

# BPS CLIMA<sup>®</sup>



ECODESIGN

ERP COMPLIANT

RoHS

**SCHEMA TECNICA: Componenti CW**  
**TECHNICAL SHEET: CW components**

serie **CW**

ST-Comp\_CW\_20x9BPS-R00

101% MADE IN ITALY  
European core



**CASSETTE AD ACQUA**  
**WATER CASSETTE UNITS**

air treatment  
trattamento dell'aria

serie **CW**

**BPS** CLIMA®



**UNITÀ AD ACQUA  
WATER UNIT**

**ECODESIGN** **ERP COMPLIANT**

- Ventilatore radiale con pale a profilo alare e motore elettrico incorporato: tecnologia ai massimi vertici della qualità, il meglio presente sul mercato, EBM (made in Germany), super-affidabile, altissime efficienze energetiche, grande silenziosità. Disponibile in versione AC~230V-Monofase (mod. CW) ed EC~230V-Brushless (mod. CWE)
  - Pompa condensa completa di galleggiante e valvola di non ritorno
  - Filtro aria ad alta efficienza, facilmente estraibile e lavabile
  - Pannello di copertura essenziale, lineare, con forme neutre ed equilibrate che ben si inseriscono in qualsiasi ambiente
  - Deflettori mandata aria nelle 4 direzioni, orientabili
  - Adatta per installazione su controsoffitti 600x600 [mm x mm], standard Europeo (dimensioni 600x1200 per le taglie grandi)
  - Predisposizione 1 Presa aria esterna e 1 Mandata aria trattata verso ambienti attigui
  - Regolazione tramite comando remoto a filo o telecomando
  - Limiti min/max temperatura acqua ingresso: 3...75 °C
- 
- Radial fan with wing profile blades and built-in electric motor: technology at the highest levels of quality, the best available on the market, EBM (made in Germany), super-reliable, extremely high energy efficiency, maximum silence. Available in AC~230V-Single-phase (mod. CW) and EC~230V-Brushless (mod. CWE) versions
  - Condensate pump including float and not-return valve
  - High efficiency air filter, easily removable and cleanable
  - Essential cover panel, linear, with neutral and well balanced shapes that fit well into any environment
  - Air supply fins on the 4 directions, adjustable
  - Suitable for installation on false ceiling 600x600 [mm x mm], European standard (dimensions 600x1200 for the big sizes)
  - Pre-disposal of 1 external air intake and 1 additional treated air supply
  - Control with wired remote control or I.R. control
  - Min/max inlet water temperature limits: 3 ... 75 °C

CASSETTE AD ACQUA CON COMPONENTI TOP-QUALITY WATER CASSETTE WITH TOP-QUALITY COMPONENTS		ESP	Qa m³/h	COOL kW	HEAT kW	
<b>CW</b>	TRADIZIONALE, con motore AC~230V monofase (asincrono), 3-Velocità TRADITIONAL, with motor AC~230V single-phase (asynchronous), 3-Speed	<b>M</b> AC~230V Tradizionale	Max 75Pa	530÷1.810	2,9÷13,2	7,0÷26,4
<b>CWE</b>	BRUSHLESS ALTA EFFICIENZA, HEE, motore EC~230V Brushless (modulante) BRUSHLESS HIGH EFFICIENCY, HEE, motor EC~230V Brushless (modulating)	<b>M</b> EC~230V Brushless	Max 75Pa	1.250÷2.280	5,0÷15,2	12,3÷30,7



**CW 600x600**



**BRUSHLESS**  
aiutiamo l'ambiente • helping the environment



**ebmpapst**



**CR22**



**CR25**



**CR26**



**VL622**



**VL632**



**CW 600x1200**

Fan282x146\_AC-50Win (EMB\_R4E280AM1911)\_P1/3

Item no. 14619-5-9980 · ENU · Change 89188 · Approved 2016-08-25



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R4E280-AM19-11



## AC centrifugal fan

backward-curved

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General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

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## Nominal data

Type	R4E280-AM19-11	
Motor	M4E068-CF	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ce
Valid for approval/standard		CE
Speed (rpm)	min <sup>-1</sup>	850
Power consumption	W	50
Current draw	A	0.22
Capacitor	µF	1.5
Capacitor voltage	VDB	400
Capacitor standard		S2 (CE)
Min. back pressure	Pa	0
Min. back pressure	inH <sub>2</sub> O	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60
Starting current	A	0.25

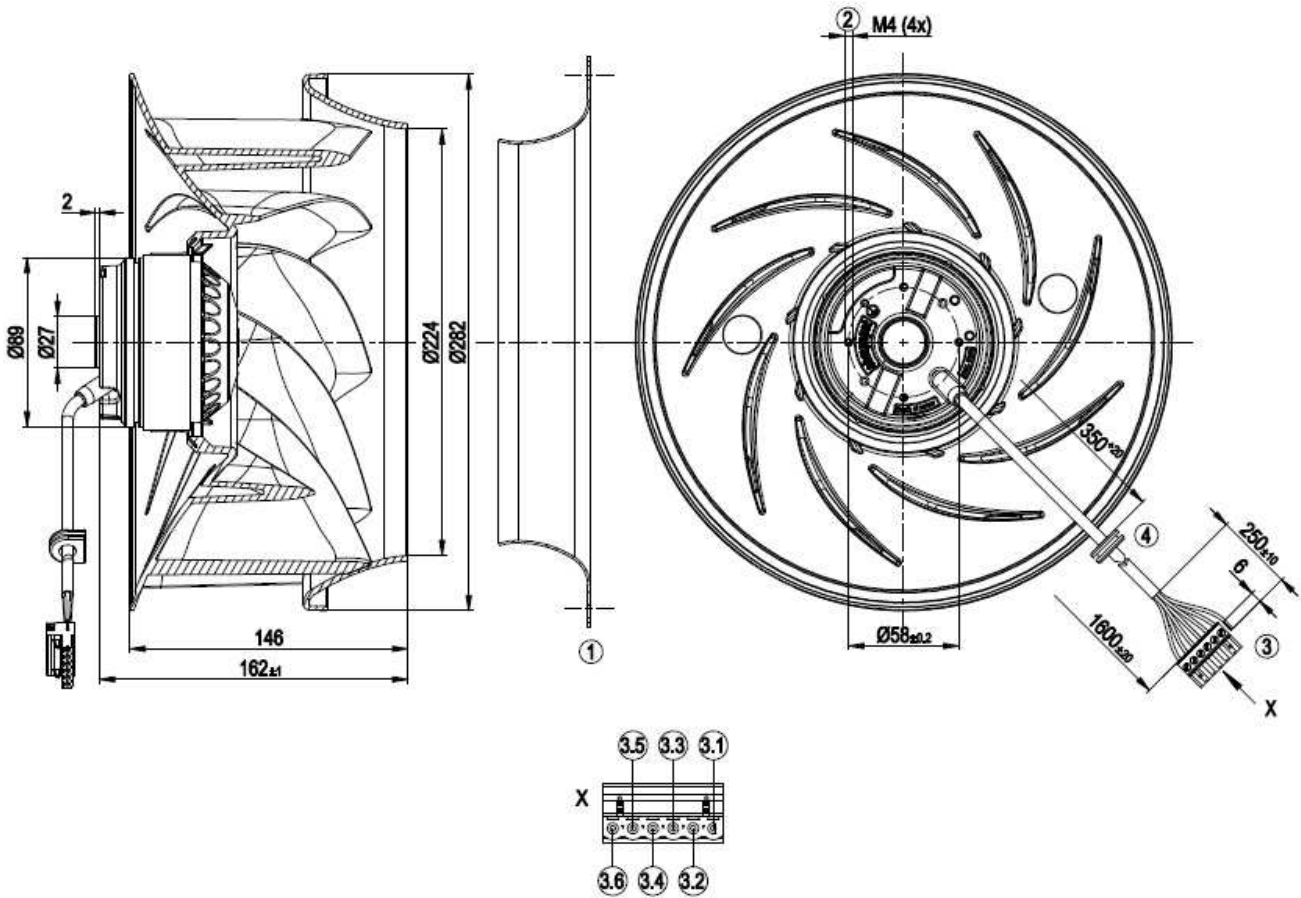
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change

## Technical description

Weight	2.3 kg
Fan size	280 mm
Rotor surface	Painted black
Impeller material	PA plastic
Number of blades	9
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0+
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Speed levels	3
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

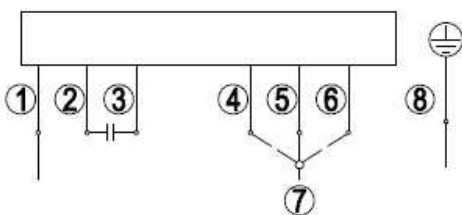
Fan282x146\_AC-50Win (EMB\_R4E280AM1911)\_P3/3

**Product drawing**



1	Accessory part: inlet ring 31050-2-4013 not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Cable PVC 7G 0.5 mm <sup>2</sup> , 1x 6-pole connector housing Phönix 1757051 (MSTB 2.5/6-ST/5.08), 1x crimped splice (green/yellow)
3.1	red (capacitor)
3.2	white (step 1)
3.3	gray (step 2)
3.4	black (step 3)
3.5	blue (N)
3.6	orange (capacitor)
4	Grommet 64901-4-7011 EPDM black

**Connection diagram**



Note: High speed (step III); low speed (step I)

1	N (blue)	2	Capacitor (red)	3	Capacitor (orange)
4	Step 1 (white)	5	Step 2 (gray)	6	Step 3 (black)
7	L1	8	PE (green/yellow)		

Fan282x146\_AC-88Win (EMB\_R4E280AM6711)\_P1/3

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R4E280-AN67-11



## AC centrifugal fan

backward-curved

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Fan282x146\_AC-88Win (EMB\_R4E280AM6711)\_P2/3

## Nominal data

Type	R4E280-AN67-11	
Motor	M4E068-DF	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ce
Valid for approval/standard		CE
Speed (rpm)	min <sup>-1</sup>	1090
Power consumption	W	88
Current draw	A	0.39
Capacitor	μF	3
Capacitor voltage	VDB	400
Capacitor standard		S2 (CE)
Min. back pressure	Pa	0
Min. back pressure	inH <sub>2</sub> O	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	45
Starting current	A	0.55

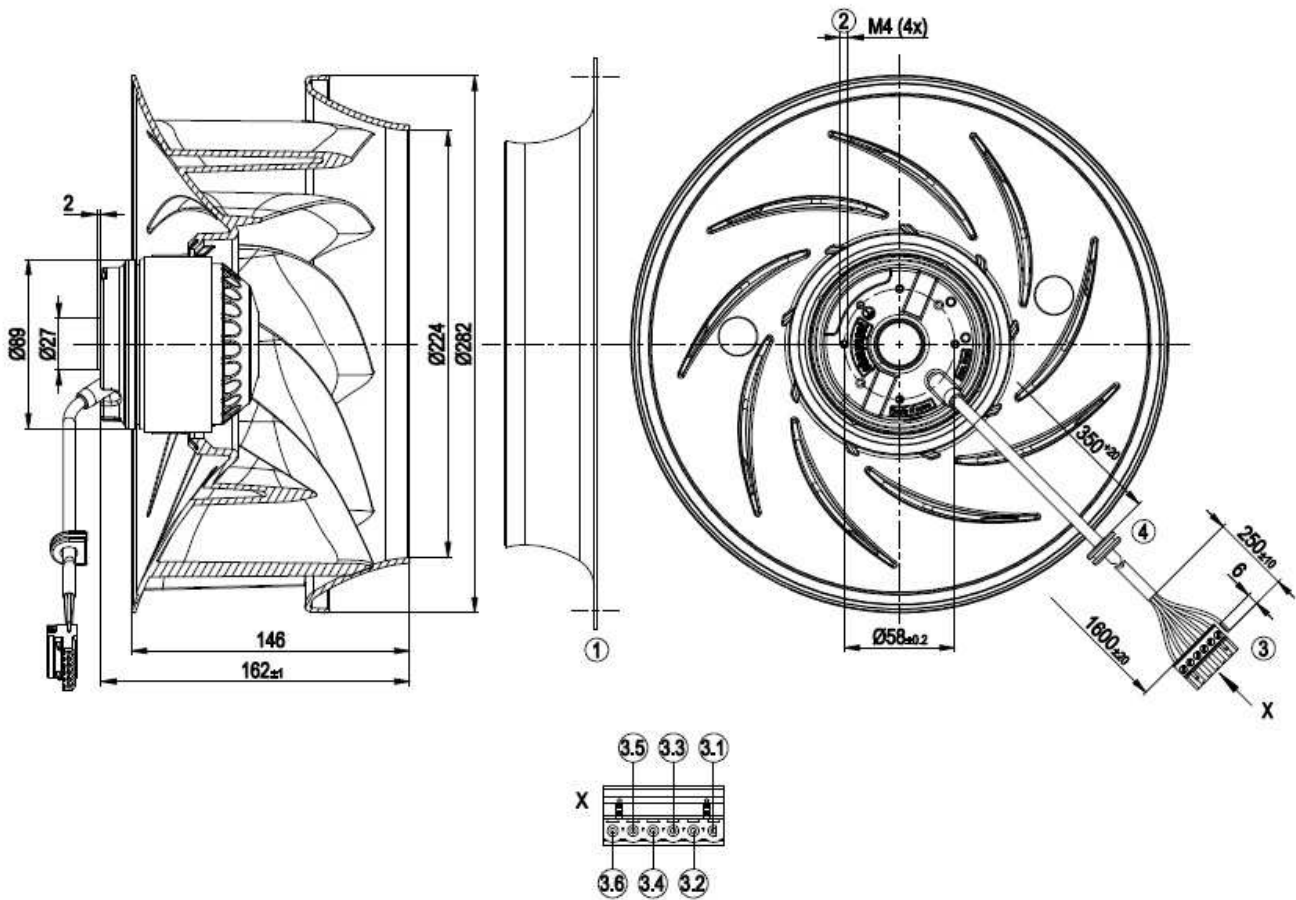
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
 Subject to change

## Technical description

Weight	2.3 kg
Fan size	280 mm
Rotor surface	Painted black
Impeller material	PA plastic
Number of blades	9
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0+
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Speed levels	3
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

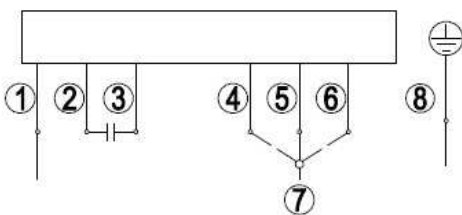
Fan282x146\_AC-88Win (EMB\_R4E280AM6711)\_P3/3

Product drawing



1	Accessory part: inlet ring 31050-2-4013 not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Cable PVC 7G 0.5 mm <sup>2</sup> , 1x 6-pole connector housing Phönix 1757051 (MSTB 2.5/6-ST/5.08), 1x crimped splice (green/yellow)
3.1	red (capacitor)
3.2	white (step 1)
3.3	gray (step 2)
3.4	black (step 3)
3.5	blue (N)
3.6	orange (capacitor)
4	Grommet 64901-4-7011 EPDM black

Connection diagram



Note: High speed (step III); low speed (step I)

1	N (blue)	2	Capacitor (red)	3	Capacitor (orange)
4	Step 1 (white)	5	Step 2 (gray)	6	Step 3 (black)
7	L1	8	PE (green/yellow)		



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R3G280-AP03-09



## EC centrifugal fan

backward-curved

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## Nominal data

Type	R3G280-AP03-09	
Motor	M3G055-DF	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min <sup>-1</sup>	1220
Power consumption	W	74
Current draw	A	0.64
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55

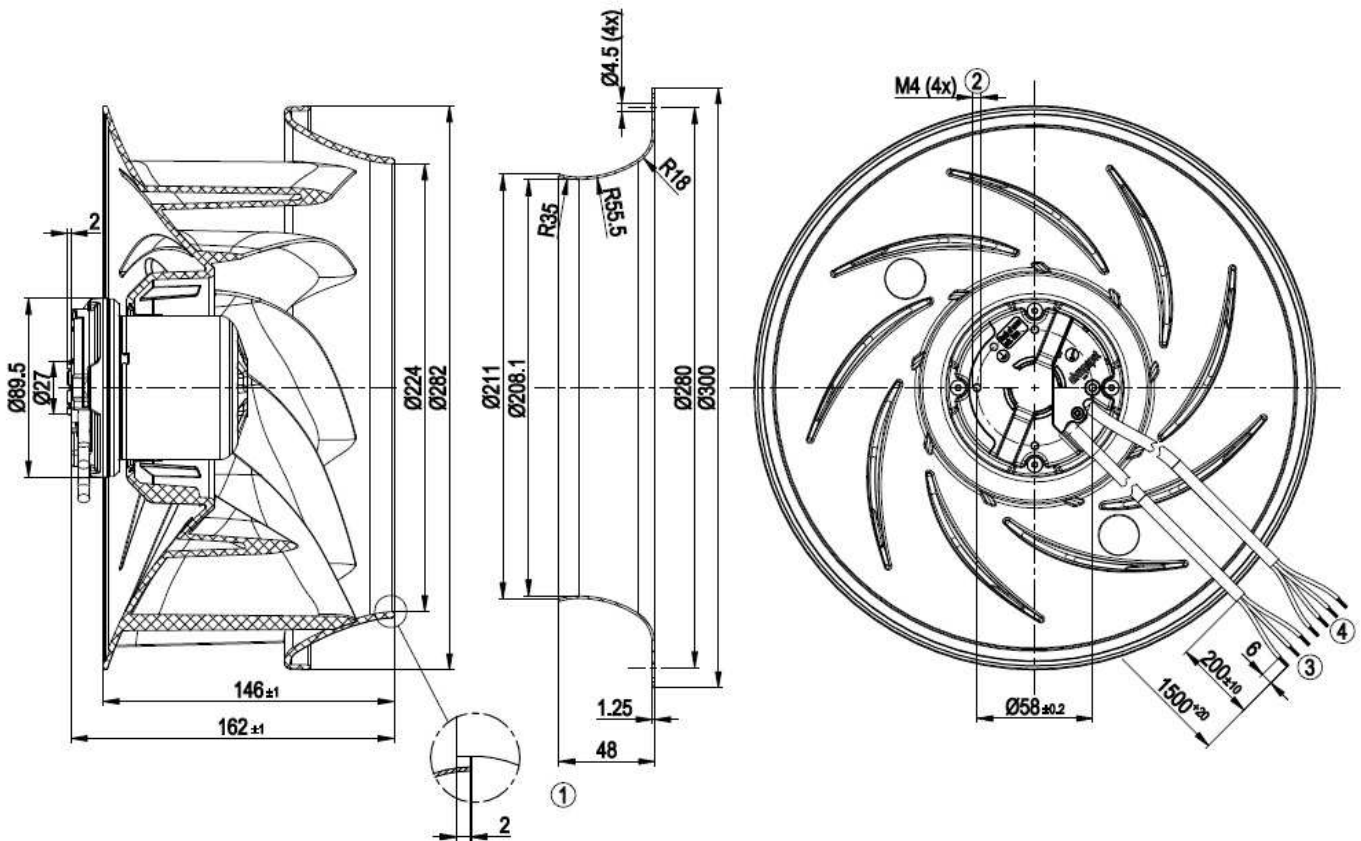
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change

## Technical description

Weight	2.6 kg
Fan size	280 mm
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Number of blades	9
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Tach output</li> <li>- Motor current limitation</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from supply</li> <li>- Thermal overload protection for electronics/motor</li> </ul>
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 55022 (class B, household environment), the application may require ferritic damping in the cable due to the conditions of installation.
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

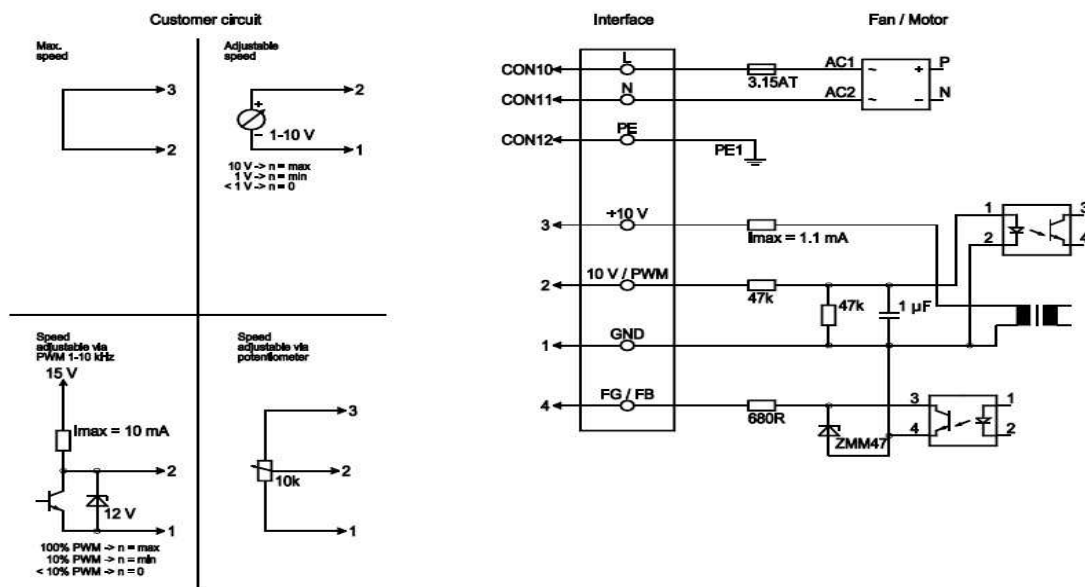
Fan282x146 EC-74Win (EBM R3G280AP0309) P3/3

Product drawing



- 1 Accessory part: inlet ring 31050-2-4013 not included in scope of delivery, other inlet rings on request
- 2 Max. clearance for screw 5 mm
- 3 Cable PVC AWG20, 3x crimped splices
- 4 Cable PVC AWG22, 4x crimped splices

Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	GND connection for control interface
	2	0- 10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	3	10V/ max 1.1mA	red	Voltage output 10 V / 1.1 mA, electrically isolated, not short-circuit-proof.
	4	FG/FB	white	Fan good / fan bad: open collector, fan good = low, electrically isolated

Pompa condensa (Siccom\_CP..SC66..) \_P1/3

**CENTRIFUGAL PUMP SPECIFICATIONS**

- Rated voltage : 230 VAC 50/60 Hz
- Voltage range :  $\pm 10\%$  of the rated voltage
- Current : 82mA (230V-50Hz)
- Power consumption : 8W (230V-50Hz)
- Insulation class : Class B
- Ambient Temp : 0 to 45°C
- Temperature Rise : 66 K
- Ambient humidity : 95% RH
- Storage Temp : -20 to 70 °C
- Dielectric strenght : 1500VAC during 1 min (or 1800VAC during 1s)
- Orientation : Motor upside  $\pm 10$  degrees
- Fluid : Drain Water
- Drive motor :
  - Type Single phase x Shade type with 2 poles
  - Bobbin material : PA66 UL94 V0
  - Bearing type : Oil impregnated metal bearing
  - Shaft : Stainless Steel
- Flow rate : see the curve (rated voltage) at 10 mm water level
- No discharge Pump Head : 113 cm  $\pm 6$  cm
- IP54
- CE
- Precautions for use :
  - Check for magnetic interference of surrounding equipment on the motor characteristics.
  - Splashes water, solvent and cleaner can damage the motor.

**Flow rate curve**

Test conditions : 230 Vac $\pm 2$  - 50Hz  
Winding temperature > 30°C  
Level of water stabilized at 13 mm from inlet  
Tolerance on flow rate  $\pm 10\%$  in working range

**Level sensor connection**

Normally Closed  
Normally Opened  
Alarm Common  
Pump  
No connected

**Modifications**

Ind. Rev.	Date	Ech Scale	Date	Visa
Designé par		3 : 4		
Contrôlé par				
Créé par				
Tolérances générales				
General Tolerance				
Matière				
Material				
Traitement				
Treatment				
Code article				
Part number				
Issu du plan				
Resulting from the plan				
Reperage				
Reference of part				
Service	Design	Format	A3	
Department		Size		

CP..SC66..  
Centrifugal pump

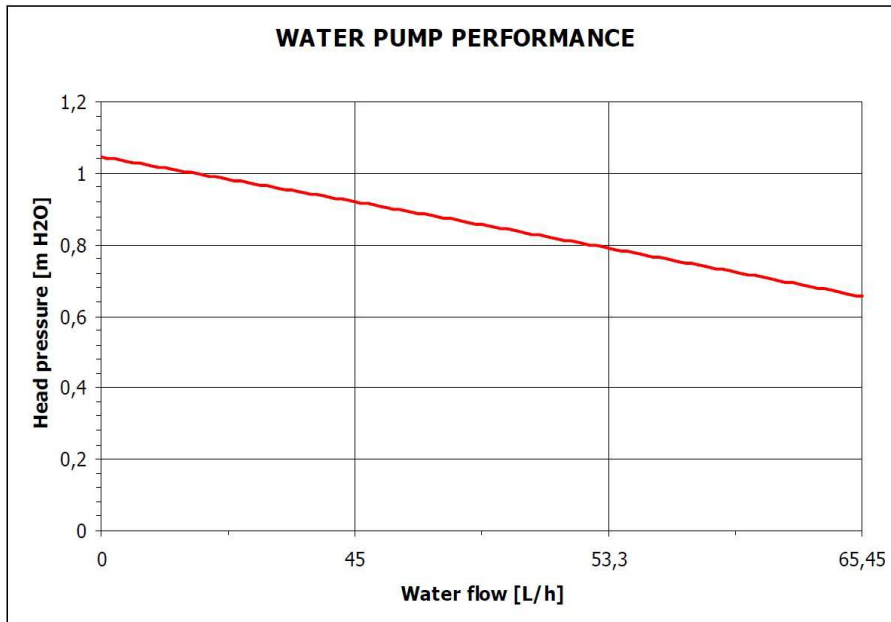
Folio 1/1 Ind. Rev.

Curva caratteristica della pompa condensa installata sulle cassetta ad acqua

- Rilevazione effettuata con valvola di non ritorno installata.
- Mod. pompa: CP..SC66.. ; Costruttore: SICCOM

Characteristic curve of the condensate pump installed on the water cassette

- Detection carried out with non-return valve installed.
- Mod. Pump: CP..SC66.. ; Manufacturer: SICCOM



In condizioni limite ( $T_a=35^\circ\text{C}$ ,  $UR=100\%$ ,  $T_w=5/10^\circ\text{C}$ ) la massima produzione di acqua condensata è pari a  $Q_w=... \text{ l/h}$

→ Risulta Altezza massima (vedi curva caratteristica):  $H=... \text{ m}$

In condizioni nominali ( $T_a=27^\circ\text{C}$  b.s.,  $19^\circ\text{C}$  b.u.,  $T_w=7/12^\circ\text{C}$ ) la massima produzione di acqua condensata è pari a  $Q_w=... \text{ l/h}$

→ Risulta Altezza massima (vedi curva caratteristica):  $H=... \text{ m}$

Pertanto nel manuale di installazione viene dichiarato che il dislivello massimo che la pompa può superare, evacuando l'acqua prodotta dalla cassetta in normali condizioni di funzionamento, è pari a:  $H_{\text{max}} = 0,7 \text{ m}$  (valore in sicurezza).

In limit conditions ( $T_a=35^\circ\text{C}$ ,  $RH=100\%$ ,  $T_w=5/10^\circ\text{C}$ ) the maximum production of condensed water is:  $Q_w = ... \text{ l/h}$

→ the maximum height result (see characteristic curve):  $H=... \text{ m}$

In nominal conditions ( $T_a=27^\circ\text{C}$  Cd.b.,  $19^\circ\text{C}$  w.b.,  $T_w=7/12^\circ\text{C}$ ) the maximum production of condensed water is:  $Q_w=... \text{ l/h}$

→ the maximum height result (see characteristic curve):  $H=... \text{ m}$

Therefore, in the installation manual it is declared that the maximum height that the pump may exceed, by evacuating the water produced from the unit in normal operating conditions, is:  $H_{\text{max}} = 0,7 \text{ m}$  (safety value).

**SICCOM**  
INNOVATIVE VISION

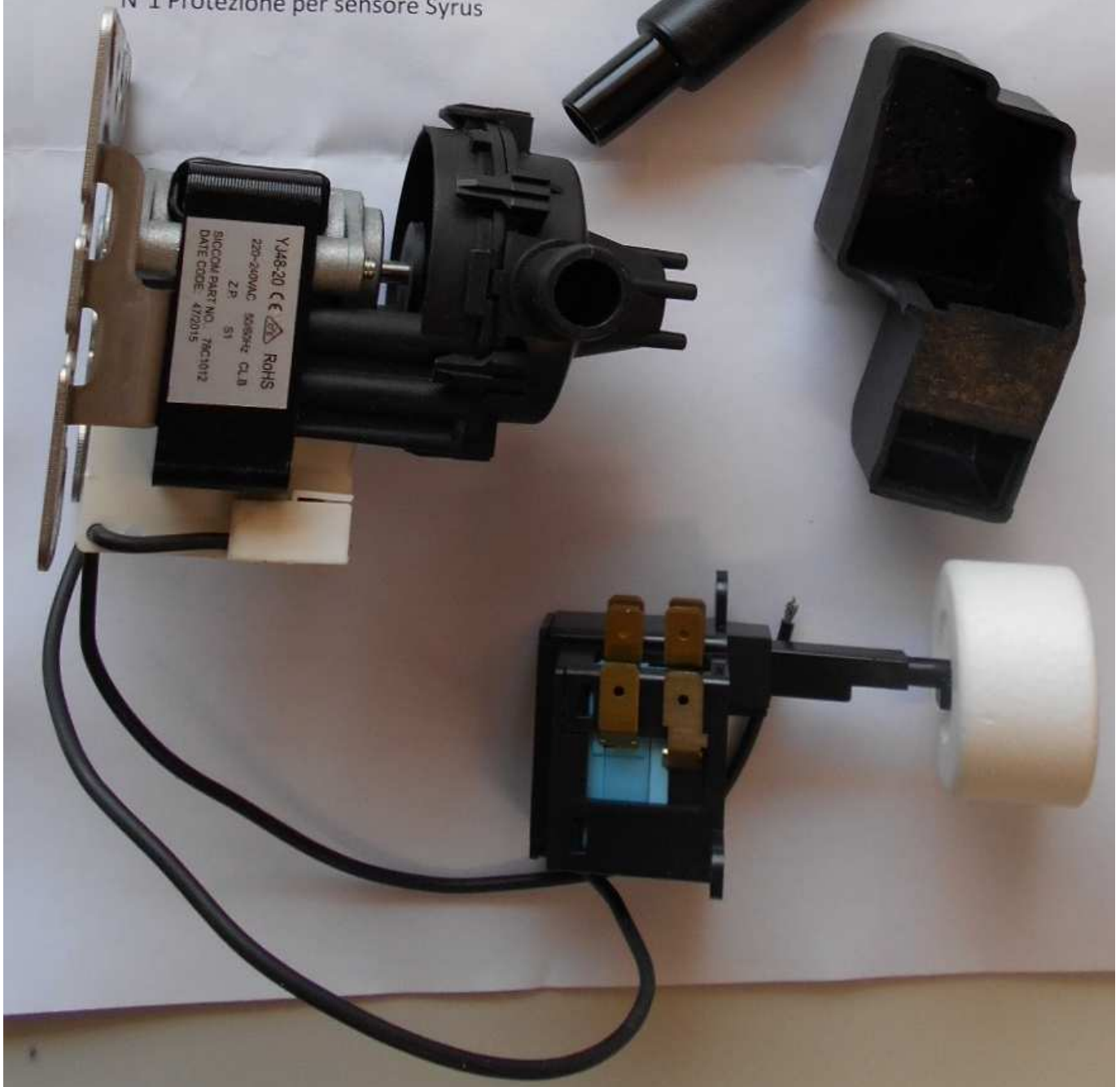
N°1 Pompa Centrifuga cod.CP..SC66..

N°1 Syrus cod.DYBB015500

N°1Valvola di non ritorno cod.91A1003

N°1 Tubo a 90° cod.25D1018

N°1 Protezione per sensore Syrus



Pompa condensa (Siccom\_CP..SC66..) \_P3/3



**Pompa**

Il cavo Nero della pompa diventa Blu sulla prolunga



**Prolunga**



**Cappuccio di protezione parte elettrica sensore**





air treatment  
trattamento dell'aria



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