



TRANE IS
INNOVATING
FOR YOU

▶▶ New Trane
Excellent
Chillers

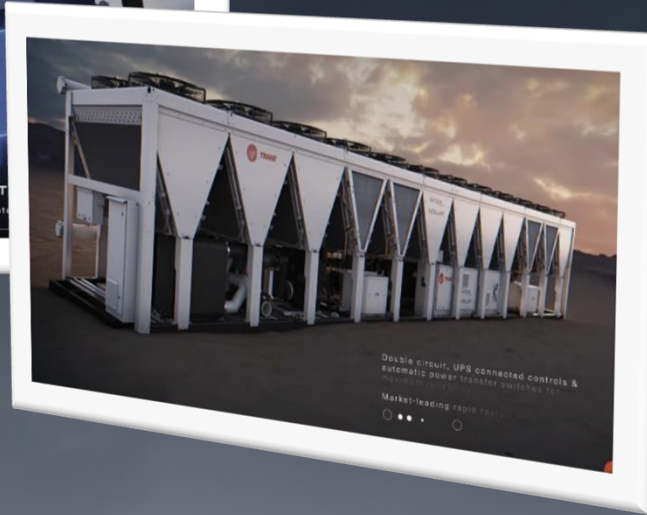
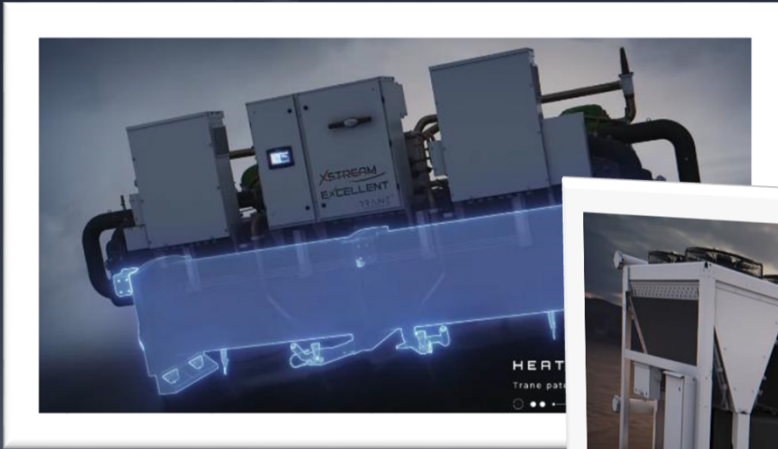


Teaser Video

General

QVAFview

GVWF





XSTREAM™ EXCELLENT

Water-Cooled Chiller

G
V
W
F

MARKET-LEADING
EFFICIENCIES
OUTSTANDING
PERFORMANCE
RELIABILITY
SUSTAINABILITY



ALL-AROUND



SINTESIS™ EXCELLENT

Air-Cooled Chiller

G
V
A
F



EXCELLENCE



GVAF

SintesistTM Excellent
Air-Cooled Chiller





G V A F O v e r v i e w



- Leading - Edge Technologies
- Market Leading Efficiencies
- Exceptional Capacity per Length Ratio
- Suitable for Toughest Climates



Special Design for Data Centers
Sintesis™ Excellent
Air-Cooled Chiller
New Leader of Air-Cooled Chillers



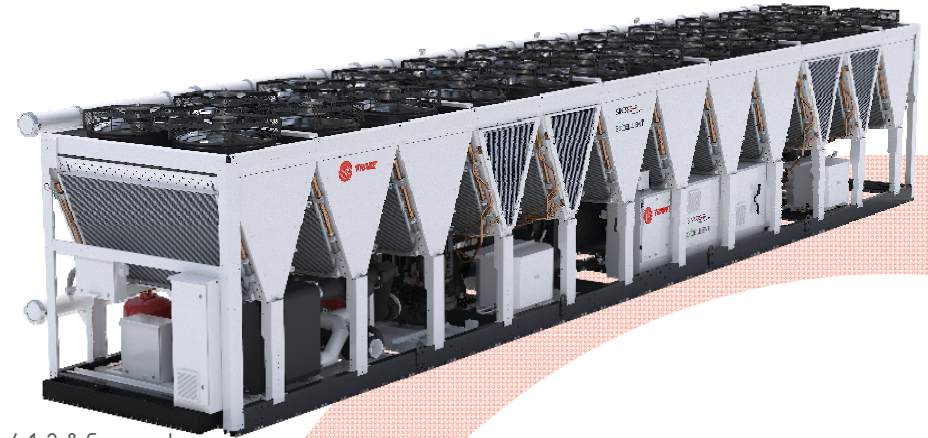
The new GVAF XSE / XSS series



- XSE - the highest seasonal efficiencies
- XSS - the shortest footprint per capacity
- Fully HFO optimized
 - Near zero GWP & zero ODP refrigerant
- 380 kW to 1.5 MW* cooling capacity
- Ideal fit to comfort cooling applications

R1234ze

*at 35°C ambient, 7/12°C water



Synthesis™ Excellent
Air-Cooled Chiller applications

The Future of Chiller Efficiency is
Made



Leading-Edge Technologies

Symbio
800™
Controller
with ID7
Touchscreen
1 or 2
R1234ze
refrigerant
circuits

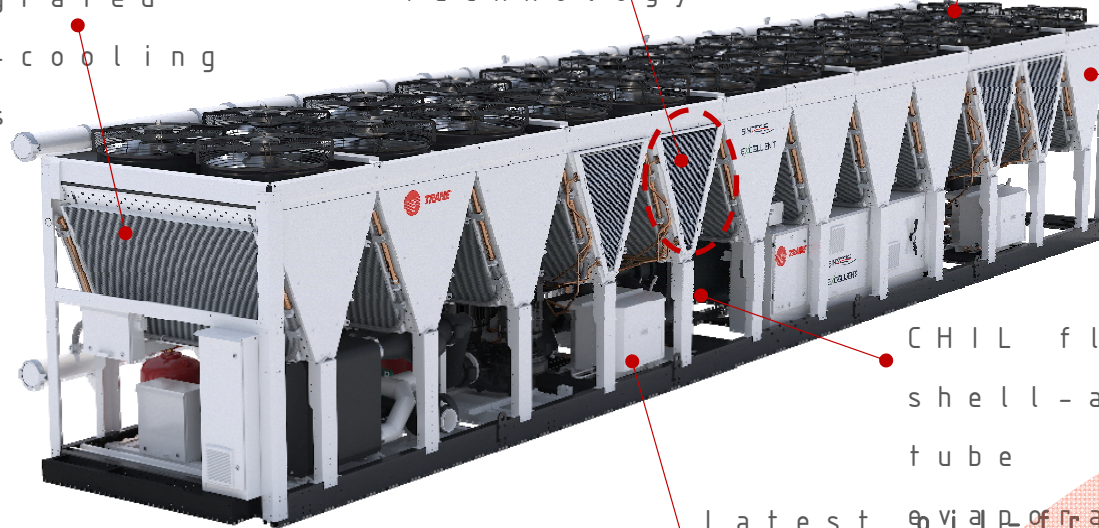


Optional
integrated
free-cooling
coils

Patent pending
Trane CORE
technology

EC
Fans

Microchanne
l Condenser
Coils



CHIL flooded
shell-and-
tube

Latest
magnetic bearing
centrifugal
compressors

Sintesis™ Excellent
Air-Cooled Chiller

Greater Than the Sum of its Parts



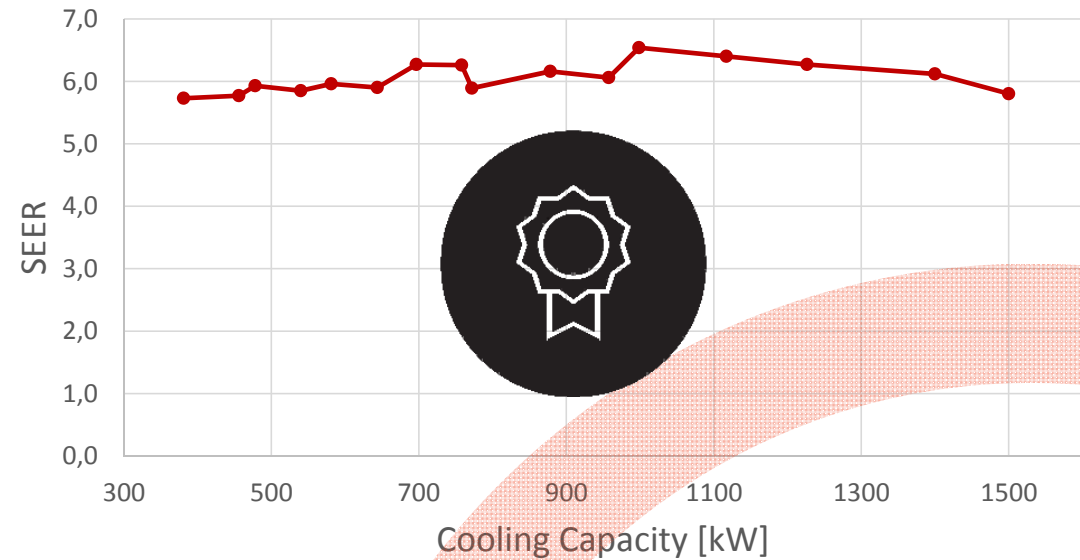
Market Leading

Efficiencies

- Top-Rated Eurovent Certified Seasonal SEER Efficiencies
- Very Good Full Load EER and Process Cooling SEPR-HT Efficiencies
- High Efficiency and Capacity Integrated Free Cooling Option



SEER > 6.5



Sintesis™ Excellent
Air-Cooled Chiller

The Lowest Total Cost of Ownership



Smallest footprint per

cooling capacity

o GVAF XSS is the space

saving chiller model

fitting into the

tightest rooftops

o Reduced condenser

surface area:

o Significant footprint

reduction but only a

minor reduction in

cooling capacity and

efficiency



* XSS size 140 compared to XPG size 140

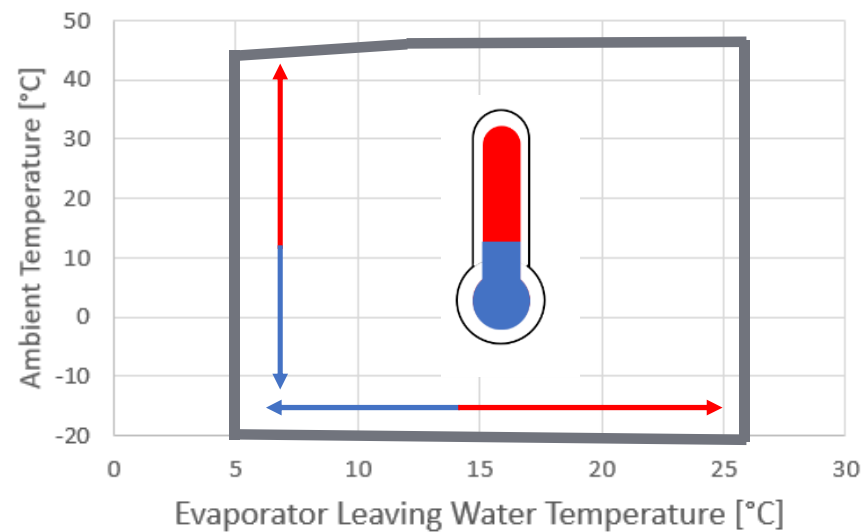
Sintesis™ Excellent
Air-Cooled Chiller

Great Performance at Extreme
Short Footprint



Suitable for Toughest Climates

- o The best maglev operating maps on the market
 - o Full load cooling capacity up to +46 °C ambient temperature
 - o Leaving water temperatures up to +26 °C
- o Strong operating map enables
 - o Enhanced application flexibility
 - o Improved reliability



Sintesis™ Excellent
Air-Cooled Chiller

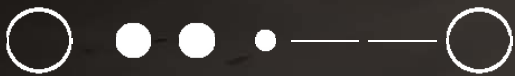
Reliable Operation at Any Climate



G V A F

Sintesis™ Excellent
Air-Cooled Chiller

Special Design For Data Centers



TRANE
TECHNOLOGIES



G V A F Data Center Special

Design

- o Meets the most demanding data center performance, reliability and application requirements
- o Preferred by many large global Data Center customers
- o Entire GVAF XSE / XSS series available as data center special design, cooling capacity up to 2150 kW*

*at 35°C ambient, 20/30°C water



Sintesis™ Excellent
Air-Cooled Chiller

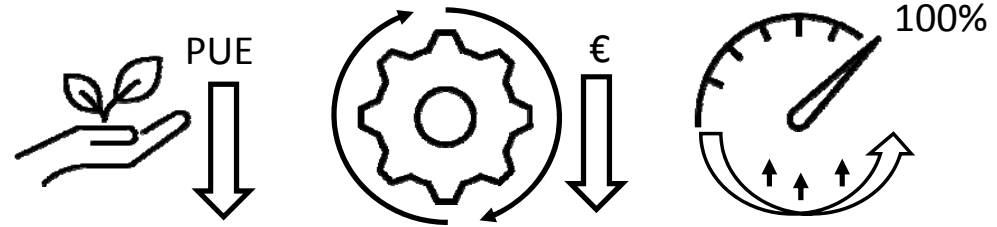
Designed for Mission Critical
Applications



Best performance and most reliable operation

o Top-rated certified seasonal efficiency chillers with integrated high-capacity free cooling:

- o Minimized PUE (Power Usage Effectiveness)
- o Lowest operating cost
- o Uncompromised chiller reliability for maximized data center uptime



Sintesis™ Excellent
Air-Cooled Chiller

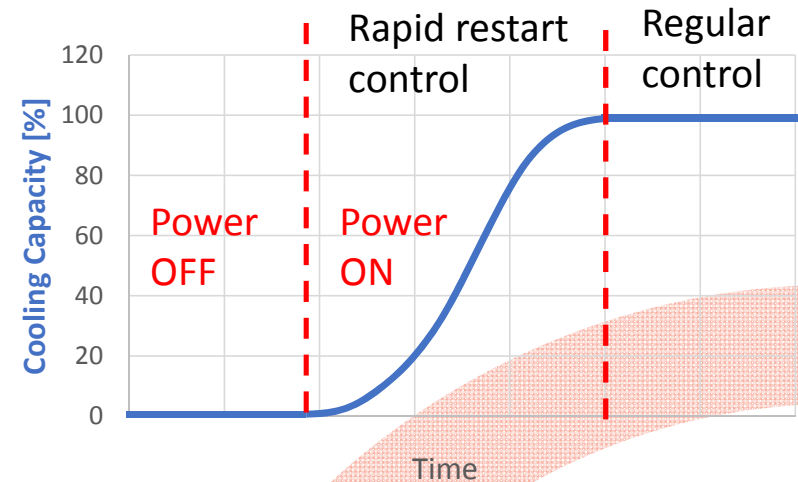
Lowest PUE & Maximum Uptime



Market Leading Rapid

Restart Time

- o Symbio 800™ - fastest and most reliable chiller controller on the market
- o Rapid restart package includes:
 - o Intelligent control algorithms - rapid restart control, power cap, previous operating mode
 - o Automatic Transfer Switch (ATS) for dual power



Connection
 Sintesis™ Excellent
 Air-Cooled Chiller
 Rapid Cooling Recovery after
 Power Outage
 Symbio 800™



GVWF

XStream™ Excellent
Water-Cooled Chiller





Overview of new GVWF XSE G

- HFO fully optimized
 - R1234ze 0 ODP / Near Zero GWP (<1)
 - R515B A1 classification
- Design:
 - All comfort & industrial process applications
 - Special design for Data Centers
- Efficiency:
 - Best Ranked (Eurovent) certified Performance
 - Best Certified Seasonal Efficiency up to 10.4 SEER



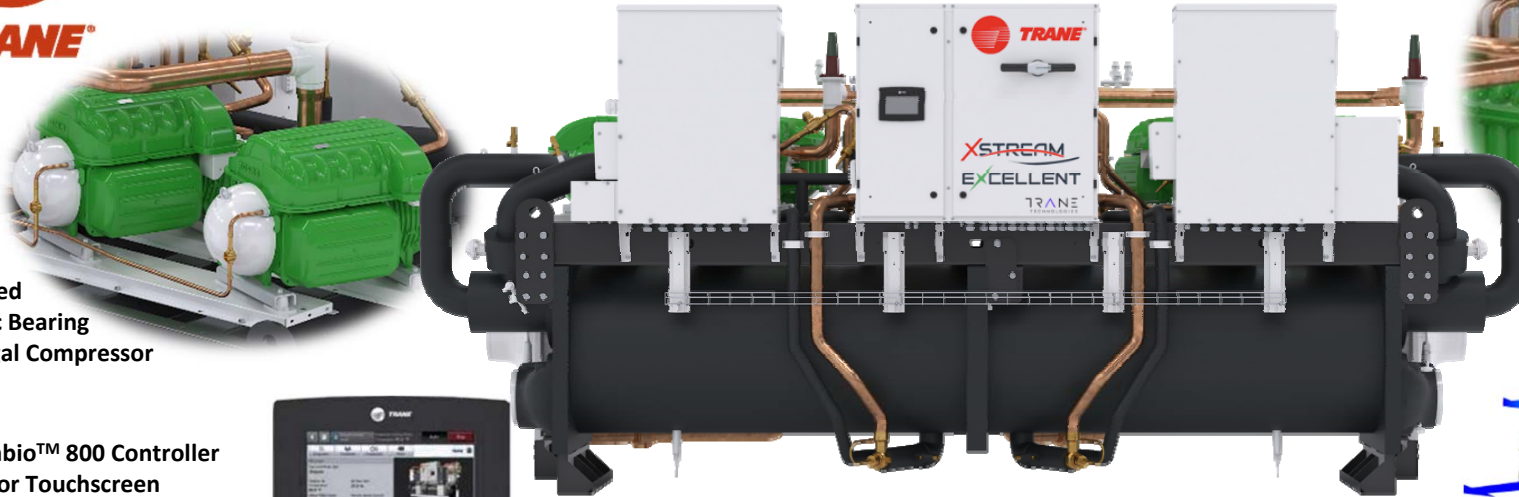
GVWF XSE G

○ Extended Operating map
○ XStream™ Water-Cooled Innovation Masterpiece
○ Legendary Trane Superior Reliability

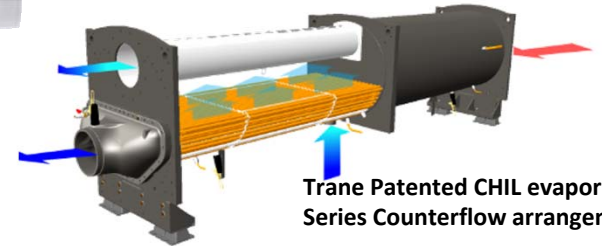


TRANE®

Only the best ...



Serial Economizer



Trane Patented CHIL evaporator Series Counterflow arrangement

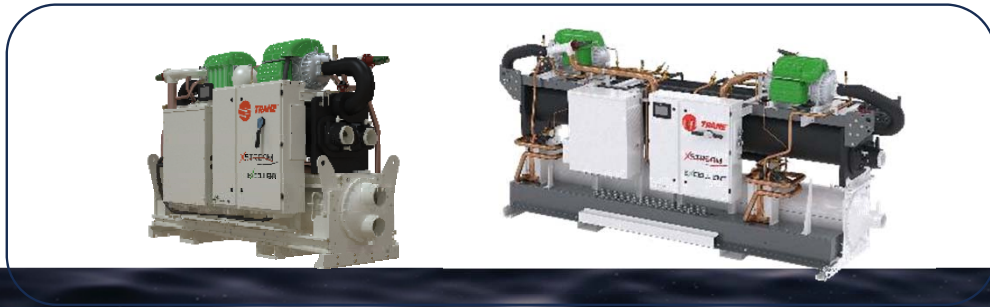


Trane Symbio™ 800 Controller + TD7 Color Touchscreen

Single compressor design

2 compressor design

3 and 4 compressor design

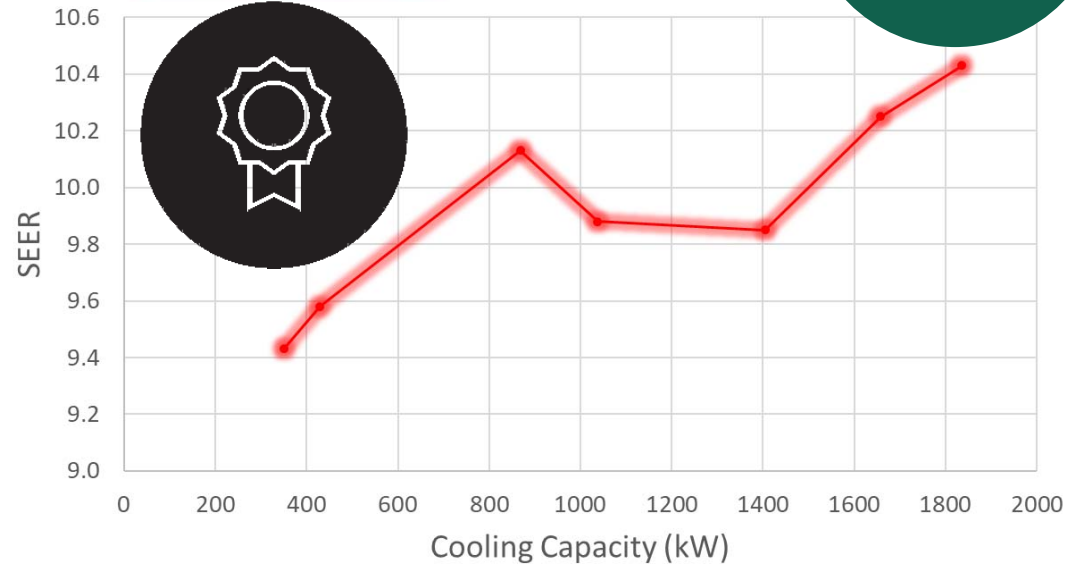
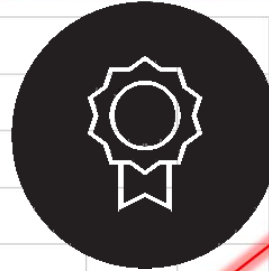


XStream™ ExD designed for a unique, performing experience



E f f i c i e n c y

- B e s t R a n k e d (E u r o v e n t)
c e r t i f i e d P e r f o r m a n c e
- B e s t C e r t i f i e d S e a s o n a l
E f f i c i e n c y u p t o S E E R
1 0 . 4



Up To
10.4
SEER



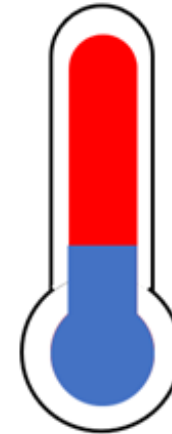
Built for the most extreme operating conditions



Wide operating map

- High pressure ratio
- High Evaporator Temperature Water Achievable
- Trane Symbio™ Controller capabilities

- Trane with mini High Efficient Copper Tube technology and



**Up to 63°C
On heat
rejection side**

**Up to 30°C
chilled water**

Robust performance at extreme conditions



Adaptive Control™ Symbio 800™



- State-of-the-art controller to guarantee superior reliability and lowest cost of ownership.
- Adaptive controls to endure smooth operation and optimal performance.
- Advanced algorithms for smarter and more reliable operations.



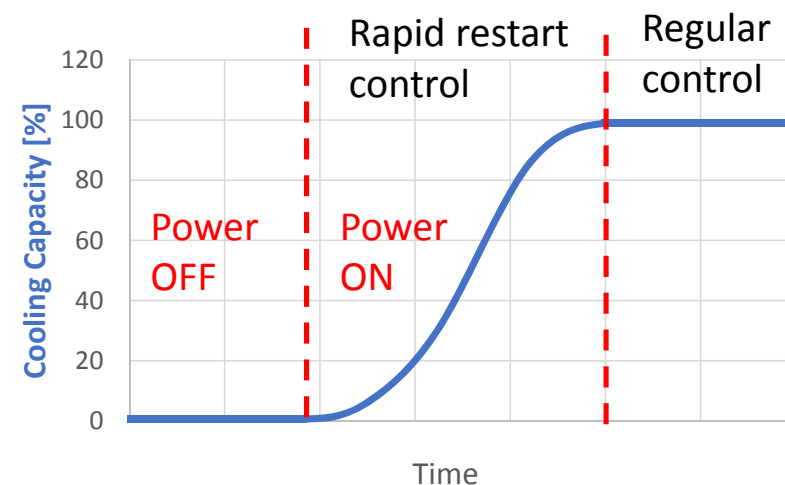
XST Robust performance at extreme conditions



GVWF Data Center Special Design



- Meets the most demanding data center performance, reliability and application requirements
- Available on all sizes, cooling capacity up to 2700 kW
- Best overall efficiency to minimize the data center Power Usage Effectiveness (PUE)
- Robust operating map for drycooler operation
- Rapid restart package includes:



Designed for mission critical applications



THANK YOU



Check our teaser
video : [https://youtu.be/R-
IzYaM2IVU](https://youtu.be/R-IzYaM2IVU)