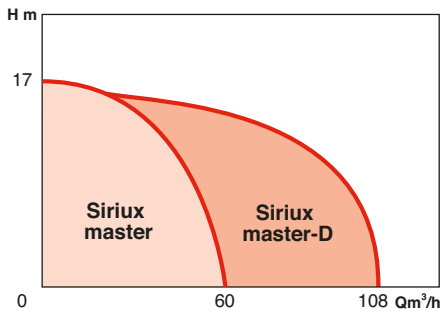


## OPERATING LIMITS

Flows rates up to:	60 m <sup>3</sup> /h*
Heads up to:	17 m CE
Max. operating pressure:	10 bar
Temperature range:	-10° to +110°C
Max. ambient temperature:	+40°C
ND of ports:	25 to 80
EEl:	≤0,27

\*108 m<sup>3</sup>/h: simultaneous operation

The benchmark for most efficient circulators is EEl ≤ 0,20



## ADVANTAGES

- Energy savings
- All-purpose
- Noise reduction
- Reliability
- Ergonomics

# SIRIUX MASTER

## SINGLE AND DOUBLE HIGH EFFICIENCY CIRCULATORS PREMIUM RANGE

### Heating - Air-conditioning

## APPLICATIONS

For accelerated water circulation for heating or cooling, with optimization of circulator operating point.

- Central heating,
- Urban heating,
- Commercial or industrial installations;
- Cooling circuits.

- Air-conditioning systems
- New, old (renovated) installations or extensions.

Circulating pumps recommended for facilities fitted with thermostatic valves.



• SIRIUX D-32-70

• SIRIUX-50-60

# SIRIUX MASTER

## DESIGN

### • Hydraulic part

Single or double body with threaded or flanged. 3D impellers and spiral for maximum optimization of the hydraulic performances. An impeller seal between the pump body and the impeller improves performances further by limiting the internal recycling of the fluid. The pump body is fully cataphoresis coated to ensure corrosion resistance.

### • Motor

230 V – 50 Hz single-phase

Wet rotor motor; bearing bushes lubricated by the fluid pumped.

E.C.M. (Electronically Commutated Motor) synchronous motor, equipped with a permanent magnet rotor.

The stator's rotating magnetic field is generated by the electronic switching of the coils.

This rotating field creates a continuous torque through attraction between the rotor's opposite magnetic poles, controlling its position (synchronous motor). This ensures the optimum performance of the motor, whatever its speed.

The wet rotor and the windings are separated by a composite, and therefore completely amagnetic, sleeve, to reduce motor losses.

### SXE with AC motor



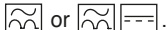
### Siriox with EC motor



Speed:	900 to 4800 rpm
Mains voltage:	1-ph. 230 V ± 10 %
Frequency:	50 Hz - 60 Hz
Insulation class:	F (155° C)
Protection index:	IPX4D
EMC compliance:	EN 61800-3
	emission EN 61000-6-3
	immunity EN 61000-6-2

### • Protection differential (FI)

«All current» FI protection differentials compliant with EN 61008-1 are permitted. These differential circuit breakers are identified by



## ADVANTAGES

### • Energy savings

High efficiency circulators, with optimization of the operating point. Energy savings of up to 80% compared to a traditional circulator.

### • All-purpose

These circulators are compatible with all types of heating, air-conditioning and refrigeration systems. The standard version covers a fluid temperature range from -10°C to +110°C.

### • Noise control

Eliminating of whistling and hydraulic noises in the thermostatic valves. Automatic adapting of speeds to the system's needs.

### • Reliability

- Fully automatic operation requiring neither venting nor servicing. A double filter system prevents solid particles from getting into the rotor chamber. A rotating seal between the impeller and the endshield limits water exchanges with the motor to the bare minimum.

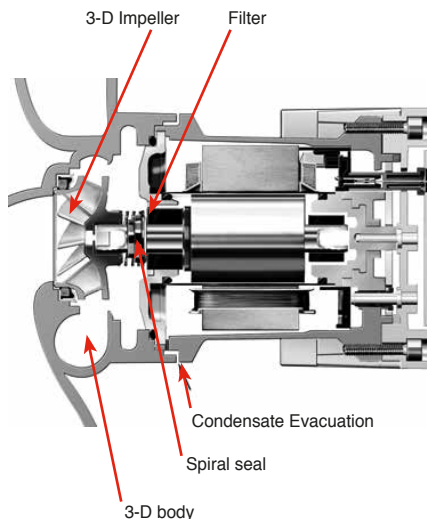
- Circulators shut down via the on/off control start up for a few moments once a day to prevent blocking due to a long period of inactivity.

- The electronic modules have a non-volatile memory for data storage. The setpoints are protected in the case of a power cut.

- Single or double circulators equipped with IF modules (optional, one IF module per motor) allow many control or remote monitoring functions.

### • Ergonomics

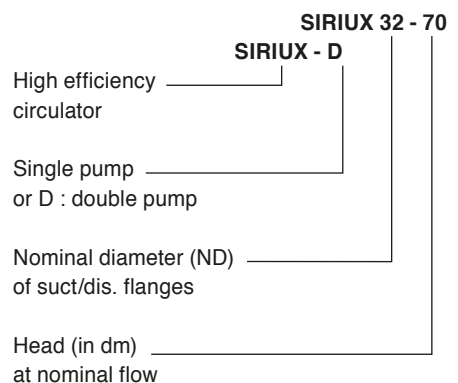
Easy electrical connections and adjustments facilitated by direct access via the control module's front panel. The position of the display on the LCD screen may be adjusted according to the position of the control module. Pressure gauge tapings on the flanges.



## STANDARD CONSTRUCTION

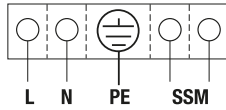
Main parts	Material
Pump casing	EN GJL 250 EN GJL 200 for ND 25-30
Impeller	Glass fibre reinforced PPS PP for ND 65-80
Shaft	Chromium steel (X46 – Cr13)
Bearing bushes	Metal impregnated carbon

## IDENTIFICATION

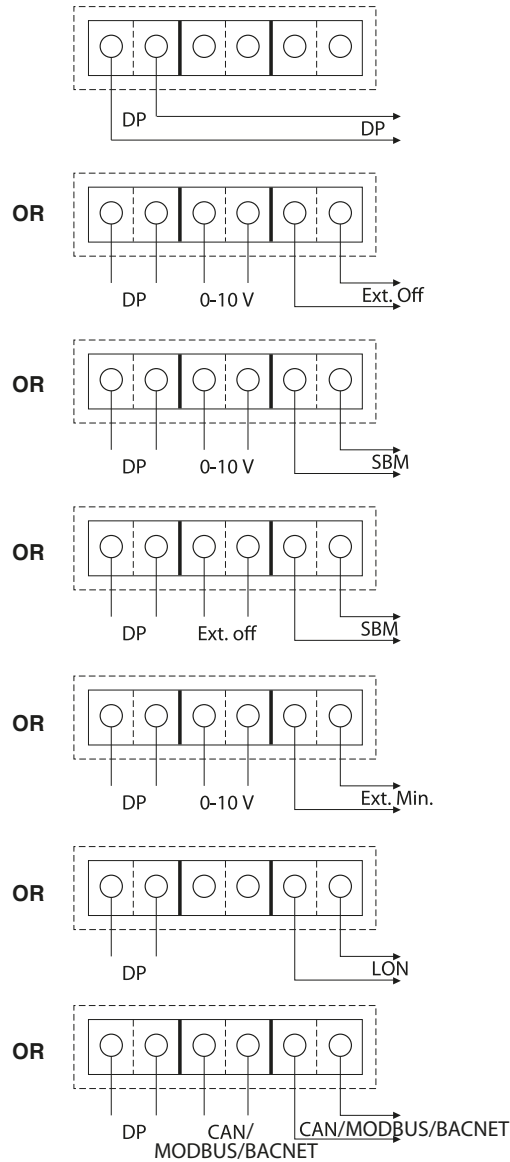


# SIRIUX MASTER

## CONNECTIONS



### Options: IF Modules



#### • In terminal boxes

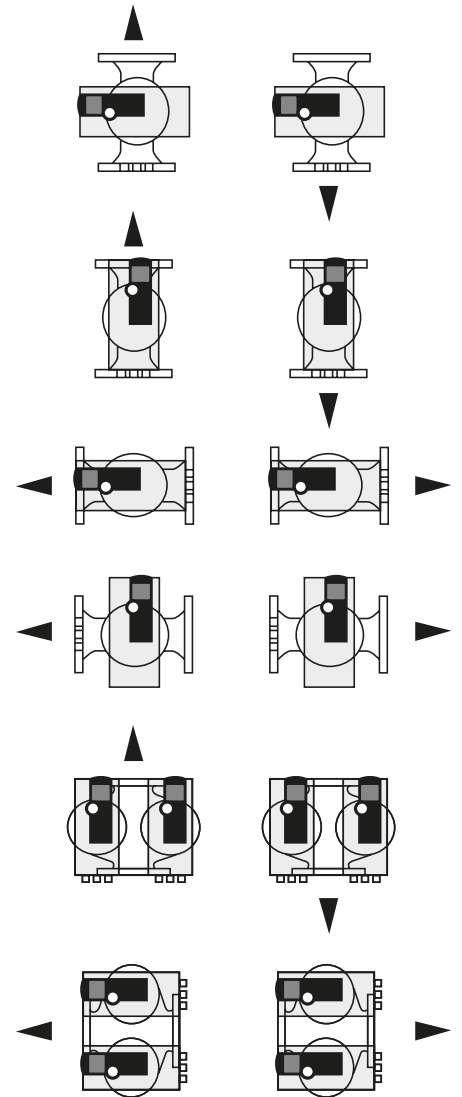
- L – N:** mains connection, 230 V – 50 Hz/60 Hz single-phase current
- PE:** earth
- SSM:** dry contact for fault indicator (normal closed, open by default). Max load: 1 A – 250 V – AC

#### • On IF modules (optional)

- DP:** double pump (or 2 single pump) management
- 0-10 V:** analog input for external control signal
- Ext. Off:** remote on/off (through external contact)
- SBM:** dry contact for operating state indicator (contact normally open; closed if pump runs)

## POSSIBLE ASSEMBLY

On vertical or horizontal pipes the motor shaft must always be horizontal.



**Ext. Min:** remote min. operating curve (through external contact)

**LON :** Serial digital LON interface for connection to LONWORKS networks.

**CAN :** Serial digital interface for connection to CAN open networks

**MODBUS:** Serial digital interface for connection to Modbus open networks

**BACnet :** Serial digital interface for connection to BACnet open networks

# SIRIUX MASTER

## OPERATING PRINCIPLE

The heating or air-conditioning needs of a building vary according to whether it is day or night, but also during the day according to changes in the outside temperature, etc., and even from one point of the building to another as the thermostatic valves or 2-way valves are closed. The self-regulated circulator automatically adjusts its rotation speed according to the mains network's friction losses, in order to maintain a minimum electricity consumption (ECM technology) and a low operating noise level. The circulator's properties are adjusted automatically according to the heating or cooling needs of the system.

### • Manual adjustment

Parameterization of basic functions, i.e.:

- ON/OFF;
- control mode  $\Delta P$  constant  $\Delta P$  variable
- and speed adjustment;

### • Constant pressure

With this regulation mode, electronic control maintains the constant differential pressure of the circulating pump whatever the flow rate, depending on the predefined pressure value.

### • Variable pressure

With this regulation mode, the electronic control allows reducing the differential pressure (manometric head) in case of flow reduction, depending on the predefined differential pressure value.

### • Speed adjustment

The speed may be adjusted manually to a constant figure between 900 and 4800 rpm (according to models).

### • Automatic idling

The considerable development of day/night adjustment installations has produced hourly or thermostatic regulated boilers, but not by the adjustment of circulating pumps, which consume energy accelerating cold water circulation.

### • Remote monitoring

In addition, a dry contact (open by default) allows the remote monitoring of any operating incident (e.g. through a building management system).

### • External control (with IF module)

This control mode deactivates controlling by the control module.

It provides the following functions by means of a 0-10 V analog signal:

- remote adjusting of the setpoint  $\Delta P$ 
  - constant
  - variable
- remote adjusting of the speed between the min speed and the max speed
- external on-off.

### • LON communication

### • CAN communication

### • Modbus communication

### • BACnet communication

### • Double circulators

Equipped with two IF (InterFace) units, the Sirix benefits from the following extra functions:

### Duty/Stand-by

The flow requested is provided by a single pump, the other pump starting up in case of fault on first pump or after 24 hours of actual operation of the latter.

### Cascade operation

At minimum load, only the pump in service operates. The backup pump triggers when radiators request a higher flow rate. From this point (switchover point), the nominal speed of the two pumps increases synchronously in case of need. After 24 hours of actual operation, there is built-in (automatic) changeover of the master pump which becomes slave. This function increases energy saving as compared to usual operation in parallel by avoiding numerous locking/ triggering. (See working curves in cascade opposite).

### • Additional functions (IF modules)

There are nine types of IF module:

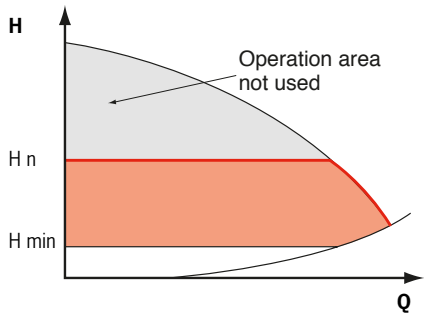
- IF module – Ext. Off
- IF module – SBM
- IF module – Ext. Off / SBM
- IF module – Ext. Min.
- IF module – DP.
- IF module – LON.
- IF module – CAN.
- IF module – Modbus.
- IF module – BACnet.

having the following functions (see table below):

Modules	DP	Ext. Off	SBM	Ext. Min	LON	Ext. Off / SBM	CAN	Modbus	BACnet
Functions									
Double pump management	•	•	•	•	•	•	•	•	•
0-10 V analog input		•	•	•					
Remote on/off		•				•			
Operation indicator			•			•			
Remote min. operation				•					
LONWORKS Serial Interface					•				
CAN Serial Interface							•		
Modbus Serial Interface								•	
BACnet Serial Interface									•

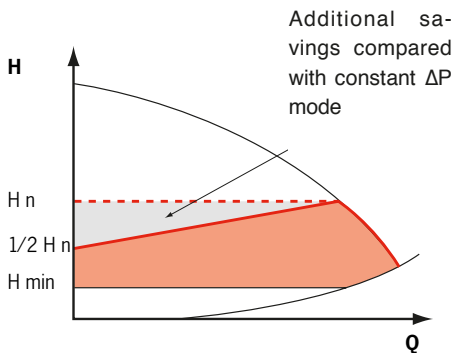
## OPERATING PRINCIPLE

### ΔP Constant Mode



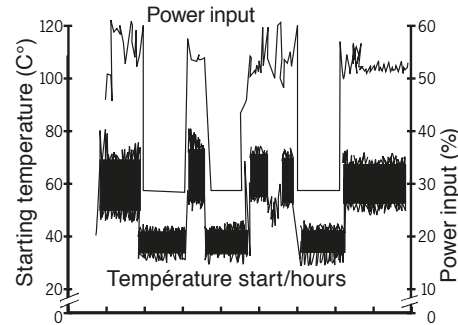
Electronic module maintains constant the differential pressure produced by the pump at the differential pressure value of Hn instruction, up to the curve of operating data through the authorized flow rating.

### ΔP Variable Mode



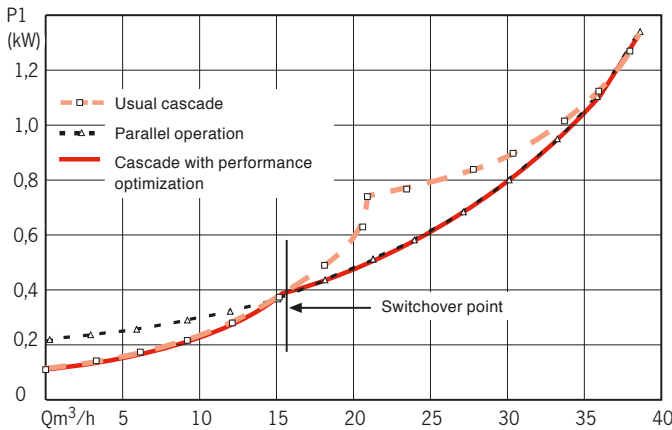
Electronic module modifies linearly the differential pressure value between Hn and 1/2 Hn instruction to be met by the pump. Differential pressure value of H instruction increases or decreases acc. to the requested flow rate.

### Auto operating mode (setback function)



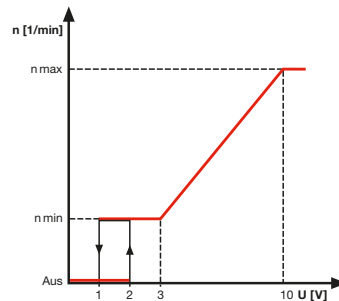
This device enables making up to 25% additional saving as compared to operation in ΔP constant. When the heating facility reaches a certain low temperature, the circulator runs on a constant reduced speed until a new rise in temperature.

### Efficiency-optimized peak-load operation

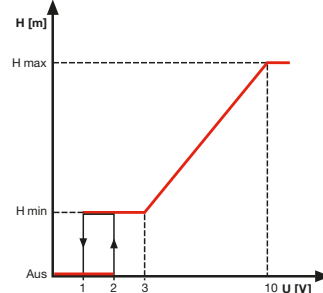


Operation in cascade of a SIRIUX fitted with two IF modules. At equivalent flow rate, the circulator automatically uses the curve of least power.

## CONTROLS



Remote controlling of the speed by a 0-10 V signal



Remote controlling of the differential head by a 0-10 V signal

# SIRIUX MASTER

## TABLE OF FUNCTIONS

	Siriox	Siriox D
<b>Operating modes</b>		
Speed-stage switching	—	—
Remote speed control (n = constant)	•	•
$\Delta p$ -c for constant differential pressure	•	•
$\Delta p$ -v for variable differential pressure	•	•
<b>Manual functions</b>		
Adjustment of operating mode	•	•
Adjustment of differential-pressure setpoint	•	•
Adjustment of «autopilot» (automatic setback mode)	•	•
Selection Pump ON/OFF	•	•
Adjustment of speed (manual setting mode)	•	•
Adjustment of speed stages	—	—
<b>Automatic functions</b>		
Smooth adjustment of power depending on the operating mode	•	•
«Autopilot» automatic setback mode	•	•
Deblocking function	•	•
Soft start	•	•
Full motor protection with integrated trip electronics	•	•
<b>External control functions <sup>1)</sup></b>		
Control input «Overriding Off»	Possible with Siriox interface modules (accessory)	Possible with Siriox interface modules (accessory)
Control input «Overriding Min»	Possible with Siriox interface modules (accessory)	Possible with Siriox interface modules (accessory)
Control input „Analog In 0 ... 10 V“ (remote speed setting)	Possible with Siriox interface modules (accessory)	Possible with Siriox interface modules (accessory)
Control input „Analog In 0 ... 10 V“ (remote setpoint setting)	Possible with Siriox interface modules (accessory)	Possible with Siriox interface modules (accessory)
<b>Signal and display functions</b>		
Collective fault signal (potential free NC contact)	•	•
Individual run signal (potential free NO contact)	Possible with Siriox interface modules (accessory)	Possible with Siriox interface modules (accessory)
Fault light	•	•
LC display for showing pump data and fault codes	•	•

## TABLE OF FUNCTIONS

	Siriox	Siriox D
<b>Data exchange</b>		
Infrared interface for wireless data exchange with Salmson Pump Control (see Salmson Pump Control function table)	•	•
Serial digital LON interface for connection to a LONWORKS network	Possible with Siriox interface modules (accessory)	Possible with Siriox interface modules (accessory)
Serial digital interface for connection to a CAN open, Modbus, BACnet networks	Possible with Siriox interface modules (accessory)	Possible with Siriox interface modules (accessory)
<b>Dual pump management (double pumps or 2 x single pump) <sup>2)</sup></b>		
Main/standby pump operation (automatic faultactuated duty changeover/ time-sensitive pump alteration)	Possible with Siriox interface modules (accessory)	Various combinations with Siriox interface modules (accessory) possible
Cascade mode (switched on and off for peak loads to optimise efficiency)	Possible with Siriox interface modules (accessory)	Various combinations with Siriox interface modules (accessory) possible
<b>Equipment / scope of delivery</b>		
Wrench attachment point on pump body	Threaded types with P2 < 140 W	—
Double changeover valve in pump housing	—	•
Cable entry possible on both sides	—	—
Integrated air separator for automatic rapid ventilation Rp 3/8	—	—
Plug-in slot for optional extension with SALMSON IF modules	•	•
Blocking-current-proof motor	—	—
Included seals for threaded connection or flanges (loose)	•	—
Included installation and operating instructions	•	•
Included heat insulation	—	—
Included bolts and washers for flanges (for DN 32 - DN 80 nominal connection diameters)	•	•
Particle filter	•	•

• = available ; — = not available

1) Choose the appropriate IF module

2) With 2 IF modules

# SIRIUX MASTER

## TECHNICAL DATA - SIRIUX

	25-30	25-40	25-60	25-65	32-30	32-40	32-60	32-65	32-65F	32-90	32-70	40-30	40-60	40-65	40-80	40-110	50-60	50-65	50-70	50-80	50-110	65-80	65-90	65-110	80-90
Approved fluids (other fluids on request)																									
Heating water (as per VDI 2035)																									
Water/glycol-mixtures (max. 1:1; mixtures with more than 20 % glycol content require rechecking of the pumping data)																									
Drinking water and water for food businesses in accordance with TrinkwV 2001																									
Performance																									
Max. delivery head [m]	4	6	7	10	4	8	7	10	10	11	9	5	8	10	12	17	8	10	9	11	17	10	11	16	13
Flow rate max. [m3/h]	4	7	8	9	4	7	8	9	9	10	13	11	13	9	21	23	13	9	24	29	43	29	41	52	61
Permitted field of application																									
Temperature range when used in heating, ventilation & air conditioning systems - at max. ambient temperature +40 °C [°C]																									
Temperature range for use in drinking-water circulation systems - at max. ambient temperature +40 °C [°C]																									
- at max. ambient temperature +40 °C in short-term operation 2 h [°C]																									
Max. permissible total hardness in drinking watercirculation systems [°d]																									
Standard version with nominal pressure, p max [bar]																									
Special version with nominal pressure, p max [bar]																									
Pipe connections																									
Pipe connection	1	1	1	1	1 1/4	1 1/4	1 1/4	1 1/4		1 1/4															
Nominal diameter																									
Flange for mating flange PN 10, standard version																									
Flange for mating flange PN 16, special version																									
Combination flange PN 6/10 for mating flanges PN 6 and PN 16, standard version																									
Support-bracket mounting (with horizontal shaft only), standard version																									
Support-bracket mounting (with horizontal shaft only), special version																									



## TECHNICAL DATA - SIRIUX

	25-30	25-40	25-60	25-65	32-30	32-40	32-60	32-65	32-65F	32-90	32-70	40-30	40-60	40-65	40-80	40-110	50-60	50-65	50-70	50-80	50-110	65-80	65-90	65-110	80-90	
<b>Electrical connection</b>																										
Mains supply connection 1~ [V], standard version																										
Mains supply connection 3 ~ [V], standard version																										
Mains supply connection 3 ~ [V], with optional switching plug																										
Mains frequency [Hz]																										
<b>Motor/electronics</b>																										
Electromagnetic compatibility																										
Emitted interference																										
Immunity to interference																										
Power electronics																										
Protection class																										
Insulation class																										

\* = available ; — = not available

# SIRIUX MASTER

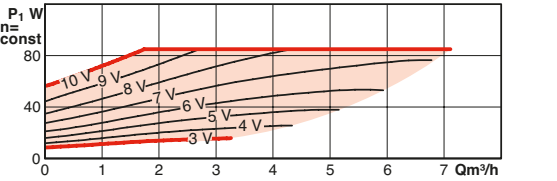
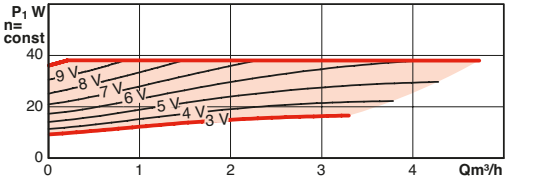
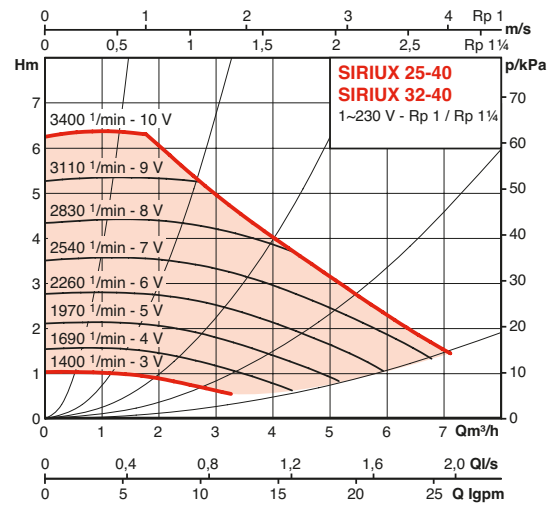
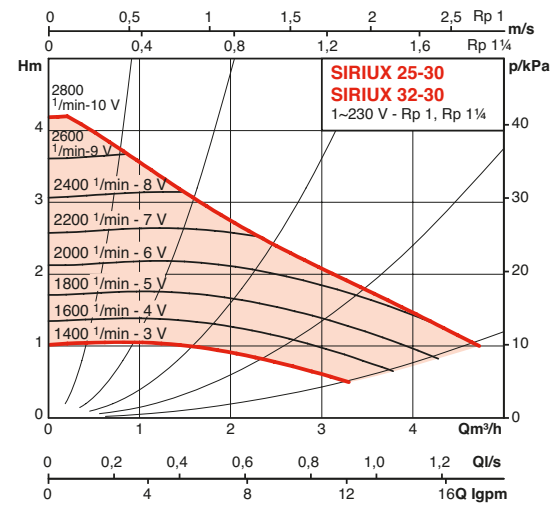
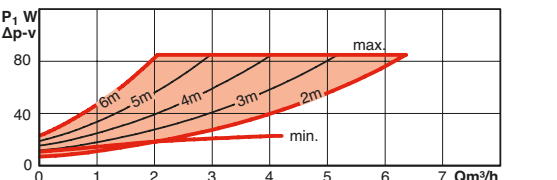
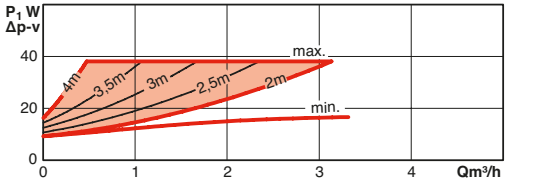
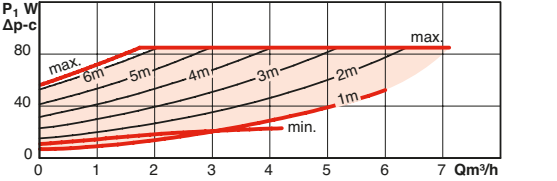
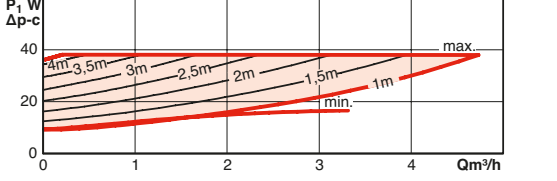
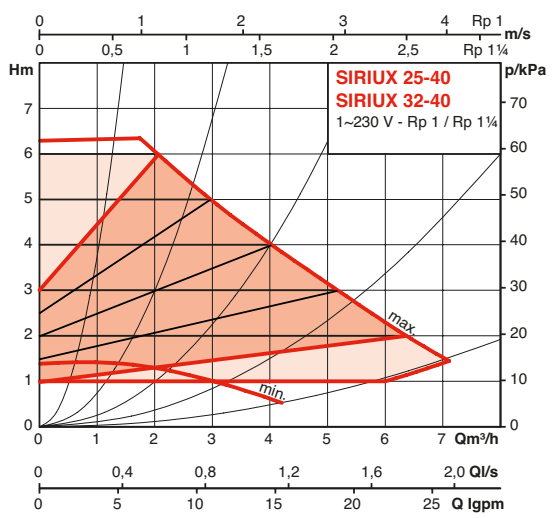
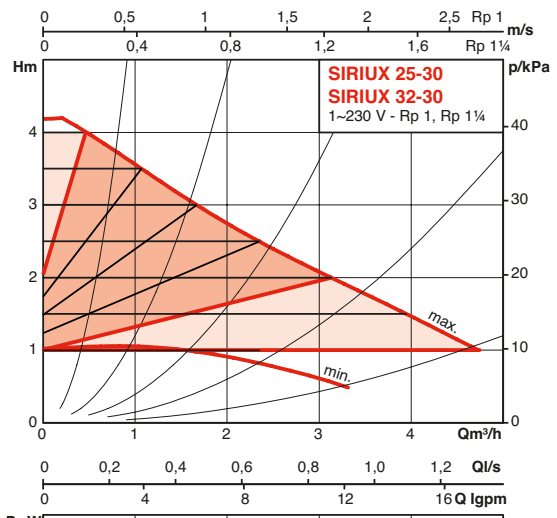
## TECHNICAL DATA - SIRIUX D

	32-60	32-70	40-60	40-80	40-110	50-60	50-70	50-80	50-110	65-90	65-110	80-90
<b>Approved fluids</b> (other fluids on request)												
Heating water (as per VDI 2035)							•					
Water/glycol-mixtures (max. 1:1; mixtures with more than 20 % glycol content require rechecking of the pumping data)							•					
Drinking water and water for food businesses in accordance with TrinkwV 2001							—					
<b>Performance</b>												
Max. delivery head [m]	7	9	8	12	17	8	9	11	17	11	17	13
Flow rate max. [m <sup>3</sup> /h]	13	19	21	32	35	21	38	43	58	72	80	107
<b>Permitted field of application</b>												
Temperature range when used in heating, ventilation & air conditioning systems - at max. ambient temperature +40 °C [°C]												-10 to +110
Temperature range for use in drinking-water circulation systems - at max. ambient temperature +40 °C [°C]												—
- at max. ambient temperature +40 °C in short-term operation 2 h [°C]												—
Max. permissible total hardness in drinking water circulation systems [°d]												—
Standard version with nominal pressure, p max [bar]						6/10						10
Special version with nominal pressure, p max [bar]						16						16
<b>Pipe connections</b>												
<b>Pipe connection</b>												
Nominal diameter	32	32	40	40	40	50	50	50	50	65	65	80
Flange for mating flange PN 6, standard version	—	—	—	—	—	—	—	—	—	—	—	•
Flange for mating flange PN 16, special version	•	•	•	•	•	•	•	•	•	•	•	•
Combination flange PN 6/10 for mating flanges PN 6 and PN 16, standard version	•	•	•	•	•	•	•	•	•	•	•	—
<b>Electrical connection</b>												
Mains supply connection 1 ~ [V], standard version							230					
Mains supply connection 3 ~ [V], standard version							230					
Mains supply connection 3 ~ [V], with optional switching plug							—					
Mains frequency [Hz]							50/60					
<b>Motor/electronics</b>												
Electromagnetic compatibility							EN 61800-3					
Emitted interference							EN 61000-6-3					
Immunity to interference							EN 61000-6-2					
Power electronics							Frequency converter					
Protection class							IPX4D					
Insulation class							F					

• = available ; — = not available

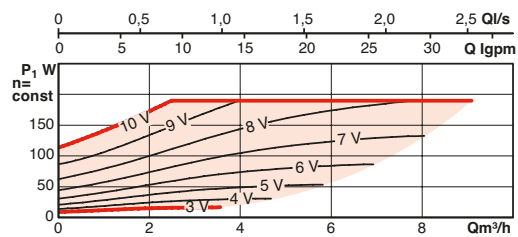
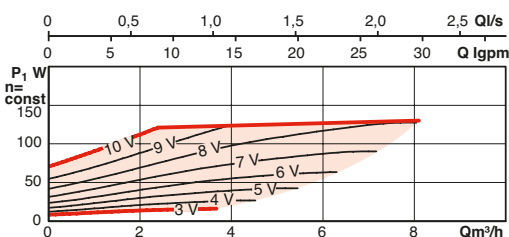
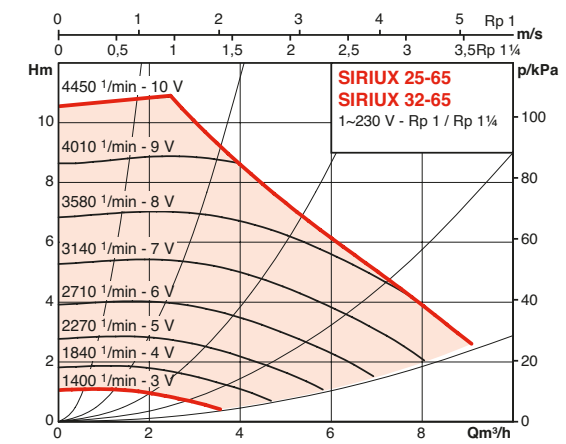
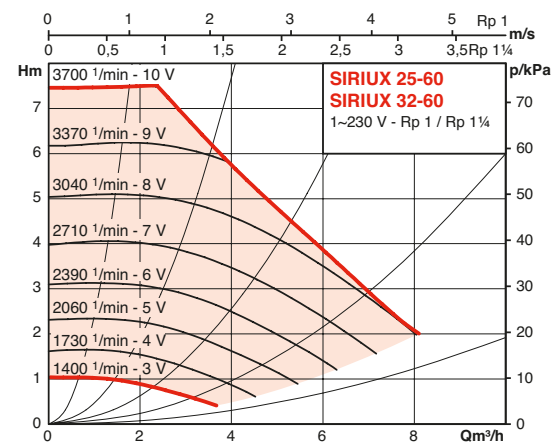
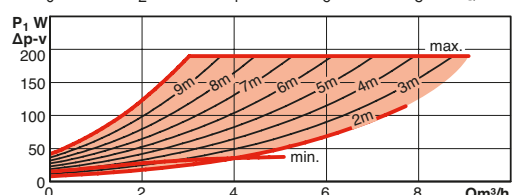
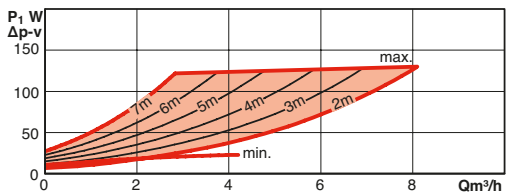
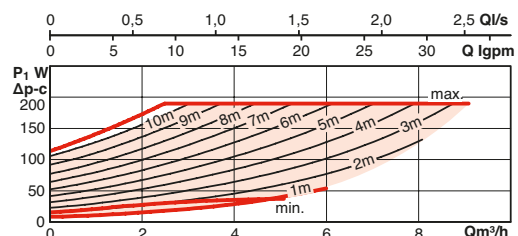
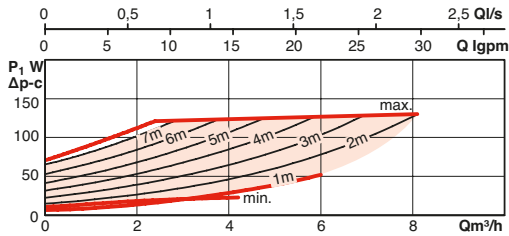
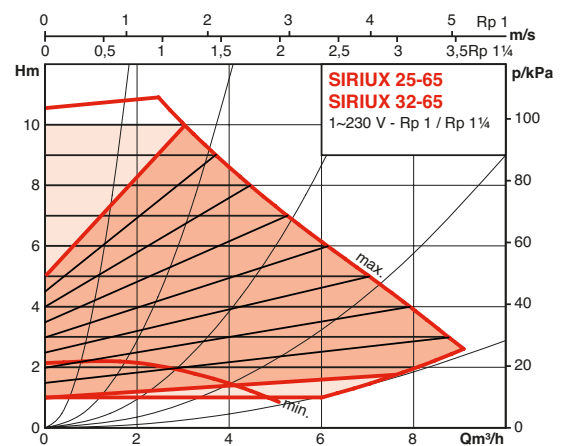
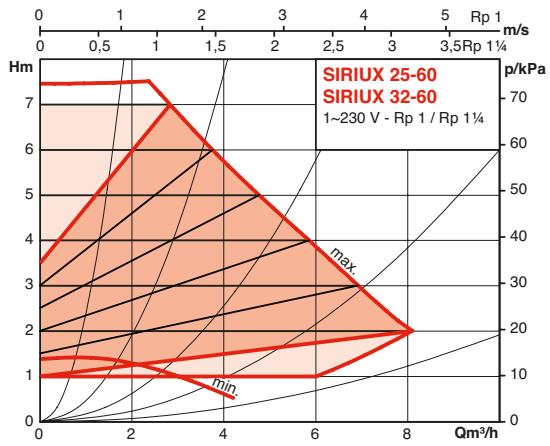
# SIRIUX MASTER

## SIRIUX 25-30 32-30 AND SIRIUX 25-40 32-40 HYDRAULIC PERFORMANCES

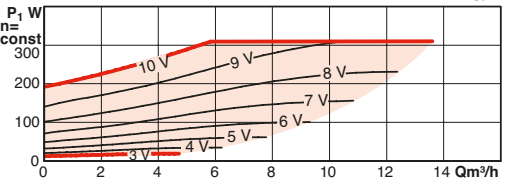
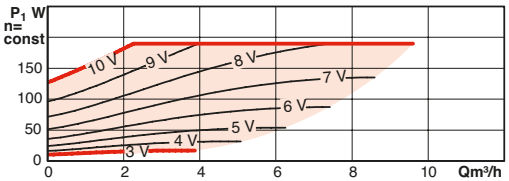
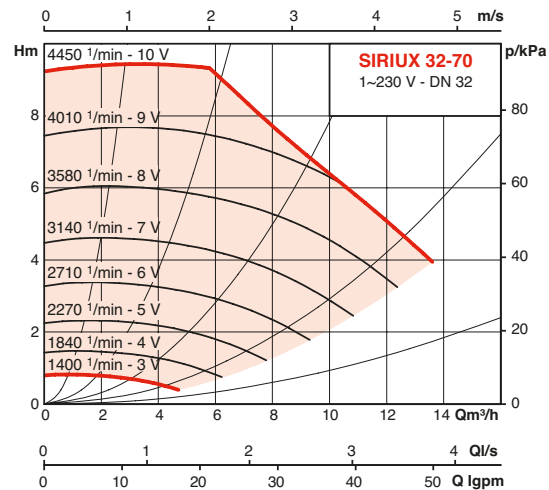
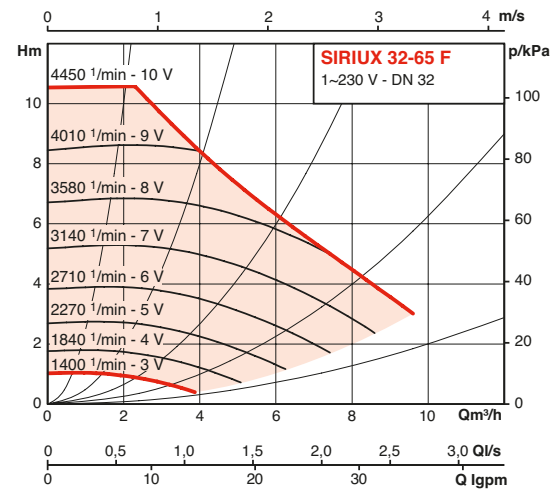
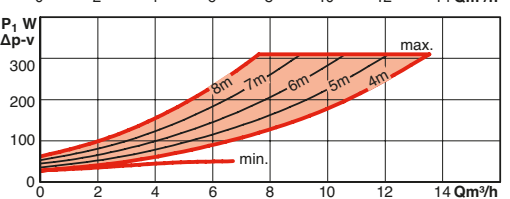
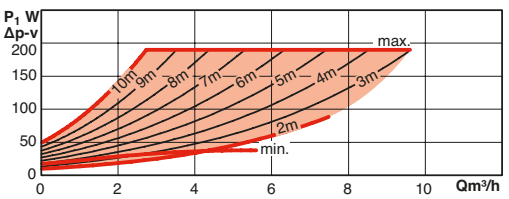
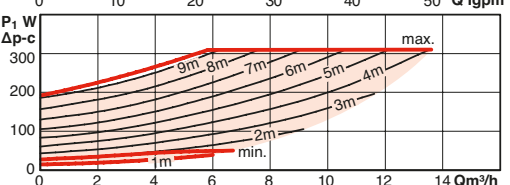
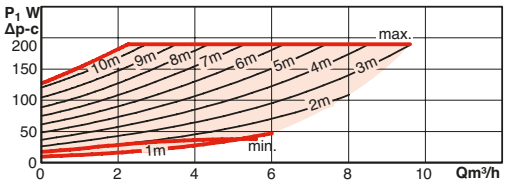
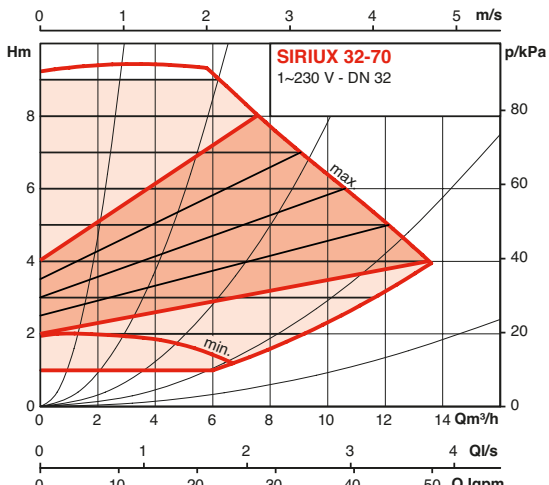
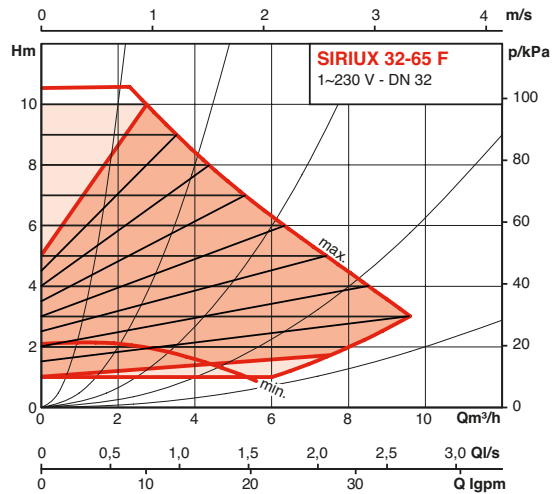


# SIRIUX MASTER

## SIRIUX 25-60 32-60 AND SIRIUX 25-65 32-65 HYDRAULIC PERFORMANCES

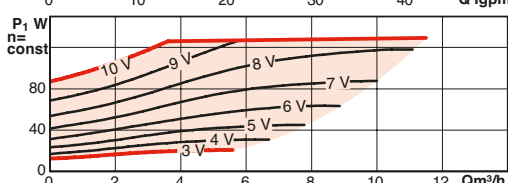
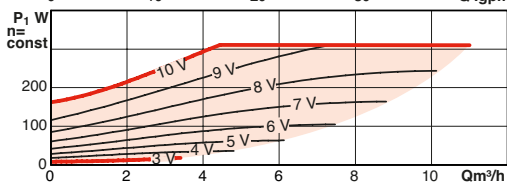
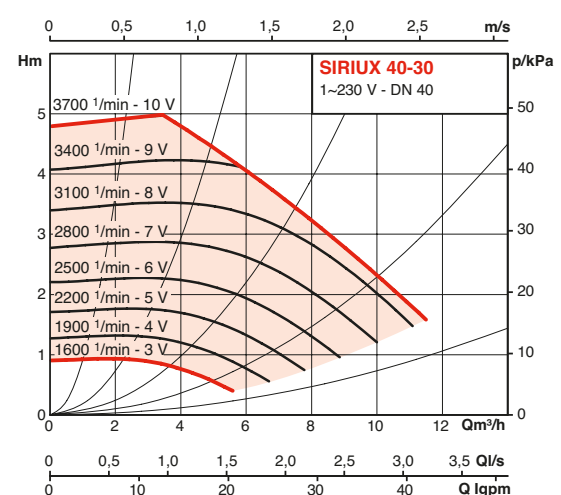
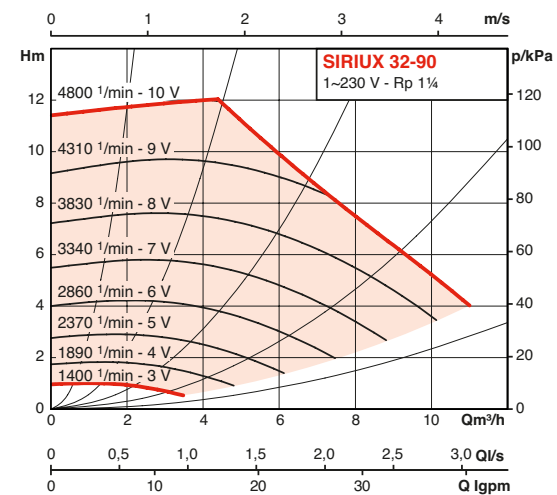
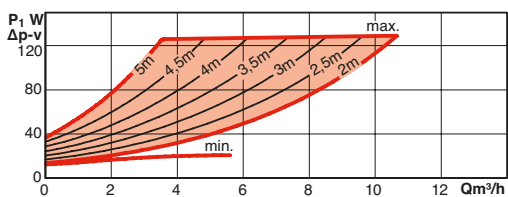
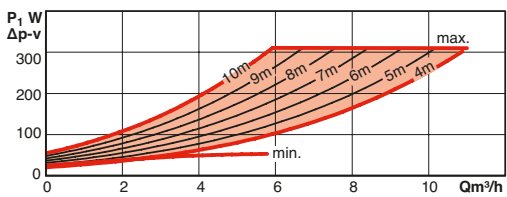
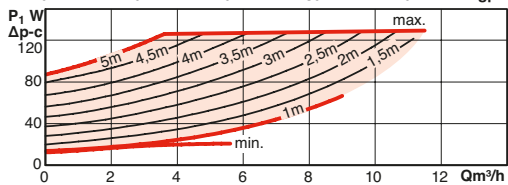
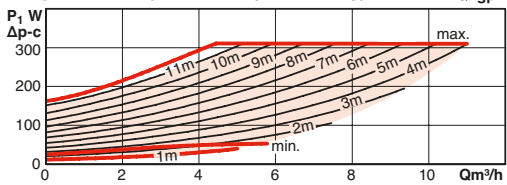
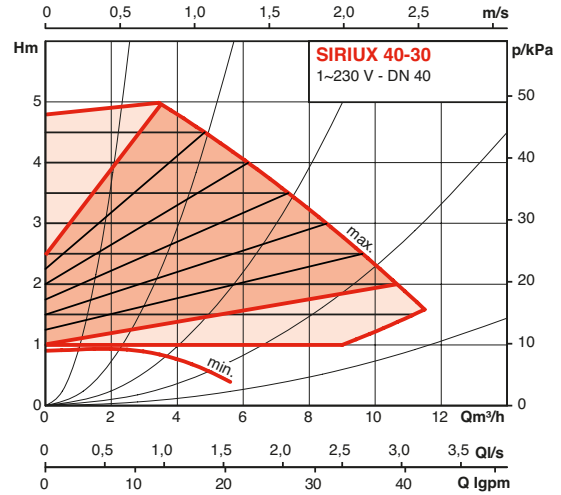
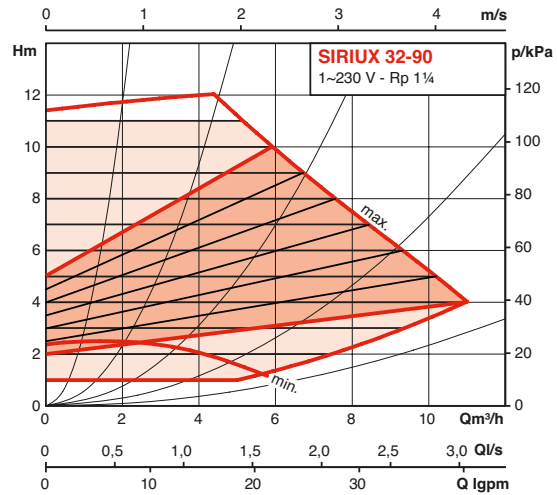


## SIRIUX 32-65F AND SIRIUX 32-70 HYDRAULIC PERFORMANCES



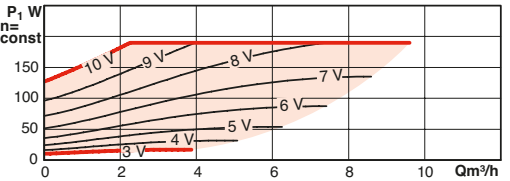
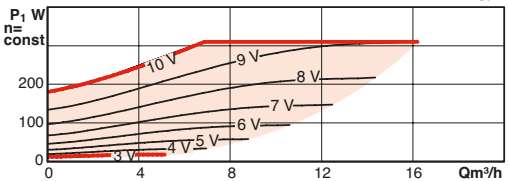
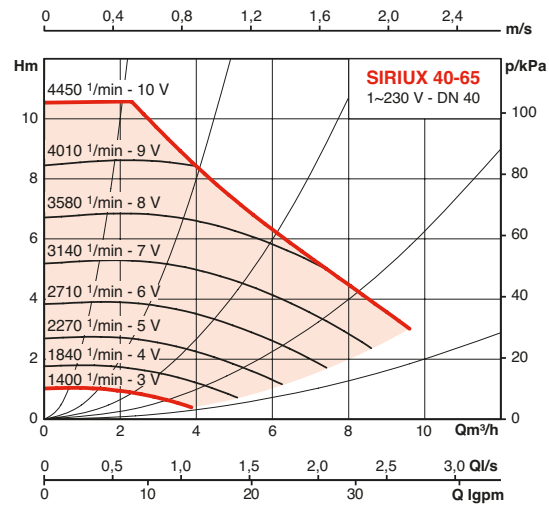
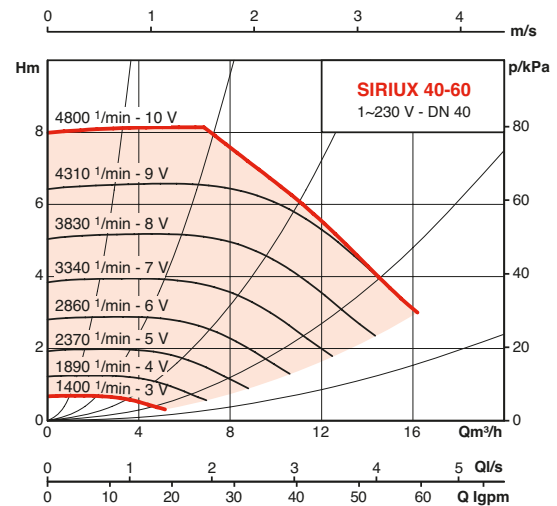
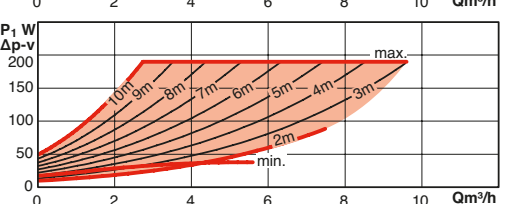
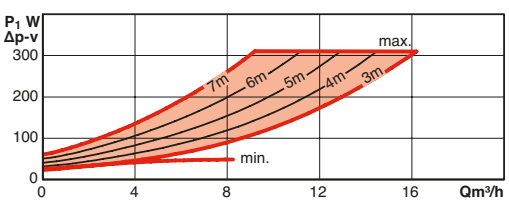
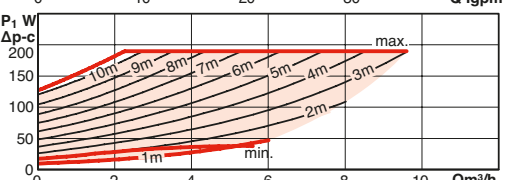
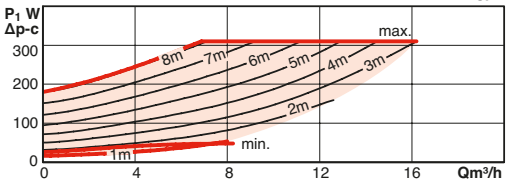
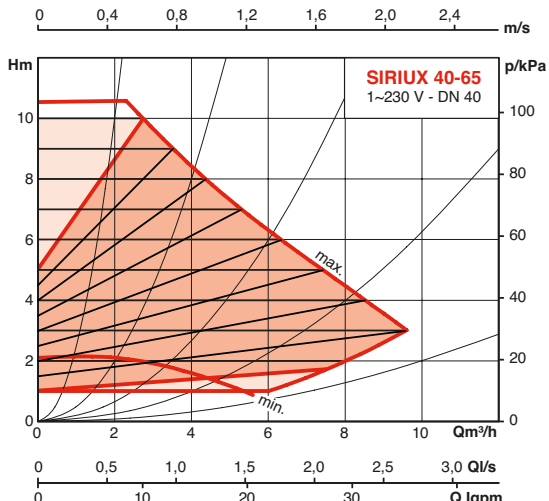
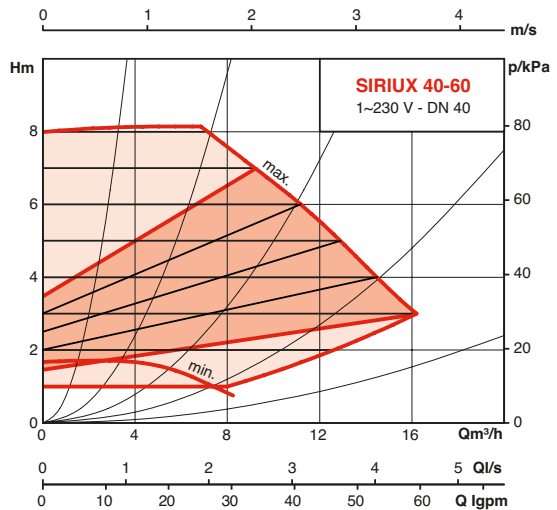
# SIRIUX MASTER

## SIRIUX 32-90 AND SIRIUX 40-30 HYDRAULIC PERFORMANCES



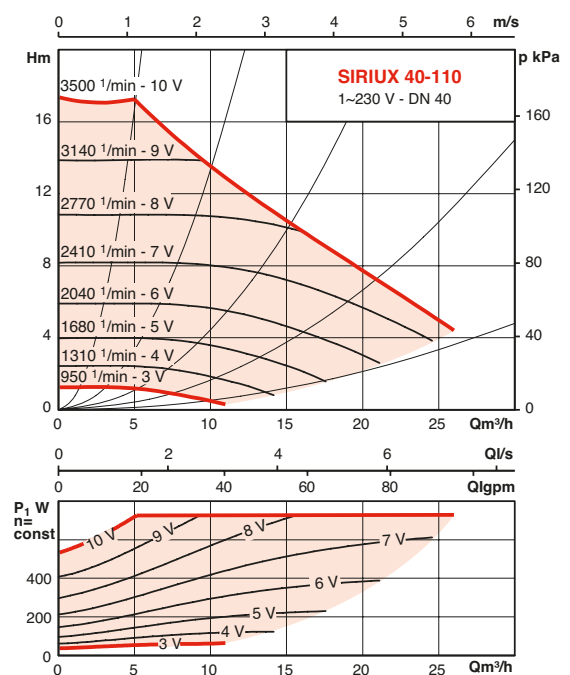
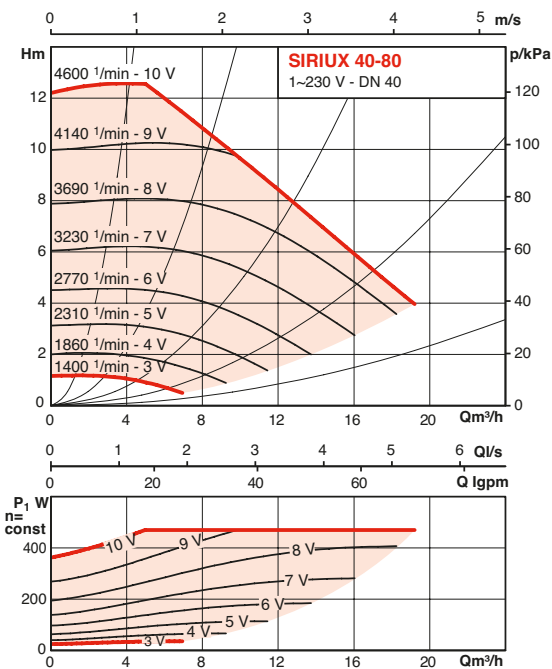
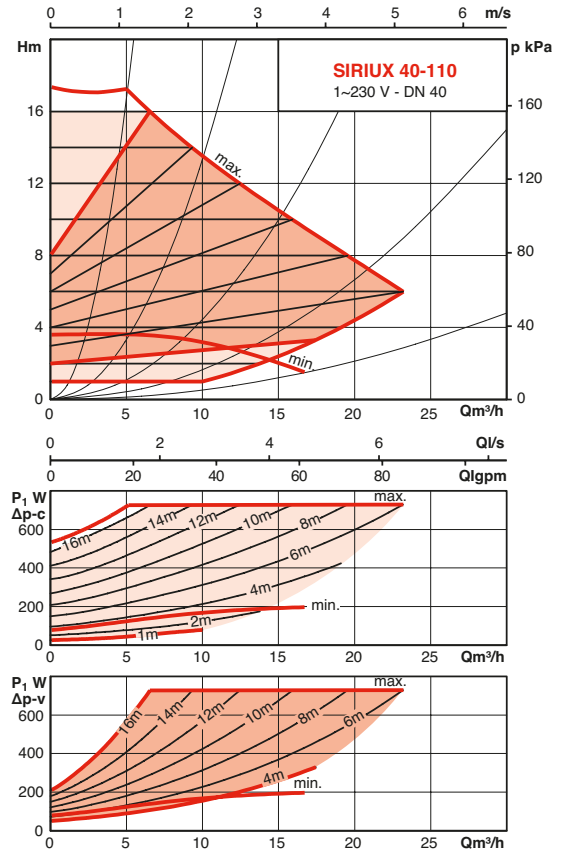
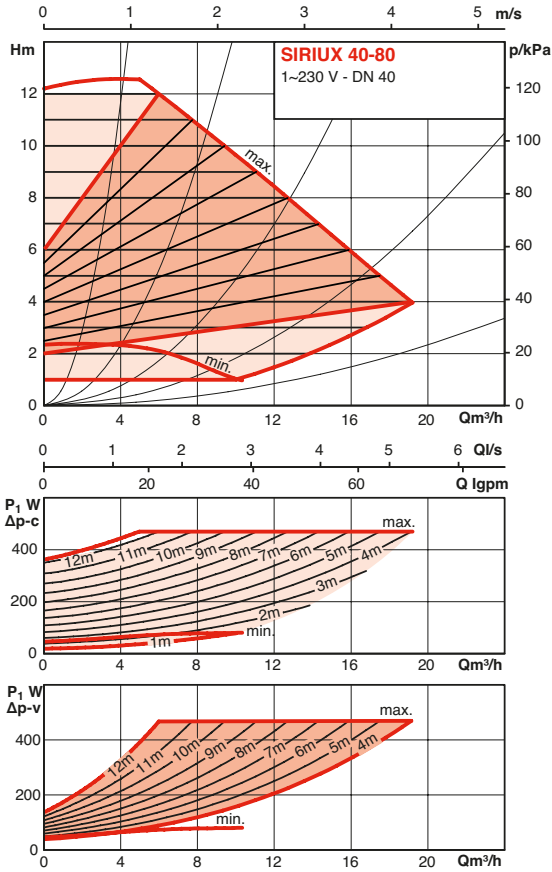
# SIRIUX MASTER

## SIRIUX 40-60 AND SIRIUX 40-65 HYDRAULIC PERFORMANCES



# SIRIUX MASTER

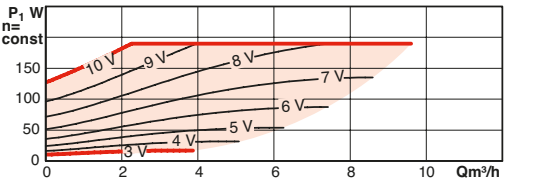
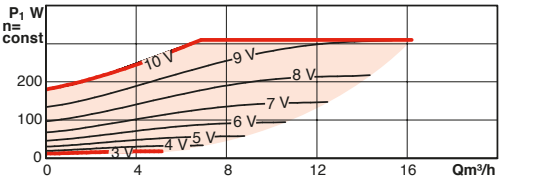
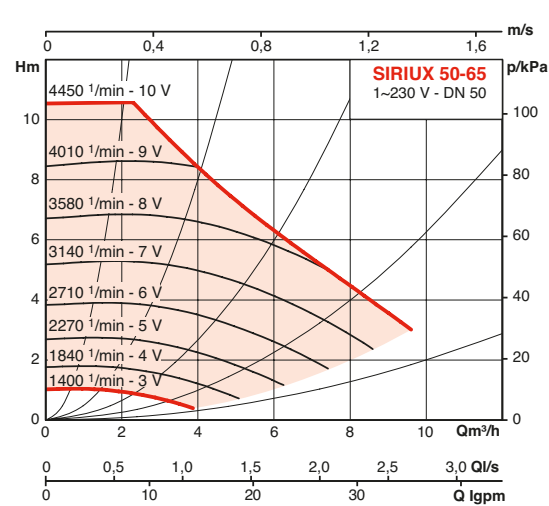
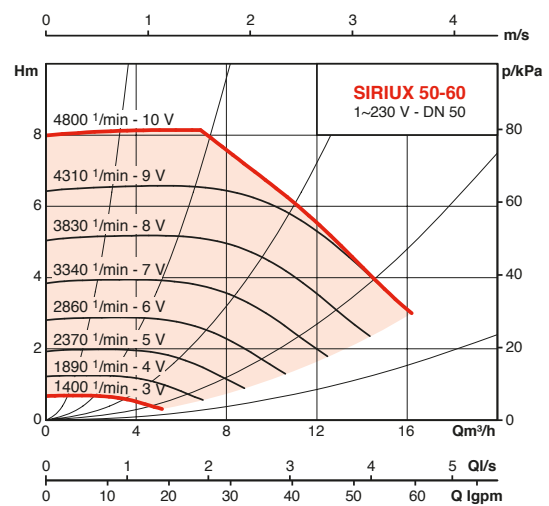
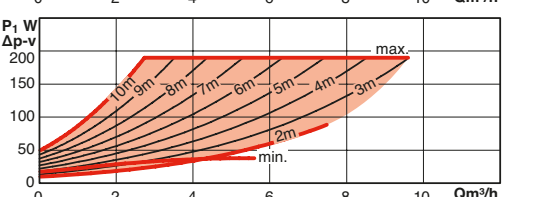
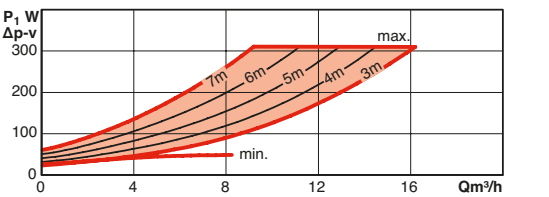
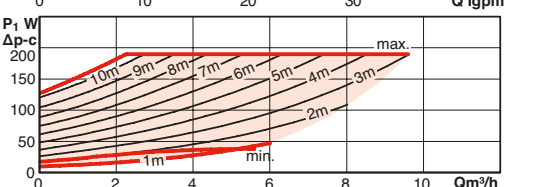
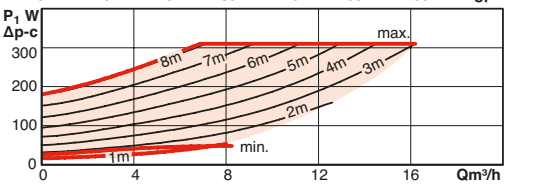
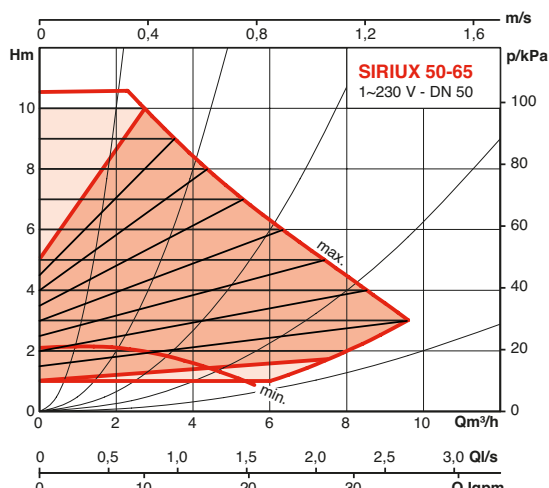
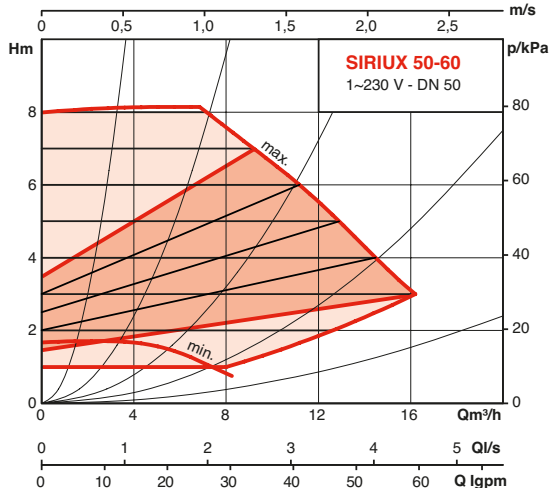
## SIRIUX 40-80 AND SIRIUX 40-110 HYDRAULIC PERFORMANCES





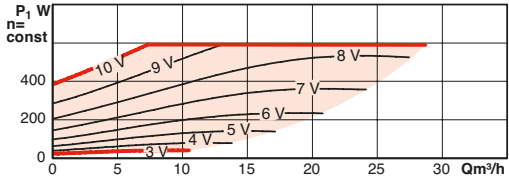
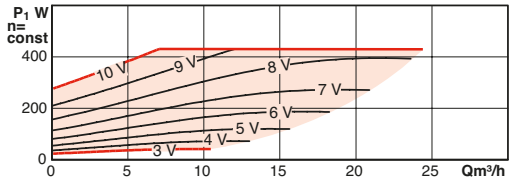
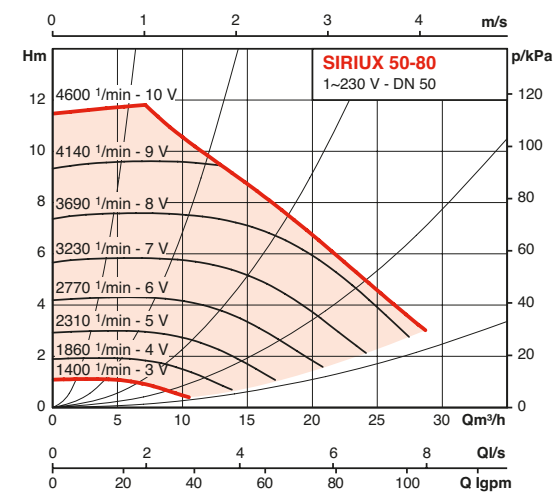
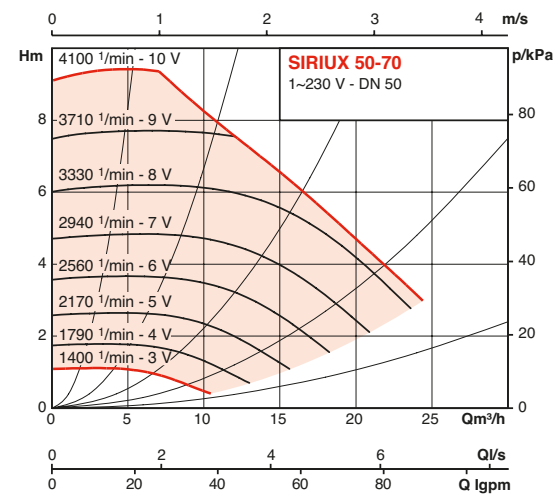
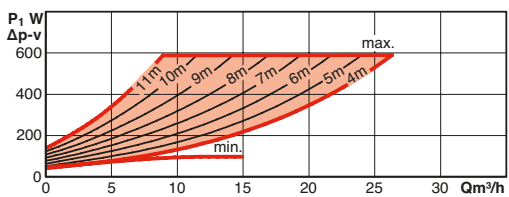
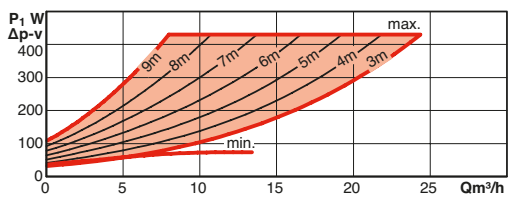
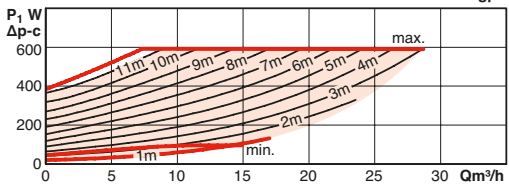
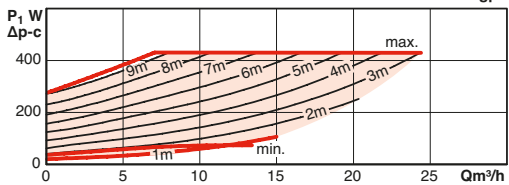
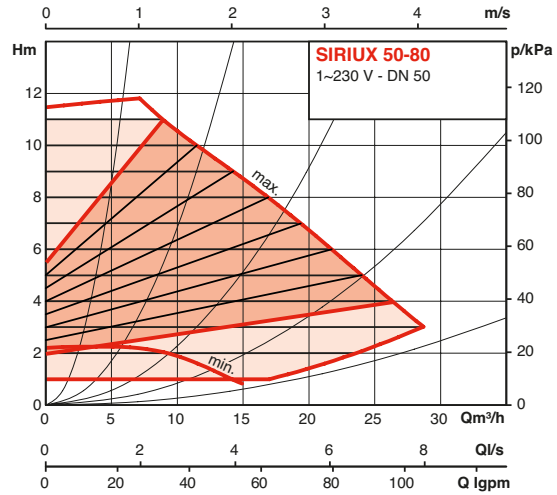
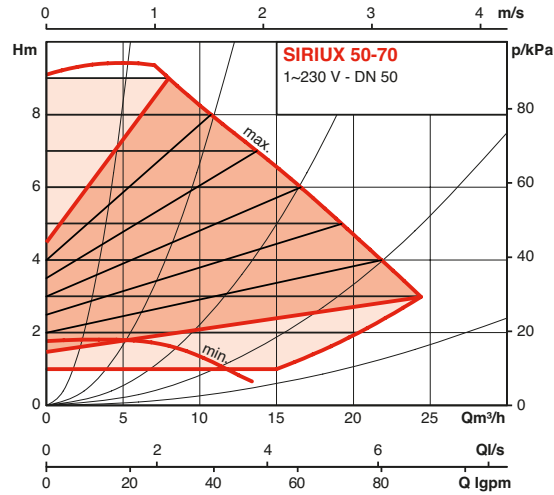
# SIRIUX MASTER

## SIRIUX 50-60 AND SIRIUX 50-65 HYDRAULIC PERFORMANCES



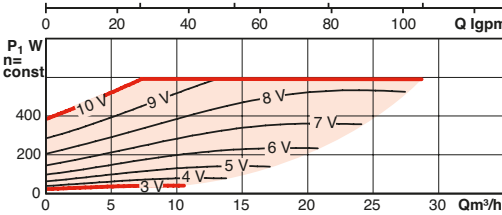
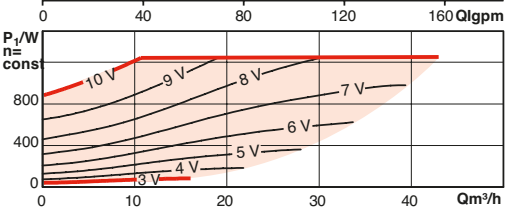
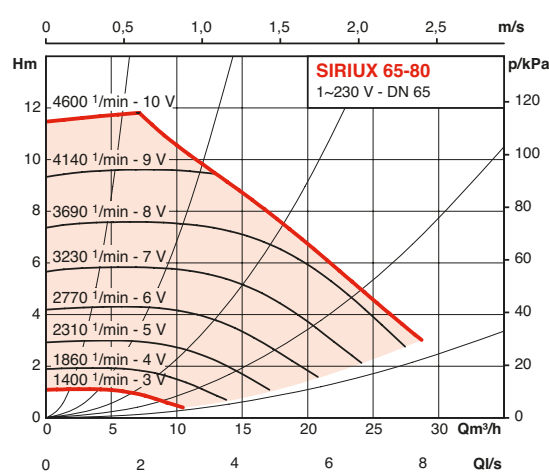
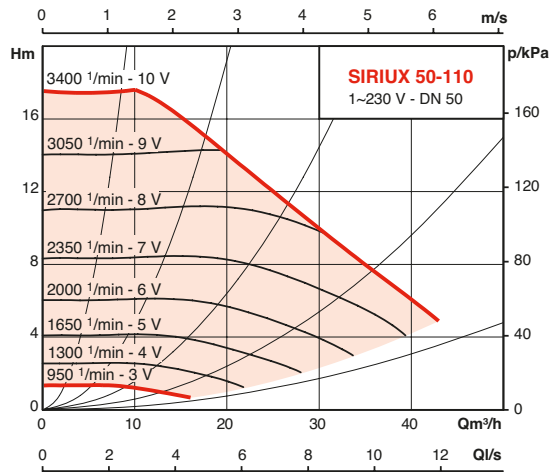
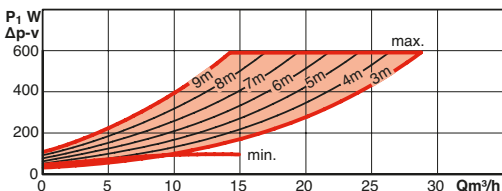
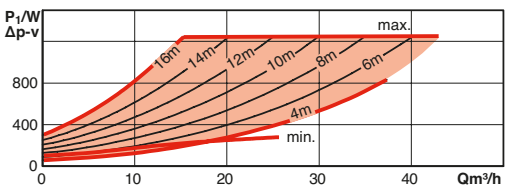
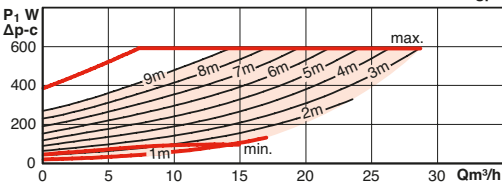
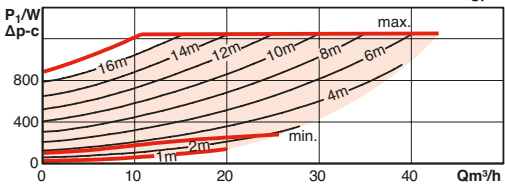
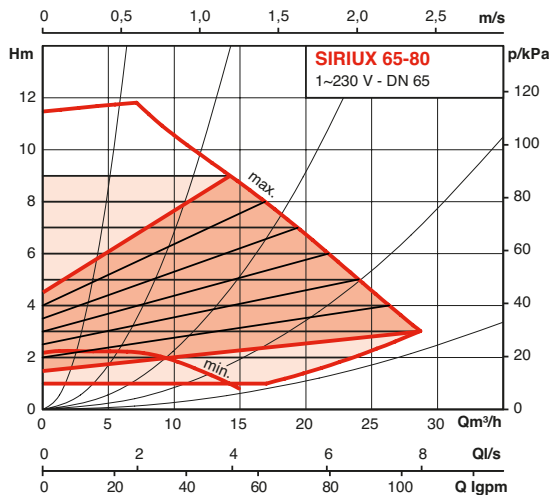
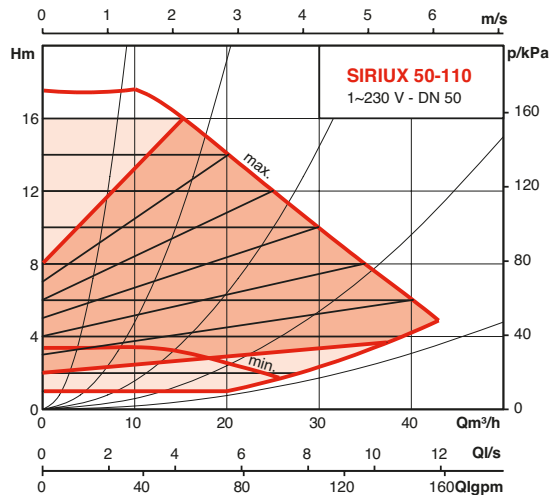
# SIRIUX MASTER

## SIRIUX 50-70 AND SIRIUX 50-80 HYDRAULIC PERFORMANCES



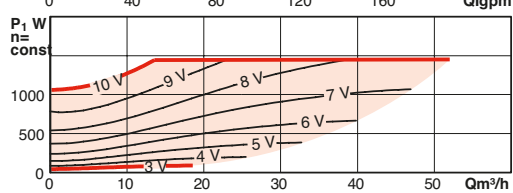
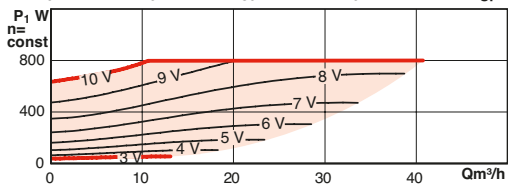
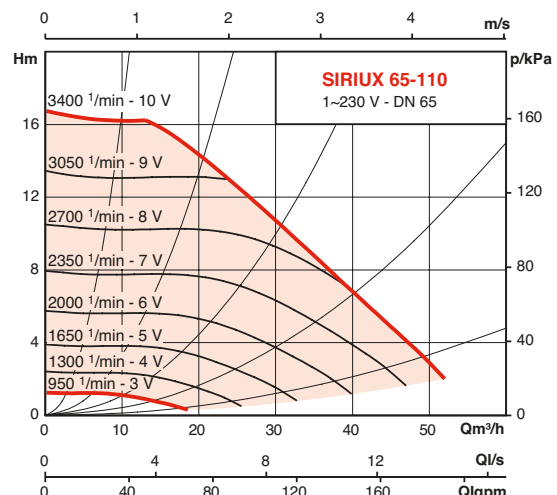
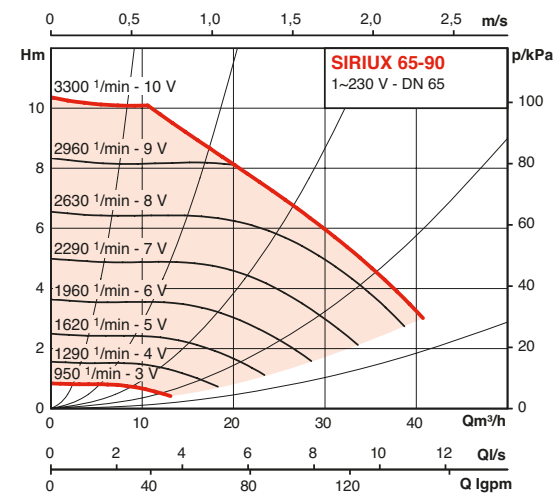
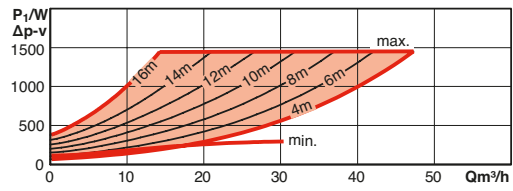
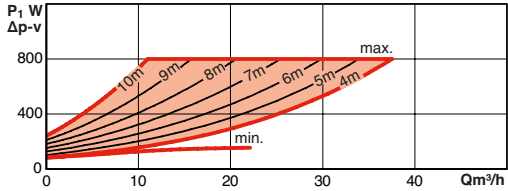
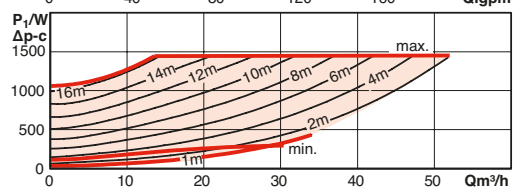
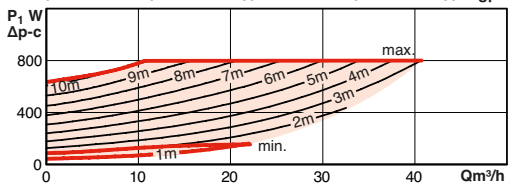
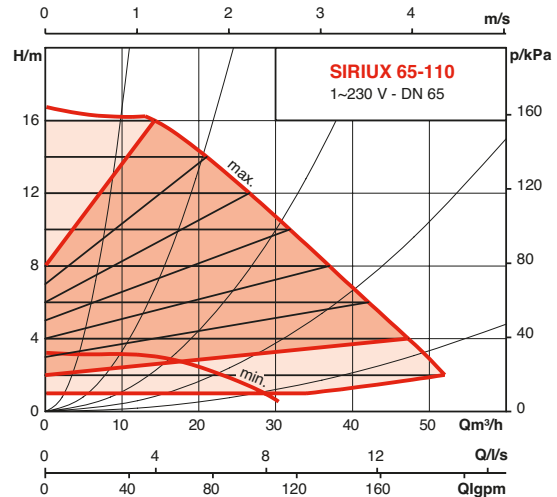
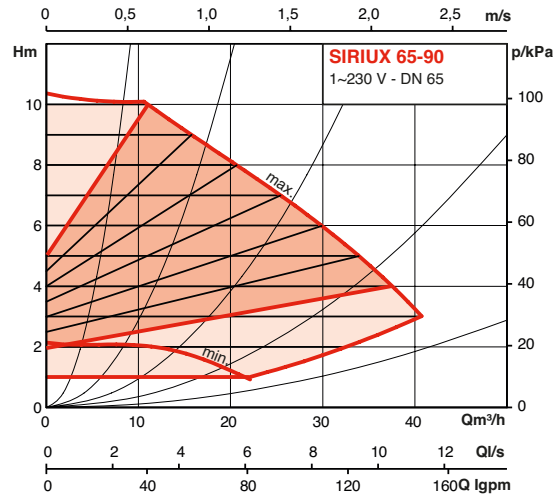
# SIRIUX MASTER

## SIRIUX 50-110 AND SIRIUX 65-80 HYDRAULIC PERFORMANCES

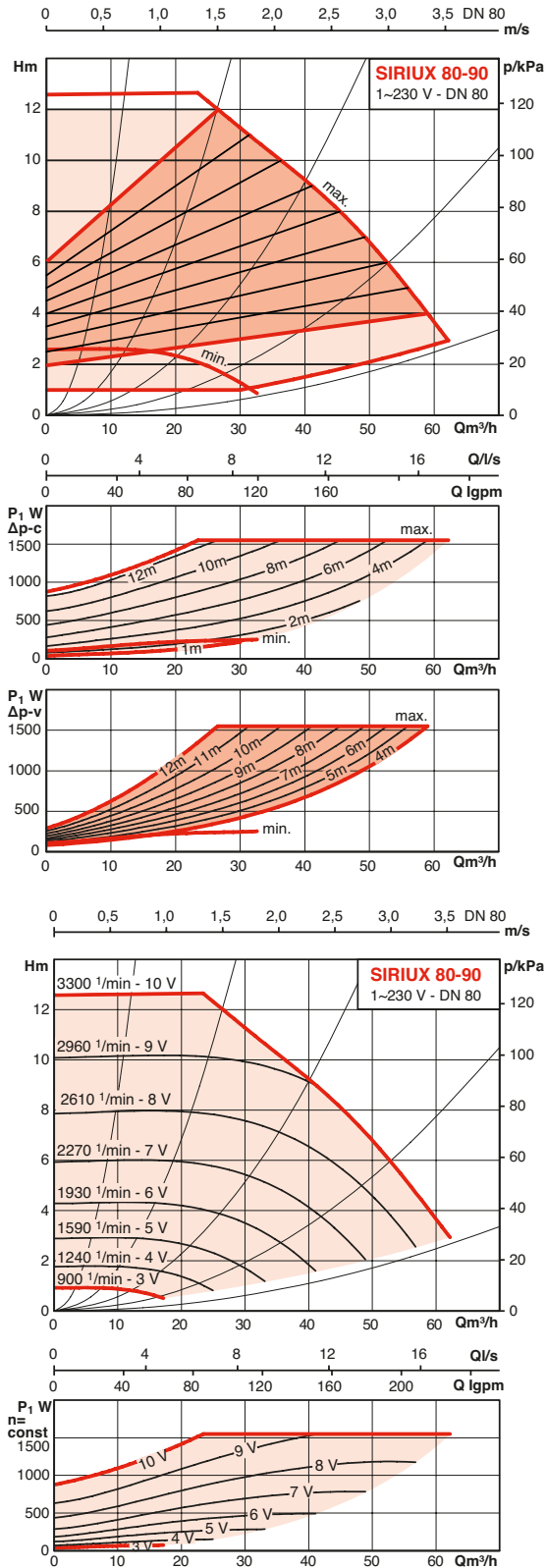


# SIRIUX MASTER

## SIRIUX 65-90 AND SIRIUX 65-110 HYDRAULIC PERFORMANCES

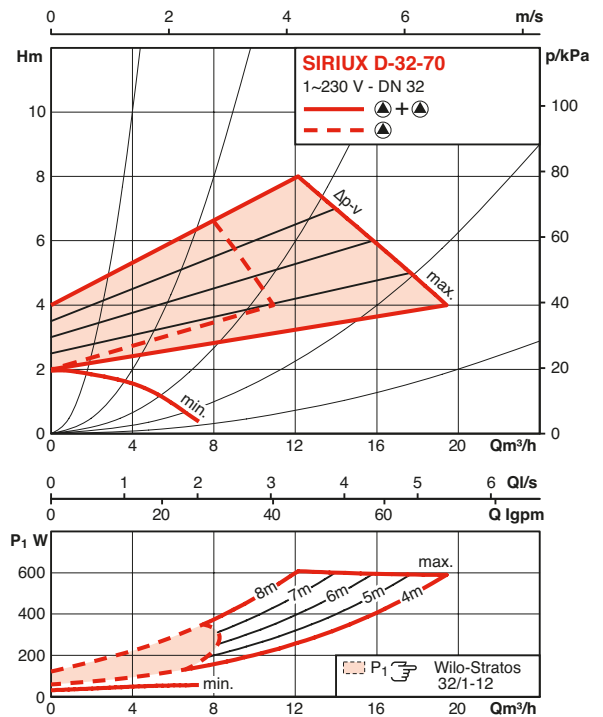
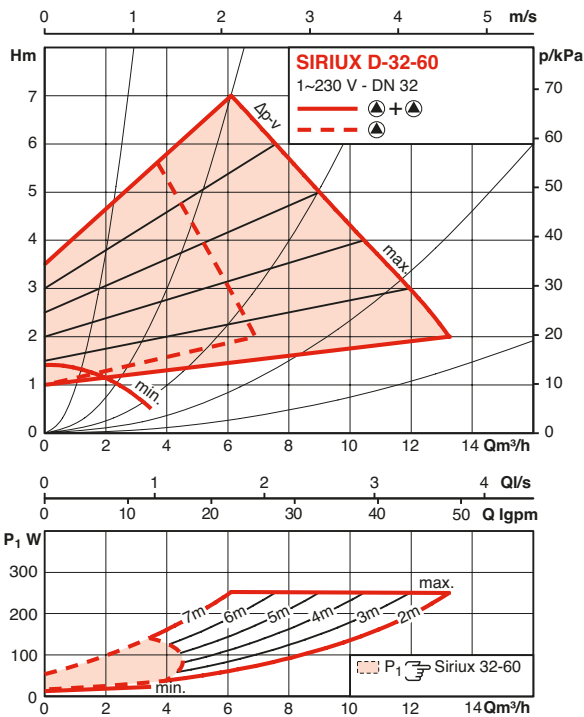
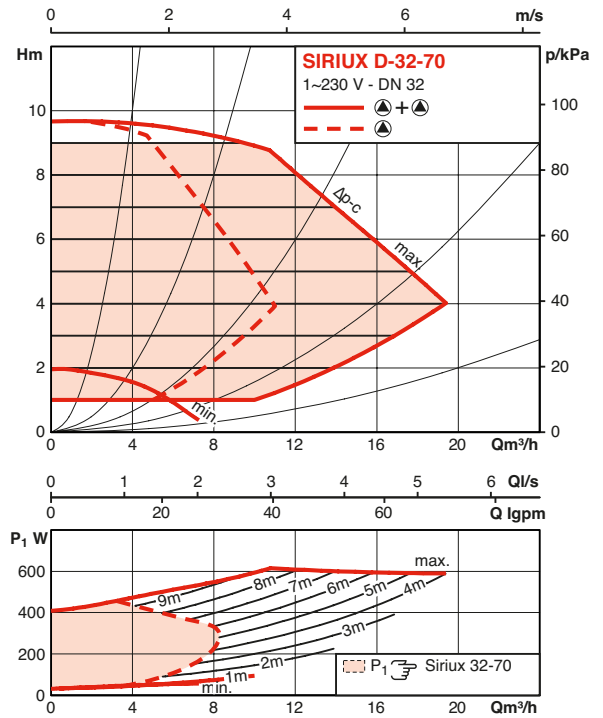
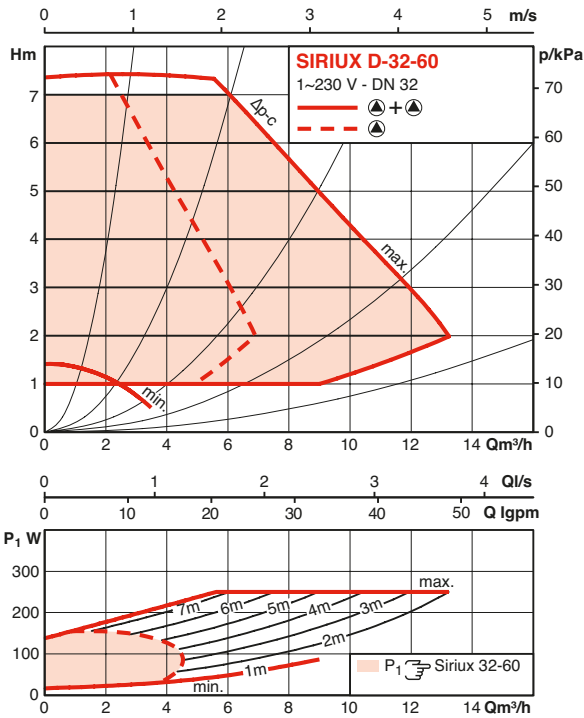


## SIRIUX 80-90 HYDRAULIC PERFORMANCES



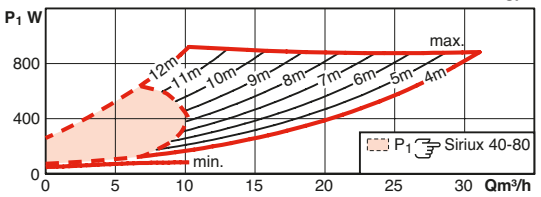
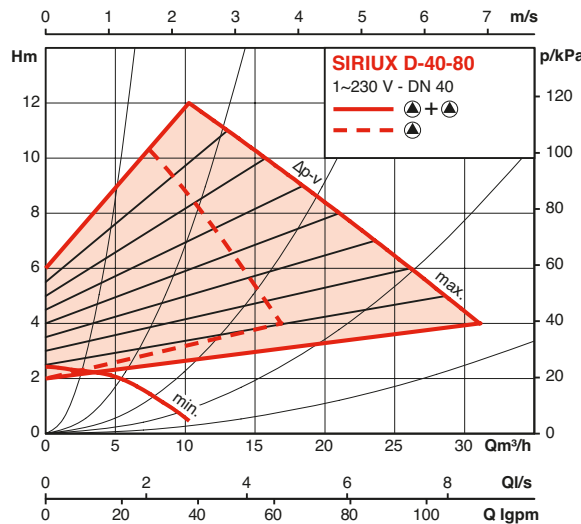
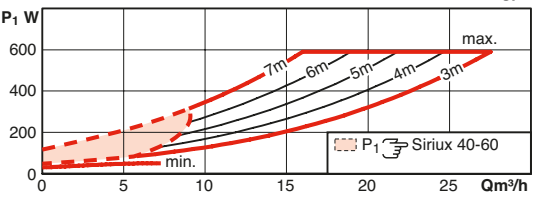
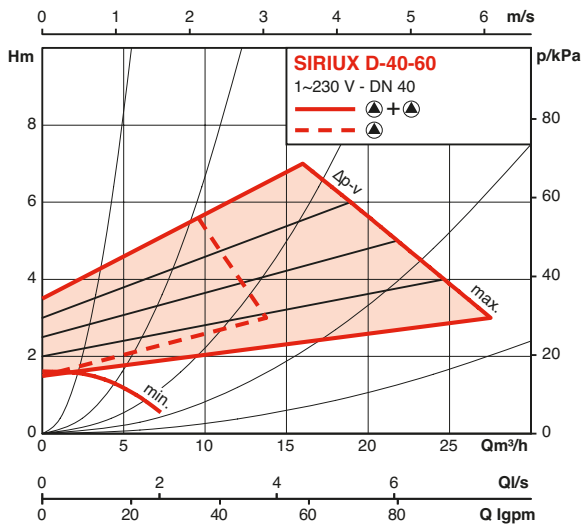
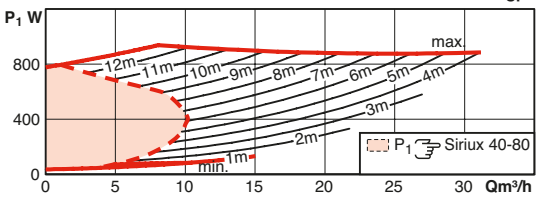
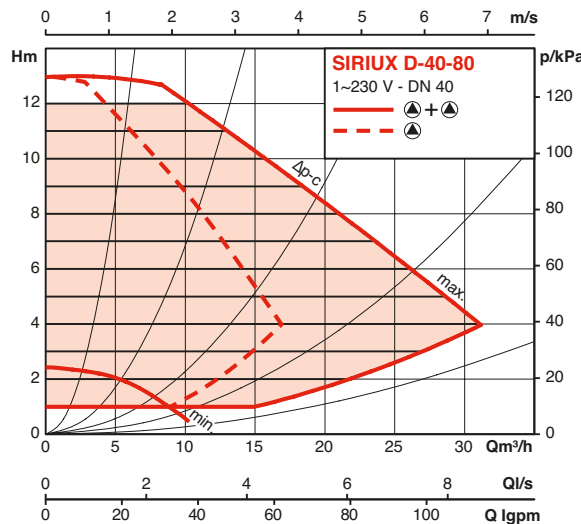
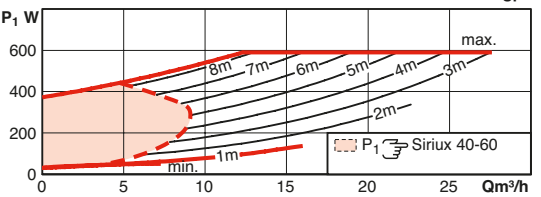
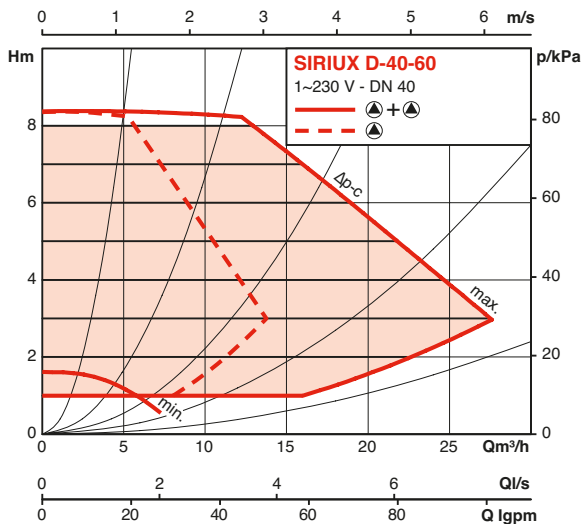
# SIRIUX MASTER

## SIRIUX D 32-60 AND SIRIUX D 32-70 HYDRAULIC PERFORMANCES



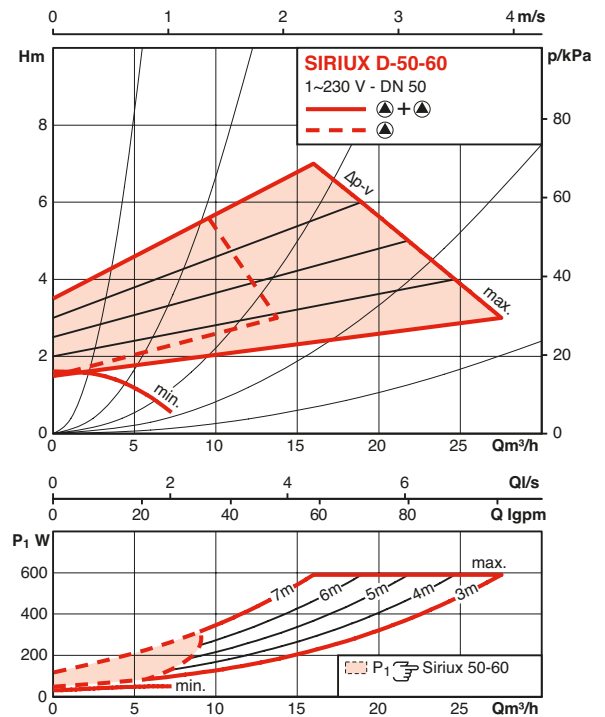
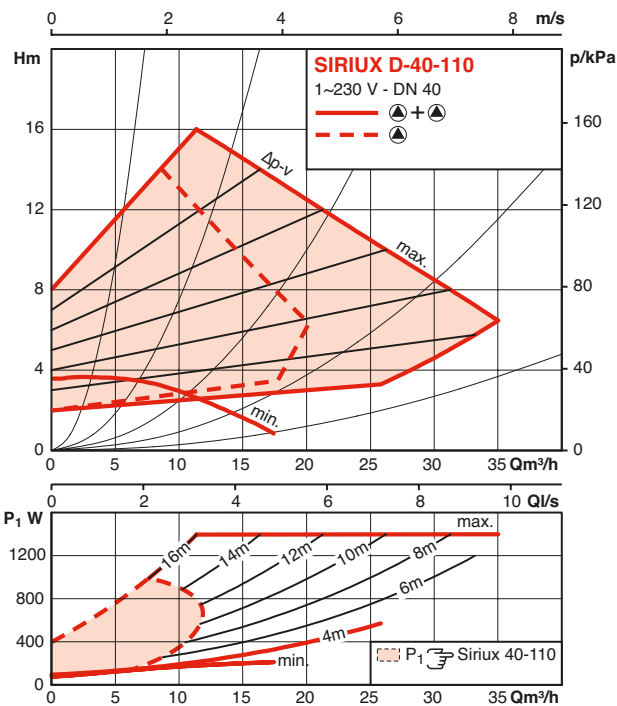
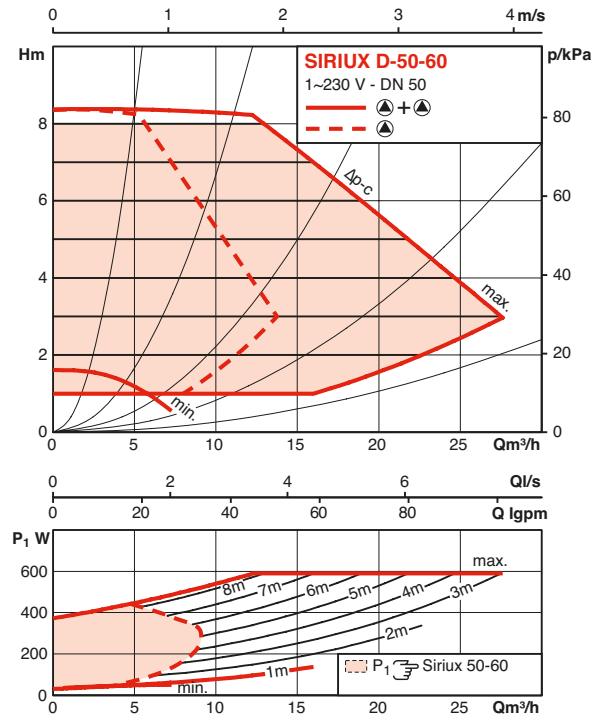
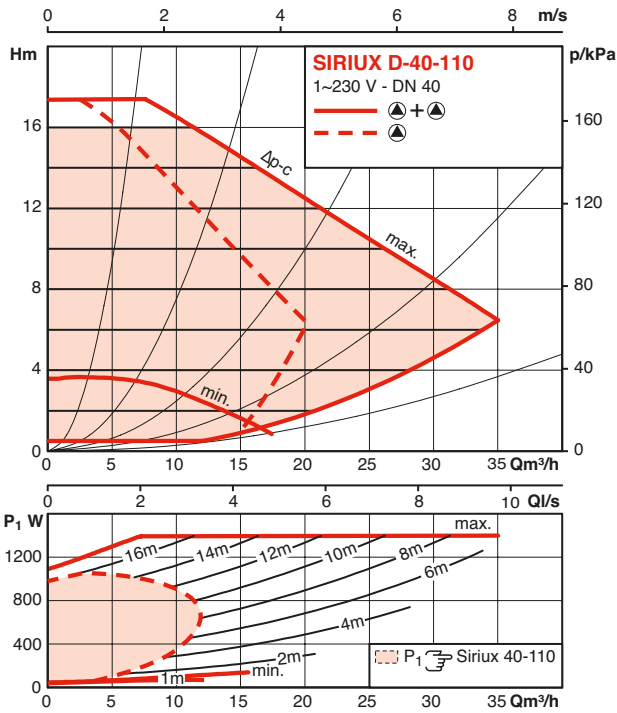
# SIRIUX MASTER

## SIRIUX D 40-60 AND SIRIUX D 40-80 HYDRAULIC PERFORMANCES



# SIRIUX MASTER

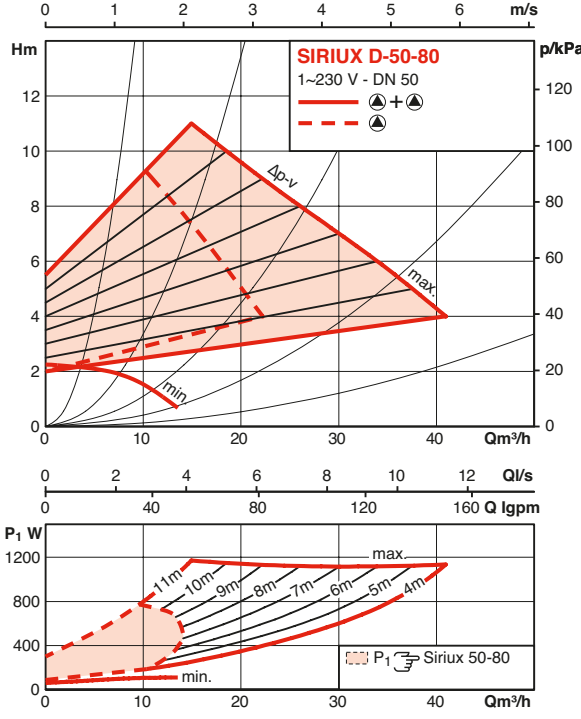
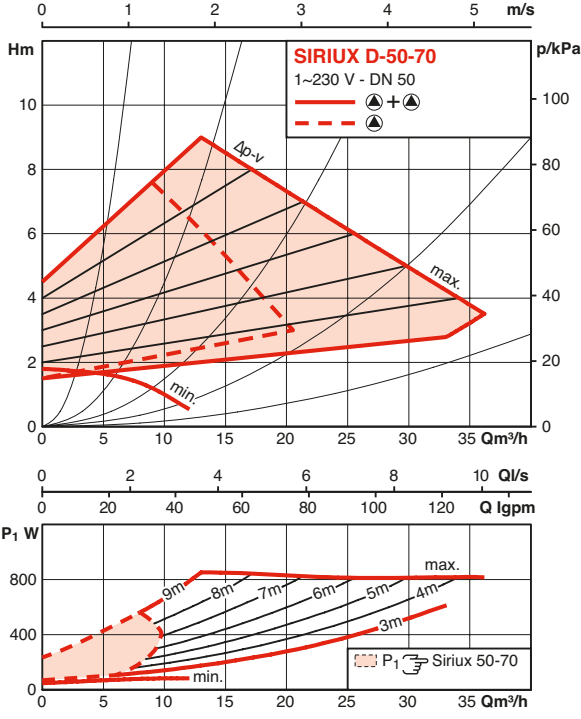
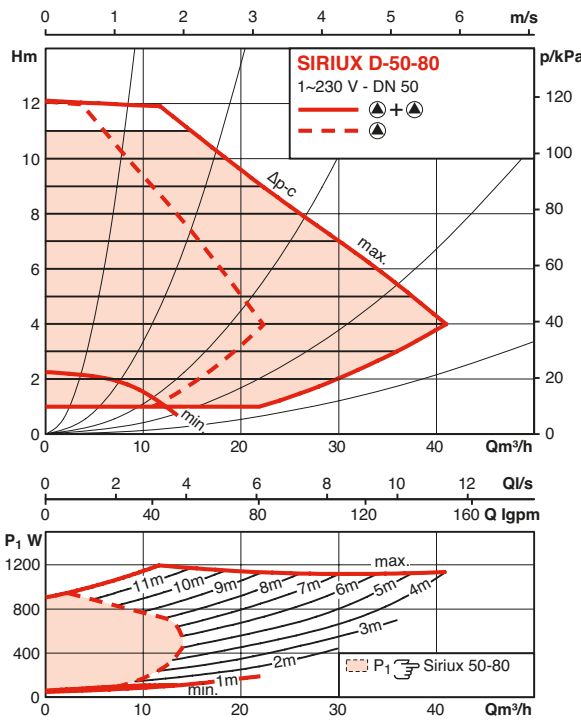
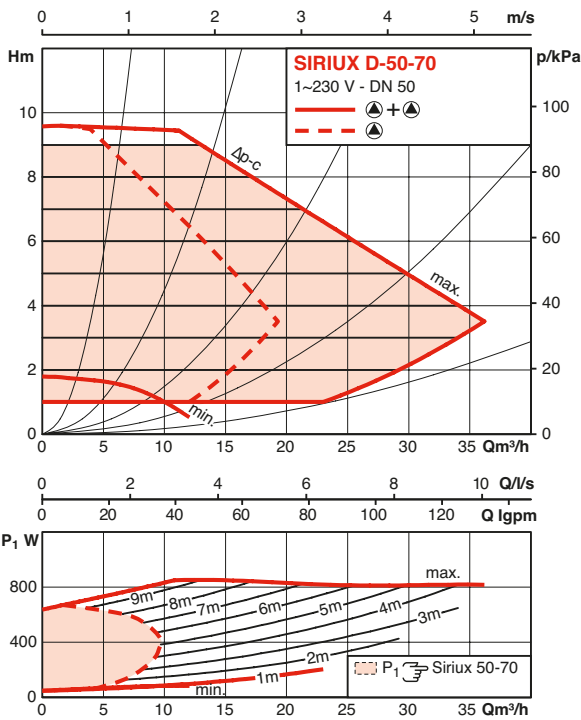
## SIRIUX D 40-110 AND SIRIUX D 50-60 HYDRAULIC PERFORMANCES





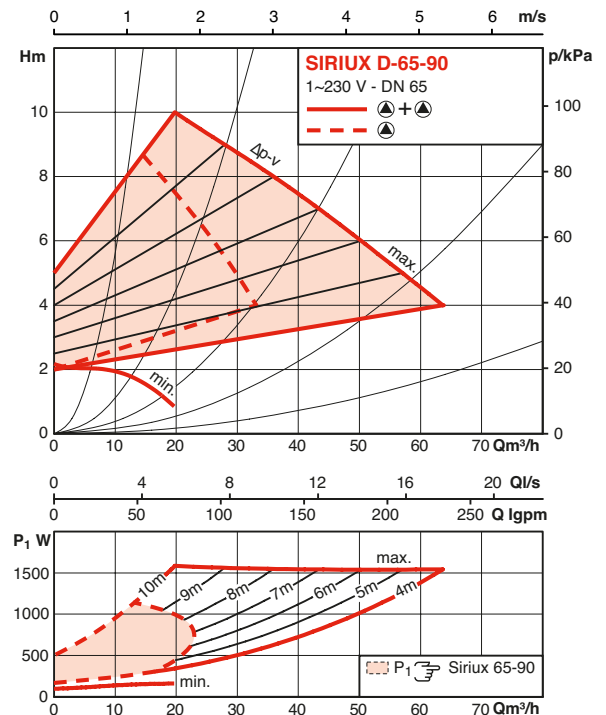
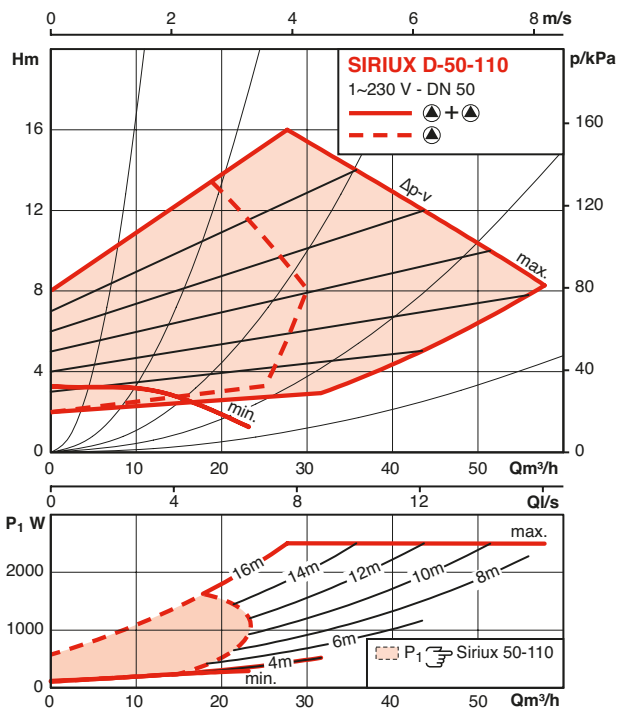
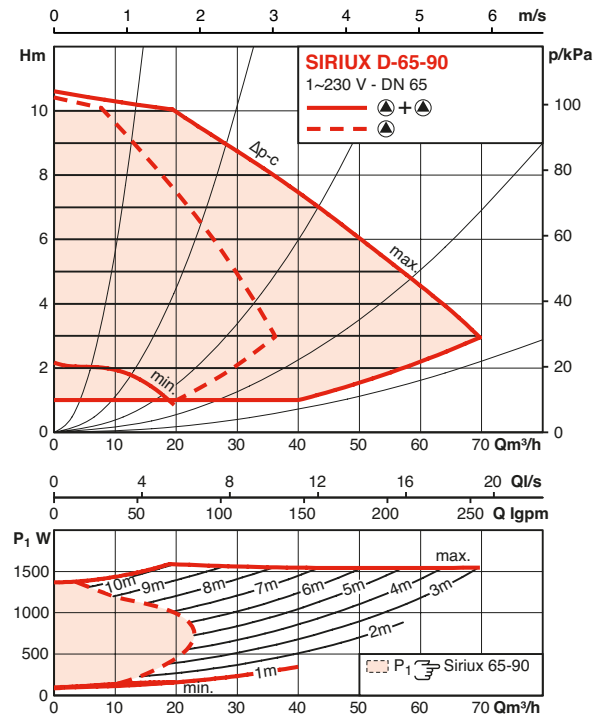
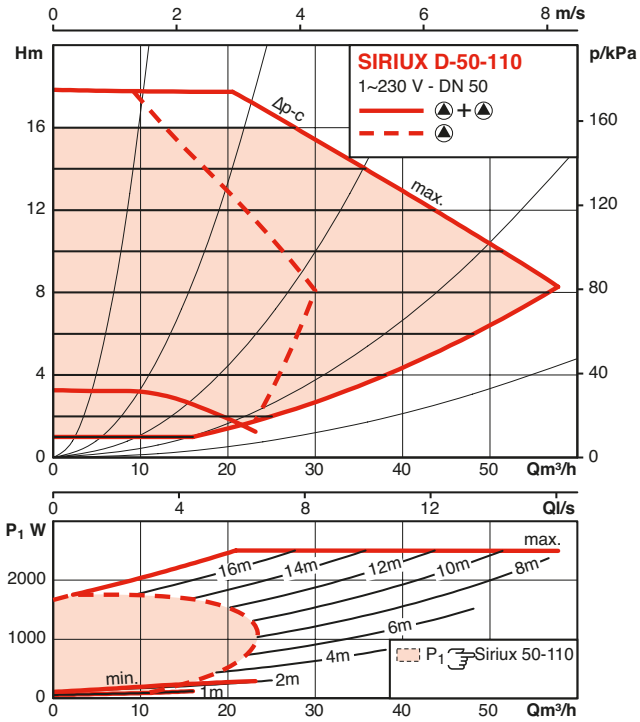
# SIRIUX MASTER

## SIRIUX D 50-70 ET SIRIUX D 50-80 HYDRAULIC PERFORMANCES

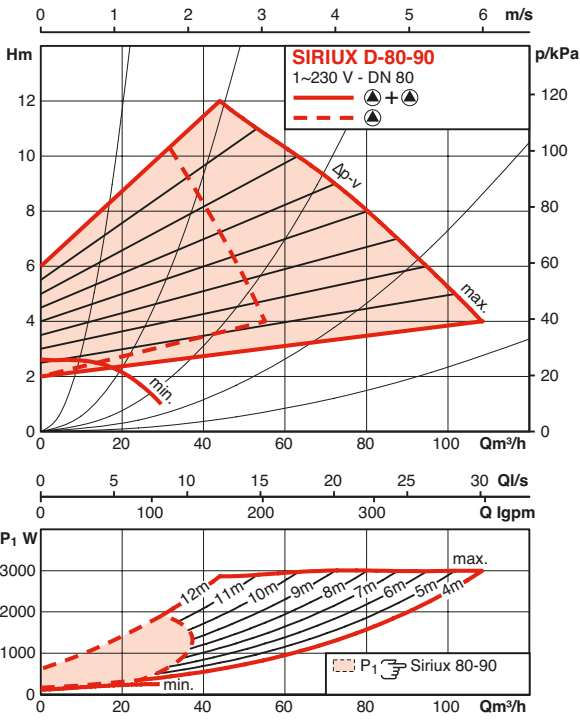
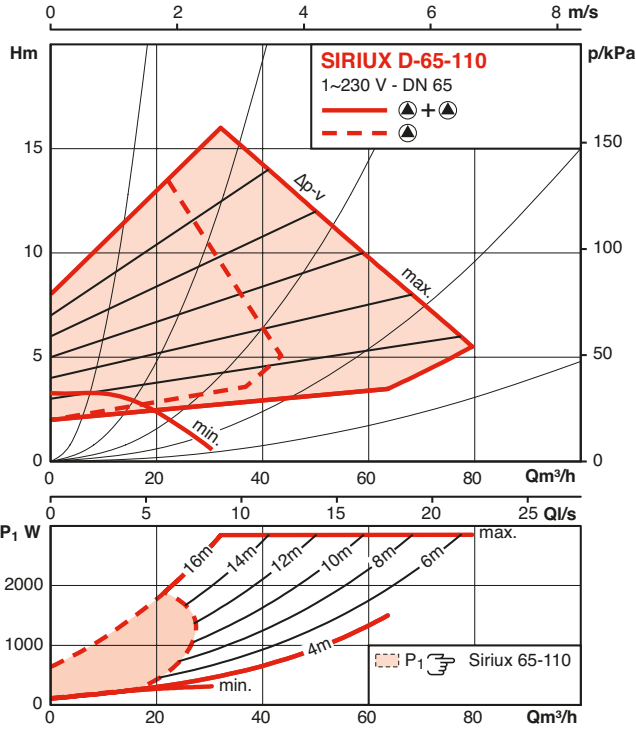
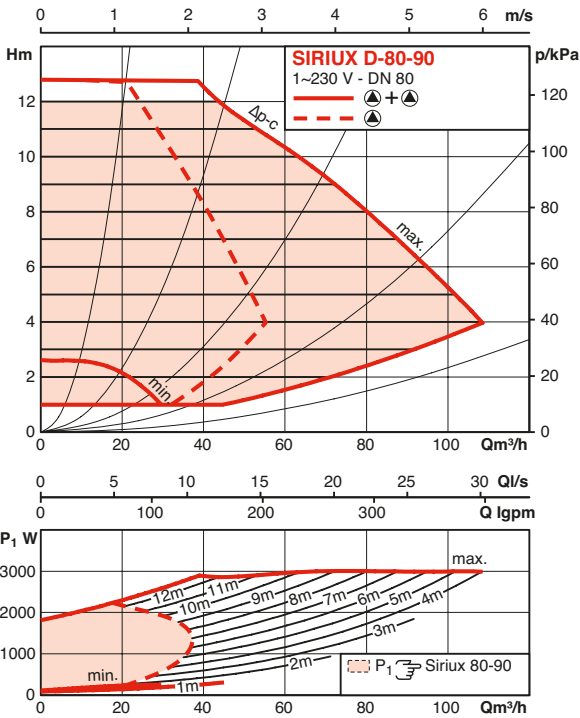
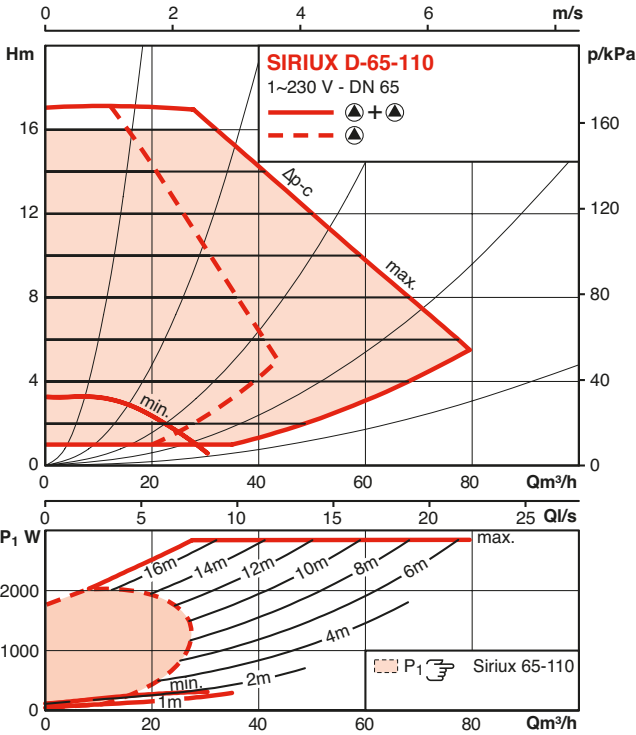


# SIRIUX MASTER

## SIRIUX D 50-110 AND SIRIUX D 65-90 HYDRAULIC PERFORMANCES



## SIRIUX D 65-110 AND SIRIUX D 80-90 HYDRAULIC PERFORMANCES



# SIRIUX MASTER

## MOTOR DATA - SIRIUX

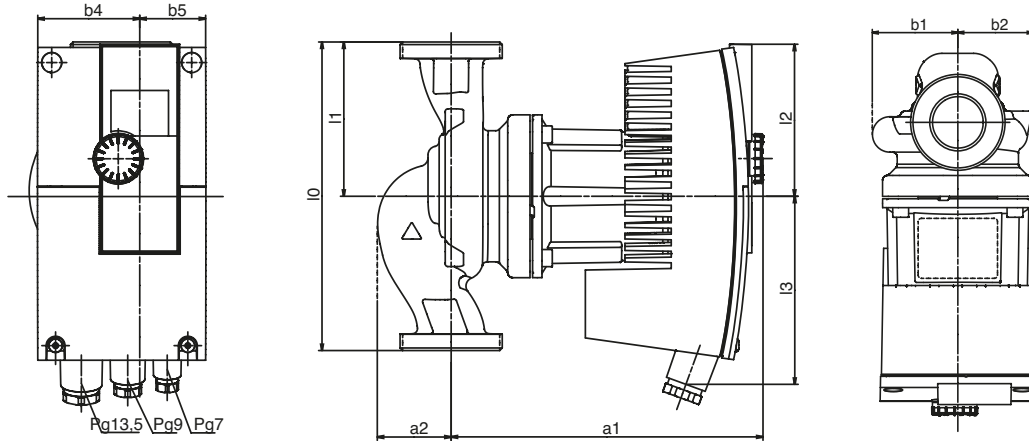
	Rated power	Speed	Power consumption	Current at 1~230V	Current at 3~400V	Motor protection	Pg thread connection
	P2 [W]	n [1/min]	P1 [W]	I [A]			
25-30	30	1400 - 2800	9 - 38	0,13 - 0,35	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
25-40	65	1400 - 3400	9 - 85	0,13 - 0,78	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
25-60	100	1400 - 3700	9 - 130	0,13 - 1,20	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
25-65	140	1400 - 4450	9 - 190	0,13 - 1,30	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
32-30	30	1400 - 2800	9 - 38	0,13 - 0,35	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
32-40	65	1400 - 3400	9 - 85	0,13 - 0,78	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
32-60	100	1400 - 3700	9 - 130	0,13 - 1,20	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
32-65	140	1400 - 4450	9 - 190	0,13 - 1,30	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
32-65F	140	1400 - 4450	9 - 190	0,13 - 1,30	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
32-90	200	1400 - 4800	12 - 310	0,22 - 1,37	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
32-70	200	1400 - 4800	12 - 310	0,22 - 1,37	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
40-30	100	1600 - 3700	14 - 130	0,16 - 1,20	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
40-60	200	1400 - 4800	12 - 310	0,22 - 1,37	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
40-65	140	1400 - 4450	9 - 190	0,13 - 1,30	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
40-80	350	1400 - 4600	25 - 470	0,20 - 2,05	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
40-110	600	950 - 3500	35 - 730	0,30 - 3,20	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
50-60	200	1400 - 4800	12 - 310	0,22 - 1,37	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
50-65	140	1400 - 4450	9 - 190	0,13 - 1,30	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
50-70	350	1400 - 4100	25 - 430	0,20 - 1,88	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
50-80	500	1400 - 4600	25 - 590	0,20 - 2,60	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
50-110	1050	950 - 3400	40 - 1250	0,30 - 5,50	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
65-80	500	1400 - 4600	25 - 590	0,20 - 2,60	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
65-90	650	950 - 3300	38 - 800	0,30 - 3,50	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
65-110	1200	950 - 3400	40 - 1450	0,30 - 6,40	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
80-90	1300	900 - 3300	40 - 1550	0,32 - 6,80	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5

## MOTOR DATA - SIRIUX D

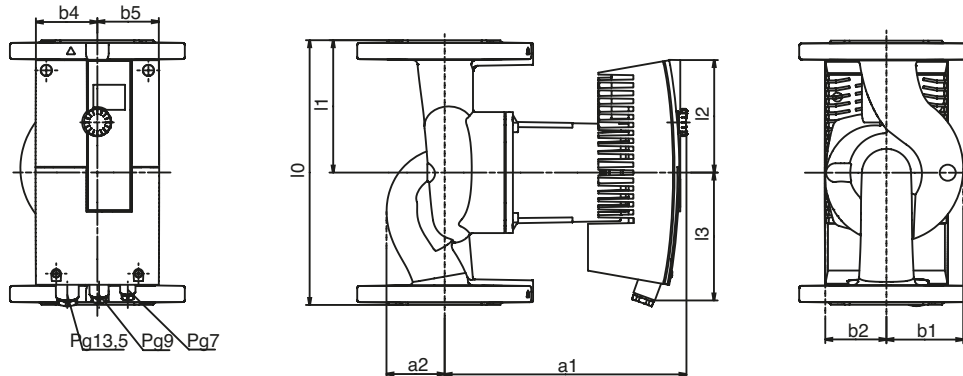
	Rated power	Speed	Power consumption	Current at 1~230V	Current at 3~400V	Motor protection	Pg thread connection
	P2 [W]	n [1/min]	P1 [W]	I [A]			
32-60	100	1400 - 3700	9 - 130	0,13 - 1,20	-	integrated	1 x 7/1 x 9/1 x 13,5
32-70	200	1400 - 4800	12 - 310	0,22 - 1,37	-	integrated	1 x 7/1 x 9/1 x 13,5
40-60	200	1400 - 4800	12 - 310	0,22 - 1,37	-	integrated	1 x 7/1 x 9/1 x 13,5
40-80	350	1400 - 4600	25 - 470	0,20 - 2,05	-	integrated	1 x 7/1 x 9/1 x 13,5
40-110	600	950 - 3500	35 - 730	0,30 - 3,20	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
50-60	200	1400 - 4800	12 - 310	0,22 - 1,37	-	integrated	1 x 7/1 x 9/1 x 13,5
50-70	350	1400 - 4100	25 - 430	0,20 - 1,88	-	integrated	1 x 7/1 x 9/1 x 13,5
50-80	500	1400 - 4600	25 - 590	0,20 - 2,60	-	integrated	1 x 7/1 x 9/1 x 13,5
50-110	1050	950 - 3400	40 - 1250	0,30 - 5,50	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
65-90	650	950 - 3300	38 - 800	0,30 - 3,50	-	integrated	1 x 7/1 x 9/1 x 13,5
65-110	1200	950 - 3400	40 - 1450	0,30 - 6,40	-	integrated	1 x 7/ 1 x 9/ 1 x 13,5
80-90	1300	900 - 3300	40 - 1550	0,32 - 6,80	-	integrated	1 x 7/1 x 9/1 x 13,5

# SIRIUX MASTER

## DIMENSIONS - SIRIUX



Drawing A

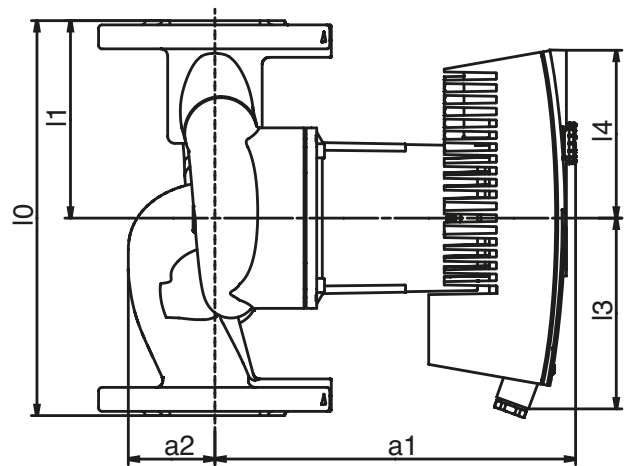
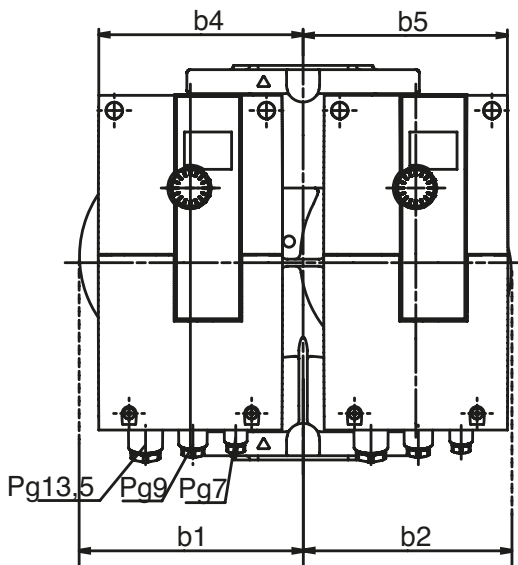


Drawing B

Nominal Diameter	Pipe diameter	Threaded	a1	a2	b1	b2	b4	b5	l0	l1	l2	l3	Weight	Drawing
DN	Rp	G	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	-
25-30	1	11/2	182	43	54	48	49	49	180	90	89	114	4,1	A
25-40	1	11/2	182	43	54	48	49	49	180	90	89	114	4,1	A
25-60	1	11/2	182	43	54	48	49	49	180	90	89	114	4,1	A
25-65	1	11/2	182	43	54	48	49	49	180	90	89	114	4,1	A
32-30	1 1/4	2	182	43	54	48	49	49	180	90	89	114	4,2	A
32-40	1 1/4	2	182	43	54	48	49	49	180	90	89	114	4,2	A
32-60	1 1/4	2	182	43	54	48	49	49	180	90	89	114	4,2	A
32-65	1 1/4	2	182	43	54	48	49	49	180	90	89	114	4,2	A
32-65F	32	-	179	48	57	48	49	49	220	110	89	114	7,6	B
32-90	1 1/4	2	201	50	61	54	55	55	180	90	106	120	5,5	A
32-70	32	-	204	48	63	54	55	55	220	110	106	120	9,0	B
40-30	40	-	177	57	65	48	49	49	220	110	89	114	8,3	B
40-60	40	-	203	53	66	54	55	55	220	110	106	120	9,2	B
40-65	40	-	183	53	59	48	49	49	220	110	89	114	7,8	B
40-80	40	-	252	62	73	64	66	66	250	125	120	136	14,0	B
40-110	40	-	325	62	83	90	78	78	250	125	156	164	23,5	B
50-60	50	-	208	49	66	54	55	55	240	120	106	120	10,6	B
50-65	50	-	186	52	59	48	49	49	240	120	89	114	9,3	B
50-70	50	-	256	62	82	64	66	66	280	140	120	136	15,5	B
50-80	50	-	256	62	82	64	66	66	280	140	120	136	15,5	B
50-110	50	-	323	66	96	90	78	78	340	170	156	164	26,5	B
65-80	65	-	256	62	82	64	66	66	280	140	120	136	17,0	B
65-90	65	-	325	87	102	84	78	78	340	170	156	164	29,0	B
65-110	65	-	323	66	107	90	78	78	340	170	156	164	29,0	B
80-90	80	-	329	90	113	90	78	78	360	180	156	164	31,0	B

# SIRIUX MASTER

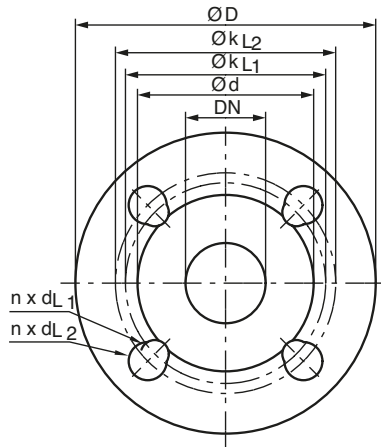
## DIMENSIONS - SIRIUX D



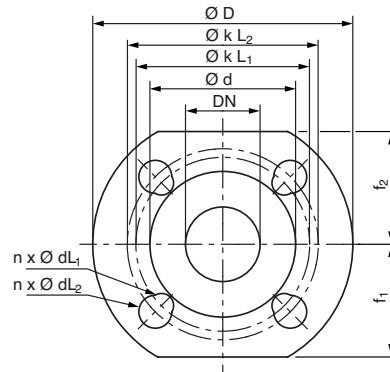
Drawing A

Nominal dia.	Dimensions										Weight	Dimension drawing	
	DN	l0	l1	l3	l4	a1	a2	b1	b2	b4			b5
	[mm]										[kg]	[-]	
32-60	32	220	110	114	89	182	44	112	106	107	107	12,0	A
32-70	32	220	110	120	106	204	57	117	130	110	130	16,5	A
40-60	40	220	110	120	106	200	64	125	138	115	135	16,6	A
40-80	40	250	125	136	120	252	62	151	144	145	145	25,0	A
40-110	40	250	125	164	156	310	65	192	192	188	188	44,0	A
50-60	50	240	120	120	106	204	61	123	135	113	132	18,0	A
50-70	50	280	140	136	120	256	62	159	148	145	145	27,0	A
50-80	50	280	140	136	120	256	62	159	148	145	145	27,0	A
50-110	50	340	170	164	156	305	70	201	192	188	188	48,0	A
65-90	65	340	170	164	156	325	88	209	196	188	188	52,8	A
65-110	65	340	170	164	156	309	80	221	202	198	188	51,0	A
80-90	80	360	180	164	156	329	100	235	221	203	203	61,0	A

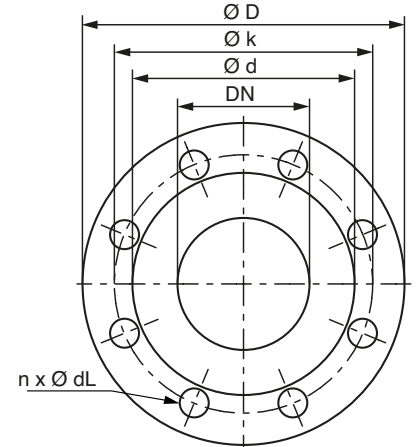
## FLANGES SIRIUX



Drawing C



Drawing D



Drawing E

Flange	Nominal dia.	Pump flange dimensions							Dimension drawing
		DN	D	d	KL1/KL2	Dia. k	n x dL1/dL2	n x dL	
[-]	[-]	[mm]				[pcs. x mm]	[mm]	[-]	
<b>32-65F</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	32	140	76	90/100	-	4 x 14 / 19	-	-	C
<b>32-70</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	32	140	76	90/100	-	4 x 14 / 19	-	-	C
<b>40-30</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	40	150	84	100/110	-	4 x 14 / 19	-	-	C
<b>40-60</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	40	150	84	100/110	-	4 x 14 / 19	-	-	C
<b>40-65</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	40	150	84	100/110	-	4 x 14 / 19	-	-	C
<b>40-80</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	40	150	84	100/110	-	4 x 14 / 19	-	-	C
<b>40-110</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	40	150	84	100/110	-	4 x 14 / 19	-	65/65	D
<b>50-60</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	50	165	99	110/125	-	4 x 14 / 19	-	-	C
<b>50-65</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	50	165	99	110/125	-	4 x 14 / 19	-	-	C
<b>50-70</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	50	165	99	110/125	-	4 x 14 / 19	-	-	C
<b>50-80</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	50	165	99	110/125	-	4 x 14 / 19	-	-	C
<b>50-110</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	50	165	99	110/125	-	4 x 14 / 19	-	70/70	D
<b>65-80</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	65	185	118	130/145	-	4 x 14 / 19	-	-	C
<b>65-90</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	65	185	118	130/145	-	4 x 14 / 19	-	-	C
<b>65-110</b> Combination flange PN6/10 (flange PN 16 according to EN 1092-2)	65	185	118	130/145	-	4 x 14 / 19	-	80/80	D
<b>80-90</b> Flange PN10 (flange PN 16 according to EN 1092-2)	80	200	132	-	160	-	8 x 19	-	E

# SIRIUX MASTER

## SERIES OVERVIEW



### • IF Module Sirius DP

- Retrofittable plug-in IF module for Sirius/Sirius-D pumps
- Dual-pump management with communication capability (time-, load- and fault-sensitive)



### • IF Module Sirius LON

- Retrofittable plug-in IF module for Sirius/Sirius-D pumps
- Serial digital LON interface for connection to BA building automation via LONWORKS networks: – LONTALK protocol – LONMARK conformity
- Dual-pump management with communication capability (time-, load- and fault-sensitive)



### • IF Module Sirius Ext. Off

- Retrofittable plug-in IF module for Sirius/Sirius-D pumps
- Control input „Overriding Off“
- Control input „0...10 V“ (remote speed or setpoint adjustment) for connection to BA building automation
- Dual-pump management with communication capability (time-, load- and fault-sensitive)



### • IF Module Sirius Ext. Min

- Retrofittable plug-in IF module for Sirius/Sirius-D pumps
- Control input „Overriding Min“ (setback operation without autopilot)
- Control input „0...10 V“ (remote speed or setpoint adjustment) for connection to BA building automation
- Dual-pump management with communication capability (time-, load- and fault-sensitive)



### • IF Module Sirius SBM

- Retrofittable plug-in IF module for Sirius/Sirius-D pumps
- Collective run signal
- Control input „0...10 V“ (remote speed or setpoint adjustment) for connection to BA building automation
- Dual-pump management with communication capability (time-, load- and fault-sensitive)



### • IF Module Sirius CAN

- Retrofit plug-in module for pump types Sirius/Sirius-D
- Serial, digital CAN interface for connection to BA building automation via CAN bus system
- Protocol in accordance with the CANopen standard (EN50325-4)
- Communication-capable dual pump management (according to time, load and fault)



### • IF Module Sirius Ext. Off/SBM

- Retrofit plug-in module for pump types Sirius/Sirius-D
- Overriding Off control input
- Collective run signal
- Communication-capable dual pump management (according to time, load and fault)



### • IF Module Sirius Modbus

- Retrofit plug-in module for the pump types Sirius/Sirius-D
- Serial, digital Modbus RTU interface for connection to building automation (BA) via RS485 bus system
- Protocol “Modbus over Serial Line” in accordance with Modbus-IDA V 1.02
- Communication-capable dual pump management (according to time, load and fault)



### • IF Module Sirius BACnet

- Retrofit plug-in module for the pump types Sirius/Sirius-D
- Serial, digital BACnet MS/TP slave for connection to building automation (BA) via RS485 bus system
- Protocol in accordance with the BACnet standard (ISO 16484-5)
- Communication-capable dual pump management (according to time, load and fault)



## TECHNICAL DATA

	IF Module SiriuX DP IF Module DP	IF Module SiriuX Ext. Off	IF Module SiriuX Ext. Min	IF Module SiriuX SBM	IF Module SiriuX Ext. Off/SBM	Function Ext. Off	Function SBM
<b>Terminal cross-section</b>	2.5 mm <sup>2</sup>				1.5 mm <sup>2</sup>		
<b>Max. cable length</b>	200 m				100 m		
<b>Bus cable</b>	Cable shielded		Cable shielded	-	Cable shielded		-
<b>Off-load voltage</b>	-		max 10V	-	max 10V		-
<b>Current loop</b>	-		10 mA	-	10 mA		-
<b>Load capacity</b>		-		30V AC/60V DC 1A - AC1/DC1	-		30V AC/ 60V DC 1A - AC1/DC1
<b>Min load</b>		-		12 V/10mA	-		12 V/10mA
<b>Control input "0...10 V":</b>							
<b>Terminal cross-section</b>	-		1.5 mm <sup>2</sup>		-		-
<b>Max. cable length</b>	-		25 m (shielded)		-		-
<b>Electric strength</b>	-		24 V =		-		-
<b>Input resistance of voltage input</b>	-		>100 kΩ		-		-
<b>Accuracy</b>	-		± 5 %		-		-

## FUNCTIONS TABLES

### Integrable dual-pump management for 1 x SiriuX-D or 2 x SiriuX

Functions of integrable dual-pump management: Main/standby operation, addition operation (efficiency-optimized peak-load cut-in and out), base-load pump change-over after 24 hours accumulated operating time and automatic fault changeover.

### Possible combinations of SiriuX IF Modules for integrated dual-pump management

Function <sup>1</sup>	IF module DP	IF module LON	IF module CAN	IF module Ext. Off	IF module Ext. Min	IF module SBM	IF module Ext. off/ SBM	IF module Modbus	IF module BACnet	IF module DP-BUS
Serial digital PLR interface for connection to BA via Salmson interface converter or company-specific coupling modules	1x MA 1x SL									
Serial digital LON interface for connection to LONWorks networks, FTT 10 A transceiver	1x SL	1x MA								
Serial digital CAN interface for connection to a CAN bus system			1x MA							1x SL
Input for potential-free NC contact with the „Ext. Off“ function <sup>2</sup> 0 - 10 V control input for remote speed adjustment or remote setpoint adjustment <sup>3</sup>	1x SL			1x MA						
Input for potential-free NC contact with „Ext. Min“ function <sup>4</sup> 0 - 10 V control input for remote speed adjustment or remote setpoint adjustment <sup>3</sup>	1x SL				1x MA					
<b>Run signal SBM</b> as potential-free NO contact <sup>5</sup> 0 - 10 V control input for remote speed adjustment or remote setpoint adjustment <sup>3</sup>						1x MA 1x SL				
Input for potential-free NC contact with „Ext. Off“ function <sup>2</sup> and SBM run signal as potential-free NO contact							1x MA 1x SL			
Serial digital Modbus interface for connection to a RS485 bus system								1x MA		1x SL
Serial digital MS/TP BACnet for connection to a RS485 bus system									1x MA	1x SL

MA = Master, SL = Slave

1) The control function acts on the entire twin-head pump.

1) The control function is put onto MA of the twin-head pump.

1) The SL of the twin-head pump receives the corresponding command from the MA via the DP interface of the IF modules (2-core connecting cable)

2) Both drives are stopped.

3) The control input 0...10 V has different additional functions, see table below

4) The base-load pumps runs at min. speed, the other drive is stopped.

5) Collective run signal indicates rotation of the corresponding drive (individual run signals separate for MA and SL).

# SIRIUX MASTER

## FUNCTIONS TABLES

### Functions of analog input "O-10V" in integrated dual-pump management

#### Double pump operating mode

Function 0 - 10 V	Main/ standby ⊖ / ⊕	Parallel operation ⊖ + ⊕
<b>Remote speed adjustment (DDC)</b> <b>0 – 1 V: Off</b> <sup>1)</sup> <b>1 – 3 V: min. speed</b> <sup>1)</sup> <b>3 – 10 V: <math>n_{min} \dots n_{max}</math></b>	<ul style="list-style-type: none"> <li>- Speed of base-load pump follows the voltage signal</li> <li>- Base-load pump cycling after 24 operating hours</li> </ul>	<ul style="list-style-type: none"> <li>- Both pumps follow the voltage signal at the same speed</li> </ul>
<b>Remote setpoint adjustment</b> <b>0 – 1 V: Off</b> <sup>1)</sup> <b>1 – 3 V: <math>H_{min}</math></b> <b>3 – 10 V: <math>H_{min} \dots H_{max}</math></b>	<ul style="list-style-type: none"> <li>- Base-load pump controls the differential pressure</li> <li>- Base-load pump cycling after 24 operating hours</li> </ul>	<ul style="list-style-type: none"> <li>- Efficiency-optimised activation and deactivation of the peak-load pump</li> <li>- Base-load pump cycling after 24 operating hours</li> </ul>

<sup>1)</sup> Observe On/Off switching hysteresis.

## TECHNICAL DATA IF MODULE SIRIUX

### IF Module Modbus

<b>Line type</b>	Bus cable, twisted in pairs shielded 1 x 2 x 0.5 mm <sup>2</sup> / 120 Ω characteristic impedance (line type B in accordance with TIA 485-A)
<b>Line length (max.)</b>	1000 m
<b>Spur line</b>	Not permissible
<b>Terminal cross-section</b>	1.5 mm <sup>2</sup>
<b>Interface</b>	RS485 (TIA-485A), optically insulated
<b>Speed (velocity)</b>	2400, 9600, 19200, 38400, 115200 kBit/s
<b>Format</b>	8 data bits no/even/odd parity 1 bit stop ( only 2 without parity)
<b>Protocol</b>	Modbus RTU
<b>Profile</b>	compatible with Digicon Modbus

### IF Module CAN

<b>Line type</b>	CAN bus cable, twisted in pairs shielded 1 x 2 x 0.5 mm <sup>2</sup> / 120 Ω characteristic impedance (line type B in accordance with TIA 485-A)
<b>Line length (max.)</b>	200 m
<b>Spur line</b>	yes, max. 10 m, total max. 50 m
<b>Terminal cross-section</b>	1.5 mm <sup>2</sup>
<b>Interface</b>	CAN in accordance with ISO 11898-2, optically insulated
<b>Speed (velocity)</b>	125 kBit/s, constant
<b>Format</b>	-
<b>Protocol</b>	CANopen in accordance with CiA DS301 V 4.02
<b>Profile</b>	-

### IF Module BACnet

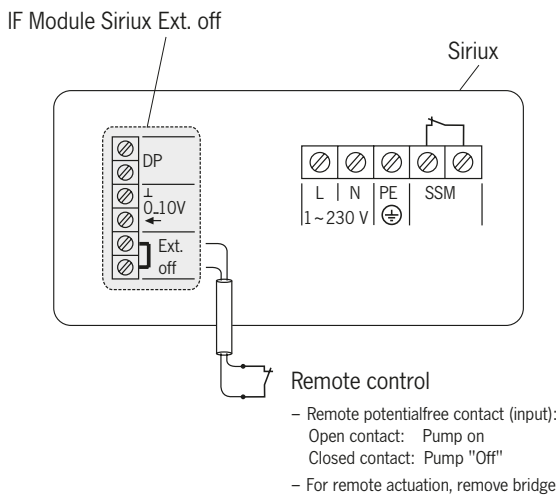
<b>Line type</b>	Bus cable, twisted in pairs shielded 1 x 2 x 0.5 mm <sup>2</sup> / 120 Ω characteristic impedance (line type B in accordance with TIA 485-A)
<b>Line length (max.)</b>	1000 m
<b>Spur line</b>	Not permissible
<b>Terminal cross-section</b>	1.5 mm <sup>2</sup>
<b>Interface</b>	RS485 (TIA-485A), optically insulated
<b>Speed (velocity)</b>	9600, 19200, 38400, 76800 kBit/s
<b>Format</b>	--
<b>Protocol</b>	BACnet MS/TP version 1 revision 4
<b>Profile</b>	BACnet Smart Sensor, Smart Actor (B-SS, B-SA)

### IF MODULE SIRIUX LON

<b>Line type</b>	twisted in pairs, shielded
<b>Line length (max.)</b>	1000 m (bus topology with a max. 3 m spur line) 500 m (free topology, max. 400 m between communicating consumers)
<b>Spur line</b>	-
<b>Terminal cross-section</b>	2.5 mm <sup>2</sup>
<b>Interface</b>	FTT 10A
<b>Speed (velocity)</b>	78 kBits/s, constant
<b>Format</b>	--
<b>Protocol</b>	LONMark Layers 1-6 Interoperability Guidelines 3.2 LONmark Application Layer Interoperability Guidelines 3.2
<b>Profile</b>	LONMark pump controller 8210_10

## SALMSON IF MODULE FOR SINGLE AND TWIN-HEAD PUMPS

1x IF Module SiriuX Ext. Off



• 1 x Salmson IF Module SiriuX Ext. Off

### Additional functions

- Input for floating NC contact with «Ext. Off» function
  - Contact closed: pump operating under auto control
  - Contact open: pump stops
- Control input «0 - 10 V» for remote setpoint adjustment or remote speed setting
  - Remote setpoint adjustment: The setpoint value for integrated differential-pressure control is determined for the pump via an analog signal 0 - 10V.
  - Remote speed setting: An external controller issues an actuating signal for remote speed setting (DDC operation).  
The desired function must be activated at the pump
- DP twin-head-pump interface for integrable dual-pump management of 2 x single or 1 x twin-head pump.

### Delivery status

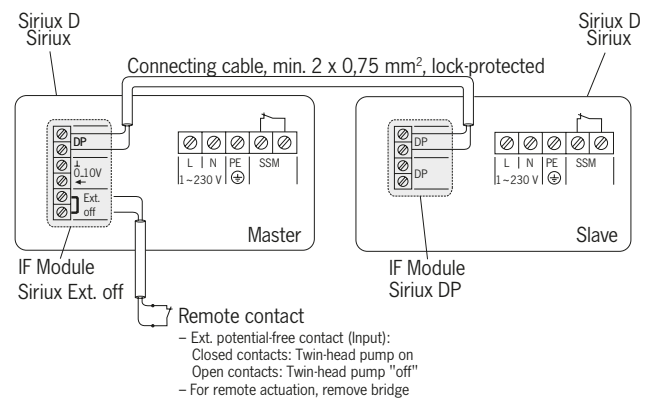
The terminals of the «Ext. Off» control input are bridged.

### Scope of delivery

- IF-Module Stratos Ext. Off
- EMC screwed connection Pg 9

1x IF Module SiriuX Ext. Off (master)

1x IF Module SiriuX DP (slave)



• 1 x Salmson IF Module SiriuX Ext. Off (master)

• 1 x Salmson IF Module SiriuX DP (slave)

### Functions as described at left, plus:

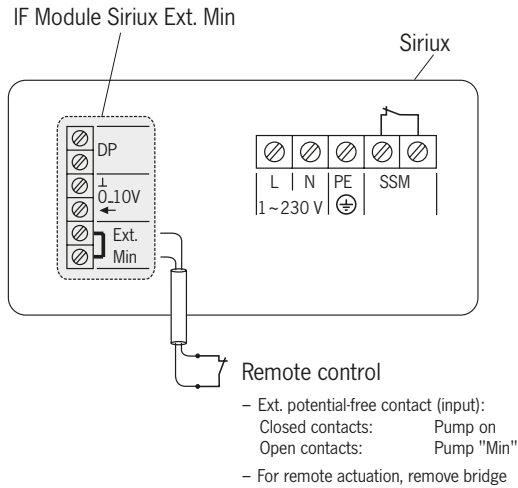
- **Double pump DP interface** for the optional integration of a dual pump management system of 1 x double pump or 2 x single pumps, optionally with the following functions:
  - Main/standby operation for automatic fault-actuated switchover to the standby pump and automatic pump alteration after 24 hrs running time
  - Parallel operation for efficiency-optimised activation and deactivation of the peak-load pump and automatic fault-actuated switchover to standby pump

The Ext. Off function and the control input 0 - 10 V act on both pumps.

# SIRIUX MASTER

## SALMSON IF MODULE FOR SINGLE AND TWIN-HEAD PUMPS

1x IF Module Siriux Ext. Min



### • 1 x Salmson IF Module Siriux Ext. Min

#### Additional functions

- Input for floating NC contact with «Ext. Min» function (setback operation without autopilot)
  - Contact closed: pump operating under auto control
  - Contact open: pump runs at fixed min. speed (cable shielded)
- Control input «0 - 10 V» for remote setpoint adjustment or remote speed setting
  - Remote setpoint adjustment: The setpoint value for integrated differential-pressure control is determined for the pump via an analog signal 0 - 10 V.
  - Remote speed setting: An external controller issues an actuating signal for remote speed setting (DDC operation). The desired function must be activated at the pump
- DP twin-head-pump interface for integrable dual-pump management of 2 single or 1 twin-head pump (see Siriux-IF-Modules for Twin-Head Pumps)

#### Delivery status

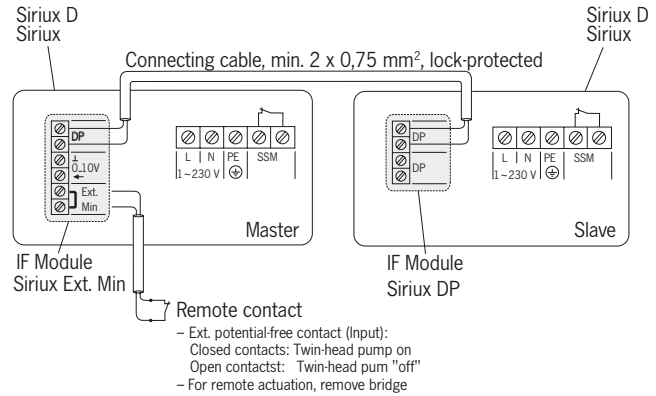
The terminals of the «Ext. Min» control input are bridged.

#### Scope of delivery

- IF-Module Stratos Ext. Min
- EMC screwed connection Pg 9

1x IF Module Siriux Ext. Min (master)

1x IF Module Siriux DP (slave)



### • 1 x Salmson IF Module Siriux Ext. Min (master)

### • 1 x Salmson IF Module Siriux DP (slave)

#### Functions as described at left, plus:

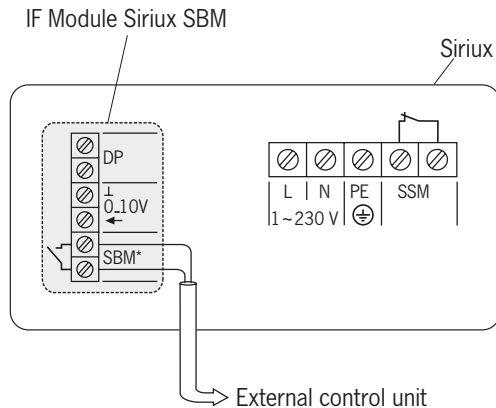
#### Double pump DP interface

- for the optional integration of a dual pump management system of 1 x double pump or 2 x single pumps, optionally with the following functions:
- Main/standby operation for automatic fault-actuated switchover to the standby pump and automatic pump alteration after 24 hrs running time
  - Parallel operation for efficiency-optimised activation and deactivation of the peak-load pump and automatic fault-actuated switchover to standby pump

The Ext. Min function and the control input 0 – 10 V act on both pumps.

## SALMSON IF MODULE FOR SINGLE AND TWIN-HEAD PUMPS

1x IF Module SiriuX SBM



\*SBM: Collective run signals, NO contact in compl. with VDI 3814  
(Switch rating of vol.-free NO contact 1A, 250V~)

### • 1 x Salmson IF Module SiriuX SBM

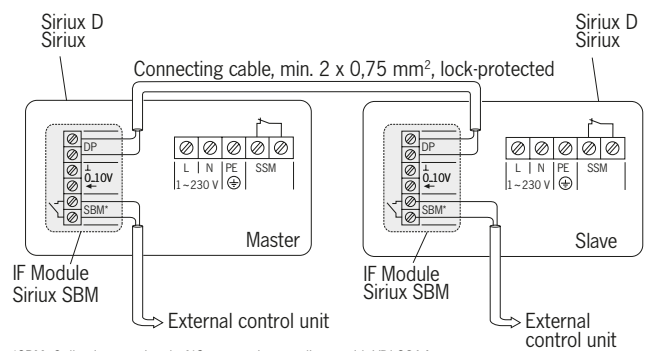
#### Additional functions

- Collective run signal SBM as floating NO contact
  - Contact closed: pump operates in the specified operating mode
  - Contact open: pump is stopped
- Control input «0 - 10 V» for remote setpoint adjustment or remote speed setting
  - Remote setpoint adjustment: The setpoint value for integrated differential-pressure control is determined for the pump via an analog signal 0 - 10 V.
  - Remote speed setting: An external controller issues an actuating signal for remote speed setting (DDC operation). The desired function must be activated at the pump
- DP twin-head-pump interface for integrable dual-pump management of 2 single or 1 twin-head pump (see SiriuX-IF-Modules for Twin-Head Pumps)

#### Scope of delivery

- IF-Module Stratos SBM
- EMC screwed connection Pg 9

2x IF Module SiriuX SBM



\*SBM: Collective run signals, NO contact in compliance with VDI 3814

### • 2 x Salmson IF Module SiriuX SBM

#### Functions as described at left, plus:

- **Double pump DP interface** for the optional integration of a dual pump management system of 1 x double pump or 2 x single pumps, optionally with the following functions:
  - Main/standby operation for automatic fault-actuated switchover to the standby pump and automatic pump alteration after 24 hrs running time
  - Parallel operation for the efficiency-optimised activation/deactivation of the peak load pump and automatic fault-actuated switchover to standby pump

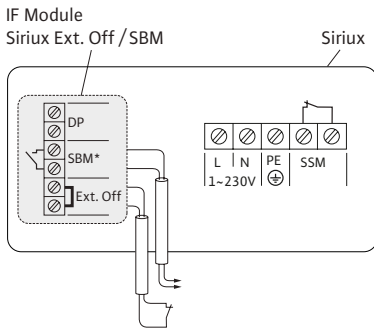
The control input 0 – 10 V acts on both pumps.

The SBM contact acts as an individual run signal for each pump.

# SIRIUX MASTER

## SALMSON IF MODULE FOR SINGLE AND TWIN-HEAD PUMPS

### 1x IF Module SiriuX Ext.Off/SBM



Remote control (shielded cable)

\* Remote potential-free contact

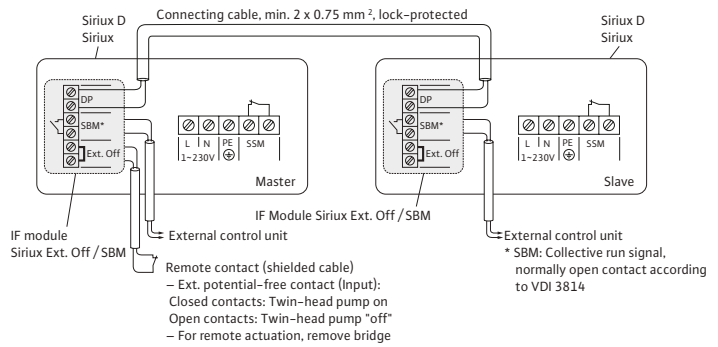
Open contact: Pump on

Closed contact: Pump "Off"

\* For remote actuation, remove bridge

\* SBM: Collective run signal, normally open contact according to VDI 3814

### 2x IF Module SiriuX Ext.Off/SBM



Remote contact (shielded cable)

– Ext. potential-free contact (Input):

Closed contacts: Twin-head pump on

Open contacts: Twin-head pump "off"

– For remote actuation, remove bridge

\* SBM: Collective run signal,

normally open contact according

to VDI 3814

### • 1 x Salmson IF Module SiriuX Ext. off/SBM

#### Additional functions

- Input for potential-free NC contact with the Ext. Off function
  - Contact closed: Pump running in auto control mode
  - Contact open: Pump is not running.
- Collective run signal SBM as potential-free NO contact
  - Contact closed: Pump is running in the specified operating mode
  - Contact open: Pump is not running
- Double pump DP interface for integrated dual pump management of 2 x single pumps or 1 x double pump (see SiriuX IF-Modules for double pumps)

#### Delivery status

The terminals of the «Ext. off.» control input are bridged.

#### Scope of delivery

- IF-Module Ext. Off/SBM
- EMC screwed connection Pg 9

### • 2 x Salmson IF Module SiriuX Ext. off/SBM

#### Functions as described at left, plus

**Double pump DP interface** for the optional integration of a dual pump management system of 1 x double pump or 2 x single pumps, optionally with the following functions:

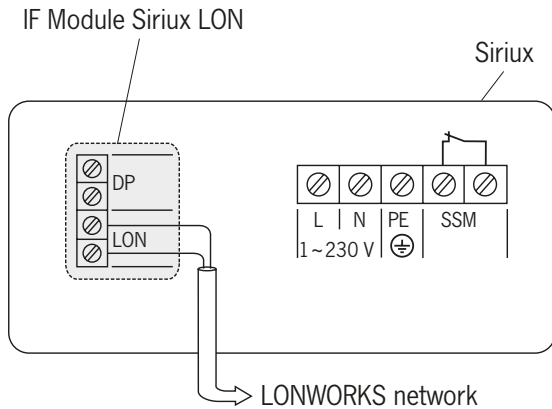
- Main/standby operation for automatic fault-actuated switchover to the standby pump and automatic pump alteration after 24 hrs running time
- Parallel operation for the efficiency-optimised activation/deactivation of the peak load pump and automatic fault-actuated switchover to standby pump

The Ext Off function acts on both pumps.

The SBM contact acts as an individual run signal for each pump.

## SALMSON IF MODULE FOR SINGLE AND TWIN-HEAD PUMPS

1x IF Module Sirius LON



• 1 x Salmson IF Module Sirius LON

**Additional functions**

- Serial digital LON interface for connection to LONWORKS networks.
- Transfer of the following data items as control commands to the pump:
  - Control mode
  - Delivery head/speed setpoint
  - Pump On/Off
  - Setback operation
  - Control mode
- Data from external sensors
- Transfer of the following data items as signals from the pump:
  - Actual delivery head value
  - Actual volume flow value
  - Actual consumption value
  - Actual output value
  - Actual motor current value
  - Operating hours
  - Actual speed value
  - Detailed fault signals
  - Status signals

**DP double pump interface** (see details alongside)

**Documentation to download**

- LON support files:
  - Download application via network: \*.NXE / \*.APB
  - External interface files: \*.XIF / \*.XFB
  - Device resource files: \*.ENU / \*.FMT / \*.FPT / \*.TYP
- <http://www.salmson.com>

**Scope of delivery**

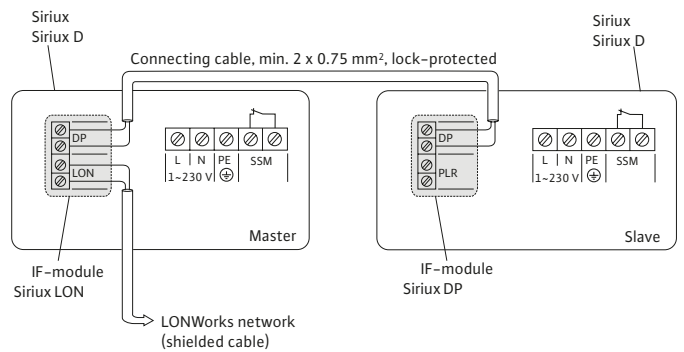
- IF-Module Stratos LON
- EMC screwed connection pg 7 and pg 9
- Sticker with Neuron-ID to peel off

**Delivery status**

The IF-Module LON is supplied as “Application unconfigured” in accordance with the LONMark Application Layer Interoperability Guidelines

1x IF Module Sirius LON (master)

1x IF Module Sirius DP (slave)



• 1 x Salmson IF Module Sirius LON (master)

• 1 x Salmson IF Module Sirius DP (slave)

**Functions as described at left, plus:**

**Double pump DP interface** for the optional integration of a dual pump management system of 1 x double pump or 2 x single pumps, optionally with the following functions:

- Main/standby operation for automatic fault-actuated switchover to the standby pump and automatic pump alteration after 24 hrs running time

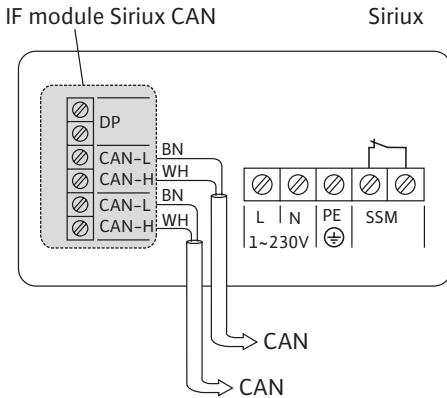
- Parallel operation for efficiency-optimised activation and deactivation of the peak-load pump and automatic fault-actuated switchover to standby pump

In the LONWorks network, data items are transmitted for the double pump as a complete unit; there is no differentiation between master and slave.

# SIRIUX MASTER

## SALMSON IF MODULE FOR SINGLE AND TWIN-HEAD PUMPS

1x IF Module SiriuX CAN



• 1 x Salmson IF Module SiriuX CAN

### Additional functions

Serial, digital **CANopen interface** for connection to a CAN bus system.

– Transfer of the following data items as control commands to the pump:

- Control mode
- Delivery head/speed setpoint
- Pump On/Off
- Setback operation

– Transfer of the following data items as signals from the pump:

- Actual delivery head value
- Actual volume flow value
- Actual consumption value
- Actual output value
- Actual motor current value
- Operating hours
- Actual speed value
- Detailed fault signals
- Status signals

### DP double pump interface

(see details alongside)

### Documentation to download

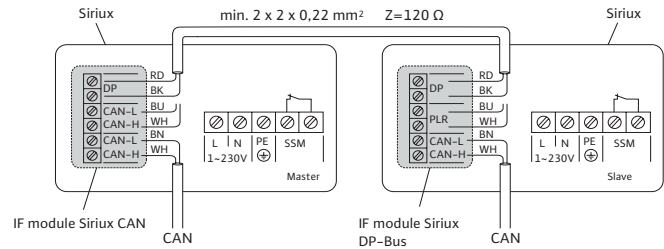
- **CAN** specification for IF-Module
  - **CANopen** .eds file
- <http://www.salmson.com>

### Scope of delivery

- IF-Module Stratos CAN
- EMC screwed connection pg 7 and pg 9
- Sticker for BUS address

1x IF Module SiriuX CAN (master)

1x IF Module SiriuX DP-Bus (slave)



• 1 x Salmson IF Module SiriuX CAN (master)

• 1 x Salmson IF Module SiriuX DP-Bus (slave)

Functions as described at left, plus:

**Double pump DP interface** for the optional integration of a dual pump management system of 1 x double pump or 2 x single pumps, optionally with the following functions:

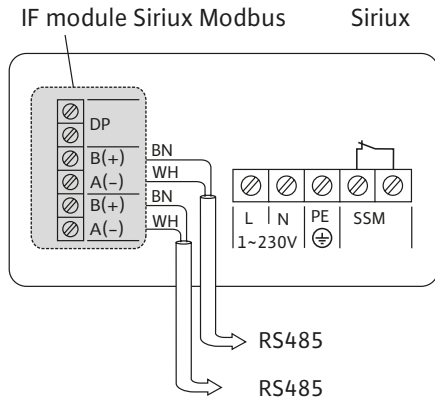
– Main/standby operation for automatic fault-actuated switchover to the standby pump and automatic pump alteration after 24 hrs running time

– Parallel operation for efficiency-optimised activation and deactivation of the peak-load pump and automatic fault-actuated switchover to standby pump



## SALMSON IF MODULE FOR SINGLE AND TWIN-HEAD PUMPS

1x IF Module SiriuX Modbus



• 1 x Salmson IF Module SiriuX Modbus

### Additional functions

Serial, digital **Modbus RTU interface** for connection to building automation (BA) via RS485.

Transfer of the following data items as control commands to the pump:

- Control mode
- Delivery head/speed setpoint
- Pump On/Off
- Setback operation

Transfer of the following data items as signals from the pump:

- Actual delivery head value
- Actual volume flow value
- Actual consumption value
- Actual output value
- Actual motor current value
- Operating hours
- Actual speed value
- Detailed fault signals
- Status signals

### DP double pump interface

(see details alongside)

### Documentation to download

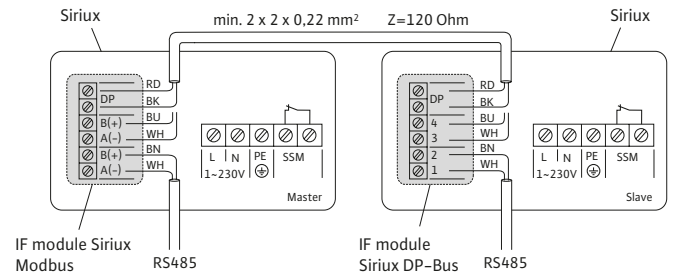
- Modbus specification for IF- Module
- <http://www.salmson.com>

### Scope of delivery

- IF Module SiriuX Modbus
- EMC screwed connection pg 7 and pg 9
- Sticker for BUS address

1x IF Module SiriuX Modbus (master)

1x IF Module SiriuX DP-Bus (slave)



• 1 x Salmson IF Module SiriuX Modbus (master)

• 1 x Salmson IF Module SiriuX DP-Bus (slave)

### Functions as described at left, plus:

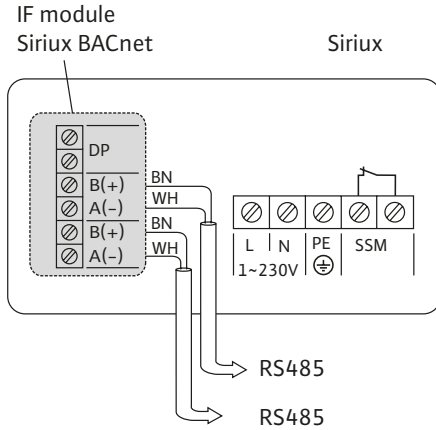
**Double pump DP interface** for the optional integration of a dual pump management system of 1 x double pump or 2 x single pumps, optionally with the following functions:

- Main/standby operation for automatic fault-actuated switchover to the standby pump and automatic pump alteration after 24 hrs running time
- Parallel operation for efficiency-optimised activation and deactivation of the peak-load pump and automatic fault-actuated switchover to standby pump

# SIRIUX MASTER

## SALMSON IF MODULE FOR SINGLE AND TWIN-HEAD PUMPS

1x IF Module SiriuX BACnet



• 1 x Salmson IF Module SiriuX BACnet

### Additional functions

Serial, digital **BACnet MS/TP interface** for connection to building automation (BA) via RS485..

Transfer of the following data items as control commands to the pump:

- Control mode
- Delivery head/speed setpoint
- Pump On/Off
- Setback operation

Transfer of the following data items as signals from the pump:

- Actual delivery head value
- Actual volume flow value
- Actual consumption value
- Actual output value
- Actual motor current value
- Operating hours
- Actual speed value
- Detailed fault signals
- Status signals

### DP double pump interface

(see details alongside)

### Documentation to download

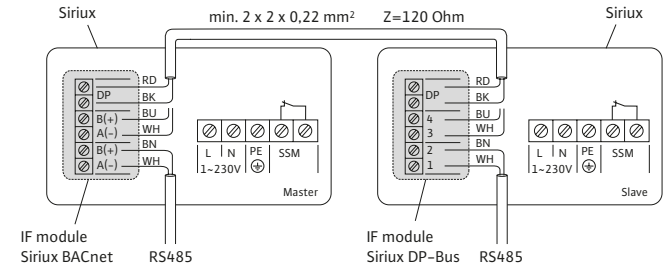
- BACnet PICS and list of data items
- <http://www.salmson.com>

### Scope of delivery

- IF Module SiriuX BACnet
- EMC screwed connection pg 7 and pg 9
- Sticker for BUS address

1x IF Module SiriuX BACnet (master)

1x IF Module SiriuX DP-Bus (slave)



• 1 x Salmson IF Module SiriuX BACnet (master)

• 1 x Salmson IF Module SiriuX DP-Bus (slave)

### Functions as described at left, plus:

**Double pump DP interface** for the optional integration of a dual pump management system of 1 x double pump or 2 x single pumps, optionally with the following functions:

- Main/standby operation for automatic fault-actuated switchover to the standby pump and automatic pump alteration after 24 hrs running time
- Parallel operation for efficiency-optimised activation and deactivation of the peak-load pump and automatic fault-actuated switchover to standby pump

# SIRIUX MASTER

## MIN. SUCTION LOAD

### • SIRIUX

Minimum suction head at suction port [m] for preventing cavitation at water pumping temperature

	25-30	25-40	25-60	25-65	32-30	32-40	32-60	32-65	32-65F	32-90	32-70	40-30	40-60	40-65	40-80	40-110	50-60	50-65	50-70	50-80	50-110	65-80	65-90	65-110	80-90
50°C	3	3	3	3	3	3	3	3	3	3	3	3	3	3	5	7	3	3	5	5	7	5	7	7	7
95°C	10	10	10	10	10	10	10	10	10	10	10	10	10	10	12	15	10	10	12	12	15	12	15	15	15
110°C	16	16	16	16	16	16	16	16	16	16	16	16	16	16	18	23	16	16	18	18	23	18	23	23	23

### • SIRIUX D

Minimum suction head at suction port [m] for preventing cavitation at water pumping temperature

	32-60	32-70	40-60	40-80	40-110	50-60	50-70	50-80	50-110	65-90	65-110	80-90
50°C	3	3	3	5	7	3	5	5	7	5	7	7
95°C	10	10	10	12	15	10	12	12	15	12	15	15
110°C	16	16	16	18	23	16	18	18	23	18	23	23

## FEATURES

#### a) Packaging

Threaded models: supplied with gaskets without unions.

Flanged models: supplied with flange seals and bolts, without counterflanges (optional).

#### b) Maintenance

Replacing of motor unit and electronic module.

## RECOMMENDED ACCESSORIES

- Unions and PN 10/16 weldable round counterflanges
- Kit press 6
- Isolation valves
- IF modules
  - DP
  - SBM
  - Ext. Off
  - Ext. min.
  - LON
  - CAN
  - Ext.off/SBM
  - Modbus
  - BACnet
  - DP-Bus