Product information Marine
BlueCool VX-Series

09-2024 - New variable speed chiller series – First release (36-72 kBTU/h)

Key features

- Energy Efficient
  - Extremely efficient with EER up to 5.6
  - 20% less power consumption than comparable units
- Eco-Friendly
  - Uses R32 refrigerant (GWP 675)
- Corrosion-Resistant
  - Titanium condenser for durability
- Compact Design
  - Up to 55% more compact than comparable units
- Variable Speed
  - Efficient cooling with modulated cooling capacity
  - 36, 48, 60 and 72 kBTU/h 230V/1-phase (first release)

Key features

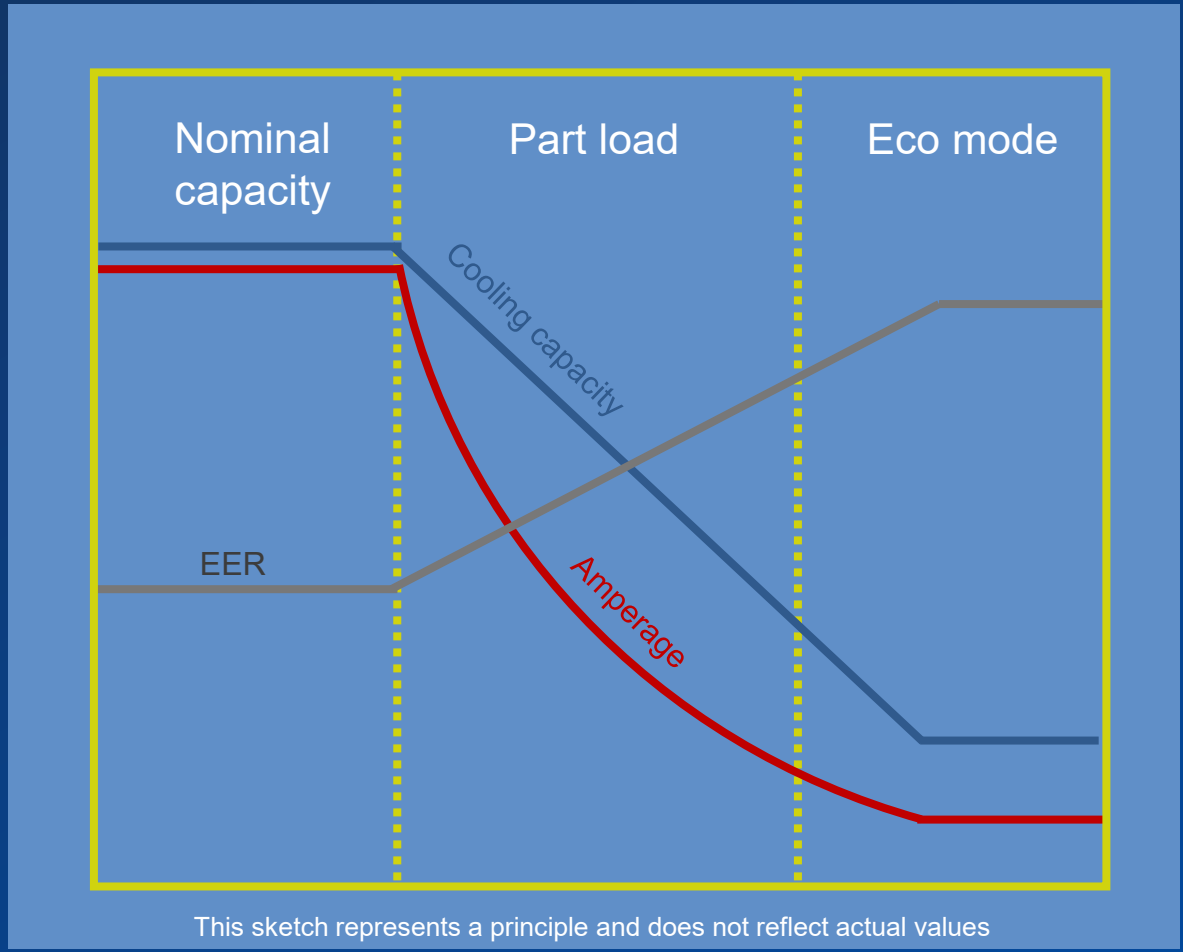
- Modular chiller system
  - Redundant units to create individual systems
  - Up to 6 units in one system

- Intelligent Logic Control System
  - Integrated electronics with network capabilities
  - Each unit with MyTouch system controls
  - Water Flow Monitoring of sea and chilled water

- Optimized ECO modes
  - Improved energy efficiency with 3 ECO modes
  - Reduces amperage draw by up to 68%

Energy efficiency ratio up to 5,6

- Variable-speed compressors rarely shut off as they provide a constant flow of chilled water to maintain a consistent temperature. Mostly operating in part load.
- EER up to 5,6 in part load allow the unit to operate in highest efficiency possible.
- In part-load conditions, the amperage decreases faster than cooling performance, resulting in improved efficiency. Additionally, the EER progressively increases until the compressor reaches the lowest modulation point.



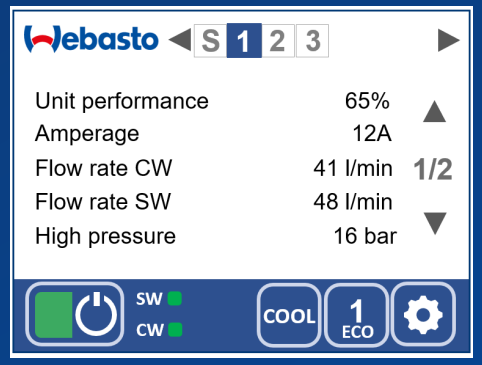
This sketch represents a principle and does not reflect actual values

Eco-Friendly refrigerant

- Environmentally Friendly
  - R32 has a low Global Warming Potential (GWP) of 675, no ozone depletion, making it better for the environment compared to older refrigerants like R22 and R410A.
- Recyclable and Reusable
  - Being a single-component refrigerant, R32 is easier to reuse and recycle.
- Safety
  - R32 is non-toxic, difficult to ignite, does not explode.
- Legislation
  - Local Codes and Guidelines and new regulations encourage the usage of low-GWP refrigerants.
- Refrigerant ban
  - Countries start to ban high-GWP refrigerants e.g. North America.

Water flow monitoring

- Each module monitors sea and chilled water flow
- Flow calculation based on system parameter evaluation
- Hydraulic calibration during commissioning
- Flow status is indicated in each module display with traffic light
- Flow rate is displayed in l/min



Outstanding corrosion & erosion resistance

- Titanium condenser for maximum durability
- Capsuled housing
- Supporting structures and condensate tray in stainless steel
- Compressor and condenser coated
- Salt spray tested
- Robust metal piping of all hydraulic connections

Ultra-compact, space-saving design

- VX36 M
  - 45% more compact than V50 M
  - 37% more compact than C32T/C40T*
- VX48 M
  - 30% more compact than V50 M**
- VX60 M
  - 55% more compact than V64 T+
- VX72 M
  - 40% more compact than V77 T++

VX36 M

VX48 M

VX60 M

VX72 M

V50 M

V64/77 T


C40 T

Including electronic box. Comparison chiller only without external electronic box:
* 26% more compact than C32T/C40T, 8% more compact than V50 M
** without external electronic box: 18% larger than V50 M
+ without external electronic box: 39% more compact
++ without external electronic box: 20% more compact

Variable Speed

- Efficient cooling with modulated capacity
- Variable speed rotary compressor
- 20% less power consumption than comparable units
- In partial load, the cooling capacity can decrease to 9 - 14%* of the nominal cooling capacity
- 3 ECO modes for optimized energy saving
  - down to 32% of nominal power consumption

*Depending on model

Wide range

- 36, 48, 60 and 72 kBTU/h 230V/1-phase (first release)
- 72 kBTU/h 208V/3phase and 120 kBTU/h* 230V/1phase will follow 4.Q 2024

VX36 M

VX48 M

VX60 M

VX72 M

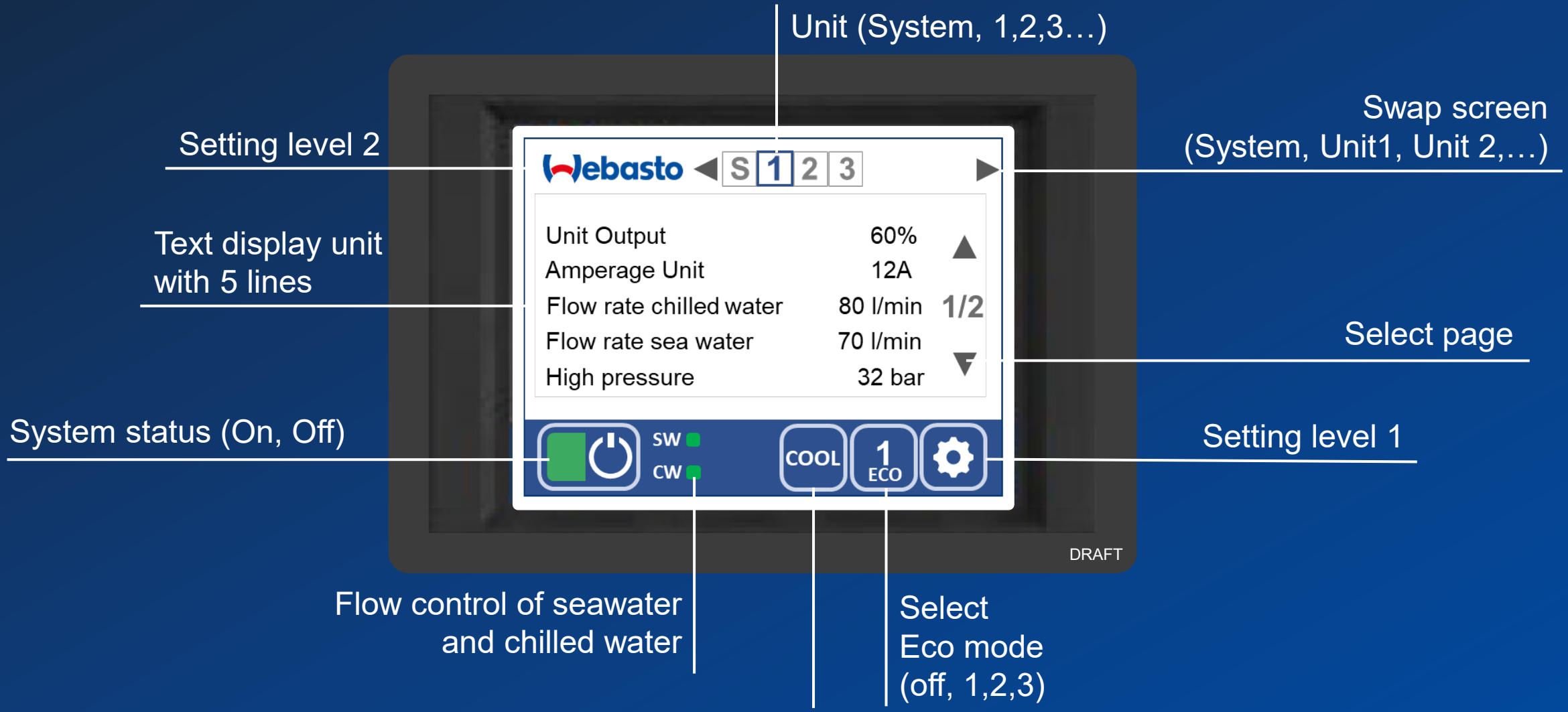
*VX120 M will operate with R410A

Integrated electronics

- MyTouch as System Controls integrated
- New Information Screens
  - displaying relevant data, alerts, or system status
- Flow Control of Sea and Chilled water integrated
- Direct access to Operation and ECO modes

Sample

BlueCool VX system controls



VX-Series System Bus

- Simple network cable immediately creates overall system control
- Automatic load balancing of all units
- Modulation range between 9% and 100%
- Simplified setup
- USB Diagnosis connector on the outside

Technical data 1/2

	VX 36M		VX 48M		VX 60M		VX 72M 1ph		
Cooling capacity min [kBTU/h] [kW]	3,4	1,0	6,9	2,0	5,9	1,7	7,1	2,1	
Cooling capacity nominal* [kBTU/h] [kW]	36	10,6	48	14,1	60	17,6	72	21,1	
Heating capacity min [kBTU/h] [kW]	37,5	11,0	51,2	15,0	54,6	16,0	68,2	20,0	
Heating capacity nominal [kBTU/h] [kW]	44,4	13,0	58,0	17,0	63,1	18,5	78,5	23,0	NEW
Voltage / Phase [V/ph]	230 1-Ph								
Frequency++ [Hz]	50 - 60								
Current draw Cooling** [A]	3-13,5		3-16		4-18,7		4-23		
Current draw Cooling ECO mode 1 [A]	3-10		3-11		4-13,5		4-17,8		
Current draw Cooling ECO mode 2 [A]	3-7		3-8		4-10,9		4-11,5		
Current draw Cooling ECO mode 3 [A]	3-4,3		3-5,2		4-7		4-7,8		NEW
Current draw Start [A]	3		3		4		4		
Current draw Cooling max peak [A]	15		17		21		24		
Power consumption cooling [kW]	3,2		3,5		4,5		6		
Current draw Heating [A]	13,5		16		18,7		23		
Power consumption heating [kW]	3,1		3,7		4,3		5,3		
Chilled water connection [mm] [Inch]	IG 25 BSPP Female 1"								
Minimum flow rate chilled water [l/min]	33		40		50		60		

* BTU / h are based on 7 °C / 12 °C chilled water temperature and 30 °C / 35 °C sea water temperature.
** Amperage values for core unit at nominal conditions at 50 Hz.

Technical data 2/2

	VX 36M		VX 48M		VX 60M		VX 72M 1ph		
Sea water connection [mm] [Inch]	IG 25 BSPP Female 1"								
Minimum flow rate sea water [l/min]	40		47		55		65		
Ambient temperature limit [°C] min [°C] max	0	55	0	55	0	55	0	55	
Ambient temperature limit with reduced cooling capacity [°C] min [°C] max	0	60	0	60	0	60	0	60	
Min. sea water temperature heating [°C]	5								NEW
Max. sea water temperature cooling [°C]	40 (45*)								NEW
Total Dimensions (H/W/L) [mm]	533 x 352 x 378		534 x 398 x 429		593 x 399 x 479		683 x 398 x 546		
H [mm] [inch]	533	21,0	534	21,0	593	23,3	683	26,9	
H1 with Silent Block [mm] [inch]	571	22,5	572	22,5	635	25,0	725	28,5	
W [mm] [inch]	352	13,9	398	15,7	399	15,7	398	15,7	
L [mm] [inch]	378	14,9	429	16,9	479	18,9	546	21,5	
L2 hydraulic connections [mm] [inch]	468	18,4	508	20,0	515	20,3	615	24,2	
Min./Rec. distances right side [mm]	80		80		80		80		
Min./Rec. distances left side [mm]	150		80		80		80		
Min./Rec. distances front [mm]	100		100		100		100		
Min./Rec. distances back [mm]	100		100		100		100		
Min./Rec. distances top [mm]	**250**		**250**		**250**		**250**		NEW
Total weight [kg]	40		50		60		72		
Location of VX System bus connector	Back side		Left side						NEW

*with reduced cooling capacity

Item numbers of standard components

VX chiller unit	
Item number	Item description
2510530A	VX 36 M-230V-REV-R32
2510531A	VX48 M-230V-REV-R32
2510532A	VX60 M-230V-REV-R32
2510533A	VX72 M-230V-REV-R32

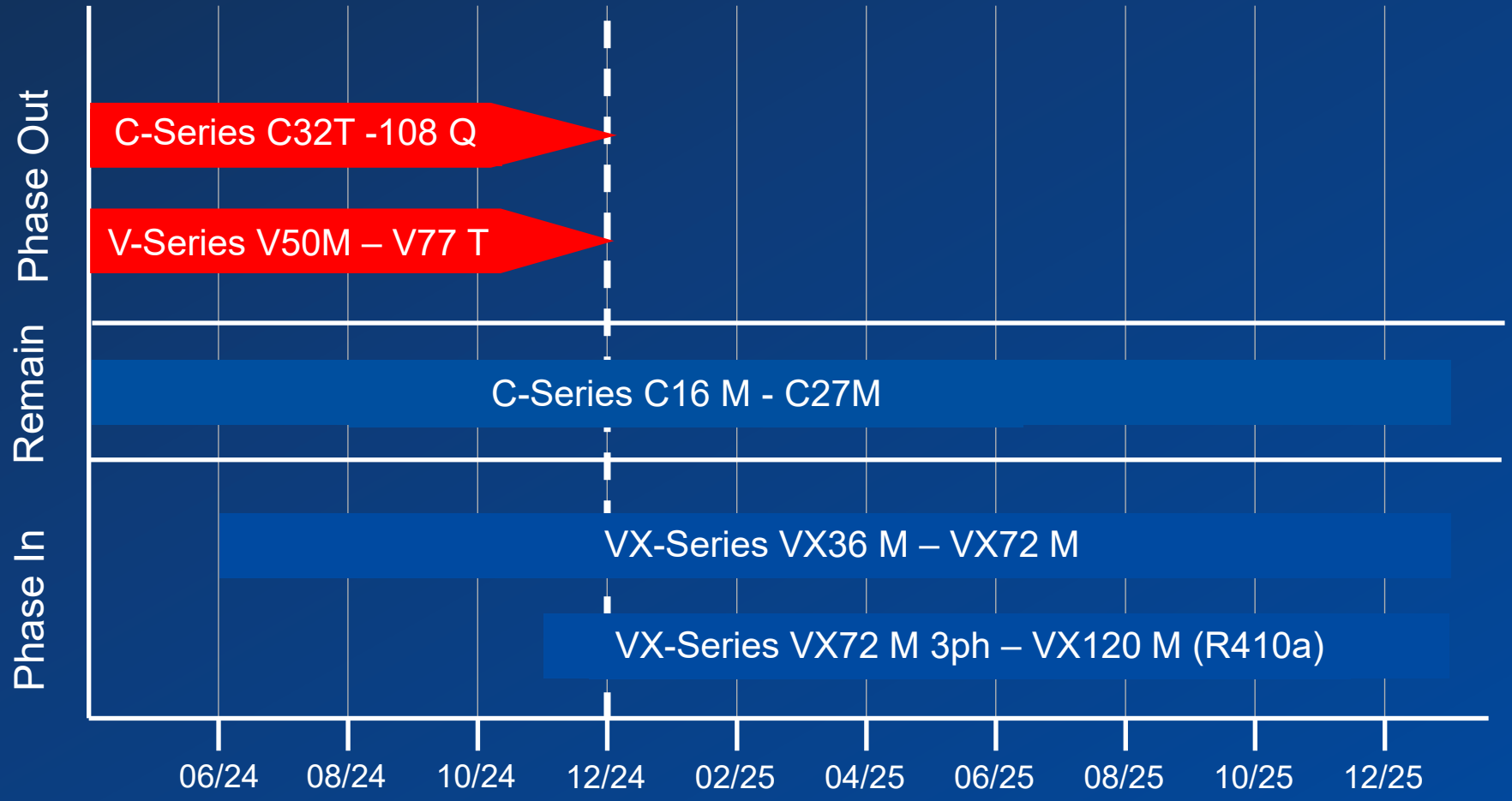
Pump Control Box	
Item number	Item description
2510581A	V-PRO VX Pump Control Box

Silent Block	
Item number	Item description
2511108A	Silent Block Kit VX36M VX48M
2511109A	Silent Block Kit VX60M VX72M
2511110A	Silent Block Kit VX120 M

Phase In – Phase Out

VX-Series replacing V-Series and partly C-Series

- C-Series Twin – Quattro
  - phased out by end of 2024
- V-Series all units
  - phased out by end of 2024
- C-Series Mono
  - remain in portfolio until further notice



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Feel the Drive