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Movement by Perfection



The Royal League in ventilation, control and drive technology

## Centrifugal impeller Cpro for railroad engineering

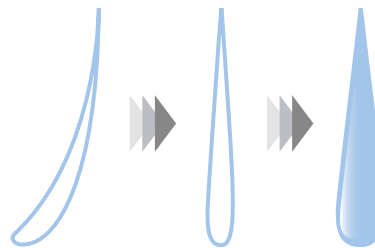
Made of firesafe high-performance composite material

# Highest quality for highest demands – fire safety certified impeller Cpro ZAmid®

The high-performance composite material of the Cpro ZAmid allows for a wide operating temperature range and offers a high level of chemical resistance. The impellers are manufactured with a complex and innovative injection-molding process using just one mold with no welding seams. This method ensures that each impeller is manufactured with the highest strength and the utmost quality.



- Certified to DIN EN 45545-2
- For requirement set R1 and R7 in Hazard Level 2 or R23 and R24 in Hazard Level 3
- 7 backward curved blades
- Impeller with rotating, vaneless diffuser for high efficiencies and favourable acoustic behaviour
- Reduced tonal noise due to unique three-dimensional blade geometry inspired by water droplets



## Tip:

Operation in the optimal range reduces the noise level and energy consumption

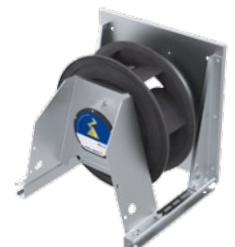
## Versions

As motor impeller RH or as ER / GR modules for compact installation in customer applications or devices for horizontal and vertical air feed.

Cpro

Cpro GR module

Cpro ER module



# Adapted to your requirements with ECblue technology

## EC090



Suitable impeller frame sizes:  
255, 280, 315

Volume flow rate: up to 3,500 m<sup>3</sup>/h free-blowing,  
Static increase in pressure: up to 800 Pa

Protection class: IP54

### Power supply:

- 110V DC **NEW**
- 1~ 200...277 V 50/60 Hz, 280...400 V DC
- 1~ 100...130 V 50/60 Hz, 140...400 V DC

Output: 1~ up to 800 W,  
110V DC up to 500 W **NEW**

Temperature: -35 °C to +60 °C

Control: Modbus, 0-10 V, 4...20 mA, PWM or via  
sensor control modules

Electronic protection: Active temperature management

Sensors: Low temperature pressure sensor, differential-pressure  
sensor, temperature, CO<sub>2</sub> (with CXE/AV UNIcon)

## EC116/152



Suitable impeller frame sizes:  
315, 355, 400, 450

Volume flow rate: up to 11,000 m<sup>3</sup>/h, free-blowing,  
Static increase in pressure: up to 1,800 Pa

Protection class: IP54, IP55

### Power supply:

- 3~ 200...240 V 50/60 Hz, 280...340 V DC
- 3~ 380...480 V 50/60 Hz, 500...680 V DC

Output: EC116 up to 4 kW,  
EC152 up to 6 kW

Temperature: -35 °C to +60 °C

Control: 0-10 V, 4...20 mA, PWM or via sensor control modules

Add-on module: AM-CAN-OPEN, AM-AMP signal, AM-PREMIUM, ...

Electronic protection: Active temperature management

Sensors: Low temperature pressure sensor, differential-pressure  
sensor, temperature, CO<sub>2</sub>

## Relevant Standards

When designing our products we comply with the specifications of the following rail-specific standards, among others:

### DIN EN 50155

Railway applications – Electronic equipment used on rolling stock

### DIN EN 61373

Railway applications – Operating equipment of rolling stock –  
Shock and vibration tests

### DIN EN 50121-3-2

Railway applications – Electromagnetic compatibility –  
Part 3 - 2: Rolling stock apparatus

### EN 50124-1:2010

Railway applications– Insulation coordination –  
Part 1: Basic requirements – Clearances and creepage distances  
for all electrical and electronic operating equipment

### DIN EN 45545

Railway applications – Fire prevention in railway vehicles –  
Part 2: Requirements for fire behaviour of materials and compo-  
nents

### DIN EN 15085

Railway applications – Welding of railway vehicles and  
components, classification level CL1

## Applications

- Air conditioning for passenger compartments
- Air conditioning for operator's platforms
- Electronics and throttle cooling
- Ventilation for machine rooms



Air handling units  
for passenger  
compartment

# The Royal League



Source: DB

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