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POLAND

SMART
AIR CURTAIN

Please read this instruction manual carefully before beginning any work.

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I. CONTACTS

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II. ORIGINAL INSTRUCTION MANUAL

SMART
AIR CURTAINS

TABLE OF CONTENTS

1. INTENDED USE

The air curtains are intended to control the inflow of outside air through the door or building openings in such objects as:

- » shopping centres and supermarkets;
- » restaurants, bars;
- » public buildings, offices;
- » hotels, banks;
- » hospitals, chemist shops;
- » warehouses, etc.

They are adapted to take and warm up air from inside the compartment. They can be also used without warming up air as so called "cold" curtains.
The curtains are intended to use in the door and building openings with the heights of ~2,5m. Typically, they are intended to install above the door but they can operate as vertical curtains as well. The vertical operation position of the curtain should be consulted every time with the manufacturer, determining at which side of the door the curtain is to be installed.
The curtains can be installed alongside but their total length should be close to the door width.

The curtains should be used only according to the intended use.
The manufacturer is not liable for using the curtains against the intended use and for any damages arisen for this reason.

The curtains cannot be used in the compartments with relative humidity larger than 90% and air dust concentration over 3mg/m^3.

2. DESIGNATIONS

Air curtain SMART- - -

Curtain length	104; 156; 200cm
Heater	water (W); electric (E); "cold" curtain (Z)
Control type	remote control (A); control box (S); without control (B); control by BMS system (BMS) control by TH controller (TH)

3. DEVICE DESCRIPTION

The curtains include:

- » casing made of steel sheet with a supply slot and plastic side walls;
- » water or electric heater;
- » fan with cross air flow

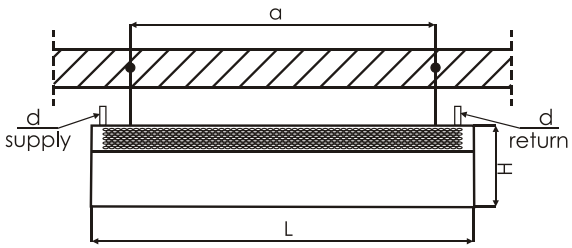
The curtains are made in three lengths: 104, 156, 200cm.

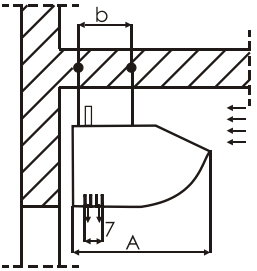
For the fin heaters used in the curtains the maximum temperature of heating medium is up to 150^{o}C and the maximum operational pressure is up to 1,5Mpa.

There is a risk of heating medium freeze in the heater in the compartments with the temperature below 0^{o}C.

The risk can be reduced using an antifreeze thermostat (delivered at request), using antifreeze heating media or removing water from the curtain's heater.

4. TECHNICAL DATA





Curtain type	SMART-104	SMART-156	SMART-200
L [cm]	104	156	200
A [cm]	36	36	36
H [cm]	21	21	21
a [cm]	74	126	170
b [cm]	14	14	14
d	½"	½"	¾"
Fan parameters in curtains			
Voltage [V]	230	230	230
Motor power [kW]	0,130	0,130	2x0,130
Current [A]	0,60	0,60	2x0,60
Revolutions [rpm]	1250	1250	1250
Curtain weight [kg]			
With water heater	25	35	44
With electric heater	29	37	46
Without heater	21	29	38

Operational noise level of curtains with water heaters and rotational speed controllers of fan									
Curtain type	SMART-104-W			SMART-156-W			SMART-200-W		
Revolution controller position	Air capacity [m³/h]	Noise level [dB(A)] at distance of 1m	Noise level [dB(A)] at distance of 3m	Air capacity [m³/h]	Noise level [dB(A)] at distance of 1m	Noise level [dB(A)] at distance of 3m	Air capacity [m³/h]	Noise level [dB(A)] at distance of 1m	Noise level [dB(A)] at distance of 3m
3st speed	1400	61	58	2300	61	58	2900	62	59
2st speed	1200	56	53	1900	56	53	2470	57	54
1st speed	900	49	46	1300	48	45	1850	51	48

Noise level – acoustic pressure level at the distance of 1 and 3 m from the curtains taking dispersion factor of compartment A=50m2 and directivity factor Q=2 into consideration.
The noise level of the cold curtains and the curtains with electric heaters increases by ~2dB(A) in relation to the noise level of the curtains with water heaters.

5. TRANSPORT

The delivered curtains are completely assembled, protected from outside by polyethylene foil against pollution and weather impacts and packed in cardboard packets.
The Product Manual is delivered along with the curtain.
The automatics elements delivered at the customer's request are packed separately.

The curtains should be transported in one layer in a way preventing mechanical damages.

6. SAFETY RECOMMENDATIONS

The curtains should be used in compliance with the instruction manual.

The start-up, mounting, connection, inspections and repairs of the curtains should be executed by an authorized installer, the electric works should be executed by a person having required certificates authorized to carry out electric works.
All service and repair works should be executed when voltage is off.

In case of the curtain failure it is necessary to switch off the power supply to the curtain and close the water supply to the heater immediately.

The curtain can be used only when electric safety devices operate correctly.
It must be permanently connected to the electric installation equipped with protective (earth) terminal, residual current device and service switch.
It is necessary to pay attention not to change the protection lead to the power lead.

Only original spare parts should be used.

The heaters of the curtains can be supplied with water of very high temperature (up to 150^{o}C) what forces the users to be particularly carful.

It is inadmissible to switch on the heater when the fans are switch off.

A potential-free status is obtained after the disconnection of power supply in the control boxes of the curtain or terminal box connected with the curtain.

Due to the structure the unit does not emit harmful radiation.

Note for the user! The mounting or use of the curtain against the instruction manual makes the threat of curtain damage, creates the hazard to persons and property and causes the loss of warranty.

Although the unit was designed and manufactured in compliance with the requirements of the standards, according to their state at the moment of production launch, a probability of injury or health loss when using the unit is not to be avoided. This probability is connected with a frequency of access to the unit in the course of its use, cleaning or repair, presence of persons within a dangerous zone, acting against the safety rules specified in the instruction manual.
The gravity of body injury or deterioration of health condition depends on many factors that often can be foreseen only partially, taking them into consideration in the structure of the unit, specifying them and warning against them in the instruction manual.
Therefore there is a residual risk when the operator does not observe the recommendations and guidelines included in the instruction manual.

7. MOUNTING

Mounting recommendations

The curtains should be mounted observing the following rules:

» the length of the curtain or set of the curtains should be close to the doo or building opening width

» the curtain should be mounted by the wall as close as possible to the door plane and it is recommended to locate the air outlet slot from the curtain at the height of top edge of the opening.

Curtain suspension

In the top part of the curtain casing there are 4 blind rivet nuts to suspend the curtains to the ceiling or to the bearing structure. The curtains are suspended to the ceiling by means of threaded bars M8. The spacing of blind rivet nuts is specified in the section "TECHNICAL DATA".

A minimal distance of the curtain from the ceiling for the mounting is 10cm.

The threaded bars must be screwed in the blind rivet nuts of the casing to the depth of min. 15mm and protected by locknuts preventing the removal of the bars from the casing.

The bearing structures for the curtains can be freely designed observing the strength requirements.

8. WATER INSTALLATION

It is recommended:

» to use cut-off valves upstream and downstream the curtain to enable its dismounting without the necessity to drain the supply installation;

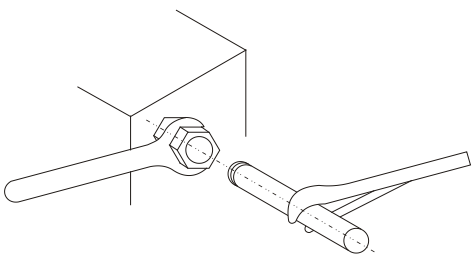
» to mount the valve (recommended by Juwent) in the heating medium supply line of the unit.

The venting of the heaters of the curtains is foreseen centrally in the network.

The imprecise venting of the heater can be a reason for which the curtain does not reach planned parameters.

The weight of installation pipes should not rest on the spouts of the heater.

When connecting the heater to the heating network the spouts of the heater should be protected against breaking in a way presented in the picture.



The heater damages arisen for the afore-mentioned reason are not covered by the warranty.

The heaters of the curtains should be supplied with water meeting the conditions specified in the Standard PN-93/C-04607.

WATER QUALITY PARAMETERS IN CENTRAL HEATING INSTALLATIONS

Kind of materials used in installation	Water quality parameters							
	for installation filling and refilling					installation water		
	Installation system	General hardness mval/l (mmol/l)	Aggressive ion content mg/l	Ammonia nitrogen content mg/l (N_{NH4+})	Inhibitor concentration	Reaction pH	Oxygen content mg/l O_2	Inhibitor concentration
Steel / cast iron	open	≤4,0 (≥2,0)	≤50 ∑ (Cl^-+SO_4^{2-}) including <30 Cl^-	x	x	8,0-9,5	≤ 0,1	x
			>50 ∑ (Cl^-+SO_4^{2-})		acc. to manufa-cturer's recommen-dations	x	x	acc. to manu-fa-cturer's recommen-dations
	closed		≤150 ∑ (Cl^-+SO_4^{2-}) including <100 Cl^-		x	8,0-9,5	≤ 0,1	x
			>150 ∑ (Cl^-+SO_4^{2-})		acc. to manu-fa-cturer's recommen-dations	x	x	acc. to manu-fa-cturer's recommen-dations
Steel / copper	closed	≤4,0 (≥2,0)	≤50 ∑ (Cl^-+SO_4^{2-}) including <30 Cl^-	≤0,5	x	8,0-9,0	≤0,1	x
Copper	open or closed	≤4,0 (≥2,0)	-	≤0,5	x	8,0-9,0	≤0,1	x
Steel / aluminium	open	≤4,0 (≥2,0)	≤50 ∑ (Cl^-+SO_4^{2-}) w tym <30 Cl^-	x	x	8,0-8,5	≤0,1	x
	closed		≤150 ∑ (Cl^-+SO_4^{2-}) including <100 Cl^-					
Plastic	open or closed	≤4,0 (≥2,0)	-	x	x	x	x	x

9. ELECTRICAL INSTALLATION

The electric installation and the connection of power to the curtain must be executed according to the relevant requirements of the standards and construction regulations.

The electric connections of the curtain may be executed only by an authorized electrician who has got acquainted with the instruction manual.

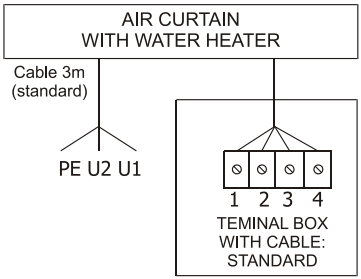
Before the connection it is necessary to make sure whether the voltage value and power system frequency are compliant with the data specified on the rating plates of the curtains. In case of noncompliance the unit should not be connected.

The curtains with electric heaters (3~400V/50Hz) and curtains with water heaters and cold curtains (1~230V/50Hz) should be powered from the main switchboard equipped with a main switch, differential protection device, protective (earth) terminal. Additionally, the electric connection should be executed taking a service switch located directly by the curtain into consideration.

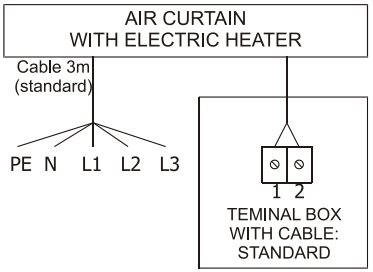
The sections of power leads should be selected according to the power of the installed curtain and power to the mains connection type taking relevant regulations of the proper power distribution company into consideration. Typically, the curtains are equipped with 3-metre leads ended with a terminal block (located in the terminal box), adapted to connect the power supply, valve servomotor, limit switch and thermostat. If the limit switch and / or thermostat are not connected, it is necessary to connect a jumper to the terminals 1-2.

10. CURTAIN CONNECTION DIAGRAMS

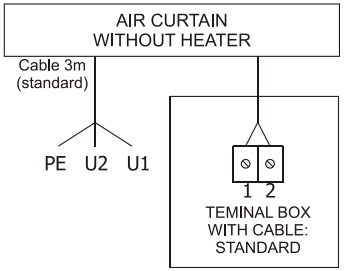
Curtain connection block diagram: Smart-...-[-W;-Z;-E] with remote control [A]



PE,U2,U1 -Power supply (1~230V; U2-N; U1-L)
1-2 - Limit switch or room thermostat
3-4 - Valve servomotor (3-N; 4-L)

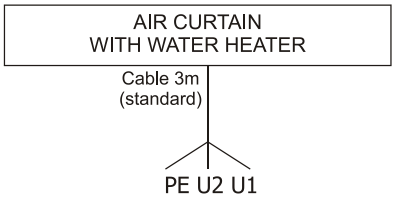


PE-N-L1-L2-L3 - Power supply(3~400V)
1-2 - Limit switch or room thermostat

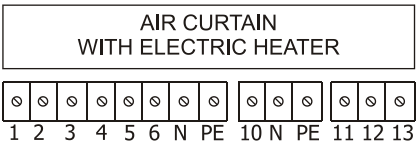


PE,U2,U1 -Power supply (1~230V; U2-N; U1-L)
1-2 - Limit switch or room thermostat

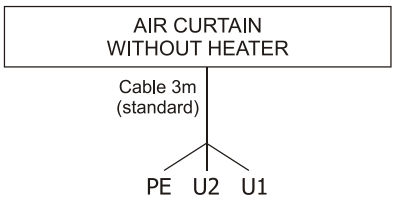
Curtain connection block diagram: Smart-...-[-W;-Z;-E] without control [B]



PE,U2,U1 -Power supply (1~230V; U2-N; U1-L)

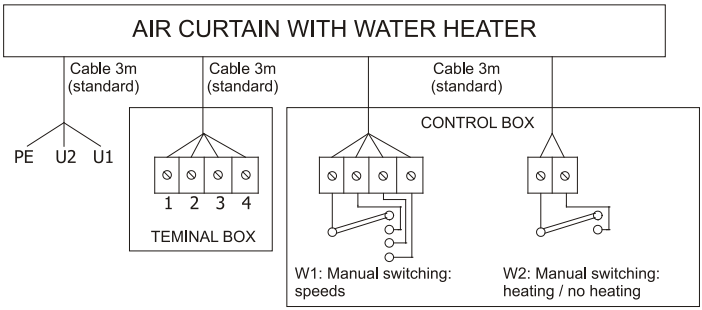


1-2-3-N-PE - I heater section
4-5-6-N-PE - II heater section
10-N-PE - fan power supply
11-13 - heater protection - thermostat
11-12 - fan thermal protection

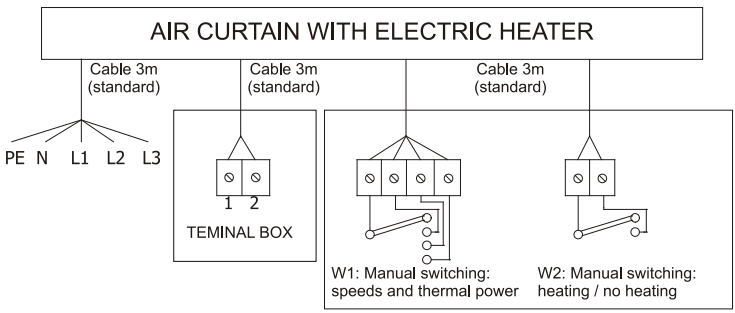


PE,U2,U1 -Power supply (1~230V; U2-N; U1-L)

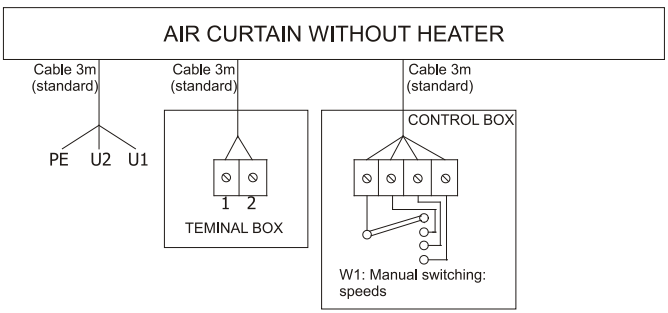
Curtain connection block diagram: Smart-...-[-W;-Z;-E] with control box [S]



PE,U2,U1 - Power supply (1~230V; U2-N; U1-L)
TERMINAL BOX WITH CABLE:
1-2 - Limit switch or room thermostat
3-4 - Valve servomotor (3-N; 4-L)

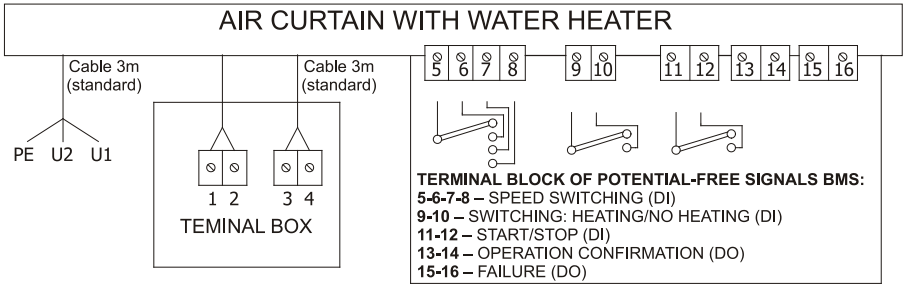


PE-N-L1-L2-L3 - Power supply (3~400V)
TERMINAL BOX WITH CABLE:
1-2 - Limit switch or room thermostat

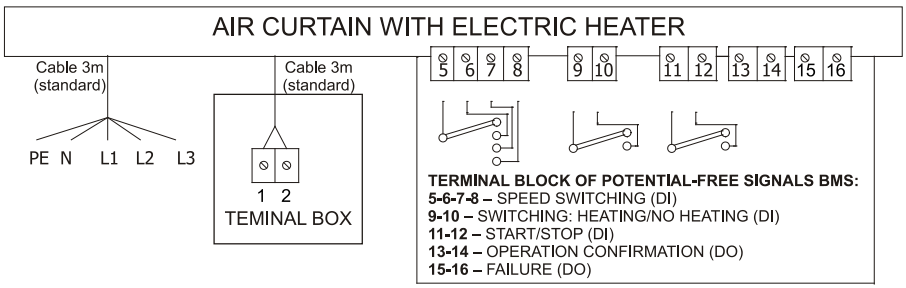


PE,U2,U1 - Power supply (1~230V; U2-N; U1-L)
TERMINAL BOX WITH CABLE:
1-2 - Limit switch or room thermostat

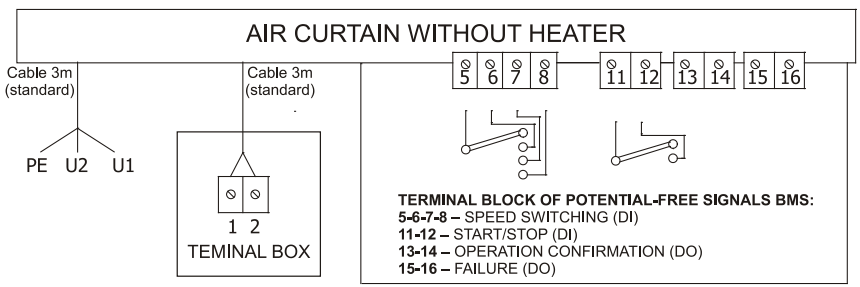
Curtain connection block diagram: Smart-...-[-W;-E;-Z] without remote control with additional control [BMS]



PE, U2, U1 - Power supply (1~230V; U2-N; U1-L)
TERMINAL BOX WITH CABLE:
1-2 - Room thermostat
3-4 - Valve servomotor (3-N; 4-L)

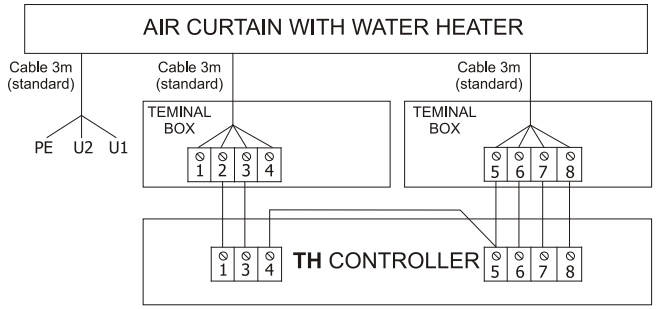


PE-N-L1-L2-L3 - Power supply (3~400V)
TERMINAL BOX WITH CABLE:
1-2 - Room thermostat

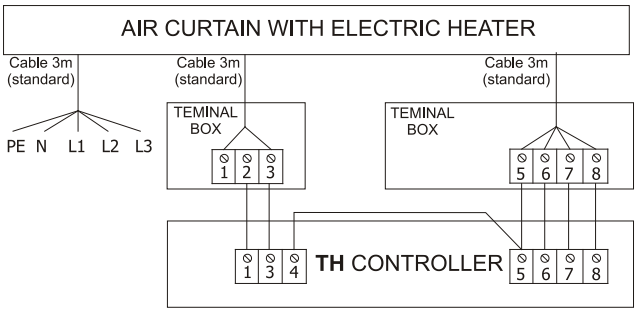


PE, U2, U1 - Power supply (1~230V; U2-N; U1-L)
TERMINAL BOX WITH CABLE:
1-2 - Room thermostat

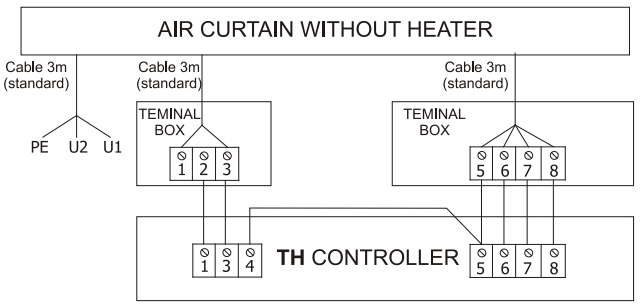
Curtain connection block diagram: Smart-...-[-W;-E;-Z] with TH controller (TH)



PE, U2, U1 - Power supply (1~230V; U2-N; U1-L)
TERMINAL BOX WITH CABLE:
1-2 - Limit switch / thermostat
3-4 - Valve servomotor (3-N; 4-L)



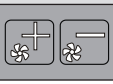
PE-N-L1-L2-L3 - Power supply (3~400V)
TERMINAL BOX WITH CABLE:
1-2 - Limit switch / thermostat



PE, U2, U1 - Power supply (1~230V; U2-N; U1-L)
TERMINAL BOX WITH CABLE:
1-2 - Limit switch / thermostat

11. AUTOMATICS

Control A: Smart air curtains with A-type control are typically equipped with an integrated control system cooperating with a cordless infrared radiation (IR) remote control having the following keys:

Button function	Designation
on/off – Standby mode switching on / off	
Operation mode without heater | Operation mode with heater	
Selection of thermal power level (electric heater) and fan capacity	

The curtains are typically equipped with an IR receiver and two signalling diodes located on the front wall of the curtain (figure nearby):

- two-colour diode: red - STANDBY / green - OPERATION
- diode: yellow – operation with heater.

In the curtains with electric heaters the thermal power level capacity is selected together with a proper capacity level:

- low speed - 1/3 of thermal power
- intermediate speed - 2/3 of thermal power
- high speed - 3/3 of thermal power

The curtains with electric heaters are typically equipped with a THERMOSTAT (adjacent to heating elements) to limit and monitor the outlet air temperature in case of disturbances in the air flow (e.g. fan failure). The range of thermostat setups is within 0^{o}C - 100^{o}C with a constant hysteresis equal to 3^{o}C. The monitoring temperature is set in the factory to 80^{o}C, however, the limiter temperature is always 20^{o}C higher then the set temperature.

Control S: Smart air curtains equipped with a control box with manual speed selection switches and heater switch.

Control B: within the installer's scope.

Control BMS: within the installer's scope, through potential-free signals from an additional controller.

Control TH:
Thermostatic controller TH designet to control Smartair curtains.
Features:

- change of the setpoint of room temperature based on a printed scale;
- HEATING/COOLING switching with use of a single button;
- power supply (on/off) button;
- possible conection of limit switch;
- 3-step fan revolutions control switch;
- control of fan and heating operation depending on thermostat setpoint temperature or limit switch (start/stop whole system);
- surface mounting;
- one controller can support one curtain.

TH controller parameters

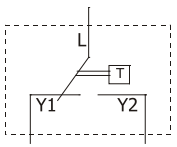
Supply voltage	220...240V AC
Measurement range	10...+30°C
Contact rating	4(2)A
Protection rating	IP30

ADDITIONAL OPTIONAL AUTOMATICS ELEMENTS:

- Room thermostat: A room thermostat (on-off) TP allows setting the required temperature in the room within the range of 8...30°C by means of a knob, however, the room thermostat (on-off) TPP allows setting the required temperature in the room within the range of 8...35°C in the day and night mode on the liquid-crystal display.

TP or TP/IP65 thermostat parameters

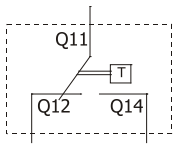
Supply voltage	24..250V AC	24..250V AC
Measurement range	8...+30°C	8...+35°C
Contact rating	6(2)A	10(1,5)A
Protection rating	IP30	IP65



L-Y1 Heating
L-Y2 Cooling

TPP Thermostat with time programmer parameters

Supply voltage	2 batteries 1,5V
Measurement range	5...+35°C
Contact rating	5(2)A
Protection rating	IP30

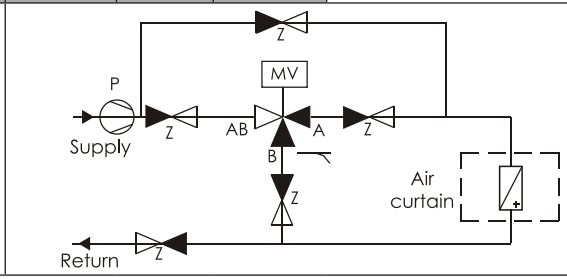


Q11-Q14 Heating
Q11-Q12 Cooling

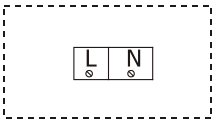
- Three-way valves V: The directional valves found a wide application in the curtains for the adjustment of heating medium flow through the heaters. The directional three-way valves with the connection with internal threads (on/off) are used. The valves should be installed in the supply line, the flow is admissible only in the marked direction AB->A or AB->B.

Symbol	DN	k_{vs}, m³/h	t[°C]	PN	Curtain type
V20	20	3,5	1...110	16	Smart

FITTINGS:
Z: cut-off valve: manual
P: circulating pump
MVK: three-way control valve controlled by servomotor



- valve MVK servomotors: The servomotor that allows controlling the valve "on-off" (by means of thermostat TP/TPP or limit switch) is used for a direct installation on the valves. Therefore a position (protrusion) of the servomotor stem is proportional to the value of control signal from the thermostat or limit switch.
Parameters of valve MVK servomotors

Typ siłownika	on/off	 **L-N** Supply voltage 230V AC	
Napięcie zasilania	230V AC		
Czas zamknięcia / otwarcia	40 s		
Stopień ochrony	IP30		

12. DEVICE STARTUP

Prior to the startup it is necessary to:
- » check up the fastening state of the curtain;
- » check up the leak tightness of water connections;
- » check up the supply voltage according to the electric plate;
- » check up the additional protection of the fans and curtain casing.

To switch on the curtain it is necessary to:
- » open the valves of heating medium and vent precisely the curtain heater;
- » switch on the current supply to the electric motors.

To switch off the curtain it is necessary to:
- » limit the heating medium flow to the heater of the curtain;
- » switch off the current supply to the electric motor of the fan.

In case of long standstills of the curtain or breaks of heating network operation the heater should be drained and the cut-off valves should be closed, if need be.

13. REPAIR, MAINTENANCE AND WITHDRAWAL FROM SERVICE

The curtain heater should be cleaned periodically by means of compressed air after removing the inlet net.
The applied bearings of the fan do not require a periodical lubrication. However, it is recommended to check periodically a condition of the motor bearings (the rotor of the fan should rotate freely without excessive backlashes and knocks).
The rotor blades should be cleaned periodically not to allow unbalancing the rotor.
Do not use high pressure washers to clean the fan.
The condensers of the motors looses their capacity after ~ 40 000 hours of operation.
All repair and maintenance works of the fans should be executed after removing the curtain onto the base and dismounting the front part of the casing.
In case of any disturbances in the curtain operation it is necessary to contact with the installer or the service.

All repair and maintenance works should be executed when voltage is off.
The curtain should be protected against an accidental activation by other persons as well.

The heater contamination state should be checked up periodically. The contaminated heater should be blown through with compressed air.

The heater contamination reduces the air efficiency and heating power of the curtain.

After withdrawal from service the unit should be passed over to the specialized collection point of recyclable materials.

14. TROUBLESHOOTING

Trouble description	Possible trouble cause	Troubleshooting
heat exchanger leakage	mechanical damage of heat exchanger (it may easy appear when the unit is connected to the installation without taking care	use a locking spanner to mount with the installation definitely
	exceedance of admissible heating medium parameters	connect the unit with the heating installation protected against the excessive pressure and temperature growth
	heat exchanger freeze	use an antifreeze thermostat, antifreeze heating fluids or remove water from the unit within the period of standstill and freeze risk
	use of the unit in the aggressive environment	
too load operation of the unit	minimum distance from the wall or ceiling is not maintained	use distances recommended in the instruction manual
	improper revolution direction	execute a proper electric connection
	improper parameters of the mains	use the unit only when the parameters of the mains and the unit are compliant
	air outlet is blocked by outlet grid louvres	avoid a significant closing of outlet grid louvres at high speed ratios
	fan vibrations, the blades rub against fixed elements	check up the correctness of the fan and fastening reliability of other elements of the unit
	not centric fastening of the fan in its bearing plate	
fan does not work	incorrect or unreliable electric connections	check up or correct: 1) compliance of electric connections according to the diagrams specified in the instruction manual 2) reliability of connections on electric terminals 3) parameters of the mains
	improper parameters of the mains (lack of three phases in three-phase motors)	
	fan motor is damaged	
	fan operation control elements are damaged	
Servomotor does not open the valve	correctness of thermostat operation (characteristic "tick" when switching)	check up or correct: 1) compliance of electric connections according to the diagrams specified in the instruction manual 2) reliability of connections on electric terminals 3) parameters of the mains 4) whether the servomotor reacts to an electric pulse. If the servomotor damage is stated, the damaged element should be claimed.
Room thermostat does not apply the signal	more than one unit is connected directly to the thermostat (larger number means the thermostat overload)	check up or correct: 1) compliance of electric connections according to the diagrams specified in the instruction manual 2) reliability of connections on electric terminals 3) parameters of the mains 4) if there is no characteristic "tick", the thermostat is mechanically damaged and should be claimed.
	mounting place of the thermostat in the room	

15. INFORMATION

As to all issues concerning the air curtains please contact JUWENT Production Plant or our Representatives

III. WARRANTY TERMS AND CONDITIONS

1. JUWENT Szymański, Nowakowski General Partnership, headquartered in Ryki at 31 Lubelska Str., hereinafter referred to as the Warrantor, grants the Customer a warranty of proper operation of the unit with reservation of the requirement of its use in accordance with the conditions determined in the instruction manual and the terms and conditions specified below.
2. The warranty has been granted for a period of 24 months from the purchase date demonstrated in this warranty document with a possibility of its special extension according to a separate agreement and specified in the Special Warranty Terms and Conditions.
3. The warranty covers the removal of technical defects of the unit arisen as a result of its use in accordance with the instruction manual, revealed within the warranty period. The warranty provisions are valid in the territory of the Republic of Poland.
4. By virtue of the granted warranty the Warrantor is not liable for the loss of expected profits and costs resulting from a periodical impossibility of the use of the unit incurred by the Customer.
5. To realize the Customer's rights resulting from the warranty it is required to deliver the claimed unit with the warranty document to the Warrantor at his expense.
6. The claimer delivers the unit in an original factory packing, in case there is no factory packing the claimed unit should be delivered by the Customer for the repair in a way ensuring a safe transport. The risk of accidental damage of the unit during the transport burdens always the party that dispatches the parcel.
7. The defects revealed with the warranty period will be removed by the Warrantor free of charge. A method selection of the realization of obligations resulting from the warranty granted to the Customer belongs to the Warrantor that may remove a defect by the repair or the replacement of the damaged subassembly or by the replacement of the unit. The property of the unit withdrawn from service and / or defective subassemblies is transferred to the Warrantor.
8. The warranty is extended by a period for which the Customer has been deprived of a possibility to use the unit.
9. The Warrantor will make efforts that the repair is executed without further delay within the time-limit of up to 14 working days from the delivery date of the unit. In reasonable cases of which the Customer will be informed by the Warrantor, this time-limit may be extended, e.g. by the time of provision import or when there is a necessity to execute an expertise or laboratory tests in specialized institutions.
10. The Warrantor is liable exclusively for the defects inherent in the sold unit. The damages arisen after its sale for other reasons are not covered by the warranty, in particular:
    a) mechanical damages (including also damages caused by microparticles occurring in the working environment of the unit), thermal damages, chemical damages and aleatory damages or damages caused by the atmospheric factors,
    b) damages occurred as a result of non-observance of typical rules or the rules required by the instruction manual related to the operation and mounting of the unit or the use of the unit against the intended use and other damages caused by the Customer's activity or omission,
    c) damages being a result of defective operation of the system in which the unit has been built or used,
    d) damages occurred as a result of non-execution of the actions to which the Customer has been obliged in accordance with the instruction manual, e.g. periodical cleaning, maintenance, adjustment, etc.,
    e) damages occurred due to the use of materials or parts subject to a normal operational wear other than the materials recommended by the Warrantor in the instruction manual,
    f) damages being a result of use of power supply of the unit (of the system in which this unit functions) incompliant with the standard, and in case the unit is also supplied with water, damages being a result of use of water (supply water and / or boiler water) with parameters other than the parameters foreseen in the valid standard (PN-93/C-04607),
    g) damages occurred as a result of operation and / or maintenance of the unit in a way incompliant with the instruction manual and / or executed by the unauthorized persons.
11. The warranty does not cover as well:
    a) activities executed by the Customer in accordance with the recommendations included the instruction manual of the unit within the framework of normal maintenance and inspections,
    b) travel and work costs of the Warrantor's service or an entity delegated by the Warrantor in case when a warrant call turns out to be groundless.
12. An annotation made by a trained employee in the Inspection and Maintenance Document of the unit is a confirmation of time--limit holding and range of activities foreseen for the maintenance of the unit.
13. The Warrantor is not liable for damages incurred by the Customer or third parties caused the run of the unit occurred in particular as a result of non-observance of the afore-mentioned terms and conditions by the Customer.
14. In case the service works are executed by the Warrantor at the place where the unit is mounted, the Customer will make available a free access to the rooms where the units are located to the Warrantor.
15. In case the units are mounted at the height making an access from the floor surface impossible, the Customer will ensure the scaffolding compliant with the OHS regulations or mobile lifting platforms and vertical transport equipment.
16. The equipment from the electric and / or hydraulic system is disassembled by the Customer.
17. The claims should be lodged at the Warrantor's address in writing / by fax / email using a service notification form.
18. The Warrantor refuses to execute the warranty activities (periodical service works or repair) in case the price for the unit or previous service work is not paid for the benefit of the Warrantor.

DATE OF SALE **STAMP AND SIGNATURE**

Special Warranty Terms and Conditions:

Warranty period extension up to ..... months.

Other:

STAMP AND SIGNATURE

TYPE OF UNIT:	
FACTORY NUMER:	
YEAR OF PRODUCTION:	

IV. UNIT STARTUP REPORT

Date of startup	**Executor of startup** stamp / name and signature	**Motor current [A]**	**User's representative** stamp / name and signature	**Remarks**

V. INSPECTION AND MAINTENANCE DOCUMENT

Date of inspection	**Executor of inspection** stamp / name and signature	**Service activity range**	**Remarks**

* Inspection of the unit in accordance with the section "Repair and Maintenance" in the instruction manual

VI. SERVICE NOTIFICATION

Date:

Notification type WARRANTY ☐ POST-WARRANTY ☐ PAID ☐

Unit's user (name)	
Contact person	
User's address	
Phone, fax. and email	
Type of unit	
Factory No.	
Year of production	
Startup executed by	

Description of defect:

NOTE: AFTER COPYING AND FILLING IN SEND THE NOTIFICATION BY FAX OR EMAIL TOGETHER WITH A COPY OF THE STARTUP REPORT.
JUWENT Company accepts notifications filled legibly and completely.
When the lodged claim is not justified, the claimer will be burdened with service costs.

Date of warranty issue Order No. (company's stamp)

....

VII. LIST OF SUBASSEMBLIES INSTALLED IN THE UNIT

No.	Name of subassembly	*)
1	Metal louvre I-row heat exchanger	
2	Electric three-phase heat exchanger	
3	Without heat exchanger (so called “cold” curtain)	
4	Control system cooperating with IR remote control	
5	Control system cooperating with supply and control box	

*) - mark proper box corresponding with the equipment variant