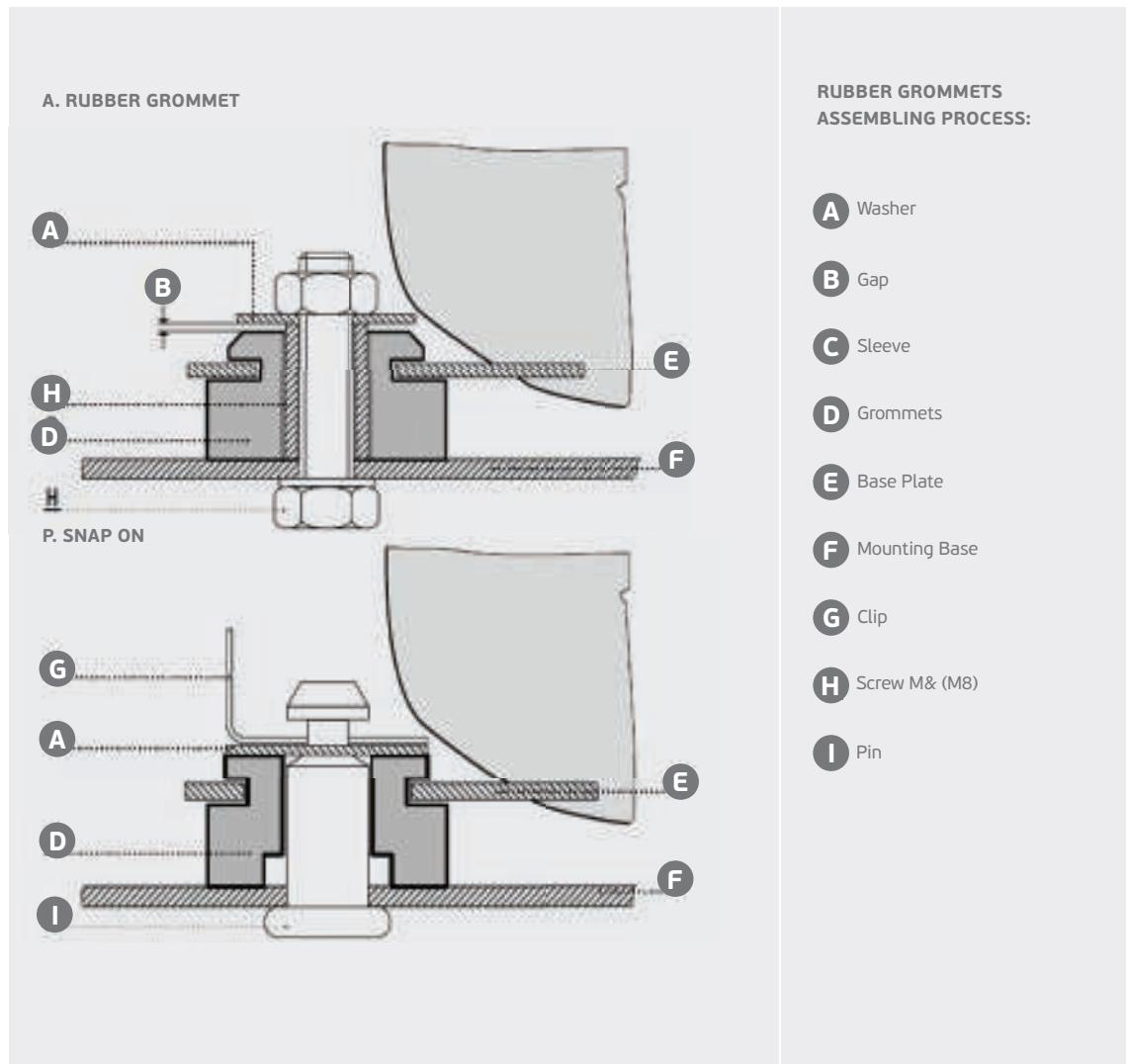
## ELECTRICAL COMPONENTS

TYPE OF MOTOR	STARTING DEVICE					CAPACITOR	
	Overload Protector	Current Relay	Voltage Relay	PTC	TSD	Start	Run
RSIR	✓	✓		✓			
CSIR	✓	✓				✓	
RSCR	✓			✓	✓		✓
PSC	✓						✓
CSR	✓		✓	*		✓	✓
3-Phases	✓						

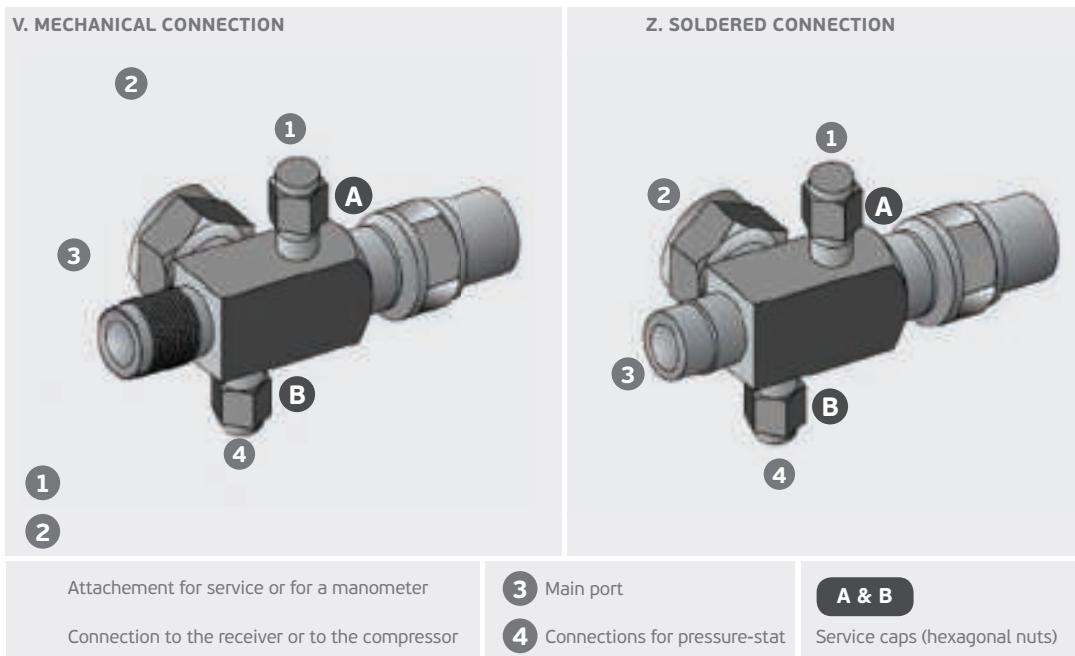
\* Optional



## ACCESSORIES & OPTIONS

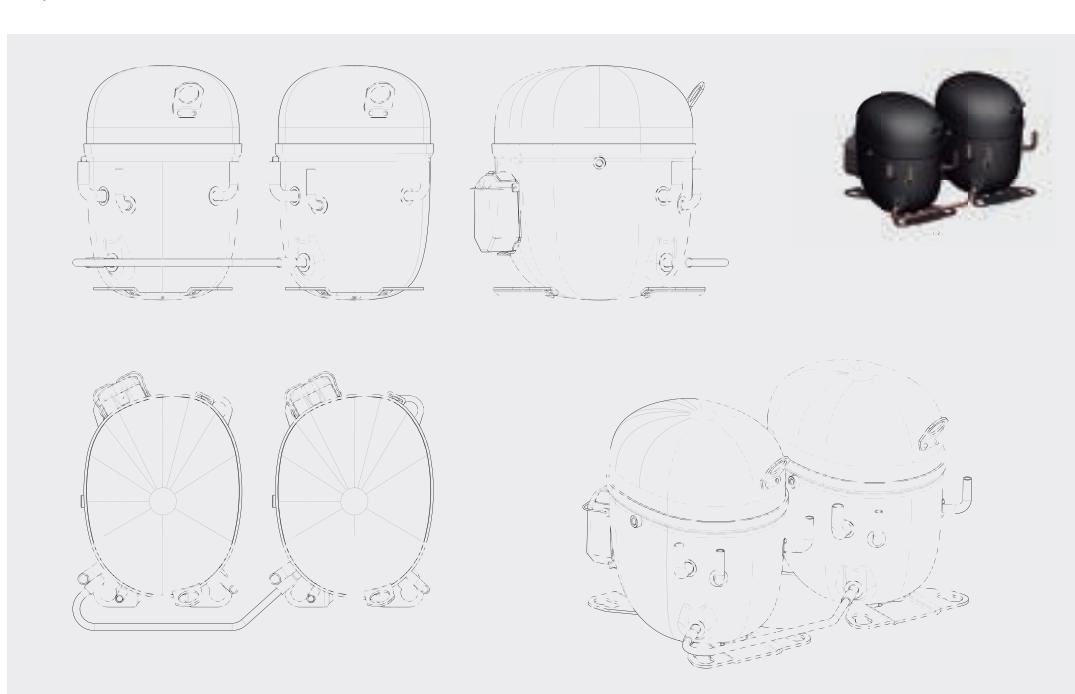


## ROTOLOCK VALVE



## GEMINI (TWIN)

Gemini is a product line that matches low noise and short height for typical semi-hermetic solution. Through an especial shape Embraco designed an hermetic light commercial compressors which can be embedded in appliances, considering individual or dual mode, it means a modular cooling capacity when demanded. These products are available in condensing units and also only compressors.



## PACKAGING

COMPRESSOR	QUANTITY PER PALLET (ASSEMBLED ELECTRIC)	QUANTITY PER CONTAINER (ASSEMBLED ELECTRIC)	QUANTITY PER PALLET (UNASSEMBLED ELECTRIC)	QUANTITY PER CONTAINER (UNASSEMBLED ELECTRIC)
<b>EM</b>	100	2800	120	2400
<b>NE</b>	72	1800	80	1800
<b>NT</b>	36	1512	44	1232
<b>NJ</b>	33	1386	36	1512
<b>F</b>	72	2016	80	1920
<b>EG</b>	72	2016	80	1920
<b>VEG</b>	72	2016	80	1920
<b>VEM</b>	100	2800	100	2200
<b>VNEK</b>	72	1800	80	1800

## IDENTIFICATION LABEL

NE/NT/NJ/VNE



EM/EG/F/VEM/VEG



- 1 Compressor model
- 2 Supply Voltage
- 3 Bill of Materials code
- 4 Serial Number
- 5 Agency Approval Marks
- 6 Date code or Production date
- 7 Oil type and quantity
- 8 Refrigerant type
- 9 Current Consumption  
(Rated Load Amperage, when applicable)
- 10 Locked Rotor Amperage  
(when applicable)

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## HANDLING POSITIONS

The ideal position for a refrigeration system to be transported is in its normal, vertical standing. This avoids possible damages to the compressor internal parts, while keeping the oil from entering the suction connector and chamber.

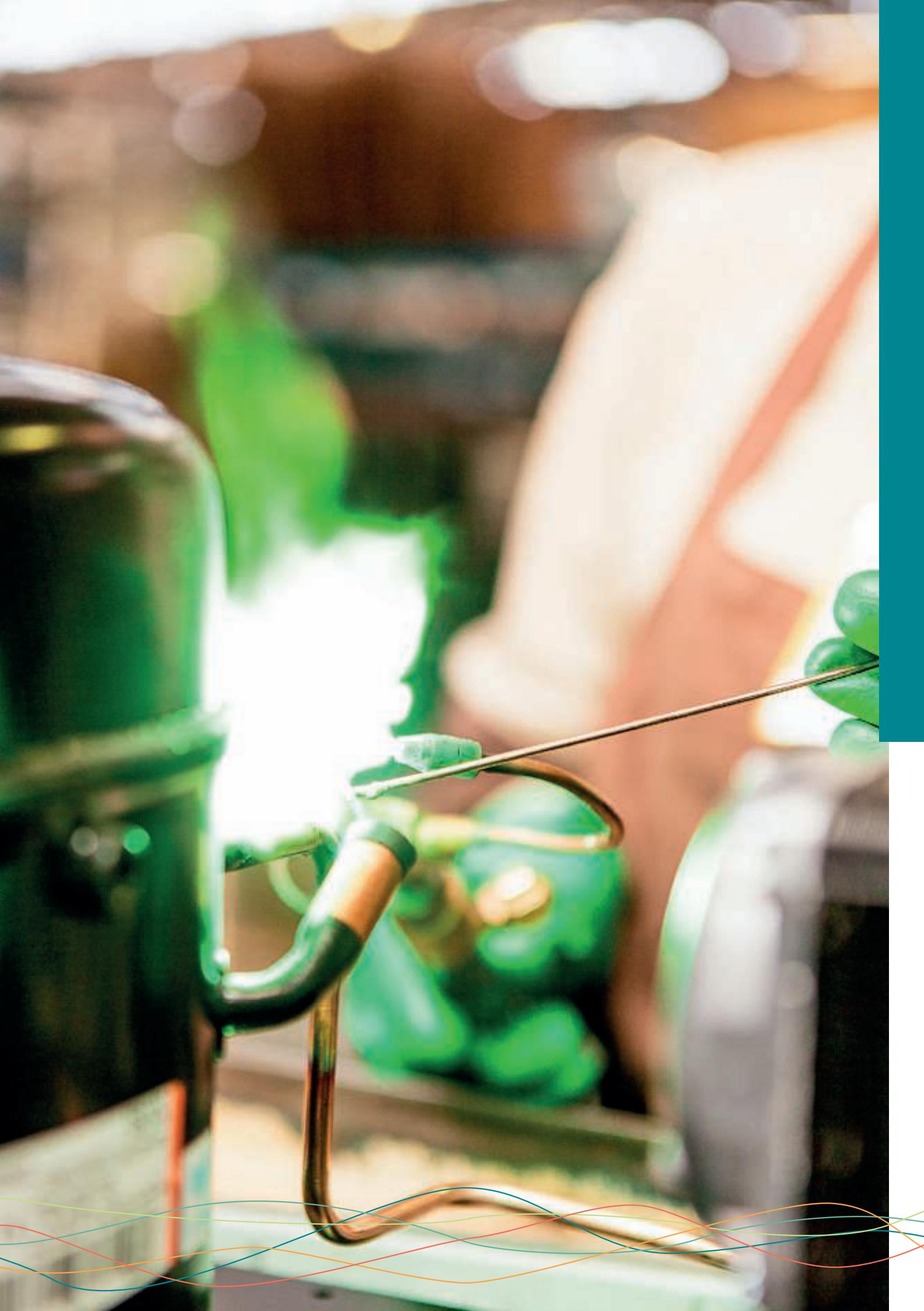
The following table should be used as a guideline when refrigerators are transported in horizontal position, as well as for handling the compressors into the assembly line, storage, tests, etc. During transportation, compressors must be properly mounted and firmly secured on the refrigerator.

Series	Position					
	Normal (upright)	Label up	Terminal board up	Label down	Terminal board down	Upside-down
NJ						
NT						
EG VEG						

Series	Position					
	Normal (upright)	Label up	Terminal board up	Label down	Terminal board down	Upside-down
F						
NE						
EM VEM						

This position is approved  
only for compressors for  
R 134a, R 290 and R 600a.

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# 06

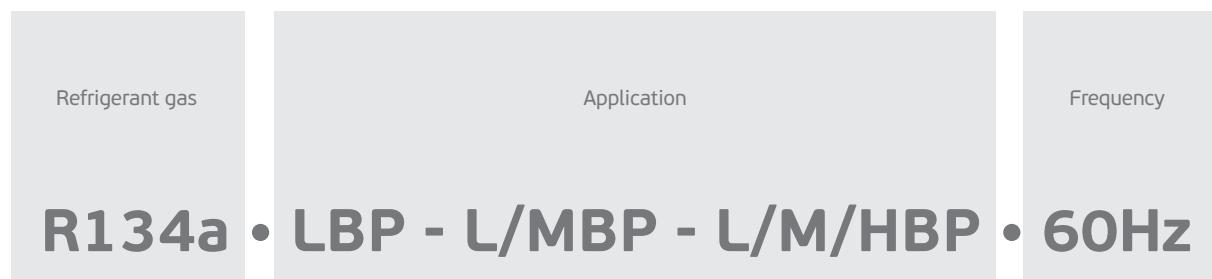
## GENERAL DATA & PERFORMANCE





## HOW TO READ THE CATALOGUE

	<b>1 R290</b>	<b>2 R134a</b>	<b>3 R404A</b>	<b>4 R600a</b>				
50 Hz	LBP	<b>pgs. 84-85</b>	LBP - L/MBP - L/M/HBP	<b>pgs. 76-77</b>	LBP	<b>pgs. 80-81</b>	LBP	<b>pgs. 88-89</b>
	L/MBP	<b>pgs. 84-85</b>	L/M/HBP - M/HBP - HBP	<b>pgs. 78-79</b>	MBP	<b>pgs. 82-83</b>		
	MBP	<b>pgs. 86-87</b>						
60 Hz	LBP - L/MBP	<b>pgs. 72-73</b>	LBP - L/MBP - L/M/HBP	<b>pgs. 62-63 pgs. 64-65</b>	LBP	<b>pgs. 68-69</b>	LBP - L/MBP	<b>pgs. 74-75</b>
	LBP - L/MBP Fullmotion Inverter	<b>pgs. 74-75</b>	LBP - L/MBP - L/M/HBP Fullmotion Inverter	<b>pgs. 64-65</b>	MBP	<b>pgs. 70-71</b>	MBP	<b>pgs. 70-71</b>
			L/M/HBP - M/HBP - HBP	<b>pgs. 66-67</b>				



Model Selection			Additional information												Performance										Additional information				
MODEL	DISPLACEMENT OF HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LVA	EXPANSION DEVICE	LUBRICANT			COOLING TYPE	TEST CONDITION	COOLING CAPACITY SUBCOOLED CONDITIONS										HEIGHT	EXTER. VIEW	WIRING DIAGRAM				
								DE. CHARGE FL. OZ	TYPE	VISCOSI- TY			-40	-31	-22	-13	BTU/H	W	A	BTU/ MM	-4	5	14	23	IN	REF.	REF.		
EMIS20HHR	0.14	1/12	115-127 V 60 Hz 1~	L/M/HBP	LST	RSIR/CSIR	11.62	Capillary Tube	5.41	ESTER	ISO22	14.93	Static/Fan	ASHRAELBP32	7	52	105	167	191	61	1.03	3.07	243	334	444	575	6.10	DWG D1	SM07
EMIS20HHR	0.14	1/12	220 V 60 Hz 1~	L/M/HBP	LST	RSIR/CSIR	9.10	Capillary Tube	5.41	ESTER	ISO22	14.93	Static/Fan	ASHRAELBP32	29	68	117	177	200	68	0.61	2.91	251	342	451	583	6.10	DWG D1	SM07
EMIS30HHR	0.18	1/10	115-127 V 60 Hz 1~	L/M/HBP	LST	RSIR/CSIR	16.00	Capillary Tube	5.41	ESTER	ISO22	14.93	Static/Fan	ASHRAELBP32	58	121	196	286	320	86	1.37	3.70	394	523	677	858	6.54	DWG D1	SM07
EMIS30HHR	0.18	1/10	220 V 50-60 Hz 1~	L/M/HBP	LST	RSIR/CSIR	8.80	Capillary Tube	5.41	ESTER	ISO22	14.93	Static/Fan	ASHRAELBP32	46	120	200	292	326	85	0.69	3.82	394	514	656	827	6.54	DWG D1	SM07
EM45HRR	0.23	1/8	115-127 V 60 Hz 1~	L/M/HBP	LST	RSIR/CSIR	9.50	Capillary Tube	5.41	ESTER	ISO22	16.89	Fan	ASHRAELBP32	63	164	271	388	431	104	1.44	4.22	520	673	890	1.057	6.73	DWG D1	SM07

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## R134a • LBP - L/M/MBP - L/M/HBP • 60Hz

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY	
<b>EMIS20HHR</b>	2,27	1/12	115-127 V 60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	11.62	Capillary Tube	160	ESTER	ISO22	6,78	Static/Fan
<b>EMIS20HHR</b>	2,27	1/12	220 V 60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	9.10	Capillary Tube	160	ESTER	ISO22	6,78	Static/Fan
<b>EMIS30HHR</b>	3,00	1/10	115-127 V 60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	16.00	Capillary Tube	160	ESTER	ISO22	6,78	Static/Fan
<b>EMIS30HHR</b>	3,00	1/10	220 V 50-60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	8.80	Capillary Tube	160	ESTER	ISO22	6,78	Static/Fan
<b>EM45HHR</b>	3,77	1/8	115-127 V 60 Hz 1 ~	L/M/HBP	LST	RSIR-CSIR	9.50	Capillary Tube	160	ESTER	ISO22	7,68	Fan
<b>EMI45HER</b>	3,77	'1/8	115 - 127v 60Hz	LBP	LST	RSIR	15.00	Capillary Tube	160	ESTER	ISO22	7,7	Static
<b>EMI60HER</b>	4,99	1/6	220 V 50-60 Hz 1 ~	LBP	LST	RSIR/CSIR	11.50	Capillary Tube	160	ESTER	ISO22	7,62	Static
<b>EMI60HER</b>	4,99	1/6	115-127 V 60 Hz 1 ~	LBP	LST	RSIR/CSIR	21.00	Capillary Tube	160	ESTER	ISO22	7,62	Static
<b>EMIS70HHR</b>	5,96	1/5	115-127 V 60 Hz 1 ~	L/M/HBP	LST	RSIR-CSIR	28.20	Capillary Tube	160	ESTER	ISO10	7,28	Fan
<b>EMI70HER</b>	5,89	1/5	115 V 60 Hz 1 ~	LBP	LST	RSIR/CSIR	25.50	Capillary Tube	160	ESTER	ISO10	7,73	Fan
<b>EMI70HER</b>	5,89	1/5	220 V 60 Hz 1 ~	LBP	LST	RSIR	12.50	Capillary Tube	160	ESTER	ISO10	7,73	Fan
<b>FFU70HAK</b>	6,36	1/4	115-127 V 60 Hz 1 ~	L/MBP	LST	RSIR-CSIR	24.30	Capillary Tube	280	ESTER	ISO10	10,76	Fan
<b>FFU70HAK</b>	6,36	1/4	220-240 V 50-60 Hz 1 ~	L/MBP	LST	RSIR-CSIR	11.90	Capillary Tube	280	ESTER	ISO10	10,76	Fan
<b>FFU80HAK</b>	6,76	1/4+	115-127 V 60 Hz 1 ~	L/MBP	LST	RSIR-CSIR	28.00	Capillary Tube	280	ESTER	ISO10	11,44	Fan
<b>FFU80HAK</b>	6,76	1/4+	220-240 V 50-60 Hz 1 ~	L/MBP	LST	RSIR-CSIR	14.40	Capillary Tube	280	ESTER	ISO10	11,44	Fan
<b>EGAS80HLR</b>	6,36	1/4+	220-240 V 50-60 Hz 1 ~	LBP	LST	RSIR-CSIR	13.50	Capillary Tube	230	ESTER	ISO10	13,53	Static
<b>EGAS80HLR</b>	6,36	1/4+	115-127 V 60 Hz 1 ~	LBP	LST	RSIR-CSIR	25.70	Capillary Tube	230	ESTER	ISO10	9,72	Static
<b>FFU100HAK</b>	7,95	1/3	115-127 V 60 Hz 1 ~	L/MBP	LST	RSIR	32.50	Capillary Tube	230	ESTER	ISO10	11,03	Static
<b>FFU100HAK</b>	7,95	1/3	220-240 V 50-60 Hz 1 ~	L/MBP	LST	RSIR/CSIR	17.50	Capillary Tube	230	ESTER	ISO10	11,03	Static
<b>EGAS100HLR</b>	7,95	1/3	115-127 V 60 Hz 1 ~	LBP	LST	RSIR-CSIR	29.20	Capillary Tube	230	ESTER	ISO10	11,01	Static
<b>EGAS100HLR</b>	7,95	1/3	220-240 V 50-60 Hz 1 ~	LBP	LST	RSIR	16.90	Capillary Tube	280	ESTER	ISO10	11,01	Static

continued

TEST CONDITION	COOLING CAPACITY SUBCOOLED CONDITIONS													DRAWINGS		
	RATE POINT -23,3°C													HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM
					CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY								
	-40 °C	-35 °C	-30 °C	-25 °C	W	W	A	W/W	-20 °C	+15 °C	+10 °C	-5 °C	mm.	REF.	REF.	
ASHRAELBP32	2	15	31	49	56	61	1,03	0,90	71	98	130	168	155	DWG 01	SM07	
ASHRAELBP32	8	20	34	52	58	68	0,61	0,85	73	100	132	170	155	DWG 01	SM07	
ASHRAELBP32	17	35	57	84	94	86	1,37	1,08	115	153	198	251	166	DWG 01	SM07	
ASHRAELBP32	13	35	58	85	95	85	0,69	1,12	115	150	192	242	166	DWG 01	SM07	
ASHRAELBP32	18	48	79	113	126	104	1,44	1,23	152	197	249	309	171	DWG 01	SM07	
ASHRAELBP32	25	47	75	110	123	94	1,26	1,31	151	197	249	306	166	DWG 01	SM07	
ASHRAELBP32	46	70	105	149	166	134	0,92	1,24	203	265	336	415	166	DWG 01	SM07	
ASHRAELBP32	79	89	115	154	171	136	1,72	1,25	207	272	347	432	166	DWG 01	SM07	
ASHRAELBP32	61	96	137	187	206	149	2,36	1,39	247	320	407	511	166	DWG 01	SM07	
ASHRAELBP32	57	100	143	189	206	153	2,14	1,35	243	309	390	492	166	DWG 01	SM07	
ASHRAELBP32	57	100	143	189	206	154	1,08	1,34	243	309	390	492	166	DWG 09	SM08	
ASHRAELBP32	52	93	141	198	219	147	1,00	1,49	265	346	441	554	201	DWG 09	SM08	
ASHRAELBP32	52	93	141	198	219	147	1,00	1,49	265	346	441	554	201	DWG 09	SM08	
ASHRAELBP32	81	111	156	215	239	159	2,25	1,50	289	378	481	600	201	DWG 09	SM08	
ASHRAELBP32	80	111	156	215	239	158	1,17	1,50	289	378	482	601	201	DWG 09	SM08	
ASHRAELBP32	45	89	143	207	231	142	0,95	1,63	283	372	475	595	192	DWG 01	SM07	
ASHRAELBP32	44	96	153	216	240	149	0,99	1,61	290	378	482	606	192	DWG 01	SM07	
ASHRAELBP32	95	136	191	261	289	209	3,00	1,38	348	453	577	722	198	DWG 09	SM08	
ASHRAELBP32	87	138	198	268	299	197	1,45	1,49	352	452	571	711	198	DWG 09	SM08	
ASHRAELBP32	68	132	201	278	306	193	1,25	1,59	366	470	594	740	198	DWG 01	SM07	
ASHRAELBP32	68	132	201	278	306	193	1,25	1,59	366	470	594	740	198	DWG 01	SM07	

## R134a • LBP - L/M/MBP - L/M/HBP • 60Hz

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT KG	COOLING TYPE
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY	
<b>FFI12HBX</b>	11,14	1/3+	115-127 V 60 Hz 1 ~	L/M/HBP	HST	CSIR	43,00	Capillary Tube / Expansion Valve	280	ESTER	ISO22	10,98	Fan
<b>FFI12HBX</b>	11,14	1/3+	220 V 60 Hz 1 ~	L/M/HBP	HST	CSIR	19,00	Capillary Tube / Expansion Valve	280	ESTER	ISO22	10,97	Fan
<b>FFU130HAX</b>	10,61	1/3+	115-127 V 60 Hz 1 ~	L/MBP	LST/ HST	CSIR	40,30	Capillary Tube / Expansion Valve	280	ESTER	ISO10	11,27	Fan
<b>FFU130HAX</b>	10,61	1/3+	220 V 60 Hz 1 ~	L/MBP	LST/ HST	CSIR	17,50	Capillary Tube / Expansion Valve	280	ESTER	ISO10	11,27	Fan
<b>FFU160HAX</b>	12,92	1/2	220 V 60 Hz 1 ~	L/ MBP	HST	CSIR	19,00	Capillary Tube / Expansion Valve	280	ESTER	ISO22	10,82	Fan
<b>FFU160HAX</b>	12,92	1/2	115-127 V 60 Hz 1 ~	MBP	HST	CSIR	40,00	Capillary Tube / Expansion Valve	280	ESTER	ISO22	10,82	Fan
<b>NEU2140Z</b>	16,79	'1/2	115 - 127 60Hz	LBP	HST	RSIR/ CSIR	40,00	Capillary Tube or Expansion Valve	350	ESTER	ISO22	10,5	Fan

## R134a • LBP - L/M/MBP - L/M/HBP • 60Hz FULLMOTION INVERTER

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT KG	COOLING TYPE
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY	
<b>VEMY3H</b>	2,95	1/10	100-127V 50-60Hz 220-240V 50-60Hz	LBP	LST	BPM	2,2	Capillary Tube	220	ESTER	ISO10	7,50	Static / Fan
<b>VEMY5H</b>	4,92	1/8	100-127V 50-60Hz 220-240V 50-60Hz	LBP	LST	BPM	2,2	Capillary Tube	220	ESTER	ISO10	7,50	Static / Fan
<b>VEMY6HH</b>	5,74	1/6	100-127V 50-60Hz 220-240V 50-60Hz	L/M/HBP	LST	BPM	4	Capillary Tube	220	ESTER	ISO10	7,50	Static / Fan
<b>VEGT8HB</b>	8,03	1/3	100-127V 50-60Hz 220-240V 50-60Hz	L/MBP	LST	BPM	3,3	Capillary Tube	430	ESTER	ISO10	10,77	Static / Fan
<b>VEGT11HB</b>	10,65	1/2	115V	L/MBP	LST	BPM	3,3	Capillary Tube	430	ESTER	ISO10	10,55	Fan

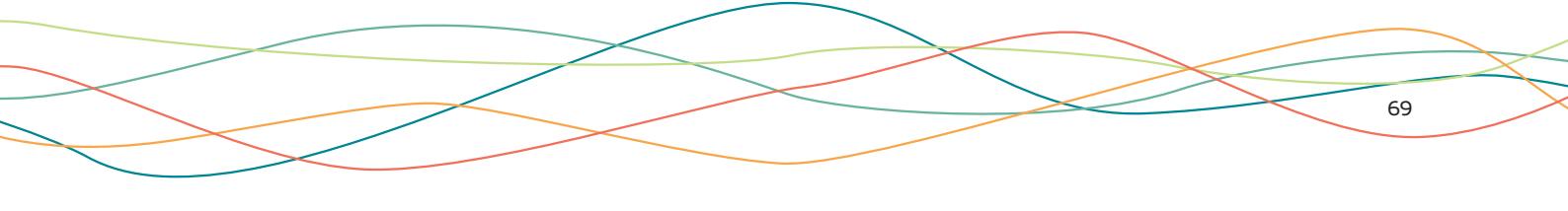
\*Fullmotion Inverter compressors: see connection configuration on Inverter chapter.

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GENERAL DATA & PERFORMANCE

TEST CONDITION	COOLING CAPACITY SUBCOOLED CONDITIONS													DRAWINGS		
	RATE POINT -23,3°C													HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM
					CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY								
	-40 °C	-35 °C	-30 °C	-25 °C	W	W	A	W/W	-20 °C	-15 °C	-10 °C	-5 °C	mm.	REF.	REF.	
ASHRAELBP32	119	159	220	306	340	297	4,97	1,16	416	416	718	914	198	DWG 09	SM08	
ASHRAELBP32	110	156	222	31	345	296	2,72	1,18	420	555	715	901	198	DWG 09	SM08	
ASHRAELBP32	98	153	229	33	366	260	4,07	1,40	449	594	766	963	198	DWG 09	SM08	
ASHRAELBP32	98	153	229	33	366	260	-	1,40	449	594	766	963	198	DWG 09	SM08	
ASHRAELBP32	96	182	266	355	387	267	2,12	1,44	456	577	726	909	198	DWG 09	SM08	
ASHRAELBP32	-	-	266	355	387	267	-	1,44	456	577	726	909	198	DWG 09	SM08	
ASHRAELBP32	160	234	334	461	511	396	5,31	1,29	616	799	1011	1253	207	DWG 22	SM04	

TEST CONDITION	COOLING CAPACITY SUBCOOLED CONDITIONS													DRAWINGS		
	RATE POINT -23,3°C													HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM
					CAPACITY	ENERGY CONSUMPTION	EFFICIENCY									
	-40 °C	-35 °C	-30 °C	W	W	W/W	-20 °C	-15 °C	-10 °C	-5 °C	mm.	REF.	REF.			
ASHRAELBP32	-	-	-	40 - 111	-	1,4 - 1,3	-	-	-	-	-	166	-	*		
ASHRAELBP32	-	-	-	85 - 200	-	1,8 - 1,57	-	-	-	-	-	166	-	*		
ASHRAELBP32	-	-	-	85 - 230	-	1,44 - 1,64	-	-	-	-	-	166	-	*		
ASHRAELBP32	-	-	-	115 - 310	-	1,6 - 1,52	-	-	-	-	-	202	-	*		
ASHRAELBP32	-	-	-	190 - 430	-	1,72 - 1,58	-	-	-	-	-	202	-	*		



## R134a • L/M/HBP - M/HBP - HBP • 60Hz

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP.	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT KG	COOLING TYPE
									A)	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY	
<b>EMIS20HHR</b>	2,27	1/12	115-127 V 60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	11.62	Capillary Tube	160	ESTER	ISO22	6,78	Static/Fan
<b>EMIS20HHR</b>	2,27	1/12	220 V 60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	9.10	Capillary Tube	160	ESTER	ISO22	6,78	Static/Fan
<b>EMIS30HHR</b>	3,00	1/10	220 V 50-60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	8.80	Capillary Tube	160	ESTER	ISO22	6,78	Static/Fan
<b>EMIS30HHR</b>	3,00	1/10	115-127 V 60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	16.00	Capillary Tube	160	ESTER	ISO22	6,78	Static/Fan
<b>EM45HHR</b>	3,77	1/8	115-127 V 60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	17.00	Capillary Tube	160	ESTER	ISO22	7,68	Fan
<b>EM55HHR</b>	4,60	1/6	115 V 60 Hz 1 ~	HBP	LST	RSIR	24.50	Capillary Tube	160	ESTER	ISO22	7,52	Fan
<b>EM55HHR</b>	4,60	1/6	220-240 V 50-60 Hz 1 ~	HBP	LST	RSIR	9.50	Capillary Tube	160	ESTER	ISO22	7,52	Fan
<b>EM65HHR</b>	5,54	1/6+	220 V 50-60 Hz 1 ~	M/HBP	LST	RSIR/CSIR	13.90	Capillary Tube	160	ESTER	ISO22	7,68	Fan
<b>EMIS70HHR</b>	5,96	1/5	115-127 V 60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	28.20	Capillary Tube	160	ESTER	ISO10	7,28	Fan
<b>FF7,5HBK</b>	6,91	'1/5+	220-240 V 60 Hz 1 ~	L/M/HBP	LST	RSIR / CSIR	15.80	Capillary Tube	280	ESTER	ISO22	10,7	Static / Fan
<b>FF7,5HBK</b>	6,91	'1/5+	115v 60Hz	L/M/HBP	LST	RSIR / CSIR	25.00	Capillary Tube	280	ESTER	ISO22	10,7	Static / Fan
<b>FF8,5HBK</b>	7,94	'1/4	220V 60 Hz 1 ~	L/M/HBP	LST	RSIR / CSIR	18.50	Capillary Tube	280	ESTER	ISO22	10,8	Static / Fan
<b>FF8,5HBK</b>	7,94	'1/4	115 - 127 60Hz	L/M/HBP	LST	RSIR / CSIR	35.50	Capillary Tube	280	ESTER	ISO22	10,8	Static / Fan
<b>FFI10HAK</b>	9,03	'1/3	220-230 V 50-60 Hz 1 ~	L/MBP	LST	RSIR / CSIR	17.50	Capillary Tube	280	ESTER	ISO22	10,8	Static / Fan
<b>FFI10HAK</b>	9,03	'1/3	115 - 127 60Hz	L/MBP	LST	RSIR / CSIR	32.50	Capillary Tube	280	ESTER	ISO22	10,8	Static / Fan
<b>FFI12HBX</b>	11,14	1/3+	115-127 V 60 Hz 1 ~	L/M/HBP	HST	CSIR	43.00	Capillary Tube / Expansion Valve	280	ESTER	ISO22	10,97	Fan
<b>FFI12HBX</b>	11,14	1/3+	220 V 60 Hz 1 ~	L/M/HBP	HST	CSIR	19.00	Capillary Tube / Expansion Valve	280	ESTER	ISO22	10,97	Fan
<b>NEU6187Z*</b>	9,99	1/3	115-127V 60 Hz 1~	M/HBP	HST	CSIR	39.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,52	Fan
<b>NEU6212Z</b>	14,28	1/2	115 V 60 Hz 1~	HBP	HST	CSCR	40.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,52	Fan
<b>NEU6214Z</b>	16,80	1/2	115 V 60 Hz 1~	HBP	HST	CSCR	50.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,62	Fan
<b>NEU6214Z*</b>	16,80	1/2	208-230 V 60 Hz 1~	HBP	HST	CSIR	-	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,62	Fan
<b>NT6217Z</b>	20,44	3/4+	115 V 60 Hz 1~	HBP	HST	CSIR	31.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,04	Fan
<b>NT6217Z</b>	20,44	3/4+	200-240 V 50 Hz / 230 V 60 Hz 1 ~	HBP	HST	CSIR	45.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,04	Fan
<b>NTU6222ZV</b>	23,74	3/4	115 V 60 Hz 1~	HBP	HST	CSCR	35.00	Capillary Tube / Expansion Valve	650	ESTER	ISO22	18,30	Fan
<b>NTU6222ZV</b>	23,74	3/4	208-230 V 60 Hz 1~	HBP	HST	CSCR	70.00	Capillary Tube / Expansion Valve	650	ESTER	ISO22	18,30	Fan

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TEST CONDITION		COOLING CAPACITY										DRAWINGS			
								RATE POINT 7,2°C				HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM	
		-20°C	-15°C	-10°C	-5°C	0°C	5°C	CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY	W/W	10°C	mm.	REF.
ASHRAEHB32	67	93	123	160	215	271	298	125	1,4	2,39	336	155	DWG 01	SM07	
ASHRAEHB32	75	103	137	178	225	280	307	127	0,8	2,42	344	155	DWG 01	SM07	
ASHRAEHB32	117	154	198	251	313	386	422	159	0,9	2,64	472	166	DWG 01	SM07	
ASHRAEHB32	115	153	198	251	313	385	419	169	1,9	2,48	467	166	DWG 01	SM07	
ASHRAEHB32	152	197	249	309	380	462	503	202	2,1	2,46	558	171	DWG 01	SM07	
ASHRAEHB32	173	227	292	368	456	556	612	242	2,6	2,50	671	166	DWG 01	SM07	
ASHRAEHB32	194	235	292	365	455	561	63	246	2,8	2,49	682	166	DWG 01	SM07	
ASHRAEHB32	166	229	303	388	485	592	644	270	1,9	2,38	712	166	DWG 01	SM07	
ASHRAEHB32	247	320	407	511	634	777	848	299	3,3	2,83	944	166	DWG 01	SM07	
ASHRAEHB46	235	309	396	498	617	754	813	377	2,0	2,20	910	201	DWG 09	SM08	
ASHRAEHB46	222	293	378	480	601	742	805	348	3,6	2,32	906	201	DWG 09	SM08	
ASHRAEHB46	261	340	436	550	686	845	915	406	2,5	2,26	1029	201	DWG 09	SM08	
ASHRAEHB46	261	340	437	552	687	846	917	406	4,3	2,26	1030	201	DWG 09	SM08	
ASHRAEHB46	363	472	599	750	926	1133	1225	448	2,5	2,89	1374	202	DWG 09	SM08	
ASHRAEHB46	363	472	599	749	926	1133	1225	442	4,7	2,94	1375	202	DWG 09	SM08	
ASHRAEHB32	416	553	718	914	1140	1399	1524	610	6,8	2,49	1693	198	DWG 09	SM08	
ASHRAEHB32	420	555	715	901	1117	1361	1479	596	3,6	2,48	1637	198	DWG 09	SM08	
ASHRAEHB46	-	518	659	829	1027	1255	1208	500	5,7	2,19	1512	207	DWG 22	SM04	
ASHRAEHB46	487	624	795	1001	1242	1517	1649	749	7,6	2,20	1828	207	DWG 22	SM04	
ASHRAEHB46	539	71	911	1150	1424	1733	1880	908	9,5	2,07	2076	207	DWG 22	SM04	
ASHRAEHB46	-	813	1035	1296	1595	1933	1872	925	5,3	2,02	2310	207	DWG 22	SM04	
ASHRAEHB46	549	713	919	1164	1450	1777	1933	976	5,6	1,98	2144	220	DWG 16	SM20	
ASHRAEHB46	596	812	1065	1352	1673	2026	2191	989	10,4	2,22	2409	220	DWG 16	SM20	
ARI18	671	920	1218	1566	1967	2420	2636	1008	9,8	2,61	2926	247	DWG 19	SM21	
ARI18	684	808	1099	1504	1975	2463	2670	1015	4,4	2,60	2918	247	DWG 19	SM21	

## R134a • L/M/HBP - M/HBP - HBP • 60Hz

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP.	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
									A)	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY	
<b>NTU6224ZV</b>	27,80	1 1/4	115 V 60 Hz 1~	M/HBP	HST	CSCR	78.00	Capillary Tube / Expansion Valve	650	ESTER	ISO22	18,30	Fan
<b>NTU6224ZV</b>	27,80	1 1/4	208-230V 60Hz	M/HBP	HST	CSCR	46.00	Capillary Tube / Expansion Valve	650	ESTER	ISO22	18,30	Fan
<b>NJ6220Z</b>	26,11	1	115 V 60 Hz 1~	HBP	HST	CSIR	70.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	20,54	Fan
<b>NJ6220Z</b>	26,11	1	208-230 V 60 Hz 1~	HBP	HST	CSIR	42.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	20,54	Fan
<b>NJ6226Z</b>	34,38	1 1/4	208-230 V 60 Hz 1~	HBP	HST	CSCR	40.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	19,80	Fan

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GENERAL DATA & PERFORMANCE

TEST CONDITION		COOLING CAPACITY										DRAWINGS		
								RATE POINT 7,2°C				HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM
		-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C	CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY	W/W	10 °C	mm.
ARI18	813	1116	1463	1859	2306	2807	3045	1239	12,6	2,45	337	247	DWG 19	SM21
ARI18	818	1148	1506	1893	2309	2758	2965	1247	6,1	2,38	3239	247	DWG 19	SM21
ASHRAEHP46			1080	1317	1692	2204	2473	1075	11,4	2,30	2853	265	DWG 18	SM14
ASHRAEHP46	581	916	1300	1734	2216	2747	2997	1215	7,4	2,47	3328	265	DWG 18	SM14
ASHRAEHP46	701	1027	1419	1878	240	2996	3277	1449	7,2	2,26	3655	265	DWG 18	SM16



**R404A • LBP • 60Hz**

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSEITY	
<b>NEK2134GK</b>	8,77	1/2	208-230 V 60 Hz 1~	LBP	HST	CSIR	16.10	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,02	Fan
<b>NEK2134GK</b>	8,77	1/2	115 V 60 Hz 1~	LBP	HST	CSIR	37.50	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,02	Fan
<b>NEK2150GK</b>	12,11	1/2+	208-230 V 60 Hz 1~	LBP	HST	CSIR	19.50	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,57	Fan
<b>NEK2150GK</b>	12,11	1/2+	115 V 60 Hz 1~	LBP	HST	CSIR	42.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,57	Fan
<b>NEK2168GK</b>	14,28	3/4	208-230 V 60 Hz 1~	LBP	HST	CSCR	24.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,62	Fan
<b>NEK2168GK</b>	14,28	3/4	115 V 60 Hz 1~	LBP	HST	CSCR	46.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,62	Fan
<b>NEU2178GK*</b>	16,80	1	208-230V 60 Hz 1~	LBP	HST	CSCR	29.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,62	Fan
<b>NT2178GK</b>	17,39	1-	208-230 V 60 Hz 1~	LBP	HST	CSIR	35.50	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,44	Fan
<b>NT2178GK</b>	17,39	1-	115 V 60 Hz 1~	LBP	HST	CSIR	72.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,44	Fan
<b>NT2180GK</b>	20,44	1	208-230 V 60 Hz 1~	LBP	HST	CSCR	74.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,44	Fan
<b>NT2180GK</b>	20,44	1	115 V 60 Hz 1~	LBP	HST	CSIR	40.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,44	Fan
<b>NT2192GK</b>	22,37	1+	115-127V 60 Hz 1~	LBP	HST	CSIR	56.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,54	Fan
<b>NT2192GK</b>	22,37	1+	208-230 V 60 Hz 1~	LBP	HST	CSIR	40.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,54	Fan
<b>NT2212GK</b>	27,80	1 1/2	208-230 V 60 Hz 1~	LBP	HST	CSCR	45.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	18,29	Fan
<b>NJ2192GK</b>	26,11	11/4	208-230 V 60 Hz 1~	LBP	HST	CSCR	40.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	17,49	Fan
<b>NJ2192GK</b>	26,11	11/4	115 V 60 Hz 1~	LBP	HST	CSCR	87.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	17,49	Fan
<b>NJ2192GS</b>	26,11	1 1/4	440-480V 60Hz 3~	LBP	HST	3PHASE	15.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	20,38	Fan
<b>NJ2212GS</b>	34,38	1 1/2	440-480V 60Hz 3~	LBP	HST	3PHASE	13.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	20,38	Fan
<b>NJ2212GK</b>	34,38	1 1/2	115 V 60 Hz 1~	LBP	HST	CSCR	87.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	21,45	Fan
<b>NJ2212GK</b>	34,38	1 1/2	208-230 V 60 Hz 1~	LBP	HST	CSCR	40.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	21,45	Fan

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TEST CONDITION	COOLING CAPACITY SUBCOOLED CONDITIONS													HEIGHT	DRAWINGS	
	RATE POINT -23,3°C													mm.	REF.	REF.
					CAPAC- ITY	ENERGY CONSUMP- TION	CURRENT	EFFICIENCY								
	-40 °C	-35 °C	-30 °C	-25 °C	W	W	A	W/W	-20 °C	-15 °C	-10 °C	-5 °C				
ASHRAELBP32	211	289	389	489	543	419	2,79	1,30	636	795	975	1175	200	DWG 22	SM04	
ASHRAELBP32	213	300	403	526	572	433	5,5	1,32	667	83	1006	1203	200	DWG 22	SM04	
ASHRAELBP32	292	378	493	637	692	584	3,88	1,18	809	1010	1240	1499	206	DWG 22	SM04	
ASHRAELBP32	291	390	517	673	732	545	5,56	1,34	699	1070	1311	1581	206	DWG 22	SM04	
ARI4	177	253	348	463	506	629	3,45	0,80	596	750	924	1117	206	DWG 22	SM04	
ARI4	1719	2471	340	450	492	624	6,66	0,79	578	724	887	1068	206	DWG 22	SM04	
ASHRAELBP32	397	553	742	965	1053	767	3,7	1,37	1222	1512	1836	-	207	-	-	
ASHRAELBP32	348	505	702	940	1030	792	5,25	1,30	1218	1537	1898	2301	207	DWG 16	SM20	
ASHRAELBP32	344	498	691	921	1008	818	10,13	1,23	1188	1489	1823	2189	220	DWG 16	SM20	
ASHRAELBP32	339	545	781	1050	1149	869	4,18	1,33	1355	1700	2089	2525	220	DWG 16	SM21	
ASHRAELBP32	365	563	786	1044	1163	1023	9,74	1,12	1345	1696	2106	2582	220	DWG 16	SM20	
ASHRAELBP32	445	649	880	1138	1233	1029	-	1,20	1425	1738	2078	2446	234	DWG 16	SM20	
ASHRAELBP32	436	630	866	1146	1251	882	4,39	1,42	1468	1832	2237	2683	234	DWG 16	SM21	
ASHRAELBP32	603	862	1175	1543	1680	1176	5,79	1,43	1963	2436	2960	3535	277	DWG 16	SM21	
ASHRAELBP32	173	478	815	1188	1324	1008	4,9	1,32	1601	2058	2561	3116	277	DWG 18	SM16	
ASHRAELBP32	390	620	890	1209	1330	1008	9,79	1,32	1585	2026	2540	3135	264	DWG 18	SM16	
ASHRAELBP32	337	532	763	1035	1139	913	1,89	1,25	1356	1731	2167	2670	264	DWG 18	SM17	
ASHRAELBP32	289	612	961	1348	1726	1138	1,96	1,31	1783	2279	2847	3499	274	DWG 18	SM17	
ASHRAELBP32	316	647	1018	1433	1585	1305	13,8	1,22	1898	2415	2992	3632	277	DWG 18	SM16	
ASHRAELBP32	377	715	1124	1576	1742	1156	5,45	1,52	2086	2086	3331	4094	277	DWG 18	SM16	



## R404A • MBP • 60Hz

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY	
<b>NEK6181GK</b>	7,28	1/3+	208-230 V 60 Hz 1~	MBP	HST	CSIR	17.5	Capiillary / Valve	350	ESTER	ISO22	10,38	Fan
<b>NEK6181GK</b>	7,28	1/3+	115 V 60 Hz 1~	MBP	HST	CSIR	26.50	Capiillary / Valve	350	ESTER	ISO22	10,38	Fan
<b>NEK6210GK</b>	8,77	1/2	208-230 V 60 Hz 1~	MBP	HST	CSIR	23.00	Capiillary / Valve	350	ESTER	ISO22	11,02	Fan
<b>NEK6210GK</b>	8,77	1/2	115 V 60 Hz 1~	MBP	HST	CSIR	38.00	Capiillary / Valve	450	ESTER	ISO22	11,02	Fan
<b>NT6217GKV</b>	12,55	3/4	208-230 V 60 Hz 1~	MBP	HST	CSCR	27.00	Capiillary / Valve	450	ESTER	ISO22	16,99	Fan
<b>NT6217GKV</b>	12,55	3/4	115 V 60 Hz 1~	MBP	HST	CSCR	50.00	Capiillary / Valve	450	ESTER	ISO22	16,99	Fan
<b>NT6220GKV</b>	14,5	3/4	208-230 V 60 Hz 1~	MBP	HST	CSCR	26.50	Capiillary / Valve	450	ESTER	ISO22	16,99	Fan
<b>NT6220GKV</b>	14,5	3/4	115 V 60 Hz 1~	MBP	HST	CSCR	54.50	Capiillary / Valve	450	ESTER	ISO22	16,99	Fan
<b>NT6222GK</b>	17,39	1	200-240 V 50 Hz / 230 V 60 Hz 1~	MBP	HST	CSIR	33.70	Capiillary / Valve	450	ESTER	ISO22	17,05	Fan
<b>NT6222GK</b>	17,39	1	115 V 60 Hz 1~	MBP	HST	CSIR	70.00	Capiillary / Valve	450	ESTER	ISO22	17,05	Fan
<b>NT6224GKV</b>	20,44	1	208-230 V 60 Hz 1~	MBP	HST	CSCR	36.00	Capiillary / Valve	450	ESTER	ISO22	17,11	Fan
<b>NT6224GKV</b>	20,44	1	115 V 60 Hz 1~	MBP	HST	CSCR	77.00	Capiillary / Valve	450	ESTER	ISO22	17,11	Fan
<b>NT6226GKV</b>	22,37	1	208-230 V 60 Hz 1~	MBP	HST	CSCR	43.00	Capiillary / Valve	450	ESTER	ISO22	17,41	Fan
<b>NT6226GKV</b>	22,37	1	115 V 60 Hz 1~	MBP	HST	CSCR	77.00	Capiillary / Valve	450	ESTER	ISO22	17,41	Fan
<b>NTU6232GKV</b>	20,44	1+	208-230 V 60 Hz 1~	MBP	HST	CSCR	46.00	Capiillary / Valve	650	ESTER	ISO22	17,41	Fan
<b>NTU6232GKV</b>	20,44	1+	115 V 60 Hz 1~	MBP	HST	CSCR	93.00	Capiillary / Valve	650	ESTER	ISO22	17,41	Fan
<b>NTU6234GKV</b>	23,74	1 1/4	208-230 V 60 Hz 1~	MBP	HST	CSCR	46.00	Capiillary / Valve	650	ESTER	ISO22	18,42	Fan
<b>NTU6234GKV</b>	23,74	1 1/4	115 V 60 Hz 1~	MBP	HST	CSCR	81.00	Capiillary / Valve	650	ESTER	ISO22	18,42	Fan
<b>NTU6238GKV</b>	26,21	1 1/2	208-230 V 60 Hz 1~	MBP	HST	CSCR	51.00	Capiillary / Valve	650	ESTER	ISO22	18,09	Fan
<b>NTU6240GKV</b>	27,8	1 1/2	208-230 V 60 Hz 1~	MBP	HST	CSCR	51.00	Capiillary / Valve	650	ESTER	ISO22	18,27	Fan
<b>NJ9232GK</b>	26,11	1 1/4	208-230 V 60 Hz 1~	MBP	HST	CSCR	40.00	Capiillary / Valve	750	ESTER	ISO22	21,54	Fan
<b>NJ9238GK</b>	32,67	1 1/2	230 V 60 Hz / 200 V 50 Hz 1~	MBP	HST	CSCR	59.00	Capiillary / Valve	750	ESTER	ISO22	21,82	Fan

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	TEST CONDITION	COOLING CAPACITY												DRAWINGS		
		RATE POINT 7,2°C						CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY	HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM		
		-20°C	-15°C	-10°C	-5°C	0°C	5°C							mm.	REF.	REF.
	ASHRAEHB46	468	571	690	830	1001	1206	1304	618	3,57	2,11	1435	205	DWG 22	SM04	
	ASHRAEHB46	463	565	684	821	982	1166	1257	618	6,65	2,03	1380	205	DWG 22	SM04	
	ASHRAEHB46	528	651	801	981	1190	1428	1542	734	4,47	2,10	1695	200	DWG 22	SM04	
	ASHRAEHB46	530	662	825	1020	1245	1502	1625	695	6,62	2,33	1790	200	DWG 22	SM04	
	ARI4	514	647	802	979	1178	1399	1503	1004	5,85	1,50	1641	220	DWG 16	SM21	
	ARI4	521	633	777	952	1161	1404	1523	1041	11	1,47	1685	220	DWG 16	SM21	
	ARI4	599	772	959	1170	1412	1693	1832	1072	5,29	1,70	2022	220	DWG 16	SM21	
	ARI4	557	725	920	1141	1390	1666	1796	1061	9,96	1,69	1969	220	DWG 16	SM21	
	ASHRAEHB46	1004	1258	1566	1920	2314	2740	2937	146	8,19	2,01	3193	220	DWG 16	SM21	
	ASHRAEHB46	1032	1287	1597	1959	2375	2845	3069	1419	14,92	2,16	3368	220	DWG 16	SM21	
	ASHRAEHB46	1189	1507	1868	2276	2737	3256	3504	1558	7,65	2,25	3837	33	DWG 16	SM21	
	ASHRAEHB46	1194	1507	1878	2309	2799	3348	3609	157	14,69	2,30	3957	233	DWG 16	SM21	
	ASHRAEHB46	1313	1617	1981	2406	2894	3448	3713	2077	11,77	1,79	4069	233	DWG 16	SM21	
	ASHRAEHB46	1356	1694	2093	2550	3065	3644	3916	1822	17,05	2,15	4280	233	DWG 16	SM21	
	ARI4	935	1249	1583	1935	2305	2693	2869	1525	7,4	1,88	3098	250	DWG 19	SM26	
	ARI4	969	1255	1577	1939	2346	2804	3022	1458	14,09	2,08	3316	250	DWG 19	SM26	
	ARI4	1156	1489	1862	2274	2728	3225	3457	1771	8,11	1,95	3765	250	DWG 19	SM26	
	ARI4	1148	1452	1801	2200	2654	3169	3416	1716	15,65	2,00	3750	250	DWG 19	SM26	
	ARI4	1285	1612	2002	2467	3017	3664	3982	197	8,94	2,02	4418	250	DWG 19	SM26	
	ARI4	1361	1719	2095	2538	3095	3814	4194	2079	9,95	2,01	4742	250	DWG 19	SM26	
	ASHRAEHB46	1341	1777	2300	2910	3607	4391	4764	1948	9,68	2,43	5262	277	DWG 18	SM16	
	ASHRAEHB46	1616	2149	2736	3377	4073	4822	5169	2529	11,73	2,03	5625	-	DWG 18	SM16	

## R290 • LBP - L/MBP • 60Hz

MODEL	DISPLACEMENT.(CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY	
<b>EMI50UER</b>	3,00	1/6	115-127 V 60 Hz 1 ~	L/MBP	LST	RSIR/CSIR	12.70	Capillary Tube	160	ALQUILB	ISO32	8,09	Fan
<b>EMI50UER</b>	3,00	1/6	220-240 V 50-60 Hz 1 ~	L/MBP	LST	RSIR/CSIR	9.20	Capillary Tube	160	ALQUILB	ISO32	8,09	Fan
<b>EMI70UER</b>	4,08	1/5	115-127 V 60 Hz 1 ~	L/MBP	LST	CSIR	19.60	Capillary Tube	160	ALQUILB	ISO32	8,11	Static/Fan
<b>EMI70UER</b>	4,08	1/5	220-240 V 50-60 Hz 1 ~	L/MBP	LST	RSIR/CSIR	9.40	Capillary Tube	160	ALQUILB	ISO32	8,11	Static/Fan
<b>EMC3115U</b>	4,42	1/4	115-127V 50-60Hz	L/MBP	LST	RSCR	-	Capillary Tube	130	ESTER	ISO10	7,07	Static/Fan
<b>EMI90UEX</b>	4,99	1/4+	115-127 V 60 Hz 1 ~	L/MBP	HST	CSIR	31.00	Capillary Tube / Expansion Valve	160	ALQUILB	ISO32	8,12	Fan
<b>EMI90UEX</b>	4,99	1/4+	220 V 60 Hz 1 ~	L/MBP	HST	CSIR	12.00	Capillary Tube / Expansion Valve	160	ALQUILB	ISO32	8,12	Fan
<b>EM2X3121U</b>	5,54	1/3	115-127V 60Hz ~	L/MBP	LST	RSCR	10.00	Capillary Tube	130	ESTER	ISO22	8,16	Static / Fan
<b>EMC3121U</b>	5,54	1/3	115-127V 50-60Hz	L/MBP	LST	RSCR	-	Capillary Tube	130	ESTER	ISO10	7,07	Static / Fan
<b>EMC3125U</b>	6,09	1/3+	115-127V 50-60Hz	L/MBP	LST	RSCR	-	Capillary Tube	130	ESTER	ISO10	7,07	Static / Fan
<b>EM2X3125U</b>	6,09	1/3+	115-127V 60Hz ~	L/MBP	LST	RSCR	12.60	Capillary Tube	130	ESTER	ISO22	8,16	Static / Fan
<b>EMC3130U</b>	6,40	1/2	115-127V 50-60Hz	L/MBP	LST	RSCR	-	Capillary Tube	130	ESTER	ISO10	7,07	Static / Fan
<b>FFU130UAX</b>	6,76	1/3+	115-127 V 60 Hz 1 ~	L/MBP	HST	CSIR	39.00	Capillary Tube / Expansion Valve	280	ALQUILB	ISO32	10,02	Fan
<b>FFU130UAX</b>	6,76	1/3+	220-240 V 50-60 Hz 1 ~	L/MBP	HST	CSIR	19.00	Capillary Tube / Expansion Valve	280	ALQUILB	ISO32	10,02	Fan
<b>FFU160UAX</b>	7,95	1/2	115-127 V 60 Hz 1 ~	L/MBP	HST	CSIR	41.50	Capillary Tube / Expansion Valve	280	ALQUILB	ISO32	10,02	Fan
<b>FFU160UAX</b>	7,95	1/2	220 V 60 Hz 1 ~	L/MBP	HST	CSIR	25.60	Capillary Tube / Expansion Valve	280	ALQUILB	ISO32	10,02	Fan
<b>NEU2140U</b>	9,99	1/2	115-127 V 60 Hz 1	LBP	HST	CSIR	30.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	10,00	Fan
<b>NEU2155U</b>	13,43	1/2+	115-127 V 60 Hz 1	LBP	HST	CSIR	40.00	Capillary Tube / Expansion Device	350	ESTER	ISO22	10,99	Fan
<b>NEU2168U</b>	16,80	3/4	115-127 V 60 Hz 1	LBP	HST	CSCR	49.00	Capillary Tube / Expansion Device	350	ESTER	ISO22	11,60	Fan
<b>NT2170U</b>	20,44	3/4	208-230 V 60 Hz 1~	LBP	HST	CSIR	30.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,2	Fan
<b>NT2180UV</b>	22,37	1	115V 60 Hz 1 ~	LBP	HST	RSIR/CSIR	54.50	Capillary Tube / Expansion Valve	450	ESTER	ISO22	16,71	Fan
<b>NT2180UV</b>	22,37	1	208-230 V 60 Hz 1~	LBP	HST	RSIR/CSIR	30.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	16,71	Fan
<b>NT2210UV</b>	27,80	1 1/4	115V 60 Hz 1 ~	LBP	HST	CSIR	67.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,7	Fan
<b>NT2210UV</b>	27,80	1 1/4	208-230 V 60 Hz 1~	LBP	HST	CSIR	37.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,7	Fan

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## GENERAL DATA &amp; PERFORMANCE

TEST CONDITION	COOLING CAPACITY SUBCOOLED CONDITIONS														DRAWINGS	
					RATE POINT -23,3°C								HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM	
	CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY	W	W	A	W/W	-20	-15	-10	-5	mm.	REF.	REF.	
	-40°C	-35°C	-30°C	-25°C												
ASHRAELBP32	57	76	103	139	152	111	1,19	1,37	182	232	290	355	171	DWG 01	SM07	
ASHRAELBP32	57	76	103	139	152	111	1,19	1,37	182	232	290	355	171	DWG 01	SM07	
ASHRAELBP32	82	106	143	191	209	157	2,44	1,33	249	318	397	49	171	DWG 01	SM07	
ASHRAELBP32	82	106	143	191	209	157	2,44	1,33	249	318	397	49	171	DWG 01	SM07	
ASHRAELBP32	-	-	-	-	242	143	-	1,70	-	-	-	-	171	-	-	
ASHRAELBP32	120	160	207	264	285	210	3,09	1,36	330	408	499	603	171	DWG 01	SM07	
ASHRAELBP32	80	144	210	277	299	203	1,53	1,44	344	409	472	531	171	DWG 01	SM07	
ASHRAELBP32	119	168	225	292	316	183	0,87	1,73	367	451	546	650	171	DWG 01	SM07	
ASHRAELBP32	-	-	-	-	320	180	-	1,78	-	-	-	-	171	-	-	
ASHRAELBP32	-	-	-	-	361	202	-	1,78	-	-	-	-	171	-	-	
ASHRAELBP32	147	198	258	330	357	208	1,05	1,72	413	510	621	748	171	DWG 01	SM07	
ASHRAELBP32	-	-	-	-	391	227	-	1,73	-	-	-	-	171	-	-	
ASHRAELBP32	203	236	288	361	390	268	4,97	1,23	454	568	704	-	201	DWG 09	SM08	
ASHRAELBP32	168	230	295	368	394	254	1,59	1,56	452	553	675	825	201	DWG 09	SM08	
ASHRAELBP32	215	292	376	470	506	320	4,46	1,58	580	709	862	1044	201	DWG 09	SM08	
ASHRAELBP32	213	282	362	455	490	326	2,58	1,51	564	691	839	1008	201	DWG 09	SM08	
ARI4	175	220	283	364	449	394	4,71	1,14	463	579	714	-	201	DWG 22	SM04	
ARI4	219	285	373	484	599	526	6,39	1,14	616	772	949	-	207	DWG 22	SM04	
ASHRAELBP32	388	515	676	870	948	627	5,87	1,51	1096	1356	1648	-	207	-	-	
ASHRAELBP32	392	505	657	847	921	705	4,52	1,31	1077	1345	1652	1999	220	DWG 16	SM20	
ARI4	313	412	542	703	765	764	3,6	1,00	895	1120	1375	1662	220	DWG 16	SM20	
ARI4	311	412	541	699	759	786	8,18	0,97	886	1101	1345	1617	220	DWG 16	SM20	
ARI4	420	533	686	880	954	963	9,78	0,99	1113	1387	1702	2056	233	DWG 16	SM20	
ARI4	404	521	68	869	943	942	4,55	1,00	1101	1371	1680	2027	233	DWG 16	SM20	

## R290 • LBP - L/MBP • 60Hz

### FULLMOTION INVERTER

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE	TEST CONDITION
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY		
<b>VEGT8U</b>	8,02	1/2	100-127V 50-60Hz	L/MBP	LST	BPM	-	Capillary Tube	430	ESTER	ISO22	9,99	Fan	ASHRAELBP32
<b>VEGT8U</b>	8,02	1/2	100-127V 50-60Hz	L/MBP	LST	BPM	-	Capillary Tube	430	ESTER	ISO22	9,99	Fan	ARIMBP
<b>VNEK213U</b>	13,54	3/4+	208-230V 50-60Hz	LBP	HST	BPM	6.2	Capillary Tube or Expansion Valve	500	ESTER	ISO22	11,60	Fan	ASHRAELBP32
<b>VNEU213U</b>	13,54	3/4+	208-230V 50-60Hz	LBP	HST	BPM	-	Capillary Tube or Expansion Device	500	ESTER	ISO22	11,40	Fan	ASHRAELBP32
<b>VNEU217U</b>	16,80	1	208-230V 50-60Hz	LBP	HST	BPM	-	Capillary Tube or Expansion Valve	500	ESTER	ISO22	11,40	Fan	ASHRAELBP32

\*Fullmotion Inverter compressors: see connection configuration on Inverter chapter.

## R600a • LBP - L/MBP • 60Hz

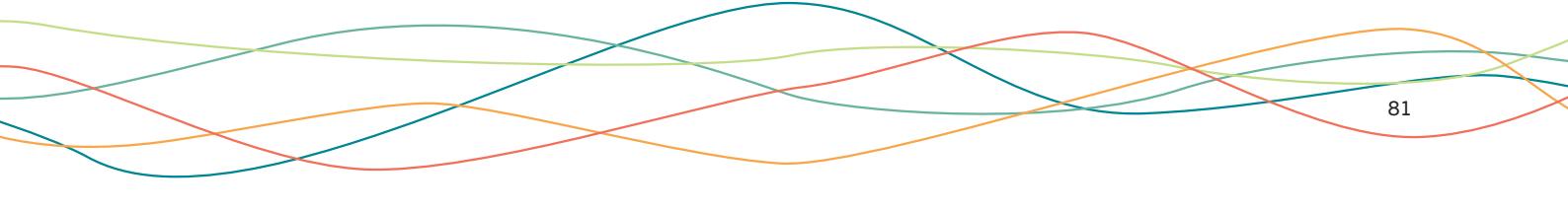
MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY	
<b>EMX20CLC</b>	3,97	1/12	115-127 V 60 Hz 1 ~	LBP	LST	RSCR	3.70	Capillary Tube	180	ALQUILB	ISO5	7,80	Static
<b>EMX20CLC</b>	3,97	1/12	220 V 60 Hz 1 ~	LBP	LST	RSCR	3.70	Capillary Tube	180	ALQUILB	ISO5	7,80	Static
<b>EM2C46CLC</b>	7,23	1/8	115-127 V 60 Hz 1~	LBP	LST	RSCR	8.00	Capillary Tube	150	MINERAL	ISO5	7,70	Static
<b>EMU60CLP</b>	9,04	1/6	115-127 V 60 Hz 1 ~	LBP	LST	RSIR	10.50	Capillary Tube	180	ALQUILB	ISO5	7,39	Static
<b>EMU60CLP</b>	9,04	1/6	220 V 60 Hz 1 ~	LBP	LST	RSIR	7.45	Capillary Tube	180	ALQUILB	ISO5	7,39	Static
<b>EMX3113Y</b>	9,01	1/6	100 - 127V 60Hz 100V 50Hz	L/MBP	LST	RSCR	-	Capillary Tube	-	ALQUIB	ISO05	-	Static/Fan
<b>EMX3115Y</b>	10,65	1/5	100 - 127V 60Hz 100V 50Hz	L/MBP	LST	RSCR		Capillary Tube	-	ALQUIB	ISO05	-	Static/Fan
<b>EM2S70CLP</b>	10,61	1/5	115-127 V 60 Hz 1 ~	LBP	LST	RSIR	14.00	Capillary Tube	150	ALQUILB	ISO5	7,38	Static
<b>EM2S70CLP</b>	10,61	1/5	220 V 60 Hz 1 ~	LBP	LST	RSIR	8.80	Capillary Tube	150	ALQUILB	ISO5	7,38	Static
<b>EMX3118Y</b>	12,21	1/4+	100 - 127 V 60 Hz 100 V - 50 Hz	L/MBP	LST	RSCR	-	Capillary Tube	150	ALQUILB	ISO5	7,90	Static/Fan

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GENERAL DATA & PERFORMANCE

COOLING CAPACITY SUBCOOLED CONDITIONS												DRAWINGS		
RATE POINT -23,3°C												HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM
				CAPACITY	ENERGY CONSUMPTION	EFFICIENCY								
-40 C	-35 C	-30 C	-25 C	W	W	W/W	-20	-15	-10	mm.	REF.	REF.		
-	365	470	581	230 - 850	-	1,71 - 1,66				200		*		
-	-	-	-	333 - 1103	-	2,13 - 2,46				200		*		
-	-	-	-	260 - 580	435	1,28 - 1,21	-	-	-	-	-	*		
306	413	542	694	350 - 750	292 - 663	1,2 - 1,13	2967	3638	4386	206	-	*		
407	549	717	908	500 - 980	398 - 841	1,24 - 1,17	3849	4675	5587	206	-	*		

TEST CONDITION	COOLING CAPACITY SUBCOOLED CONDITIONS												DRAWINGS		
	RATE POINT -23,3°C												HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM
					CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY							
	-35	-30	-25	W	W	A	W/W	-20	-15	-10	mm.	REF.	REF.		
ASHRAELBP32	32	52	71	22,5	47,58	0,51	1,59				170	DWG 01	SM07		
ASHRAELBP32	32	52	71	22,5	49,70	0,31	1,55				170	DWG 01	SM07		
ASHRAEHPB32	68	88	131	42,2	83,23	0,74	1,73	172	2210	279	170	-	-		
ASHRAELBP32	91	121	156	49,7	165,25	1,45	1,15	199	253	319	170	DWG 01	SM07		
ASHRAELBP32	89	120	158	50,4	125,45	1,02	1,37	204	261	330	170	DWG 01	SM07		
ASHRAEHPB32	96	128	170	54,5	109	-	1,32	222	282	353	170	-	-		
ASHRAEHPB32	109	150	200	64,0	127	-	1,55	260	332	415	170	-	-		
ASHRAELBP32	115	159	197	61,9	133,48	1,71	1,59	245	317	430	170	DWG 01	SM07		
ASHRAELBP32	111	151	195	61,9	134,46	1,01	1,58	248	318	411	170	DWG 01	SM07		
ASHRAEHPB32	129	173	230	73,5	147	-	1,78	299	381	477	170	-	-		

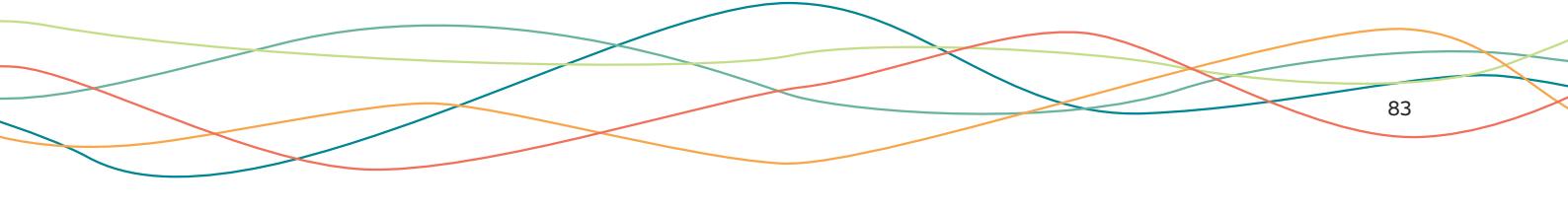


## R134a • LBP - L/M/MBP - L/M/HBP • 50Hz

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY	
EM20HHR	2,27	'1/12	220-240 V 50-60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	6,50	Capillary Tube	160	ESTER	ISO22	6,80	Static / Fan
EMIS30HHR	3,00	1/10	220 V 50-60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	9,00	Capillary Tube	160	ESTER	ISO22	6,75	Fan
EM45HHR	3,77	1/8	220-240 V 50 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	9,50	Capillary Tube	160	ESTER	ISO22	7,68	Fan
EMI45HER	3,77	'1/8	220-240 V 50-60 Hz 1 ~	LBP	LST	RSIR	10,00	Capillary Tube	160	ESTER	ISO22	7,65	Static
EMI60HER	4,99	1/6	220 V 50-60 Hz 1 ~	LBP	LST	RSIR/CSIR	21,00	Capillary Tube	160	ESTER	ISO22	7,62	Static
EMI70HER	5,89	'1/5	220 V 50 Hz 1 ~	LBP	LST	RSIR/CSIR	12,50	Capillary Tube	160	ESTER	ISO22	7,65	Static
FFU70HAK	6,36	1/4	220-240 V 50-60 Hz 1 ~	L/MBP	LST	RSIR-CSIR	11,90	Capillary Tube	280	ESTER	ISO10	10,76	Fan
EGAS80HLR	6,36	1/4+	220-240 V 50-60 Hz 1 ~	LBP	LST	RSIR-CSIR	11,50	Capillary Tube	230	ESTER	ISO10	9,72	Static
FFU80HAK	6,76	1/4+	220-240 V 50-60 Hz 1 ~	L/MBP	LST	RSIR-CSIR	14,40	Capillary Tube	280	ESTER	ISO10	11,44	Fan
FFU100HAK	7,95	1/3	220-240 V 50-60 Hz 1 ~	L/MBP	LST	RSIR/CSIR	17,50	Capillary Tube	280	ESTER	ISO10	11,01	Static
EGAS100HLR	7,95	1/3	220-240 V 50-60 Hz 1 ~	LBP	LST	RSIR	16,90	Capillary Tube	280	ESTER	ISO10	11,01	Static
FFU130HAX	10,61	1/3+	220-240 V 50 Hz 1 ~	L/MBP	LST/HST	CSIR	17,50	Capillary Tube / Expansion Valve	280	ESTER	ISO10	11,27	Fan
FFU160HAX	12,92	'1/2	220-240 V 50 Hz 1 ~	L/M/HBP	LST/HST	CSIR		Tubo capilar/ Válvula de expansão	280			10,79	
EGU130HLR	10,61	'1/3+	220-240 V 50 Hz 1 ~	LBP	LST	RSIR	17,45	Tubo capilar	230	ESTER	ISO10	10,79	Fan
FFI12HBK	11,14	'1/3+	220-240 V 50 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	20,00	Tubo capilar	280	ESTER	ISO22	11,49	Fan
NEK2140Z	16,79	'1/2	220-240 V 50 Hz 1 ~	LBP	HST	CSIR	17,00	Capillary Tube or Expansion Valve	350	ESTER	ISO22	11,6	Fan

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TEST CONDITION	COOLING CAPACITY SUBCOOLED CONDITIONS													DRAWINGS		
	RATE POINT -23,3°C				CAPACITY W	ENERGY CONSUMP. W	CURRENT A	EFFICIENCY W/W						HEIGHT mm.	EXTERNAL VIEW REF.	WIRING DIAGRAM REF.
	-40 C	-35 C	-30 C	-25 C					-20 C	-15 C	-10 C	-5 C				
ASHRAELBP32	8	22	31	39	47	57	0,51	0,83	59	80	105	135	155	DWG 01	SM07	
ASHRAELBP32	10	27	46	69	77	82	0,83	0,95	95	126	163	207	166	DWG 01	SM07	
ASHRAELBP32	28	42	61	86	97	96	0,87	1,01	116	154	200	255	171	DWG 01	SM07	
ASHRAELBP32	23	43	65	92	101	83	0,77	1,22	123	161	208	265	166	DWG 01	SM07	
ASHRAELBP32	44	63	89	123	137	118	1,06	1,16	165	216	275	343	166	DWG 01	SM07	
ASHRAELBP32	47	76	110	149	164	139	1,07	1,19	197	255	325	408	166	DWG 01		
ASHRAELBP32	49	80	119	166	184	129	1,07	1,42	223	292	374	470	201	DWG 09	SM08	
ASHRAELBP32	45	86	128	176	193	131	0,9	1,48	230	295	372	377	192	DWG 01	SM07	
ASHRAELBP32	44	90	134	181	199	142	1,33	1,40	237	304	390	498	201	DWG 09	SM08	
ASHRAELBP32	75	116	165	223	245	177	1,67	1,38	292	375	475	593	198	DWG 09	SM08	
ASHRAELBP32	55	108	163	226	249	164	1,36	1,52	299	384	483	604	198	DWG 01	SM07	
ASHRAELBP32	63	132	202	280	308	224	2,2	1,38	369	476	606	762	198	DWG 09	SM08	
	112	152	210	286	316	259	2,02	1,23	382	497	632	788	201	DWG 09	SM08	
ASHRAELBP32	112	188	267	356	389	268	2,14	1,45	459	583	734	916	201	DWG 01	SM07	
ASHRAELBP32	71	140	210	287	316	205	1,47	1,50	377	488	624	794	202	DWG 01	SM07	
EN12900	115	163	230	316	350	328	2,25	1,07	423	548	693	858	207	DWG 22	SM04	



## R134a • L/M/HBP - M/HBP - HBP • 50Hz

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
							A		OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY		
<b>EM20HHR</b>	2,27	'1/12	220 V 50-60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	9,00	Capillary Tube	160	ESTER	ISO22	6,80	Static / Fan
<b>EMIS30HHR</b>	3,00	1/10	220 V 50-60 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	9,00	Capillary Tube	160	ESTER	ISO22	6,78	Fan
<b>EM45HHR</b>	3,77	1/8	220-240 V 50 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	9,50	Capillary Tube	160	ESTER	ISO22	7,68	Fan
<b>EM55HHR</b>	4,60	1/6	220-240 V 50-60 Hz 1 ~	HBP	LST	RSIR	24,50	Capillary Tube	160	ESTER	ISO22	7,52	Fan
<b>EM65HHR</b>	5,54	1/6+	220 V 50-60 Hz 1 ~	M/HBP	LST	RSIR/CSIR	12,50	Capillary Tube	160	ESTER	ISO22	7,68	Fan
<b>FF7,5HBK</b>	6,91	'1/5+	220-240 V 50 Hz 1 ~	L/M/HBP	LST	RSIR / CSIR	16,70	Capillary Tube	280	ESTER	ISO22	10,7	Static / Fan
<b>FF8,5HBK</b>	7,94	'1/4	220-240 V 50 Hz 1 ~	L/M/HBP	LST	RSIR / CSIR	18,20	Capillary Tube	280	ESTER	ISO22	10,8	Static / Fan
<b>FFI10HAK</b>	9,03	'1/3	220-230 V 50-60 Hz 1 ~	L/MBP	LST	RSIR / CSIR	18,00	Capillary Tube	280	ESTER	ISO22	10,8	Static / Fan
<b>FFI12HBK</b>	11,14	1/3+	220-240 V 50 Hz 1 ~	L/M/HBP	LST	RSIR/CSIR	20,00	Capillary Tube	280	ESTER	ISO22	11,49	Fan
<b>FFI12HBX</b>	11,14	1/3+	220-240 V 50 Hz 1 ~	M/HBP	HST	CSIR	19,00	Capillary Tube / Expansion Valve	280	ESTER	ISO22	10,97	Fan
<b>NEU6187Z</b>	9,98	'1/3	200-240 V 50 Hz / 230 V 60 Hz 1 ~	HBP	HST	CSIR	13,00	Capillary Tube or Expansion Valve	350	ESTER	ISO22	10,6	Fan
<b>NEU6210Z</b>	12,11	1/2	220-240V 50HZ	HBP	HST	RSIR / CSIR	18,5	Capillary Tube or Expansion Valve	350	ESTER	ISO22	11,2	Fan
<b>NEU6212Z</b>	14,28	1/2	220-240 V 50 Hz 1 ~	HBP	HST	CSIR / CSCR	20,00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,52	Fan
<b>NEU6214Z</b>	16,80	1/2	220-240 V 50 Hz 1 ~	HBP	HST	CSIR / CSCR	22,000	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,62	Fan
<b>NT6217Z</b>	20,44	3/4+	200-240 V 50 Hz / 230 V 60 Hz 1 ~	HBP	HST	CSIR	25,00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,2	Fan
<b>NT6220Z</b>	22,35	'1	200 240 V 50 Hz /230 V 60 Hz	HBP	HST	CSIR	-	Capillary Tube or Expansion Valve	450	ESTER	ISO22	17,4	Fan
<b>NJ6220Z</b>	26,11	1	220-240 V 50 Hz 1 ~	HBP	HST	CSIR	36,00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	20,54	Fan
<b>NTU6222ZV</b>	23,74	3/4	220-240 V 50 Hz 1 ~	M/HBP	HST	CSCR	30,00	Capillary Tube / Expansion Valve	650	ESTER	ISO22	18,27	Fan
<b>NTU6224ZV</b>	27,80	1 1/4	220-240 V 50 Hz 1 ~	M/HBP	HST	CSCR	30,00	Capillary Tube / Expansion Valve	650	ESTER	ISO22	18,27	Fan
<b>NJ6226Z</b>	34,38	1 1/4	220-240 V 50 Hz 1 ~	HBP	HST	CSCR	35,00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	19,84	Fan

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## GENERAL DATA &amp; PERFORMANCE

TEST CONDITION	COOLING CAPACITY												DRAWINGS	
							RATE POINT 7,2°C				HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM	
	-20 C	-15 C	-10 C	-5 C	0 C	5 C	W	W	A	W/W	10 C	mm.	REF.	REF.
ASHRAEHB32	59	80	105	105	134	170	232	93,83	0,62	2,49	259	166	DWG 01	SM07
ASHRAEHB32	98	135	189	240	270	332	361	143	0,95	2,52	400	166	DWG 01	SM07
ASHRAEHB32	116	154	200	255	320	396	434	170	1,06	2,55	485	171	DWG 01	SM07
ASHRAEHB32	182	218	266	327	400	486	527	246	1,23	2,67	584	166	DWG 01	SM07
ASHRAEHB32	332	335	359	406	475	57	615	243	1,43	2,53	682	166	DWG 01	SM07
ASHRAEHB46	201	265	341	430	536	658	712	294	1,8	2,42	799	201	DWG 09	SM08
ASHRAEHB46	230	306	397	506	631	775	837	334	1,98	2,51	938	201	DWG 09	SM08
ASHRAEHB46	302	399	511	635	770	916	977	358	2,33	2,64	1070	202	DWG 09	SM08
ASHRAEHB32	382	497	632	788	965	1165	1260	500	2,82	2,52	1387	202	DWG 09	SM08
ASHRAEHB32	305	431	581	755	952	1174	1279	485	2,8	2,63	1419	198	DWG 09	SM08
ASHRAEHB46	299	383	489	618	769	944	1020	410	2,31	2,49	1141	201	DWG 22	SM04
ASHRAEHB46	358	456	582	738	923	1136	1238	513	3,04	2,42	1244	207	DWG 22	SM04
ASHRAEHB46	403	523	673	855	1068	1311	1429	619	3,76	2,31	1586	207	DWG 22	SM04
ASHRAEHB46	484	622	794	999	1236	1506	1635	759	3,98	2,15	1808	207	DWG 22	SM04
ASHRAEHB46	577	708	885	1110	1384	1707	1866	804	4,71	2,32	2082	220	DWG 16	SM20
ASHRAEHB46	706	818	989	1218	1507	1855	2027	857	5,21	2,37	2263	220	DWG 16	SM20
ASHRAEHB46	496	783	1111	1482	1894	2349	2561	972	5,69	2,64	2844	265	DWG 18	SM16
EN12900	601	818	1053	1315	1617	1970	2144	787	3,71	2,72	2384	247	DWG 19	SM26
EN12900	765	1012	1283	1587	1938	2545	2545	938	4,26	2,71	2821	247	DWG 19	SM26
ASHRAEHB46	668	992	1360	1775	2258	2768	3007	1225	5,92	2,46	3324	253	DWG 18	SM16

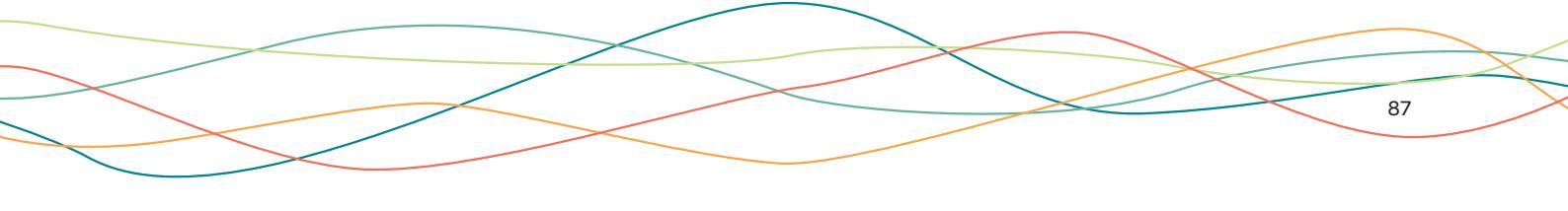
## R404a • LBP • 50Hz

MODEL	DISPLACE- MENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOS- ITY	
<b>EMT2121GK</b>	5,19	'1/3	220-240 V 50 Hz 1 ~	LBP	LST	CSIR	8.50	Capillary Tube	180	ESTER	ISO22	7,8	Fan
<b>EMT2125GK</b>	5,96	'1/3+	220-240 V 50 Hz 1 ~	LBP	LST	CSIR	9.80	Capillary Tube	180	ESTER	ISO22	7,8	Fan
<b>EMT2130GK</b>	6,76	'1/2-	220-240 V 50 Hz 1 ~	LBP	LST	CSIR	12.40	Capillary Tube	180	ESTER	ISO22	8,0	Fan
<b>NEU2140GK</b>	8,77	1/2	220-240 V 50 Hz 1 ~	LBP	HST	CSIR	13.50	Capillary Tube / Expansion Valve	350	ESTER	ISO22	10,62	Fan
<b>NEU2155GK</b>	12,11	3/4	220-240 V 50 Hz 1 ~	LBP	HST	CSIR	18.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,12	Fan
<b>NEU2168GK</b>	14,28	3/4	220-240 V 50 Hz 1 ~	LBP	HST	CSIR	22.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,62	Fan
<b>NEU2178GK</b>	16,80	1	220-240 V 50 Hz 1 ~	LBP	HST	CSCR	21.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,62	Fan
<b>NT2192GK</b>	22,37	1+	220-240 V 50 Hz 1 ~	LBP	HST	CSIR	35.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,54	Fan
<b>NT2212GK</b>	27,85	1 1/2	220-240 V 50 Hz 1 ~	LBP	HST	CSCR	33.00	Capillary Tube / Expansion Valve	650	ESTER	ISO22	18,27	Fan
<b>NJ2192GS</b>	26,05	1 1/4	380-440 V 50-60 Hz 3 ~	LBP	HST	3PHASE	15.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	19,7	Fan
<b>NJ2212GS</b>	34,41	1 1/2	380-440 V 50-60 Hz 3 ~	LBP	HST	3PHASE	13.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	20,36	Fan
<b>NJ2212GK</b>	34,41	1 1/2	220-240 V 50 Hz 1 ~						750			20,36	

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GENERAL DATA & PERFORMANCE

TEST CONDITION		COOLING CAPACITY SUBCOOLED CONDITIONS													DRAWINGS		
		RATE POINT -23,3°C													HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM
						CAPACITY	ENERGY CONSUMP- TION	CURRENT	EFFICIENCY								
		-40 °C	-35 °C	-30 °C	-25 °C	W	W	A	W/W	-20 °C	-15 °C	-10 °C	-5 °C	mm.	REF.	REF.	
ASHRAELBP32	122	166	217	277	307	219	1,38	1,40	356	441	380	659	166	DWG 01	SM05		
ASHRAELBP32	144	195	255	326	353	250	1,58	1,41	409	506	430	749	166	DWG 01	SM05		
ASHRAELBP32	155	210	275	351	380	294	1,82	1,30	440	544	470	805	166	DWG 01	SM05		
ASHRAELBP32	188	256	343	448	488	357	2,02	1,37	571	713	610	1050	201	DWG 22	SM04		
ASHRAELBP32	252	345	461	601	656	499	3,06	1,31	767	958	820	1407	207	DWG 22	SM04		
ASHRAELBP32	284	391	524	684	744	577	3,33	1,29	869	1080	920	1580	207	DWG 22	SM04		
ASHRAELBP32	36	488	644	832	903	646	3,01	1,40	1052	1302	1110	1899	207	DWG 22	SM04		
ASHRAELBP32	379	534	729	963	1051	812	4,92	1,30	1236	1549	1320	2297	234	DWG 16	SM20		
ASHRAELBP32	530	721	968	1267	1381	999	5,06	1,38	1619	2025	1730	3001	234	DWG 16	SM21		
ASHRAELBP32	337	533	763	1035	1139	913	1,89	1,25	1356	1731	1480	2670	253	DWG 18	SM14		
ASHRAELBP32	289	612	961	1348	1489	1155	2,11	1,54	1783	2279	1950	3499	253	DWG 18	SM14		
	468	706	1021	1415	1568	1143	5,52	1,39	1891	2451	3097	3829	253	DWG 18	SM16		



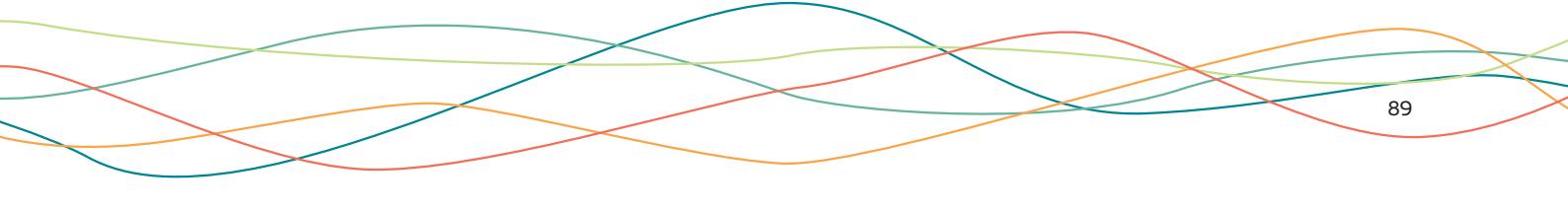
## R404a • MBP • 50Hz

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY	
EMT6144GK	3,97	'1/4-	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	7.70	Capillary Tube or Expansion Valve	180	ESTER	ISO22	7,8	Fan
EMT6152GK	4,50	'1/4	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	8.50	Capillary Tube or Expansion Valve	180	ESTER	ISO22	7,8	Fan
EMT6165GK	5,19	'1/3	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	10.40	Capillary Tube or Expansion Valve	180	ESTER	ISO22	7,8	Fan
NEU6210GK	7,27	'1/3	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	16.00	Capillary Tube or Expansion Valve	349	ESTER	ISO22	10,0	Fan
NEU6212GK	8,77	'1/2	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	19.00	Capillary Tube or Expansion Valve	350	ESTER	ISO22	10,60	Fan
NEU6215GK	12,11	'3/4	220-240 V 50 Hz 1 ~	MBP	HST	CSIR / CSCR	22.00	Capillary Tube or Expansion Valve	350	ESTER	ISO22	11,50	Fan
NT6220GK	14,5	3/4	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	29.5	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,24	Fan
NT6222GK	17,39	1	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	30.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,30	Fan
NT6224GK	20,44	1	220-240 V 50 Hz 1 ~	MBP	HST	CSCR	29.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,30	Fan
NT6226GK	22,37	1+	220-240 V 50 Hz 1 ~	MBP	HST	CSCR	38.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	17,49	Fan
NTU6232GKV	20,44	1+	220-240 V 50 Hz 1 ~	MBP	HST	CSCR	37.5	Capillary Tube / Expansion Valve	650	ESTER	ISO22	18,39	Fan
NTU6234GKV	23,74	1 1/4	220-240 V 50 Hz 1 ~	MBP	HST	CSCR	37.5	Capillary Tube / Expansion Valve	650	ESTER	ISO22	18,14	Fan
NTU6238GKV	26,21	1 1/2	220-240 V 50 Hz 1 ~	MBP	HST	CSCR	37.5	Capillary Tube / Expansion Valve	650	ESTER	ISO22	18,14	Fan
NTU6240GKV	27,8	1 1/2	220-240 V 50 Hz 1 ~	MBP	HST	CSCR	37.5	Capillary Tube / Expansion Valve	650	ESTER	ISO22	18,29	Fan
NJ9232GK	26,11	1 1/4	220-240 V 50 Hz 1 ~	MBP	HST	CSCR	43.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	21,70	Fan
NJ9238GK	32,67	1 1/2	230 V 50 Hz 1 ~	MBP	HST	CSCR	43.00	Capillary Tube / Expansion Valve	750	ESTER	ISO22	22,15	Fan

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GENERAL DATA & PERFORMANCE

	TEST CONDITION	COOLING CAPACITY												DRAWINGS	
								RATE POINT 7,2°C				HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM	
		-20 °C	+15 °C	-10 °C	-5 °C	0 °C	5 °C	CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY		W/W	10 °C	mm.
	ASHRAEHB46	219	275	340	414	530	634	680	280	1,52	2,43	753	166	DWG 02	SM05
	ASHRAEHB46	258	324	400	487	588	702	752	327	1,76	2,30	832	166	DWG 02	SM05
	ASHRAEHB46	291	365	454	556	674	808	867	391	2,15	2,22	960	166	DWG 02	SM05
	ASHRAEHB46	378	482	605	748	910	1092	1170	509	2,89	2,30	1293	201	DWG 22	SM04
	ASHRAEHB46	471	601	751	920	1111	1320	1410	633	3,75	2,23	1551	201	DWG 22	SM04
	ASHRAEHB46	678	849	1051	1283	1546	1839	1966	857	4,05	2,29	2164	201	DWG 22	SM04
	ASHRAEHB46	814	1031	1281	1568	1895	2265	2442	1203	6,8	2,03	2680	220	DWG 16	SM20
	ASHRAEHB46	817	999	1239	1537	1890	2297	2493	1233	7,03	2,02	2756	220	DWG 16	SM20
	ASHRAEHB46	964	1230	1549	1913	2329	2794	3015	1277	6,16	2,36	331	233	DWG 16	SM21
	ASHRAEHB46	1111	1377	1701	2082	2520	3017	3256	1531	8,42	2,13	3576	233	DWG 16	SM21
	EN12900	893	1150	1423	1726	2072	2477	2677	1165	5,81	2,29	2953	250	DWG 19	SM26
	EN12900	1114	1361	1678	2049	2455	2880	3069	1387	6,65	2,21	3307	250	DWG 19	SM26
	EN12900	1233	1503	1850	2264	2728	3231	3461	1554	7,44	2,23	3759	250	DWG 19	SM26
	EN12900	1325	1609	1966	2389	2875	3419	3675	1674	7,99	2,19	4015	250	DWG 19	SM26
	ASHRAEHB46	1147	1519	1966	2487	3083	3753	4071	1567	7,13	2,58	4497	277	DWG 18	SM16
	ASHRAEHB46	1616	2151	2736	3377	3746	3746	4885	2095	9,52	2,33	5375	277	DWG 18	SM16



**R290 • LBP • 50Hz**

MODEL	DISPLACEMENT (CM³)	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
									A	OIL CHARGE (CM³)	TYPE	VISCOSITY	
<b>EM2X1121U</b>	5,54	1/4+	220-240 V 50 Hz 1 ~	LBP	LST	RSCR	8.40	Capillary Tube	150	ESTER	ISO10	8,21	Static
<b>EM2X1125U</b>	6,09	1/4+	220-240 V 50 Hz 1 ~	LBP	LST	RSCR	8.40	Capillary Tube	150	ESTER	ISO10	8,21	Static
<b>NEU2140U</b>	9,98	'1/2	220-240 V 50 Hz 1 ~	HST	LST	CSIR	14.00	Capillary Tube or Expansion Valve	350	ESTER	ISO22	10,5	Fan
<b>NEU2155U</b>	13,54	3/4	220-240 V 50 Hz 1 ~	LBP	HST	CSIR	17.50	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,12	Fan
<b>NEU2168U</b>	16,80	3/4	220-240 V 50 Hz 1 ~	LBP	HST	CSCR	21.00	Capillary Tube / Expansion Valve	350	ESTER	ISO22	11,62	Fan
<b>NT2180U</b>	22,37	1	220-240 V 50 Hz 1 ~	LBP	HST	CSCR	35.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	18,00	Fan
<b>NT2210U</b>	27,80	1 1/4	220-240 V 50 Hz 1 ~	LBP	HST	CSCR	33.00	Capillary Tube / Expansion Valve	450	ESTER	ISO22	18,50	Fan

**R290 • L/MBP • 50Hz**

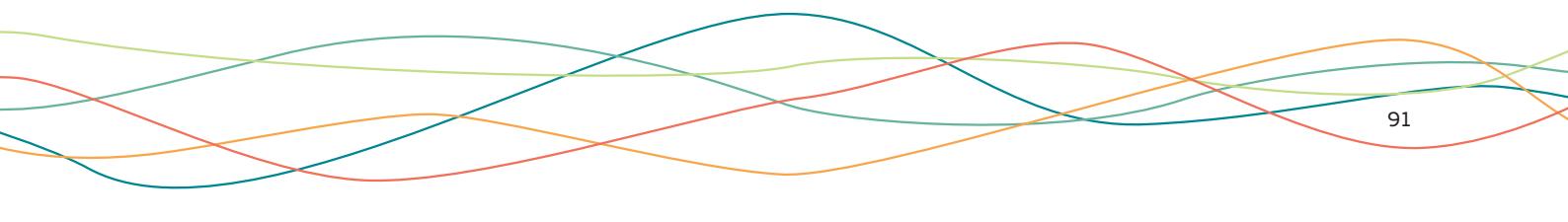
MODEL	DISPLACEMENT (CM³)	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT (KG)	COOLING TYPE	
									A	OIL CHARGE (CM³)	TYPE	VISCOSITY		
<b>EMC3115U</b>	4,42		115-127V 50-60Hz							130			7,07	
<b>EMI50UER</b>	3,00	'1/6	220-240 V 50 Hz 1 ~	L/MBP	LST	RSIR/CSIR	9,2	Tubo capilar	160	ALQUILB	ISO32	8,11	Static/Fan	
<b>EMI70UER</b>	4,08	'1/5	220-240 V 50-60 Hz 1 ~	L/MBP	LST	RSIR/CSIR	9,7	Tubo capilar	160	ALQUILB	ISO32	8,10	Static/Fan	
<b>EMI90UEX</b>	4,99	'1/4+	220-240 V 50 Hz 1 ~	L/MBP	HST	CSIR	11,8	Tubo capilar/ Válvula de expansão	160	ALQUILB	ISO32	8,12	Fan	
<b>EM2X3121U</b>	5,54	'1/4+	220-240 V 50 Hz 1 ~	L/MBP	LST	RSCR	15.9	Tubo capilar	150	ESTER	ISO22	8,00	Static/Fan	
<b>EMC3121U</b>	5,54		115-127V 50-60Hz	L/MBP					130			7,07		
<b>EMC3125U</b>	6,09		115-127V 50-60Hz	L/MBP					130			7,07		

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GENERAL DATA & PERFORMANCE

TEST CONDITION	COOLING CAPACITY SUBCOOLED CONDITIONS														DRAWINGS	
					RATE POINT -23,3°C								HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM	
	CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY	-20 C	-15 C	-10 C	-5 C	mm.	REF.	REF.					
	-40 C	-35 C	-30 C	+25 C	W	W	A	W/W								
ASHRAELBP32	113	143	186	241	256	149.43	5,87	1,71	299	372	458	556	171	DWG 01	SM07	
ASHRAELBP32	126	159	207	267	291	162.79	6,1	1,79	340	423	515	615	171	DWG 01	SM07	
ASHRAELBP32	213	276	356	452	488	325	1,94	1,50	564	692	835	995	188	DWG 22	SM04	
ASHRAELBP32	269	356	464	594	642	439.58	2,51	1,46	744	917	1111	1326	201	DWG 22	SM04	
ASHRAELBP32	334	438	572	730	790	509.68	2,43	1,55	916	1130	1372	1641	207	DWG 22	SM04	
ASHRAELBP32	362	498	663	857	930	694.90	4,6	1,34	1080	1333	1614	1925	220	DWG 16	SM21	
ASHRAELBP32	477	63	836	1081	1174	842.95	4,42	1,39	1369	1699	2072	2487	233	DWG 16	SM21	

TEST CONDITION	COOLING CAPACITY SUBCOOLED CONDITIONS														DRAWINGS	
					RATE POINT -23,3°C								HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM	
	CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY	-20 C	-15 C	-10 C	-5 C	mm.	REF.	REF.					
	-40 C	-35 C	-30 C	+25 C	W	W	A	W/W								
	-	-	-	-	196	119	5,8	-	-	-	-	-	171	-	-	
ASHRAELBP32	43	67	92	119	128	98	0,7	1,30	147	178	212	248	171	DWG 01	SM07	
ASHRAELBP32	70	98	128	163	176	150	1,17	1,17	203	250	305	368	171	DWG 01	SM07	
ASHRAELBP32	-	116	185	214	220	171	4,4	1,28	230	262	334	474	171	DWG 01	SM07	
ASHRAELBP32	-	-	-	-	278	-	-	1,64	-	-	-	-	171	DWG 01	SM07	
	-	-	-	-	259	153	-	1,78	-	-	-	-	171	-	-	
	-	-	-	-	292	172	-	1,78	-	-	-	-	171	-	-	



## R290 • L/MBP • 50Hz

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
							A		OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY		
EMI90UEX	6,40	1/4+	220-240 V 50 Hz 1 ~	L/MBP	HST	CSIR	11.80	Capillary Tube / Expansion Valve	130	ALQUILB	ISO32	7,07	Fan
FFU130UAX	6,76	1/3+	220-240 V 50-60 Hz 1 ~	L/MBP	HST	CSIR	39.00	Capillary Tube / Expansion Valve	280	ALQUILB	ISO32	10,02	Fan
FFU160UAX	7,95	1/2	220-240 V 50 Hz 1 ~	L/MBP	HST	CSIR	21.00	Capillary Tube / Expansion Valve	280	ALQUILB	ISO32	10,02	Fan

## R290 • MBP • 50Hz

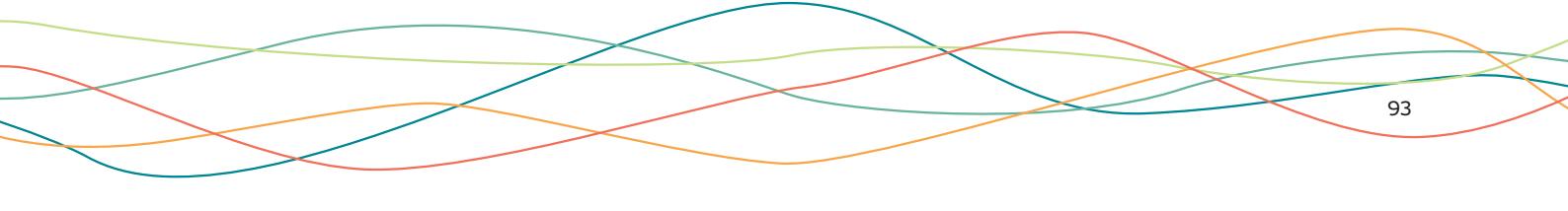
MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
							A		OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY		
NEK6152U	5,44		220-240 V 50 Hz 1 ~						350			10,40	
NEK6165U	6,20		220-240 V 50 Hz 1 ~						350			10,40	
NEK6181U	7,28		220-240 V 50 Hz 1 ~						350			10,40	
NEU6181U	7,27	'1/3	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	13.00	Capillary Tube or Expansion Valve	350	ESTER	ISO22	11,2	Fan
NEU6210U	8,77	'1/3	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	20.0	Tubo capilar/ Válvula de expansão	350	ESTER	ISO22	10,62	Fan
NEU6212U	9,99	1/2	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	20.5	Tubo capilar/ Válvula de expansão	350	ESTER	ISO22	11,20	Fan
NEU6214U	12,11	'3/4	220-240 V 50 Hz 1 ~	MBP	HST	CSCR	18.00	Tubo capilar/ Válvula de expansão	350	ESTER	ISO22	11,22	Fan
NEU6217U	14,28	'3/4	220-240 V 50 Hz 1 ~	MBP	HST	CSCR	21.0	Tubo capilar/ Válvula de expansão	350	ESTER	ISO22	11,62	Fan
NEU6220U	16,80	3/4	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	29.0	Tubo capilar/ Válvula de expansão	350	ESTER	ISO22	15,00	Fan
NT6222U	20,44	'1-	220-240 V 50 Hz 1 ~	MBP	HST	CSIR	29.0	Tubo capilar/ Válvula de expansão	450	ESTER	ISO22	17,03	Fan
NT6224U	22,37		220-240 V 50 Hz 1 ~						450			17,2	
NT6230U	27,80		220-240 V 50 Hz 1 ~						450			17,37	

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GENERAL DATA & PERFORMANCE

TEST CONDITION	COOLING CAPACITY SUBCOOLED CONDITIONS													DRAWINGS		
	RATE POINT -23,3°C													HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM
					CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY								
	-40 °C	+35 °C	-30 °C	-25 °C	W	W	A	W/W	-20 °C	+15 °C	-10 °C	-5 °C	mm.	REF.	REF.	
ASHRAELBP32	-	-	-	-	317	191	-	1,73	-	-	-	-	171	DWG 01	SM07	
ASHRAELBP32	158	182	225	287	312	217	1,66	1,44	367	465	578	708	201	DWG 09	SM08	
ASHRAELBP32	160	227	298	376	405	271	5,08	1,49	465	568	688	831	201	DWG 09	SM08	

TEST CONDITION	COOLING CAPACITY													DRAWINGS		
	RATE POINT -23,3°C													HEIGHT	EXTERNAL VIEW	WIRING DIAGRAM
							CAPACITY	ENERGY CONSUMPTION	CURRENT	EFFICIENCY						
	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C	W	W	A	W/W	10 °C	mm.	REF.	REF.		
	256	318	391	476	574	684	736	283	1,70	2,60	806	200	DWG 22	SM04		
	310	369	451	553	654	782	843	342	2,31	2,46	1046	200	DWG 22	SM04		
	345	411	502	616	747	893	960	381	2,43	2,52	1048	200				
ASHRAEHB46	342	423	522	639	775	930	997	367	2,29	2,71	1104	200	DWG 22	SM04		
ASHRAEHB46	424	515	631	771	935	1124	1215	453	3,09	2,68	1338	200	DWG 22	SM04		
ASHRAEHB46	476	596	737	901	1088	1297	1387	532	3,51	2,61	1529	200	DWG 22	SM04		
ASHRAEHB46	573	715	878	1066	1280	1518	1631	667	3,74	2,44	1781	207	DWG 22	SM04		
ASHRAEHB46	688	853	1048	1274	1530	1815	1951	715	3,25	2,72	2132	207	DWG 22	SM04		
ASHRAEHB46	823	1023	1251	1509	1801	2129	2271	879	4,04	2,58	2496	200	DWG 22	SM04		
ASHRAEHB46	786	994	1258	1574	1942	2358	2556	1074	6,39	2,38	2820	233	DWG 16	SM21		
	907	1140	1432	1780	2180	2628	2840	1065	4,65	2,75	3122	233	DWG 16	SM21		
	1205	1521	1893	1893	2806	3346	3602	1392	6,68	2,59	3515	233	DWG 16	SM21		



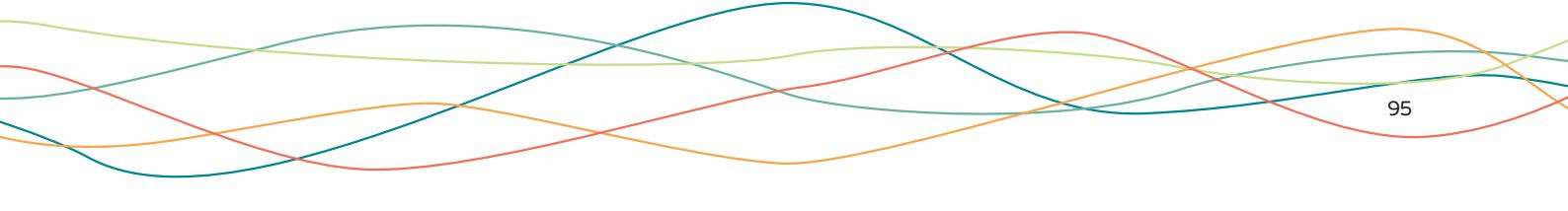
## R600a • LBP • 50Hz

MODEL	DISPLACEMENT (CM <sup>3</sup> )	HP	VOLTAGE FREQUENCY	APPLICATION	TORQUE	MOTOR TYPE	LRA	EXPANSION DEVICE	LUBRICANT			WEIGHT	COOLING TYPE
									A	OIL CHARGE (CM <sup>3</sup> )	TYPE	VISCOSITY	
<b>EMX20CLC</b>	3,97	1/12	220-240 V 50 Hz 1 ~	LBP	LST	RSCR	2.00	Capillary Tube	150	ALQUILB	ISO5	7,8	Static
<b>EMU40CLP</b>	5,96	1/8	220 V 50/60 Hz 1~						180				8,6
<b>EM2C46CLT</b>	7,96	1/6	220-240 V 50 Hz 1~	LBP	LST	RSCR	4,00	Capillary Tube	150	ALQUILB	ISO5	7,68	Static
<b>EMY55CLP</b>	8,59	1/6	220-240 V 50 Hz 1 ~	LBP	LST	RSIR-RSCR	4.90	Capillary Tube	180	ALQUILB	ISO5	7,7	Static
<b>EMYE70CLP</b>	10,61	'1/5	220 V 50-60 Hz 1 ~	LBP	LST	RSIR	8.20	Capillary Tube	180	ALQUILB	ISO5	7,6	Static
<b>EGAS80CLP</b>	11,14	'1/4	220 V 50-60 Hz 1 ~	LBP	LST	RSIR	7.25	Capillary Tube	280	ALQUILB	ISO5	10,35	Static
<b>EMY3118Y</b>	12,21	'1/5	220-240 V 50 Hz 1 ~	L/MBP	LST	RSIR/CSIR	8.80	Capillary Tube	150	ALQUILB	ISO5	7,7	Fan
<b>EGAS100CLP</b>	13,54	'1/3	220 V 50-60 Hz 1 ~	LBP	LST	RSIR	10.25	Capillary Tube	280	ALQUILB	ISO5	10,35	Static
<b>EGX110CLC</b>	14,77	'1/3	220-240 V 50 Hz 1 ~	LBP	LST	RSCR	7.30	Capillary Tube	280	ALQUILB	ISO5	11,25	Static



GENERAL DATA & PERFORMANCE

TEST CONDITION		COOLING CAPACITY													DRAWINGS		
		RATE POINT -23,3°C				CAPACITY W	ENERGY CONSUMPTION W	CURRENT A	EFFICIENCY W/W						HEIGHT mm.	EXTERNAL VIEW REF.	WIRING DIAGRAM REF.
		+40	-35	-30	-25°C					-20°C	-15°C	-10°C	-5°C				
ASHRAELBP32	23	34	47	54	63	41	0,19	1,54	75	97	123	152	170	DWG 01	SM07		
ASHRAELBP32	32	48	68	92	101	88	0,8	1,15	121	156	197	245	165	DWG 01	SM00		
ASHRAELBP32	46	67	93	125	137	77	0,37	1,77	163	208	264	0	170	DWG 01	SM07		
ASHRAELBP32	57	77	106	142	69	97	0,46	1,61	187	240	301	369	165	DWG 01	SM00		
ASHRAELBP32	-	-	-	-	182	-	-	1,32	-	-	-	-	200	DWG 01	SM07		
ASHRAELBP32	65	94	128	171	187	131	1,14	1,42	224	290	370	467	200	DWG 01	SM07		
ASHRAELBP32	80	106	144	194	213	137	0,77	1,56	255	328	412	508	170	-	-		
ASHRAELBP32	101	126	163	215	235	170	1,47	1,39	280	359	454	564	200	DWG 01	SM07		
ASHRAELBP32	98	136	179	231	251	141	0,67	1,78	295	373	469	586	200	DWG 01	SM07		



07

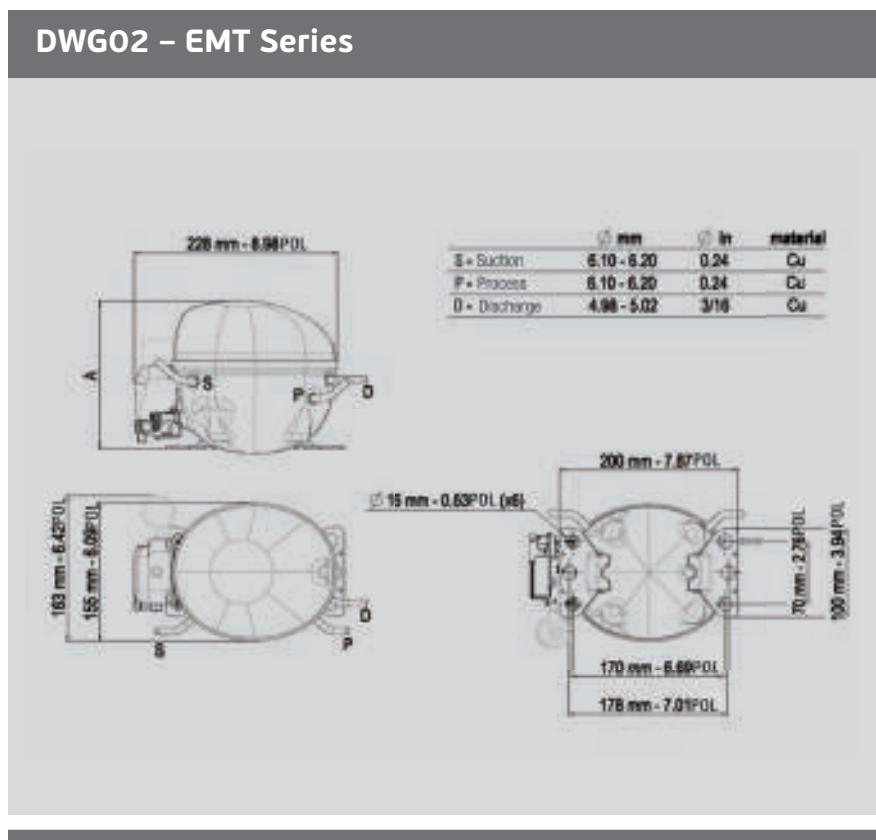
# EXTERNAL VIEWS & WIRING DIAGRAMS



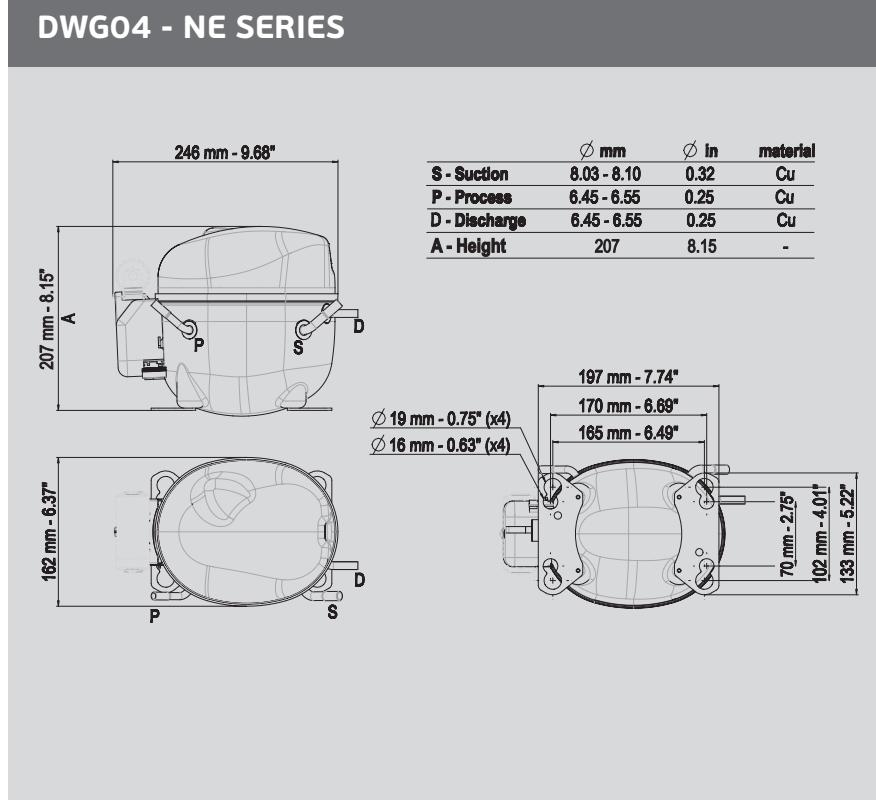


## EXTERNAL VIEWS

### DWG02 - EMT Series



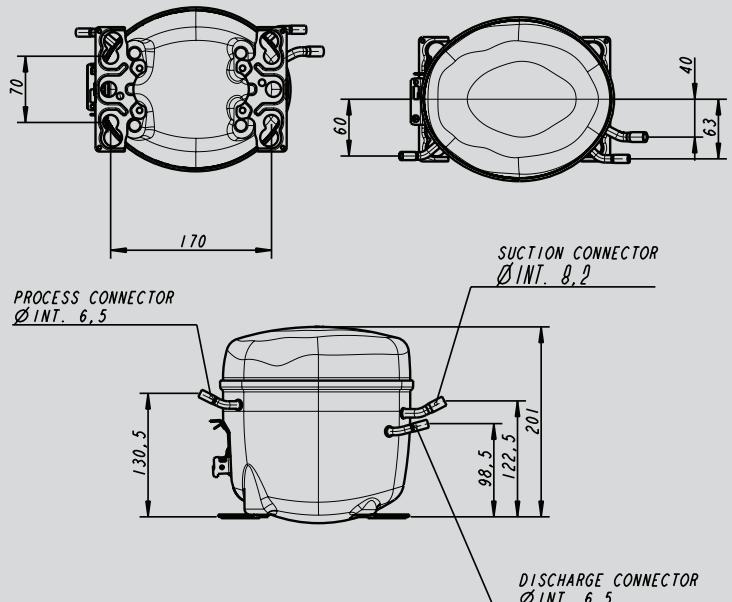
### DWG04 - NE SERIES



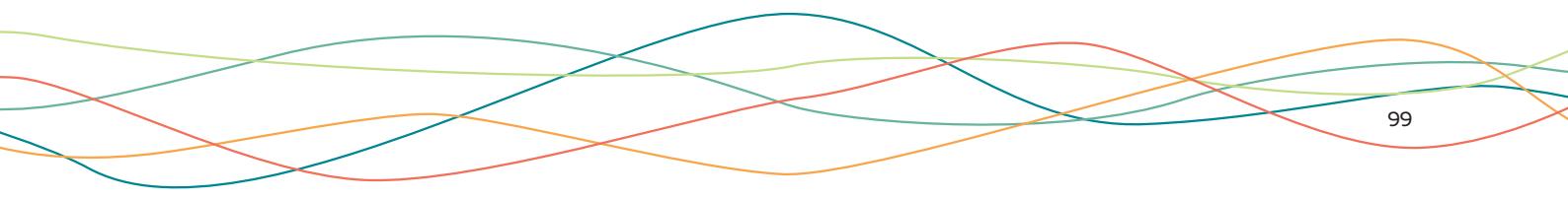
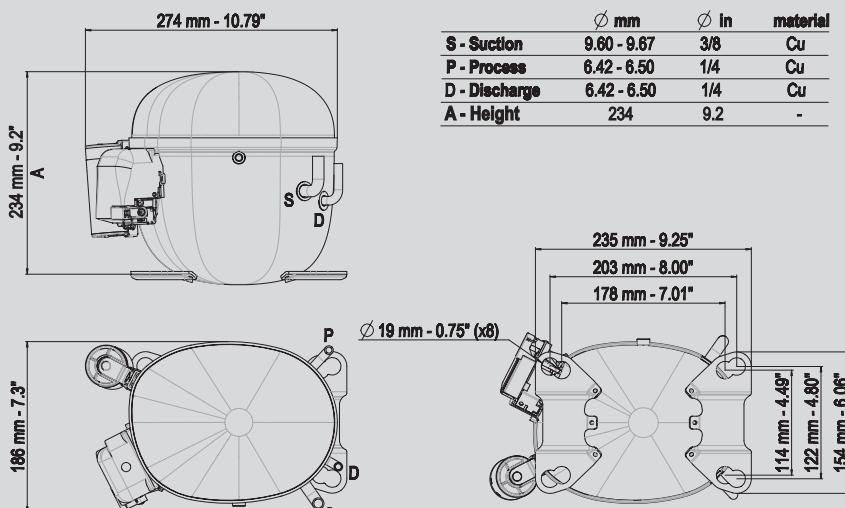
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## EXTERNAL VIEWS

### DWG09 - F, EG and VEG SERIES

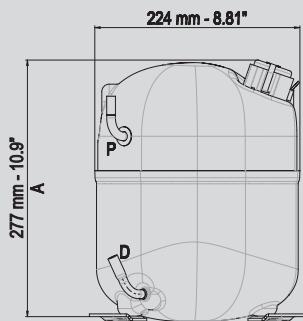


### DWG16 - NT SERIES

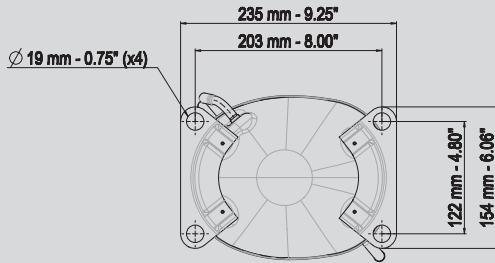


## EXTERNAL VIEWS

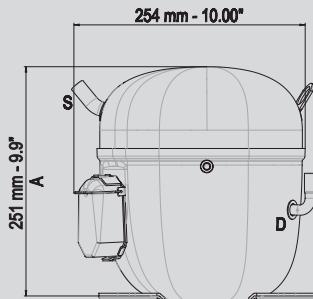
### DWG18 - NJ SERIES



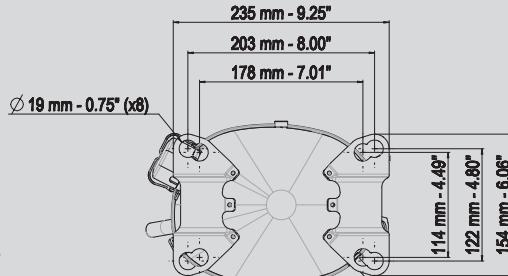
	$\phi$ mm	$\phi$ In	material
S - Suction	9.60 - 9.67	3/8	Cu
P - Process	12.77 - 12.85	1/2	Cu
P - Process	6.42 - 6.50	1/4	Cu
D - Discharge	6.42 - 6.50	1/4	Cu
D - Discharge	8.00 - 8.08	5/16	Cu
A - Height	277	10.9	-



### DWG19 - NTU SERIES



	$\phi$ mm	$\phi$ In	material
S - Suction	12.77 - 12.85	1/2	Cu
P - Process	6.42 - 6.50	1/4	Cu
D - Discharge	9.60 - 9.67	3/8	Cu
A - Height	251	9.9	-

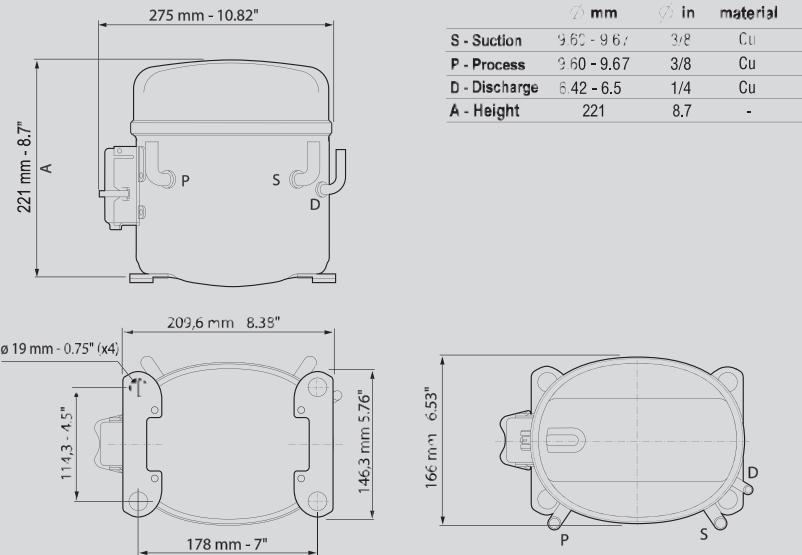


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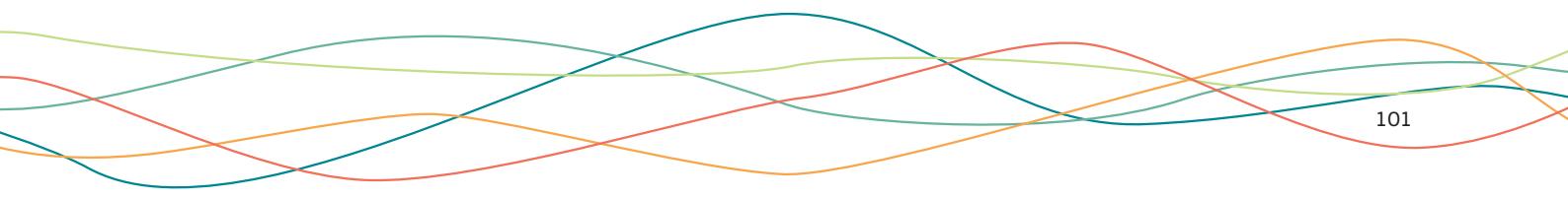
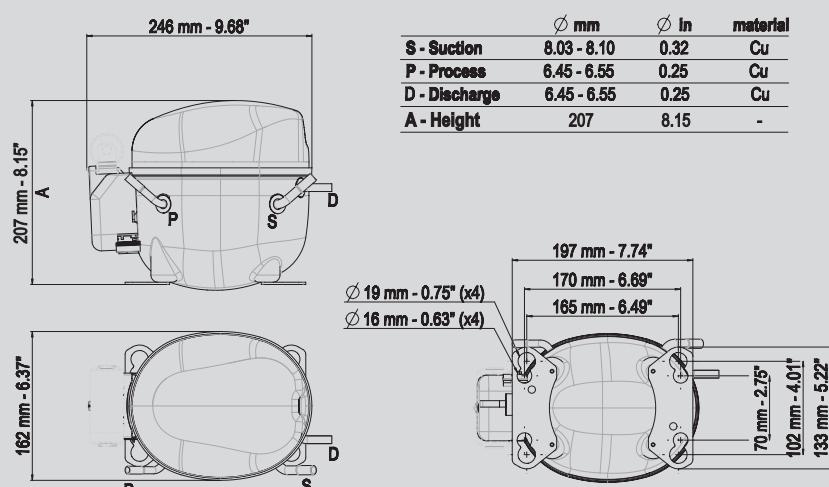
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## EXTERNAL VIEWS

### DWG21 - T SERIES



### DWG22 - NEK / NEU / VNE SERIES

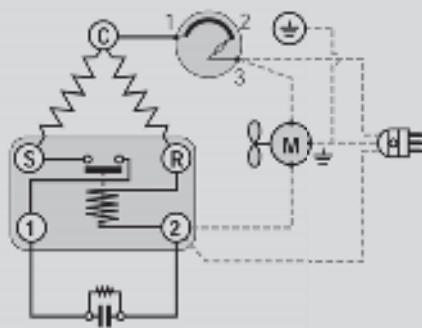
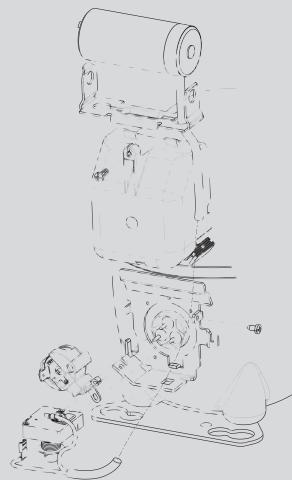


## WIRING DIAGRAMS KEY

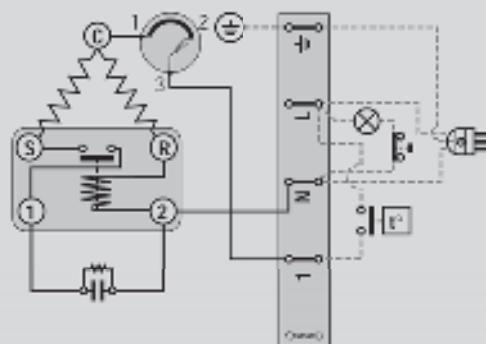
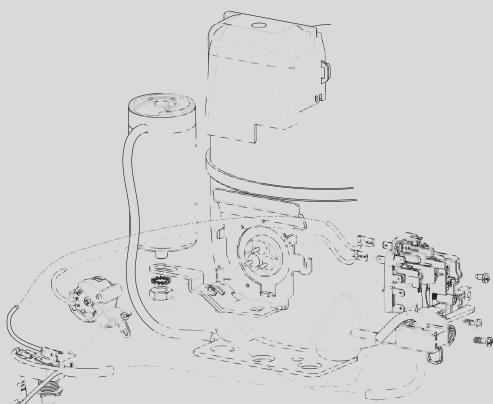
	OVERLOAD PROTECTOR		PTC START DEVICE`
	OVERLOAD PROTECTOR		INTEGRATED PTC DEVICE
	CURRENT START RELAY		CURRENT START RELAY WITH CAPACITOR CONNECTIONS
	3CR CURRENT START RELAY		3ARR3 START RELAY (VOLTAGE).
	RUN CAPACITOR		RUN CAPACITOR (MANDATORY - NOT SUPPLIED)
	OPTIONAL RUN CAPACITOR		START CAPACITOR
	FAN		PUSHBUTTON
	LAMP		SINGLE PHASE MOTOR
	3-PHASE MOTOR		THERMOSTAT
	LOW-HIGH PRESSURE SWITCH		PILOT CIRCUIT 24 OR 220 V
	EARTH CONNECTION		COMMON (INTERNAL OVERLOAD PROTECTOR)
	3-PHASE SUPPLY		START
	SINGLE PHASE SUPPLY		BROWN CABLE
	COMMON		BLACK CABLE
	RUN		RED CABLE
	TERMINAL BLOCK		CONNECTIONS TO BE MADE BY THE CUSTOMER (NOT SUPPLIED)
<u>Wh</u>	WHITE CABLE		
<u>Bl</u>	BLUE CABLE		
<u>Yg</u>	YELLOW-GREEN CABLE		
	CONNECTIONS SUPPLIED		

## WIRING DIAGRAMS

### SM04 - NE SERIES

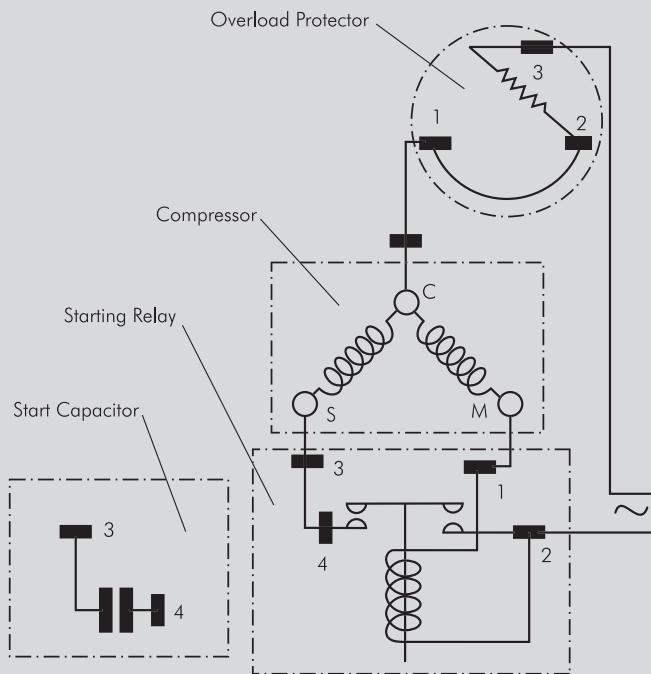


### SM05 - EMT / NE Series

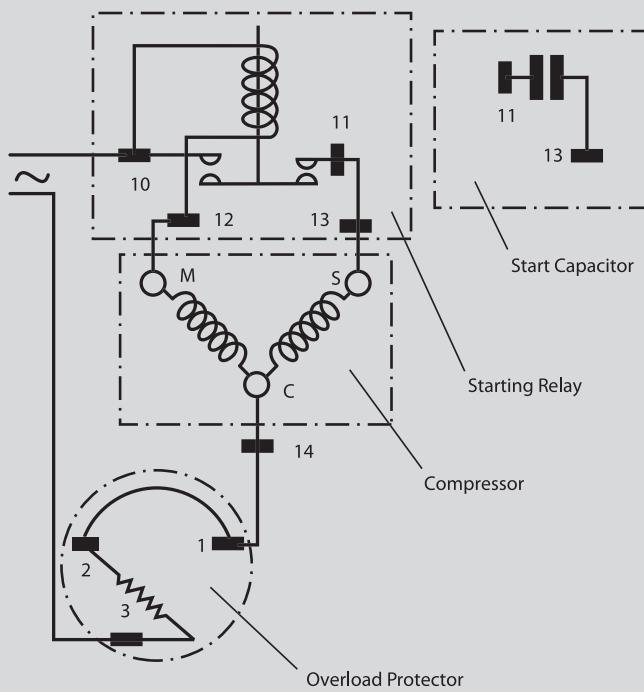


## WIRING DIAGRAMS

### SM07 - EM COMPRESSORS



### SM08 - F COMPRESSORS

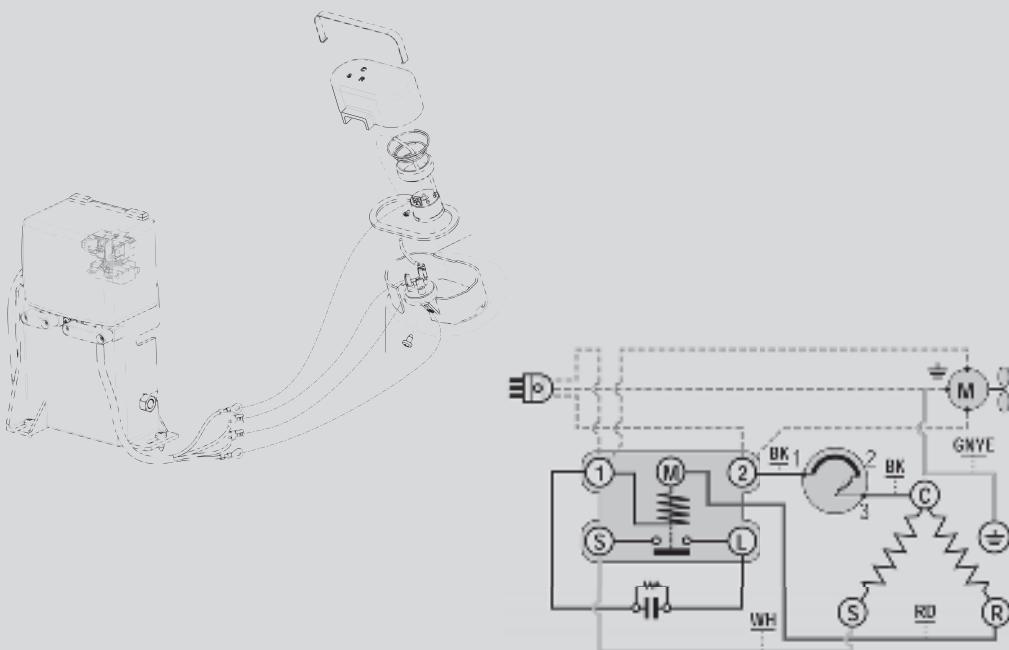


**embraco**

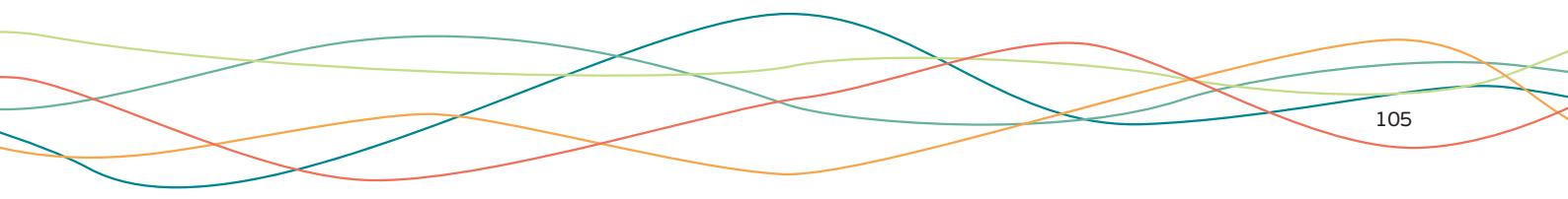
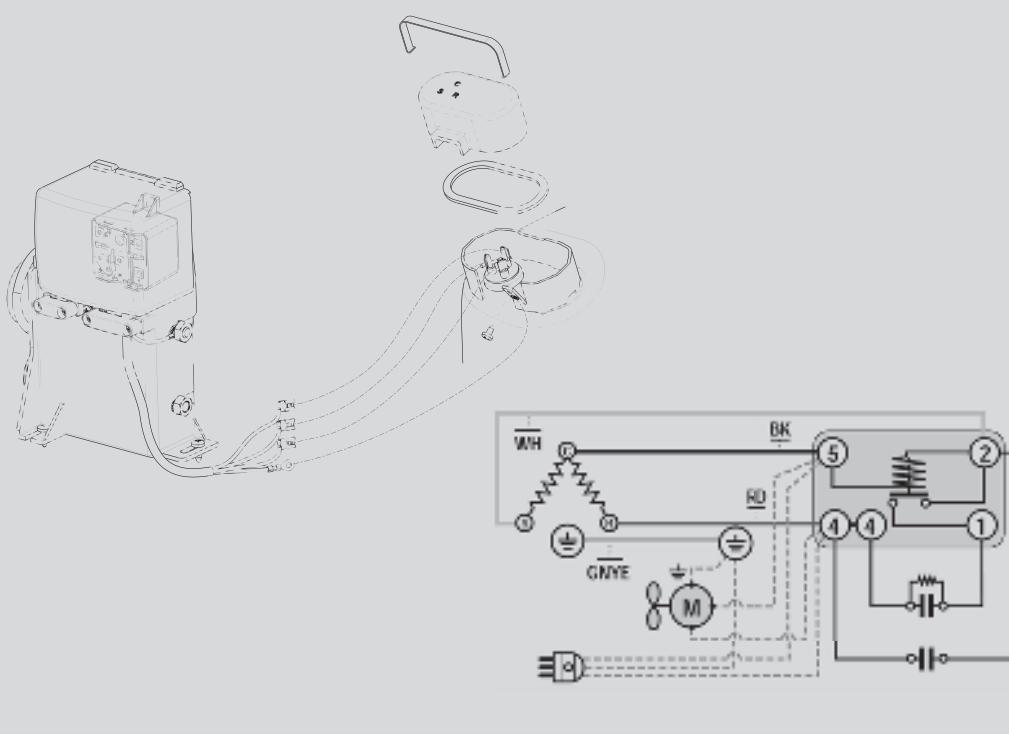
104

# WIRING DIAGRAMS

**SM014 - NJ SERIES CSIR BOX**

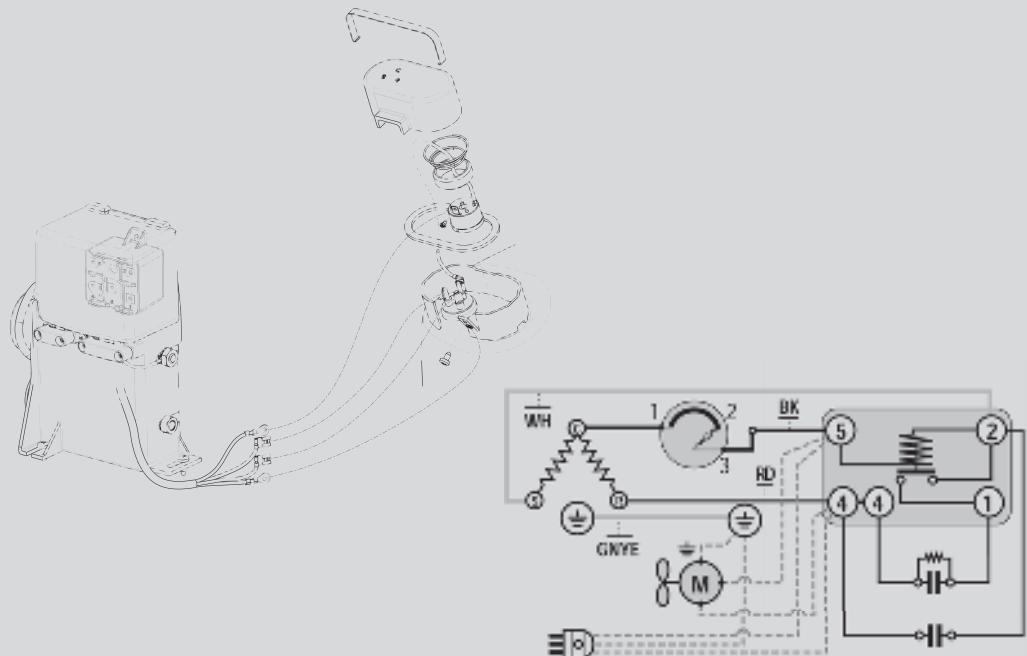


**SM16 - NJ SERIES CSR BOX (Internal Overload Protector)**

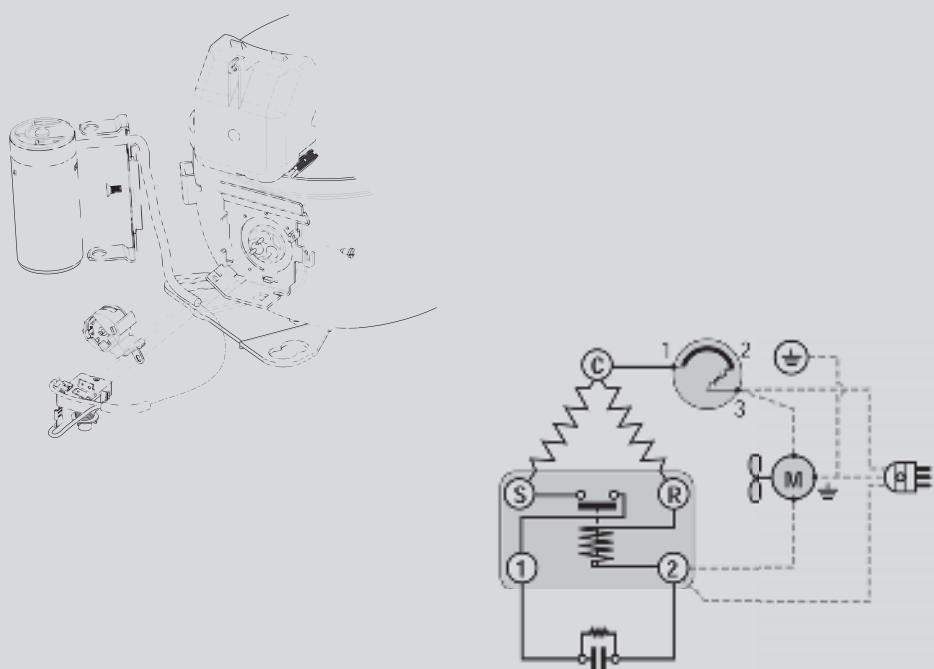


## WIRING DIAGRAMS

### SM017 - NJ SERIES CSR BOX (External Overload Protector)



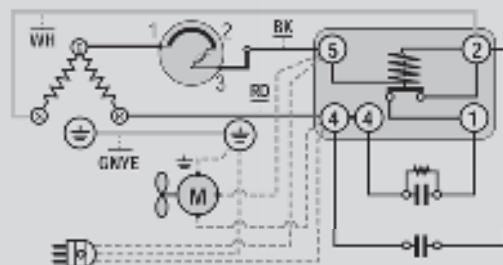
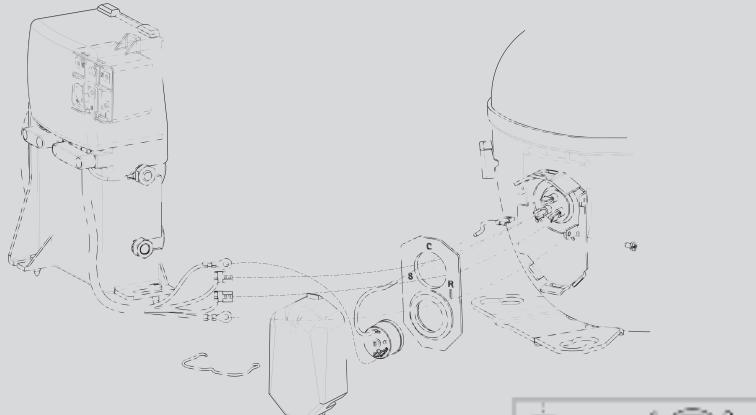
### SM020 - NT SERIES CSIR



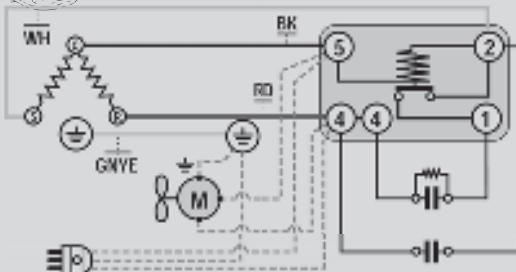
embraco

## WIRING DIAGRAMS

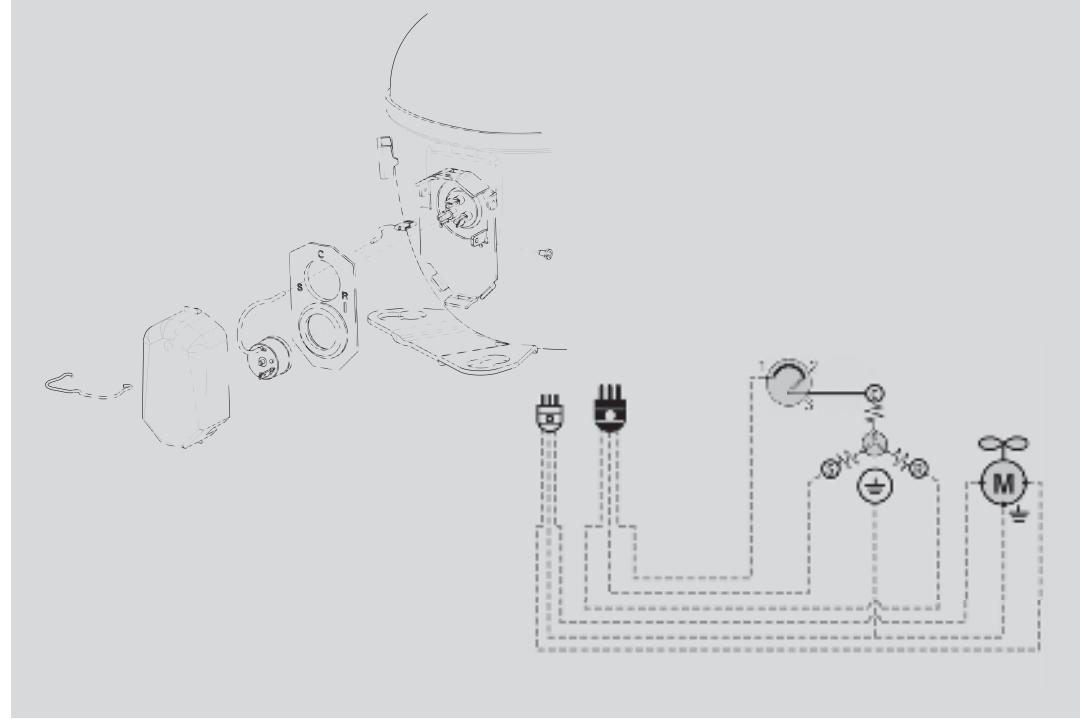
### SM21 - NT SERIES CSR BOX



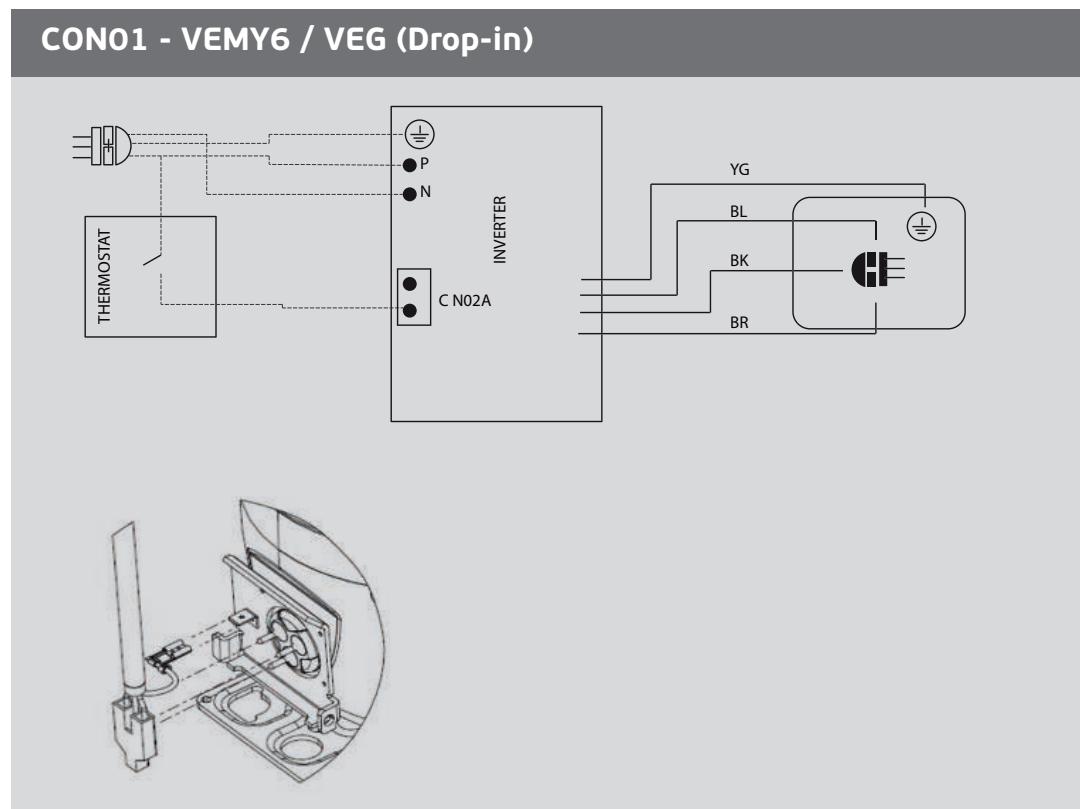
### SM26 - NT SERIES CSR BOX (Internal Overload Protector)



### SM27 - NT SERIES 3-PHASE (Internal + External Overload Protector)

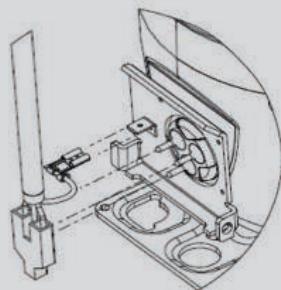
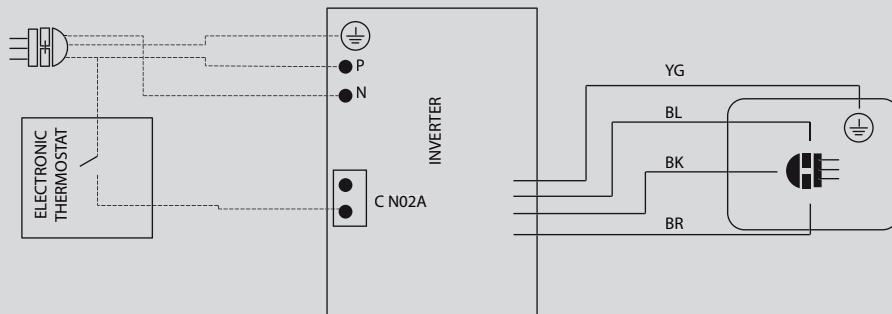


### CONO1 - VEMY6 / VEG (Drop-in)

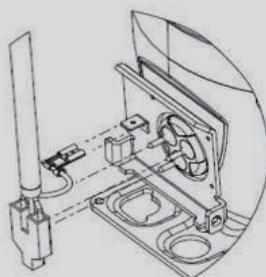
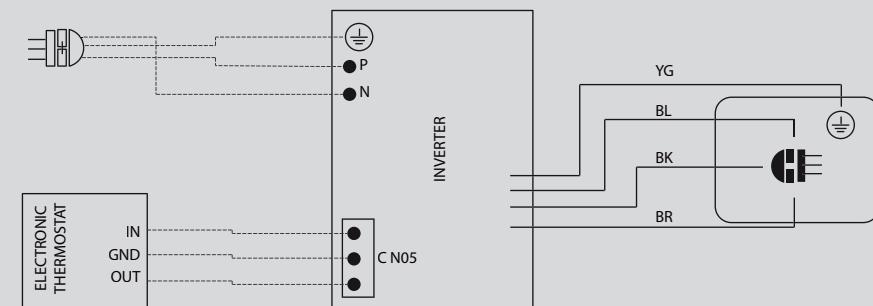


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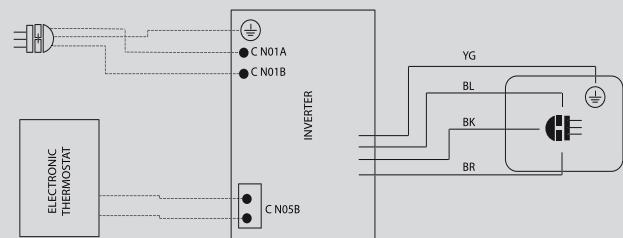
### CON02 - VEM / VEG (Frequency)



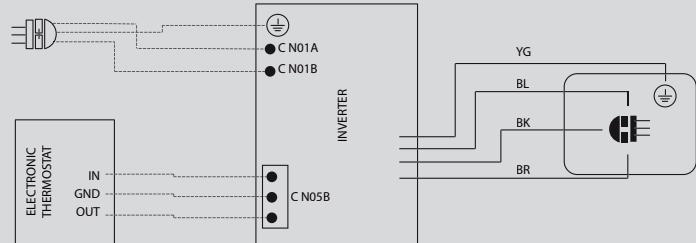
### CON03 - VEMY6 / VEG (Serial)



### CON04 - VEM (Frequency)



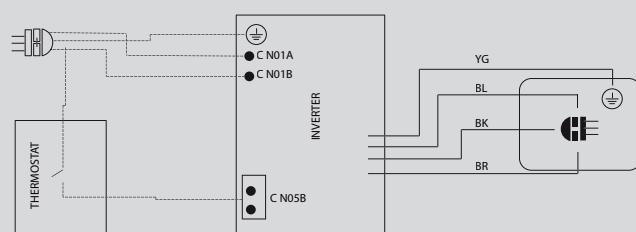
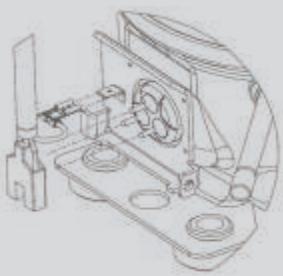
### CON05 - VEM (Serial)



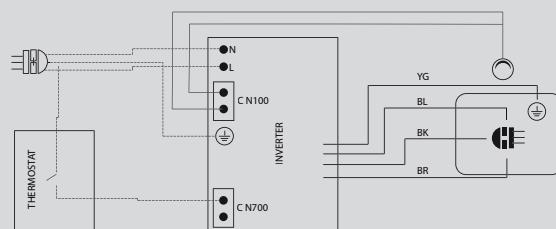
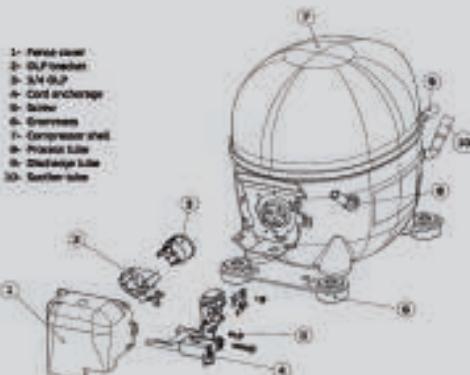
embraco

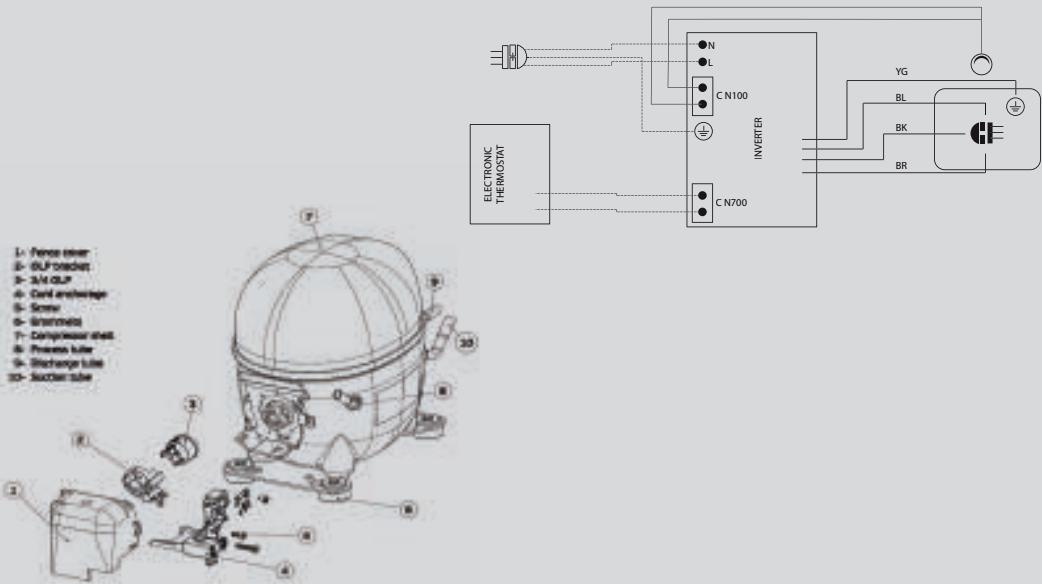
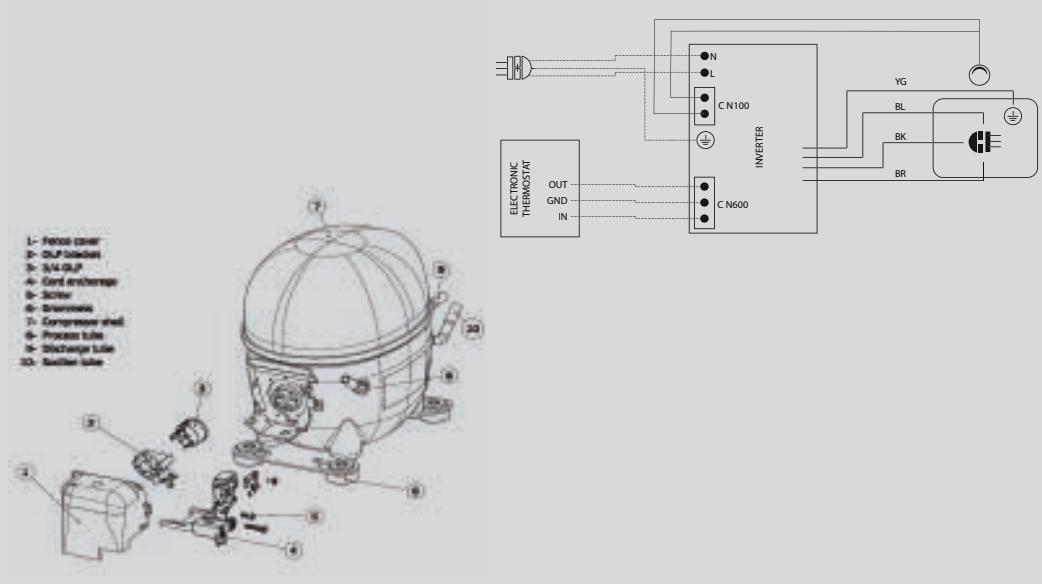
110

## CON06 - VEM (Drop-in)

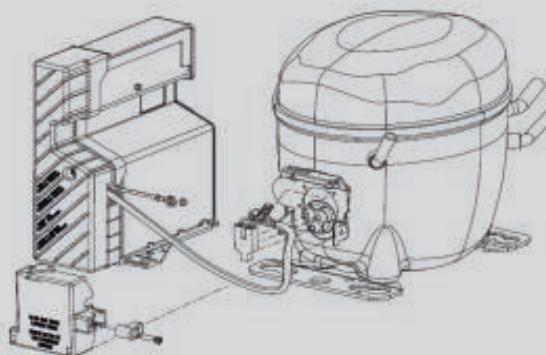
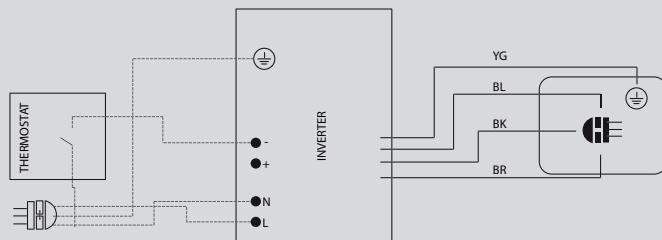


## CON07 - VNE (Drop-in)

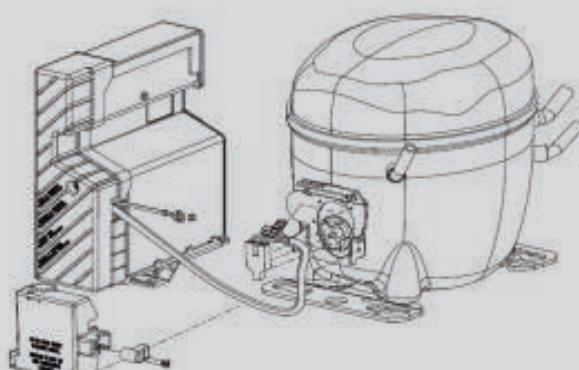
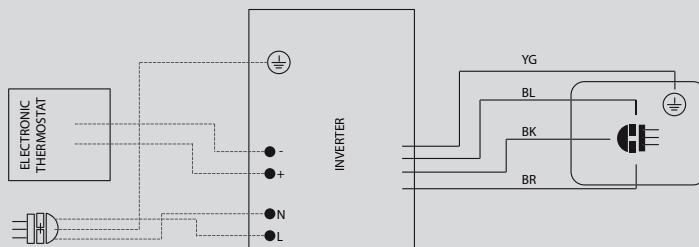


**CON08 - VNE (Frequency)****CON09 - VNE (Serial)****embraco**

### CON10 - VEG (Drop-in)



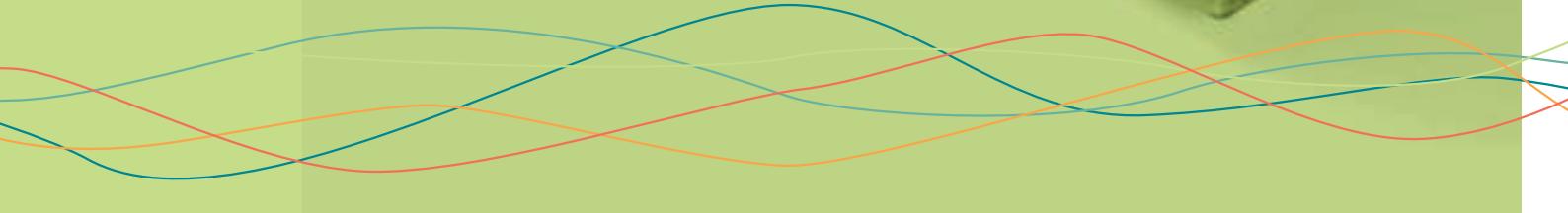
### CON11 - VEG (Frequency)



# 08

## FULLMOTION DRIVERS (INVERTERS)





## INTRODUCTION



The Embraco Fullmotion Inverter compressors are ideal for commercial applications where wide voltage range, fast pull down, optimized performance, temperature range control, lower power consumption and very low noise and vibration levels are required. This is possible thanks to the use of an electronic inverter capable of driving the compressor at different speeds and consequently, controlling its refrigeration capacity.

Embraco Fullmotion Inverter technology allows the compressor to operate at different speeds, adjusting itself according to demand. When comparing side by side with a conventional compressor, it can save up to 40% on the energy consumption in an application.

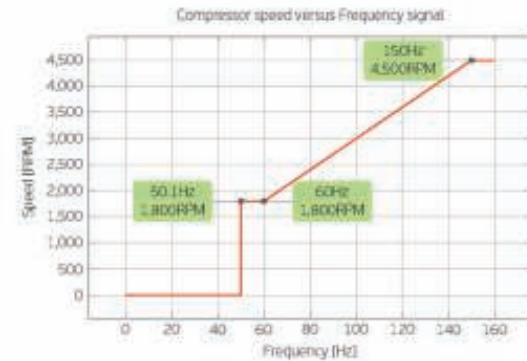
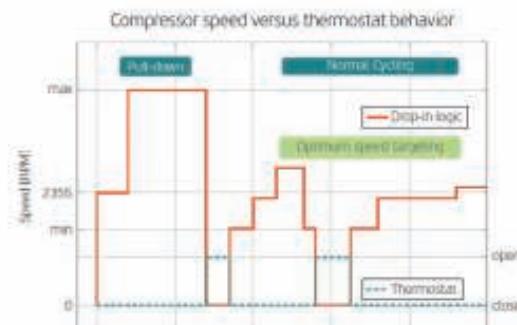
## CONTROL MODES

### DROP-IN CONTROL MODE

The drop-in mode is a control mode where a simple on-off signal is used to drive the compressor, thus allowing it to be applied in any refrigeration system without the need of a control signal from an electronic controller. The compressor speed will be driven automatically by the inverter, in accordance to the thermal load variation.

### FREQUENCY CONTROL MODE

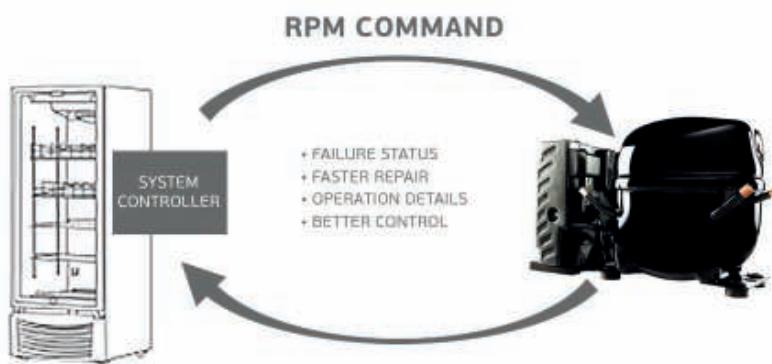
In this mode of operation the compressor speed is controlled through a frequency signal sent to the inverter, usually provided by an electronic controller. The frequency signal is a digital square wave varying typically from 53 to 150 Hz. The compressor will then be driven by the frequency signal sent to the inverter.



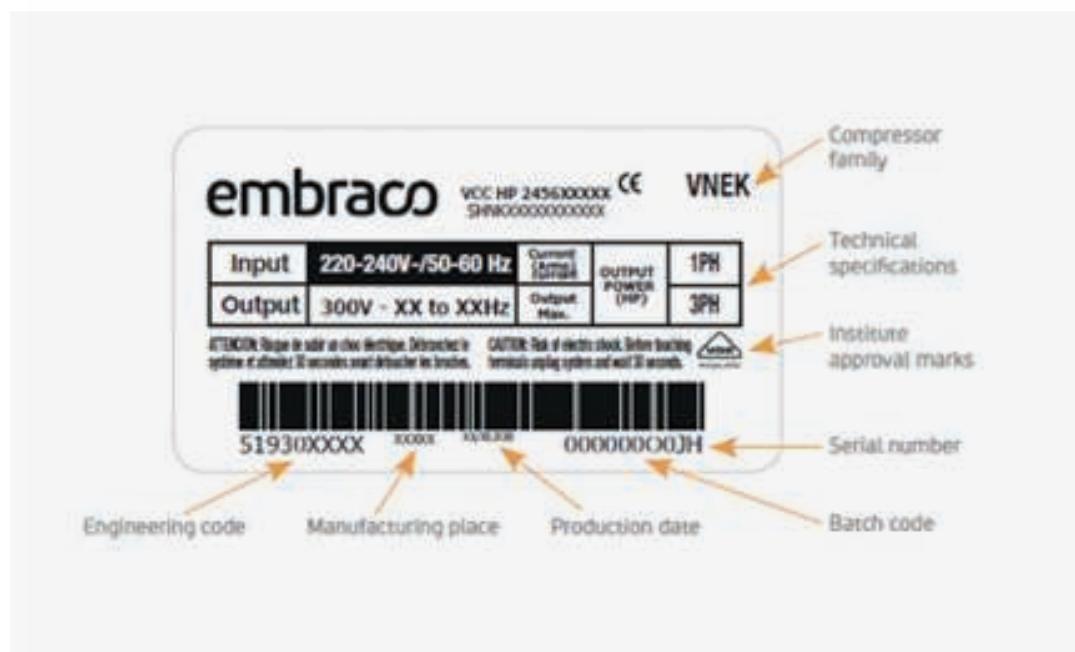
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## SERIAL CONTROL MODE

This option is used when an electronic controller controls the Inverter using a serial communication protocol. This control mode establishes a 2-way communication between the inverter and the system controller. Based on Embraco protocol it is possible to define the compressor speed and check other parameters, such as operating RPM and failure status. These responses from the inverter can be used by the controller in order to help failure diagnostics and repair in less time.



## LABEL



	Compressor	Family	Voltage <sup>1</sup> Range (V)	Agency Approvals	Control Mode	Max Current Draw (A)
<b>R134a</b>	VEMY3H / VEMY4H / VEMY5H	VCC3	175-264	VDE	Frequency	2,1
	VEMY3H / VEMY4H / VEMY5H	VCC3	60-140	UL/VDE	Frequency	3,4
	VEMY3H / VEMY4H / VEMY5H	VCC3	175-264	VDE	Serial	2,1
	VEMY3H / VEMY4H / VEMY5H	VCC3	60-140	UL/VDE	Drop-in	3,4
	VEMY3H / VEMY4H / VEMY5H	VCC3	175-264	VDE	Drop-in	2,1
	VEMY6HH	CO*	60-140	UL/VDE	Drop-in	4,7
	VEMY6HH	CO*	175-264	VDE	Drop-in	2,1
	VEMY6HH	CO*	60-140	UL/VDE	Frequency	4,7
	VEMY6HH	CO*	175-264	VDE	Frequency	2,1
	VEMY6HH	CO*	60-140	UL/VDE	Serial	4,7
	VEMY6HH	CO*	175-264	VDE	Serial	2,1
	VEGT8HB	CO*	60-140	UL/VDE	Drop-in	4,7
	VEGT8HB	CO*	175-264	VDE	Drop-in	2,1
	VEGT8HB	CO*	60-140	UL/VDE	Frequency	4,7
	VEGT8HB	CO*	175-264	VDE	Frequency	2,1
	VEGT8HB	CO*	60-140	UL/VDE	Serial	4,7
	VEGT8HB	CO*	175-264	VDE	Serial	2,1
	VEGT11HB	CF05B01	70-140	UL	Drop-in	8
	VEGT11HB	CF05B01	70-140	UL	Frequency	8
<b>R290</b>	VEGT8U	CF05B01	70-140	UL	Drop-in	8
	VEGT8U	CF05B01	70-140	UL	Frequency	8
	VNEK207U	HP*	150-264	VDE	Drop-in	5
	VNEK207U	HP*	150-264	VDE	Frequency	5
	VNEK207U	HP*	150-264	VDE	Serial	5
	VNEK213U / VNEU213U	HP*	150-264	VDE	Drop-in	5
	VNEK213U / VNEU213U	HP*	150-264	VDE	Frequency	5
	VNEK213U / VNEU213U	HP*	150-264	VDE	Serial	5
	VNEU217U	HP*	150-264	VDE	Drop-in	5
	VNEU217U	HP*	150-264	VDE	Frequency	5
	VNEU217U	HP*	150-264	VDE	Serial	5
<b>R404A</b>	VNEK212GK	HP*	150-264	VDE	Drop-in	5
	VNEK212GK	HP*	150-264	VDE	Frequency	5
	VNEK212GK	HP*	150-264	VDE	Serial	5

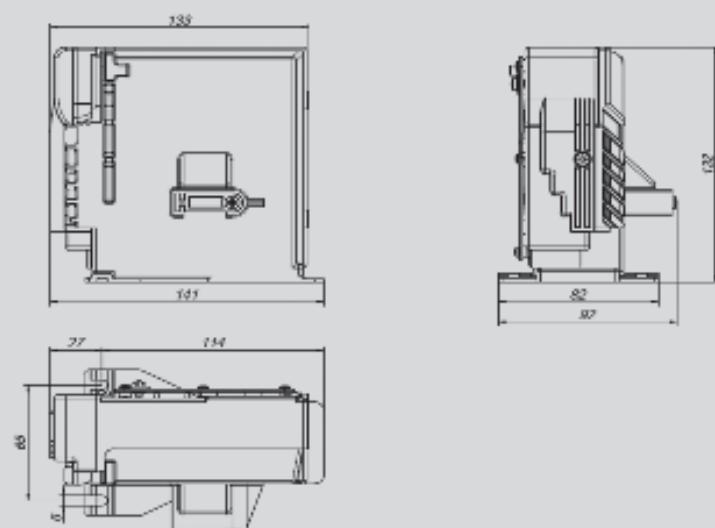
\*Models still under old nomenclature

\*\*Under demand

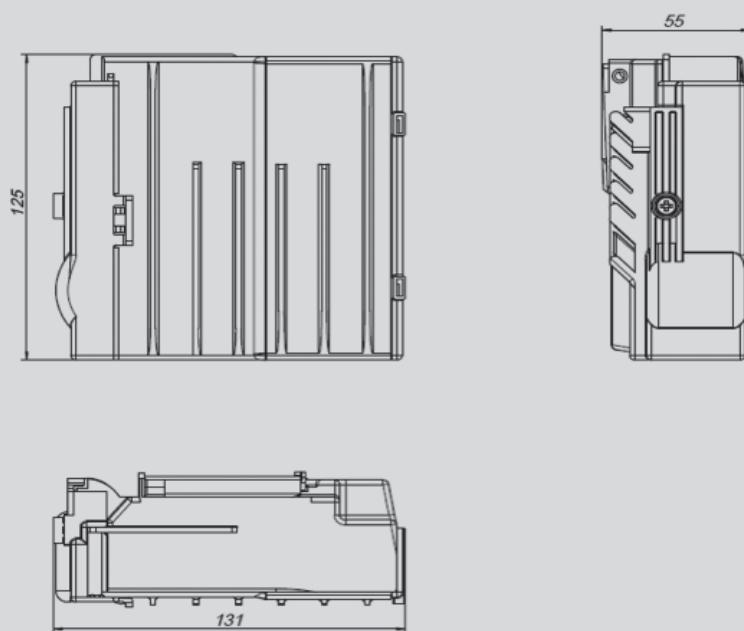
<sup>1</sup>All Fullmotion compressors are dual frequency always (50-60Hz)**embraco**

	Maximum Input Power (W)	RPM Range	PFC	Enclosure Version	Connection configuration	External Drawing Code	Inverter PN
	200	1600-4500	No	Attached	CON04	INV2	519306001
	200	1600-4500	No	Attached	CON04	INV2	519306008
	200	1600-4500	No	Attached	CON05	INV2	519306250
	200	1600-4500	No	Attached	CON06	INV2	519306171
	200	1600-4500	No	Attached	CON06	INV2	519306170
	320	2355-4500	No	Stand Alone	CON01	INV1	519304016
	320	1600-4500	No	Stand Alone	CON01	INV1	519304017
	320	1600-4500	No	Stand Alone	CON02	INV1	**
	320	1600-4500	No	Stand Alone	CON02	INV1	**
	320	1600-4500	No	Stand Alone	CON03	INV1	**
	320	1600-4500	No	Stand Alone	CON03	INV1	519304037
	320	2400-4500	No	Stand Alone	CON01	INV1	519304024
	320	2400-4500	No	Stand Alone	CON01	INV1	519304025
	320	1600-4500	No	Stand Alone	CON02	INV1	**
	320	1600-4500	No	Stand Alone	CON02	INV1	**
	320	1600-4500	No	Stand Alone	CON03	INV1	**
	320	1600-4500	No	Stand Alone	CON03	INV1	**
	540	1800-4500	No	Stand Alone	CON10	INV4	519302402
	540	1800-4500	No	Stand Alone	CON11	INV4	519302400
	540	1800-4500	No	Stand Alone	CON10	INV4	519302401
	540	1800-4500	No	Stand Alone	CON11	INV4	519302403
	500	2000-4500	Yes	Stand Alone	CON07	INV3	519302005
	500	2000-4500	Yes	Stand Alone	CON08	INV3	519302009
	500	2000-4500	Yes	Stand Alone	CON09	INV3	519302013
	800	2000-4500	Yes	Stand Alone	CON07	INV3	519302007
	800	2000-4500	Yes	Stand Alone	CON08	INV3	519302011
	800	2000-4500	Yes	Stand Alone	CON09	INV3	519302015
	1000	2400-4500	Yes	Stand Alone	CON07	INV3	519302008
	1000	2000-4500	Yes	Stand Alone	CON08	INV3	519302012
	1000	2000-4500	Yes	Stand Alone	CON09	INV3	519302016
	1000	2400-4500	Yes	Stand Alone	CON07	INV3	519302008
	1000	2000-4500	Yes	Stand Alone	CON08	INV3	519302012
	1000	2000-4500	Yes	Stand Alone	CON09	INV3	519302016

### INV1



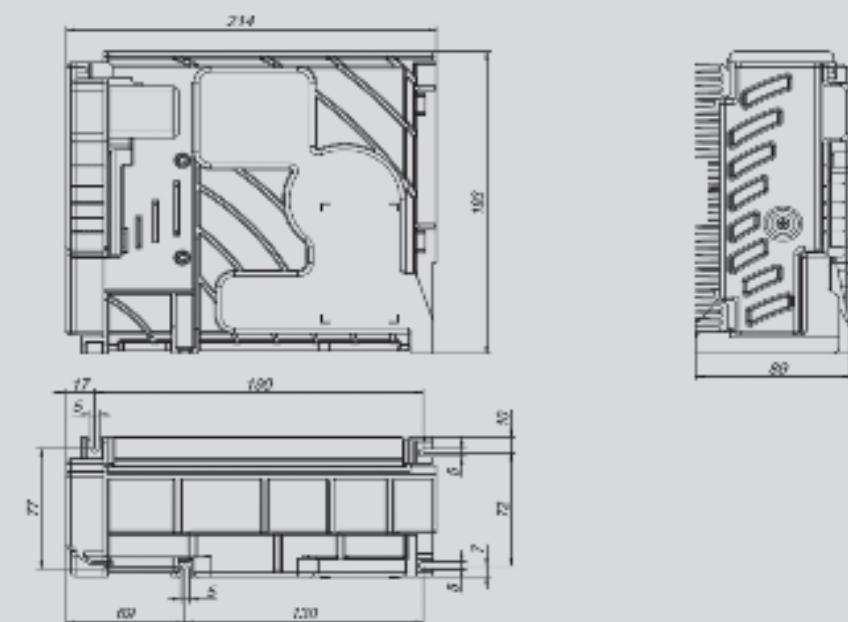
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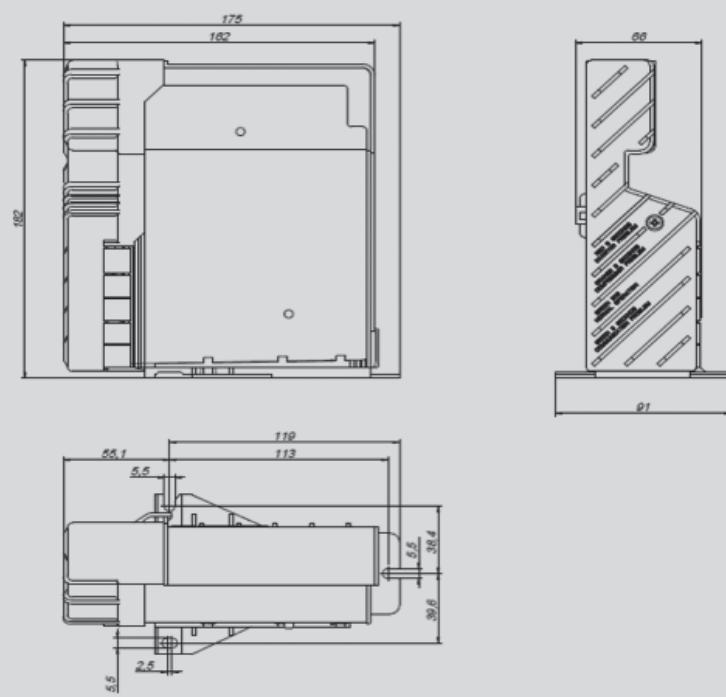
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### INV3



### INV4



# LOCATIONS



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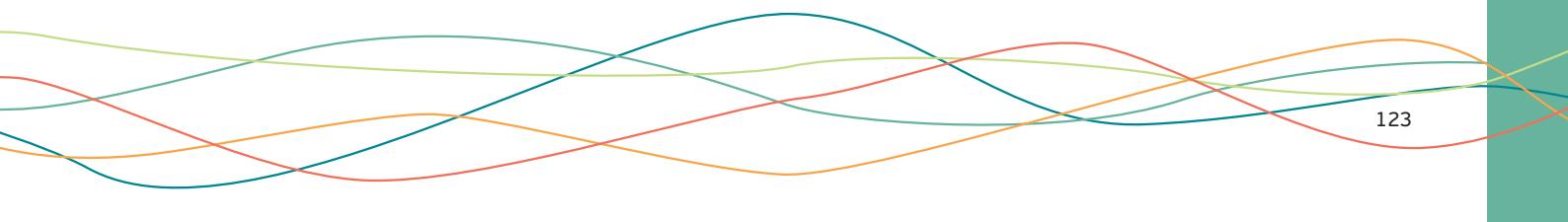
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