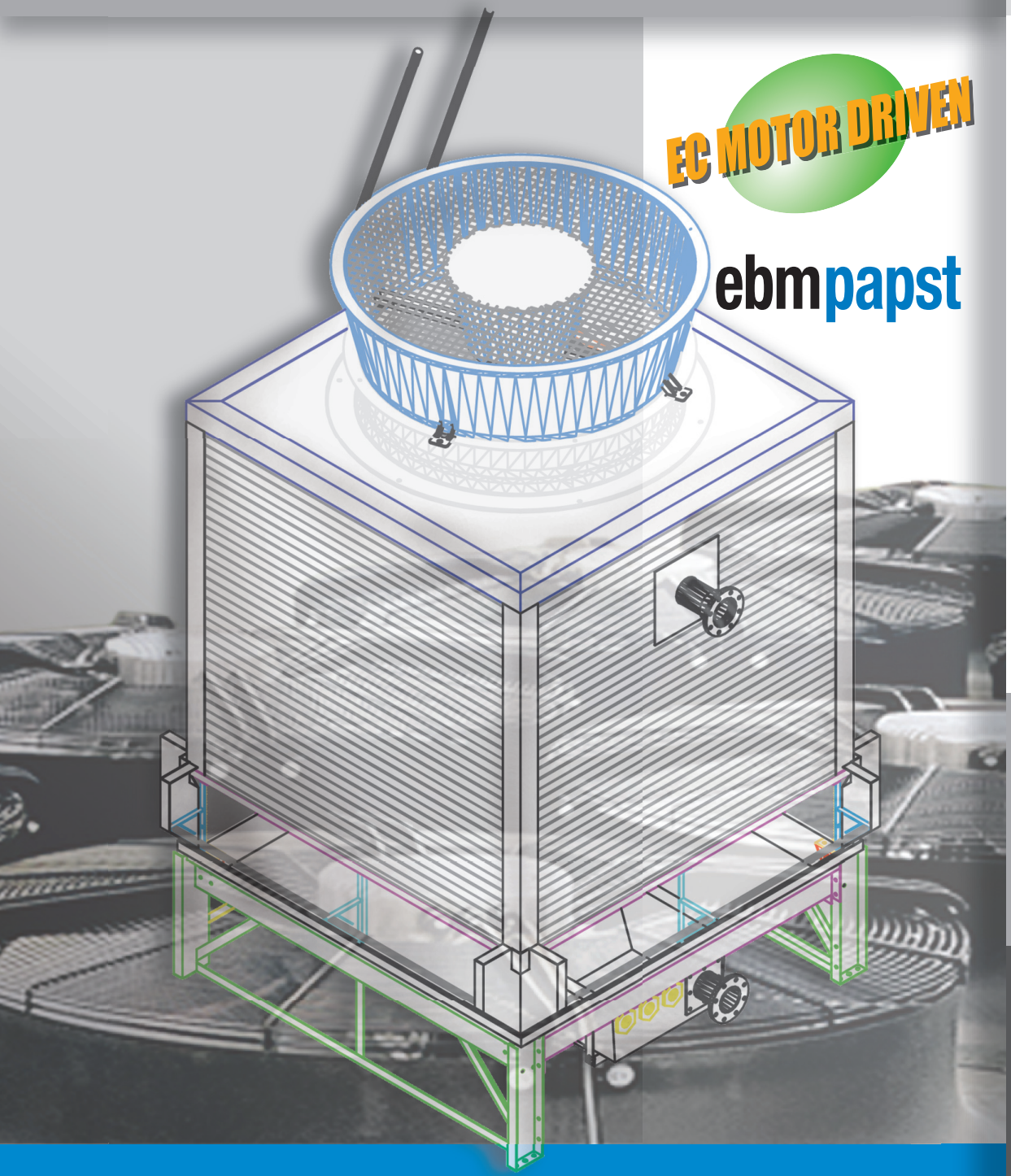
iEC-S

SERIES COOLING TOWER

WITH HIGH EFFICIENCY FAN DRIVEN BY EC MOTOR

TRUWATER®

Modular Design Counterflow Type



EC MOTOR DRIVEN

ebmpapst

CTI CERTIFIED

ISO9001 CERTIFIED

GREEN TECH

ULTRA LOW NOISE • ENERGY SAVING • PLUG & PLAY CONTROL

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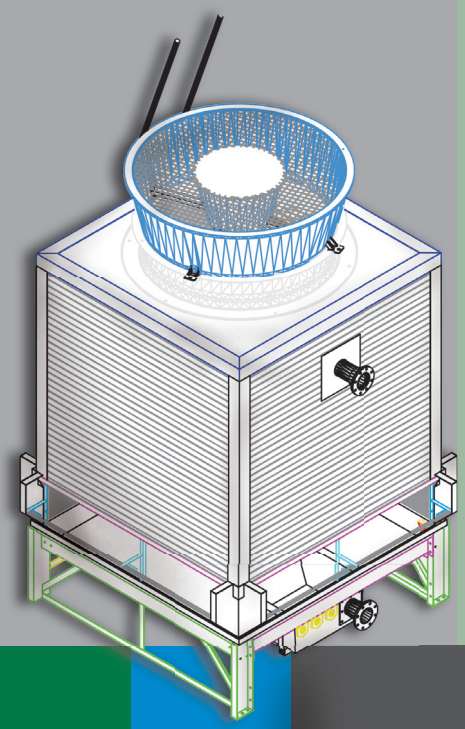


INTRODUCTION

EC (Electronically Commutated) motors are permanent magnet motors which are running on high voltage direct current (DC) electricity with built in AC to DC conversion allowing them to run direct from single phase or three phase mains supplies. They are more efficient, quieter and more reliable compared to AC motors.

Truwater has revolutionized the control of the fan in cooling tower industry by integrating the EC motors technology in the new series of cooling tower which is the Open Type Mechanical Induced Cooling Tower driven by EC Motors. Truwater has developed this new range together with **ebm-papst SEA Pte. Ltd.**, a subsidiary of ebm-papst GmbH & Co from Germany, a worldwide innovation leader in fans and motors.

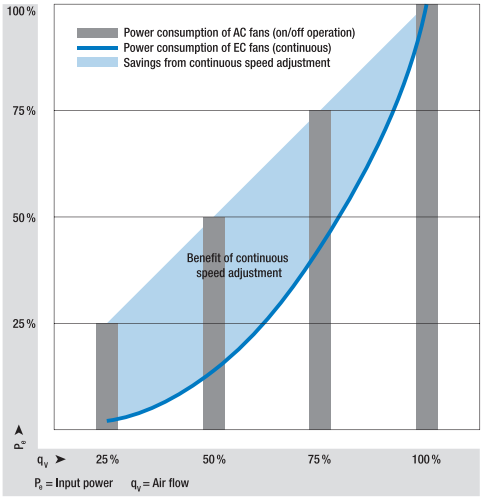
The EC motors have built in starter, controller, motor protection and EMI filters. It will directly drive the high efficient impeller with speed control and inputs from sensors for water temperature and ambient temperature for control & monitoring capacity. The EC motors will be directly connected to computer with minimum set up as 'plug and play' concept. This will eliminate the need of using Motor Starters and Programmable Logic Controller (PLC) or Variable Frequency Drive.

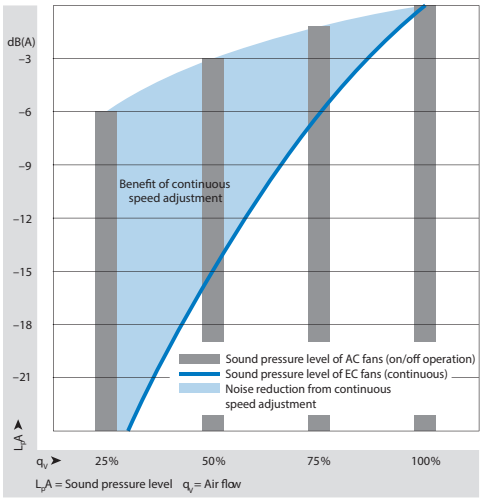
ADVANTAGES OF iEC-S SERIES

- Significant reduction of wiring and starter/control panel cost
- Plug-and-play control option with intelligent control system for monitoring & control.
- Installation cost & time will be significantly reduced.
- Modular arrangement which can be easily installed with no belt & pulley or gear reducer drive.
- Speed can be easily controlled without the need of using Variable Frequency Drive.
- CTI Certified full and part load operation with high efficiency direct drive fan system.
- Ultra-low noise type and further energy saving (up to energy savings of 30 % on average)

ENERGY SAVINGS AND NOISE REDUCTION

The graphs below illustrate the possible energy savings and noise reduction in a direct comparison between on/off operation and infinitely variable speed control:

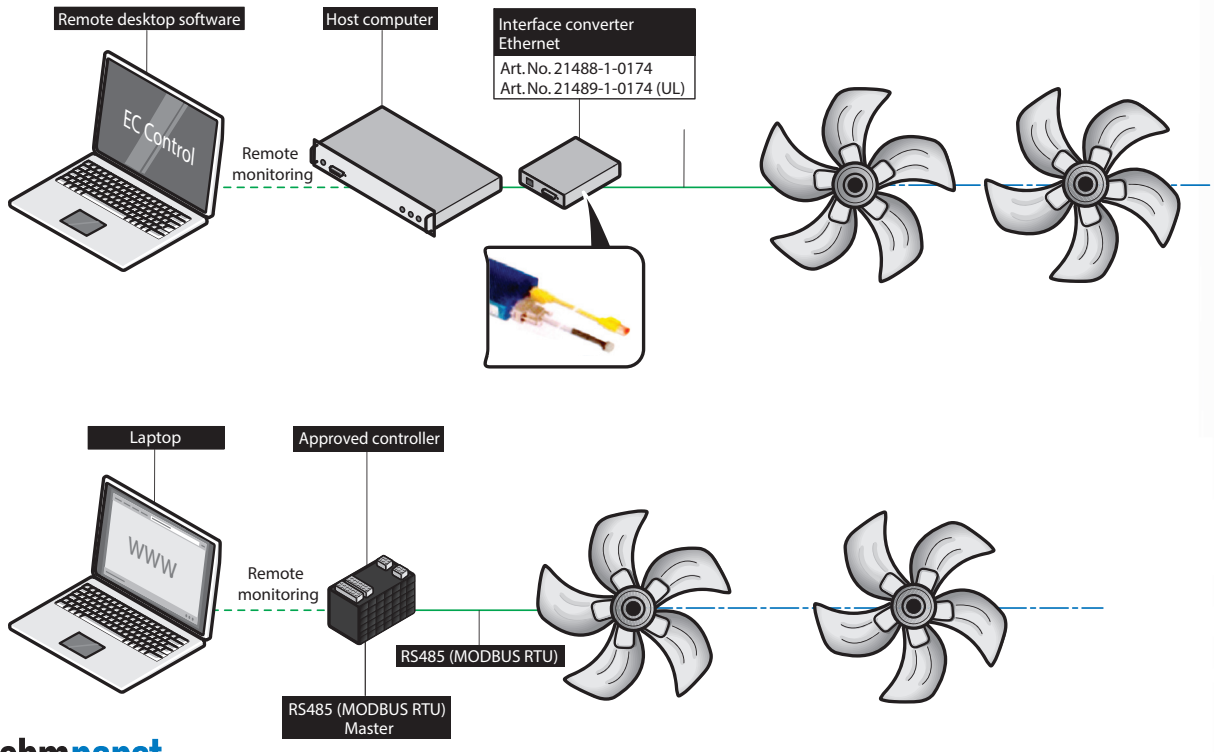




Lower energy consumption: The bars show the power consumption of fans which are switched in gradually as required. The air performance drops by 50% if two fans are switched off. The blue curve shows the power consumption with infinitely variable speed control.

Less noise generation: Whereas switching off half the fans (halving the air flow) only reduces noise generation by approx. 3 dB, speed reduction to half the air flow yields an improvement of 15 dB.

INTELLIGENT NETWORKING AND RELIABLE CONTROL



ebmpapst

...providing solution to your cooling needs

Member

TRUWATER®

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