

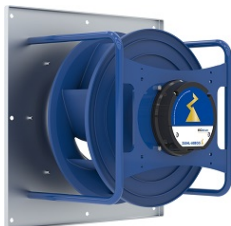


## general description

15/12/2021

version FANselect V 1.01 (211209), AMCA V 1.03 September, 2021 / 1.21.12.09 | 53567 | (user ZAFS43567)

1



GR31C-ZID.DC.CR | 116167/A01 | Portfolio STD-WW | Cpro ECblue

**Standard design with ECblue motor and integrated electronics****Material of impeller:**

- ZAmid - high performance composite material

**Color Coating:**

- Color coating in RAL5002 (Ultra marine-blue)

**Mains voltage motor size B\_:**

- 1~ 200...277 V; 50/60 Hz

**Mains voltage motor size D\_:**

- 1~ 200...277 V; 50/60 Hz
- 3~ 200...240 V; 50/60 Hz
- 3~ 380...480 V; 50/60 Hz

**Mains voltage motor size G\_:**

- 3~ 200...240 V; 50/60 Hz
- 3~ 380...480 V; 50/60 Hz

**Thermal class:**

- THCL155

**Thermal protection:**

- Protection with active temperature management

**Protection:**

- IP55

**Coating:**

- Motor painted in RAL5002 (Ultra marine-blue)

**Controller (only motor size B\_):**

- Activation via external speed setting 0-10 V / PWM, Communication interface on request
- Standard cable length: 60 cm

**Controller (only motor size D\_, G\_):**

# FANselect



- **BASIC:**

Activation via external speed setting 0-10 V / PWM Art. no. ER- and GR-module  
in basic version

- **PREMIUM:**

Integrated control functionality, Communication interface on request

**Cable glands:**

- Motor size D: 3 x M16 x 1.5
- Motor size G: 3 x M20 x 1.5

**Ambient temperature:**

- Minimum permissible ambient temperature: -20 °C\*
- Maximum permissible ambient temperature: 40 °C or see data sheet

**\*Continuous operation with occasional starts (S1) according to DIN EN 60034-1: 2011-02. Occasional starting between -35 ° C and -25 ° C is permissible. Permanent operation below -25 ° C only possible with special bearings for refrigeration applications on request.**



## fan data

15/12/2021

version FANselect V 1.01 (211209), AMCA V 1.03 September, 2021 / 1.21.12.09 | 53567 | (user ZAFS43567)



type	GR31C-ZID.DC.CR
article no.	116167/A01   Portfolio STD-WW

## technical data

motor	ECblue	
Efficiency class	IE5	
mains supply	-	3~ 400V 50Hz
ambient temperature, max. limit ( $t_r$ )	°C	55
efficiency grade $\eta_{statA}$	%	66,5
efficiency grade $N_{actual}$   $N_{target}$		<b>72,9</b>   62
ErP-conformity		2015   EC controller integrated
grille   influence		no

## fan data

<b>SFP-class</b>   SFP-value ( $P_{SFP}$ )	-   Ws/m <sup>3</sup>	<b>4</b>   1502
airflow volume ( $q_v$ )	ft <sup>3</sup> /min	3093.7
air velocity	ft/s	50.16
pressure, <b>stat.</b> ( $p_{sF}$ )   tot. ( $p_F$ )	in.wg.	<b>2.953</b>   3.500
electrical power input ( $P_{sys}$ )	W	2192
system eff., <b>stat.</b> ( $\eta_{sF,sys}$ )   tot. ( $\eta_{F,sys}$ )	%	<b>49.0</b>   58.1
fan speed ( <b>n</b> )   max. ( $n_{max}$ )	rpm	<b>3636</b>   3640
fan speed, set value (% $n_{max}$ )	%	100
frequency ( <b>f<sub>BP</sub></b> )   ( $f_{max}$ )	Hz	<b>50</b>   60
voltage ( $U_{DP}$ )	V	400
current ( $I_{DP}$ )	A	3.35
acoustics, suction side ( $L_{w(A),5}$ )   ( $L_{w,5}$ )	dB	<b>86</b>   89
acoustics, pressure side ( $L_{w(A),6}$ )   ( $L_{w,6}$ )	dB	<b>94</b>   94
dimensions (w x h x d)	in	17.72 x 17.72 x 12.52
product weight ( $m_{pr}$ )	lb	37.5
k-factor nozzle pres. (k)	-	95
differential pres. nozzle ( $p_{sF \text{ nozzle}}$ )	Pa	3061

PF:PF\_50; BR:BR\_40;  $q_v$ :3000.0 ft<sup>3</sup>/min;  $p_{sF}$ :2.000 in.wg.; mains:3~ / 400V / 50 Hz;  $t_r$ :40 °C; size:315 mm;  $p$ :0.072 lbs/ft<sup>2</sup>; STol:+-10 %; BF:





# FANselect

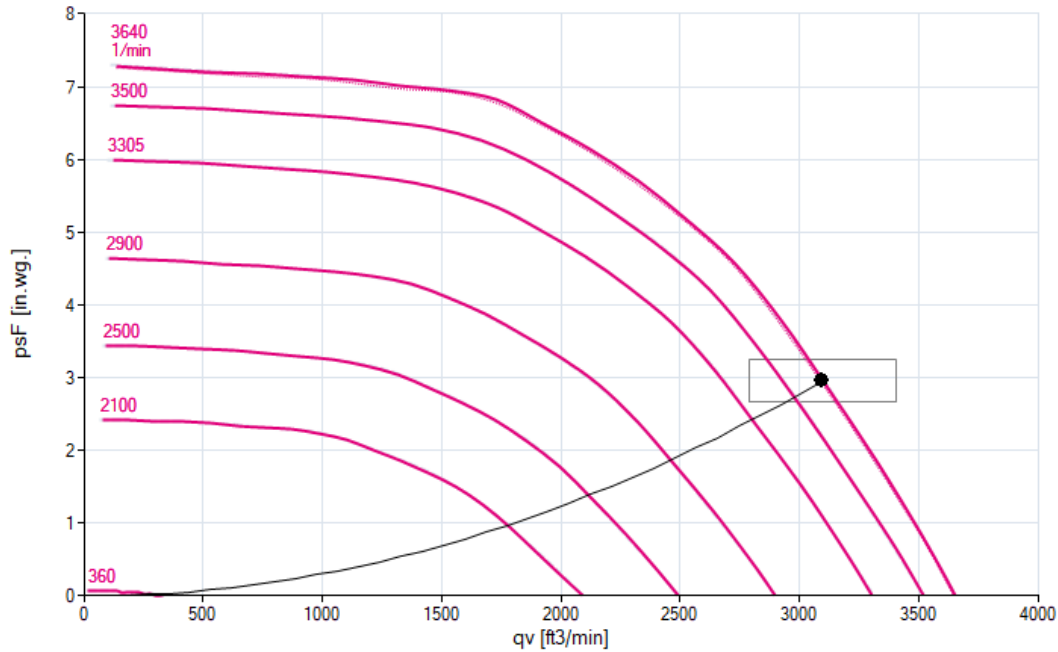
## performance curve / acoustics

15/12/2021

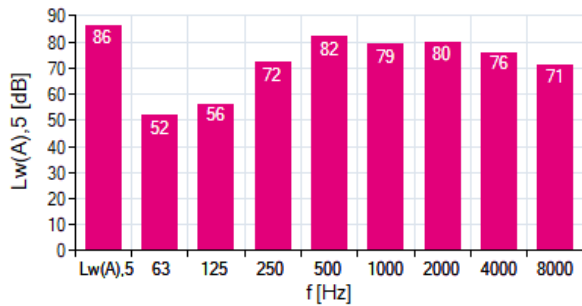
version FANselect V 1.01 (211209), AMCA V 1.03 September, 2021 / 1.21.12.09 | 53567 | (user ZAFS43567)

- 1 GR31C-ZID.DC.CR** measured in standard nozzle in installation type A according to ISO 5801  
 116167/A01 | Portfolio measurement density 0.072 [lbs/ft<sup>3</sup>]  
 STD-WWW

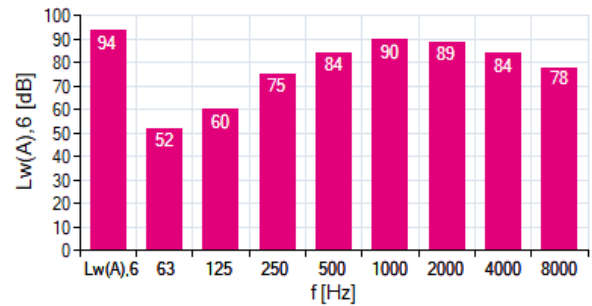
### air performance p<sub>sF</sub>



### acoustics (L<sub>w(A),5</sub>)



### acoustics (L<sub>w(A),6</sub>)



### 1 GR31C-ZID.DC.CR

f [Hz]	sum	63	125	250	500	1000	2000	4000	8000
L <sub>w(A),5</sub>	86	52	56	72	82	79	80	76	71
L <sub>w,5</sub>	89	78	73	79	86	79	79	75	72

f [Hz]	sum	63	125	250	500	1000	2000	4000	8000
L <sub>w(A),6</sub>	94	52	60	75	84	90	89	84	78
L <sub>w,6</sub>	94	78	76	82	88	90	87	83	79



# FANselect

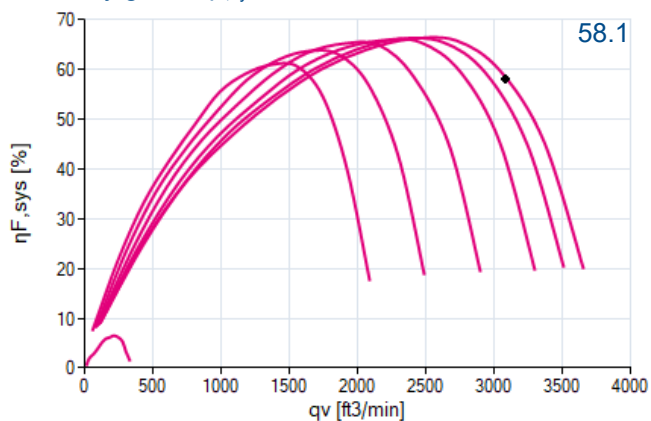
## efficiency grade / power input

15/12/2021

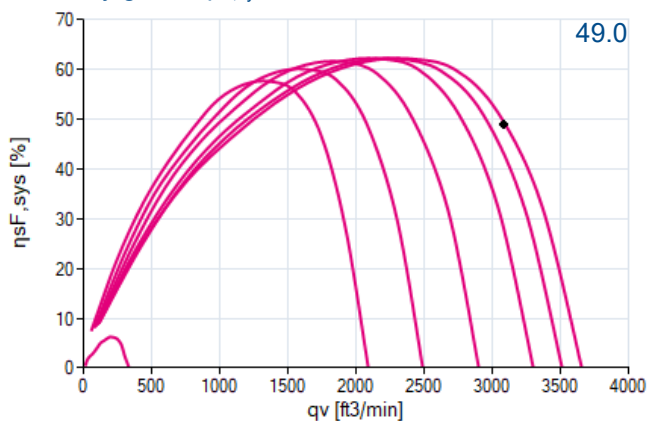
version FANselect V 1.01 (211209), AMCA V 1.03 September, 2021 / 1.21.12.09 | 53567 | (user ZAFS43567)

- 1 **GR31C-ZID.DC.CR** measured in standard nozzle in installation type A according to ISO 5801
- 116167/A01 | Portfolio measurement density 0.072 [lbs/ft<sup>3</sup>]
- STD-WW

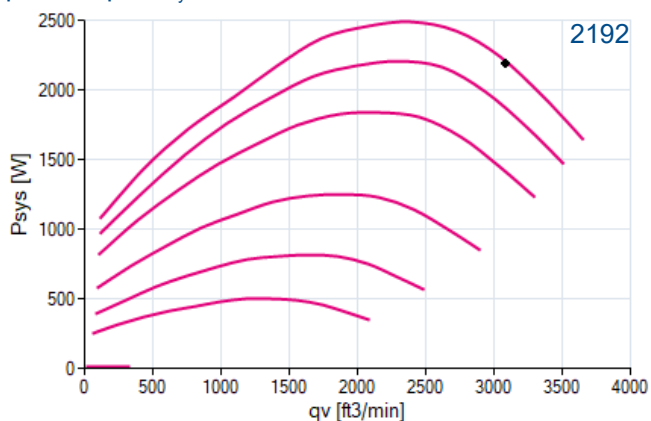
efficiency grade  $\eta_{F,sys}$



efficiency grade  $\eta_{sF,sys}$



power input  $P_{sys}$



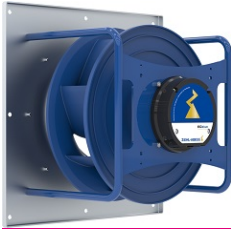


## nominal values

15/12/2021

version FANselect V 1.01 (211209), AMCA V 1.03 September, 2021 / 1.21.12.09 | 53567 | (user ZAFS43567)

1



**GR31C-ZID.DC.CR**

116167/A01

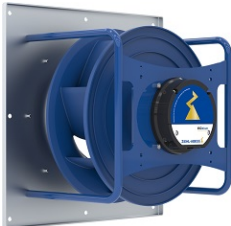
3~ 380-480V 50Hz P1 2.50kW  
 4.00-3.20A 3640/MIN 55°C  
 3~ 380-480V 60Hz P1 2.50kW  
 4.00-3.20A 3640/MIN 55°C  
 IP55 THCL155

## drawing

15/12/2021

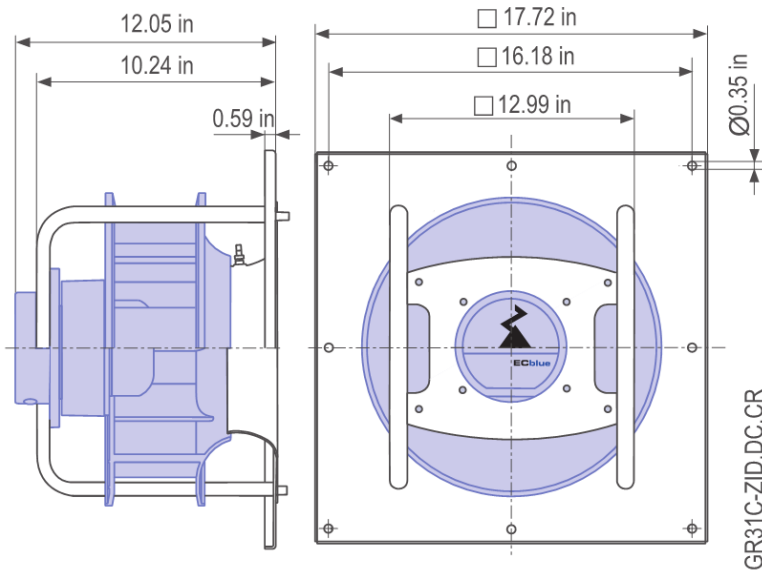
version FANselect V 1.01 (211209), AMCA V 1.03 September, 2021 / 1.21.12.09 | 53567 | (user ZAFS43567)

1



**GR31C-ZID.DC.CR**

116167/A01



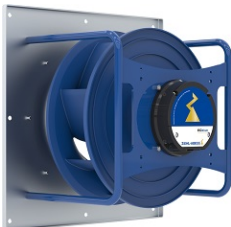
GR31C-ZID.DC.CR

## wiring diagram

15/12/2021

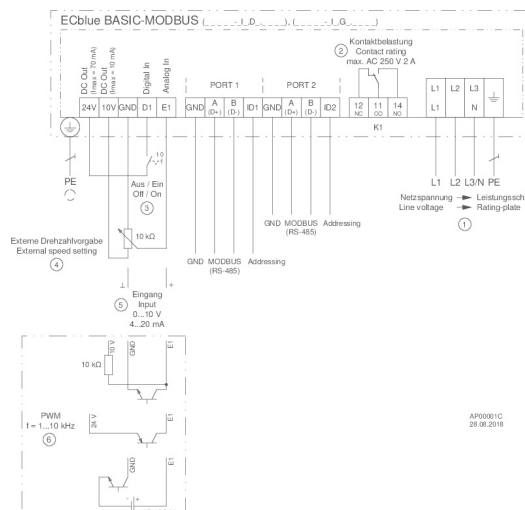
version FANselect V 1.01 (211209), AMCA V 1.03 September, 2021 / 1.21.12.09 | 53567 | (user ZAFS43567)

1



**GR31C-ZID.DC.CR**

116167/A01





system components

15/12/2021

version FANselect V 1.01 (211209), AMCA V 1.03 September, 2021 / 1.21.12.09 | 53567 | (user ZAFS43567)



type	GR31C-ZID.DC.CR
article no.	116167/A01