



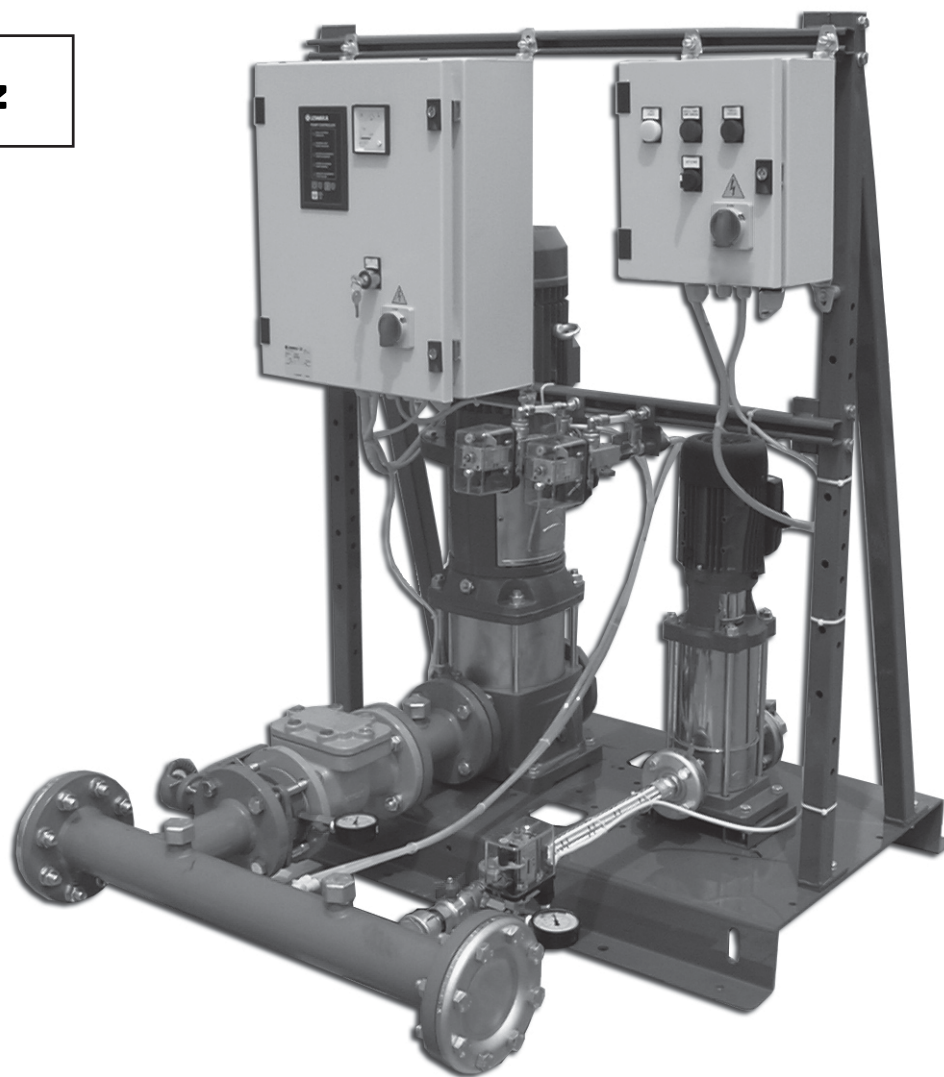
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GEN Series

Fire-fighting booster sets
EN 12845 with
multistage vertical
electric pump

50 Hz



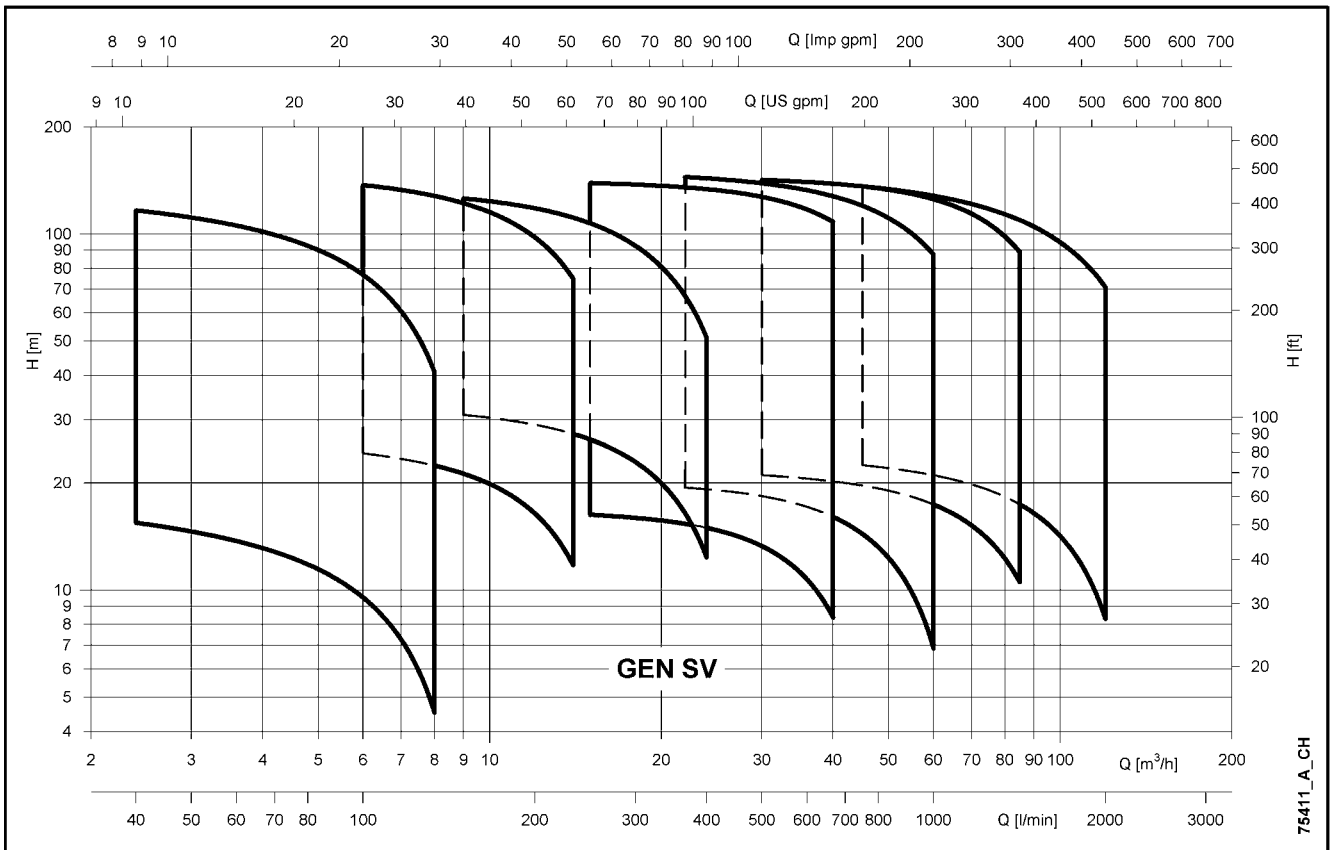
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GEN10 - GEN11 - GEN20 - GEN21 SERIES HYDRAULIC PERFORMANCE RANGE AT 50 Hz



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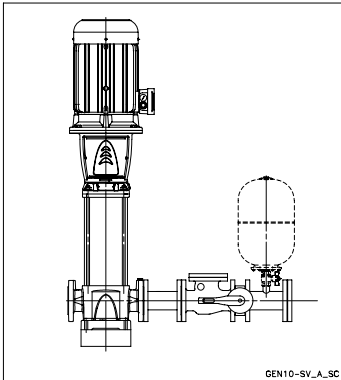


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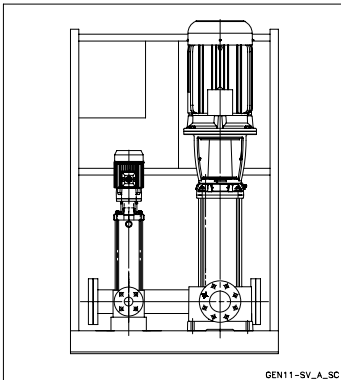
RANGE

RANGE

- The range of EN 12845 series fire-fighting booster sets includes models with 1 or 2 electric service pumps and some with jockey pumps for adapting to the specific requirements of each application.

GEN10 SERIES

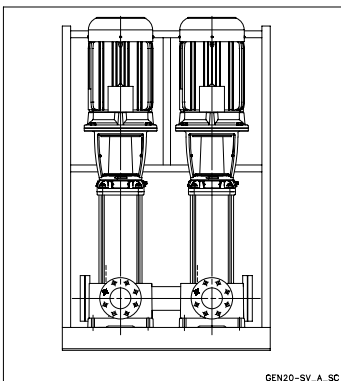
- Fire-fighting sets with a multistage centrifugal service pump with vertical axis and body made from stainless steel or cast iron in the SV series.

Head up to 150 m.
Flow up to 120 m³/h.


GEN11 SERIES

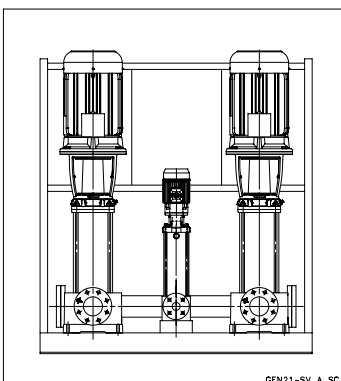
- Fire-fighting sets with a multistage centrifugal service pump with vertical axis and body made from stainless steel or cast iron in the SV series and jockey pump.

Head up to 150 m.
Flow up to 120 m³/h.


GEN20 SERIES

- Fire-fighting sets with two multistage centrifugal service pumps with vertical axis and body made from stainless steel or cast iron in the SV series.

Head up to 150 m.
Flow up to 240 m³/h.


GEN21 SERIES

- Fire-fighting sets with two multistage centrifugal service pumps with vertical axis and body made from stainless steel or cast iron in the SV series and jockey pump.

Head up to 150 m.
Flow up to 240 m³/h.

CHARACTERISTICS OF THE ELECTRIC PUMPS USED IN GEN SERIES BOOSTER SETS

SV2, 4, 8, 16 ELECTRIC PUMPS

- Multistage centrifugal vertical electric pumps. All metal parts in contact with pumped liquid are made of stainless steel.
- F version: round flanges, in-line discharge and suction ports, AISI 304 (Standard version).
- N version: round flanges, in-line discharge and suction ports, AISI 316 (Available on request).
- Reduced axial thrusts enable the use of **standard motors** that are easily found on the market. **The Lowara surface motors have efficiency values that fall within the range normally referred to as efficiency class 2.**
- Mechanical seal according to EN 12756 (ex DIN 24960) and ISO 3069.
- Easy maintenance. No special tools required for assembly or disassembly.

SV33, 46, 66, 92 ELECTRIC PUMPS

- Vertical multistage centrifugal pump with impellers, diffusers and outer sleeve made entirely of stainless steel, and with pump casing and upper head made of cast iron (Standard version).
- N version made entirely of AISI 316 stainless steel (Available on request).
- High hydraulic efficiency for significant energy savings.
- Innovative axial load compensation system on pumps with higher head. This ensures reduced axial thrusts and enables the use of standard motors that are easily found on the market. **The Lowara surface motors have efficiency values that fall within the range normally referred to as efficiency class 2.**
- Mechanical seal according to EN 12756 (ex DIN 24960) and ISO 3069, which can easily be replaced without disassembling the motor from the pump.
- Mechanical sturdiness and easy maintenance. No special tools required for assembly or disassembly.

FIRE-FIGHTING SETS WITH VERTICAL ELECTRIC PUMPS

The main components of the sets with vertical electric pumps are:

- On/off valves on the delivery side of each pump, ball valves with lever handle for diameters up to 2" inclusive, butterfly valve with lever handle from DN65 to DN100 diameter, butterfly valve with handwheel and reduction manual gear for DN125 diameter and above. Monitoring of the ON/OFF status included (Lockable kit available on request).
- Re-circulation device for each service pump.
The re-circulation device allows a minimum capacity in order to prevent the pump overheating when working with closed delivery. It includes the activation pressure switch for the alarms of the pumps running, the test valve for checking the seal of the check valves, the couplings for any connecting pipes to the priming tank in the case of suction lift installation. The connection of each re-circulation to the suction tank or the priming tank is to be seen to by the person installing the equipment.
- Pressure gauge on the delivery side of each service pump between check valve and on/off valve.
- Check valve be inspected type, on the delivery side of each pump. Threaded coupling for diameters up to 2" included, flanged coupling for larger sizes.
- Painted iron delivery manifold (PN 16) and threaded stubs with relative caps for connecting any 24 litre membrane tanks. Blind and welding zinc-plated flanges.
- Two start-up pressure switches for every service pump.
For the electric service pumps, start-up takes place through the pressure switch, but it must be manually stopped using the key-operated selector switch on the panel (excluding the version with automatic shut-off). For the electric jockey pump, if present, both start-up and stopping are determined by the pressure switch.
- Start-up pressure switch circuit for the service pump, including connecting pipes for the delivery manifold, re-circulation circuit.
This circuit includes on/off valve, a non-return valve, a discharge valve and various pipe fittings. The configuration of the circuit allows the pressure switch to intervene also when the relative on/off valve is closed.
- Various pipe fittings (copper, zinc-plated steel).
- Base made of bent sheet or structural iron with epoxidic powder painting RAL 5010.
- Control panel frame made of structural iron with epoxidic powder painting RAL 5010.

SUCTION SIDE KIT

The set is supplied with its suction side free from components.

Upon request, for the SUCTION side of the individual service pump, TWO versions are available according to the system's installation type:

• POSITIVE SUCTION HEAD and SUCTION LIFT KIT

Kit suitable for positive suction head or suction lift installation.

The suction side of the individual pump includes:

- Expansion joint (must be fixed in the suction side of the pump).
- On/off butterfly valve with lever handle up to DN100 diameter, butterfly valve with handwheel and reduction manual gear for DN125 diameter and above. Monitoring of the ON/OFF status included (Lockable kit available on request).
- Suction flanged pipe.
- Pressure gauge.
- Weld-on flange.

Conforming to the requirements of the EN 12845 Standard (chapter 10.5 and chapter 10.6).

These requirements are connected with the type of installation and the measurement of the piping sections. (see table page 51).

OTHER VERSIONS

As well as the basic GENDB versions (direct start-up), GENYB (star triangle start-up), GENIB (impedance start-up), the following versions are also available:

• GEN..A

Basic version with periodic self-test function.

There is a self-test circuit including a weekly clock on the electric panel of each electric service pump. For the time and date pre-set, the pump is started up and kept functioning for 1 minute.

During this interval the check circuit checks that the pressure in the re-circulation circuit closes the pressure switch contact of the pump which is running. In the case of irregularities, the relative auxiliary self-test alarm relay available for remote signalling is activated and memorised.

The EN12845 Standard does not provide for the presence of a self-test circuit but asks for periodic checks to be carried out by the user, hence the periodic self-test function cannot substitute the above checks.

• GEN..X (For fire hydrant systems, UNI 10779)

With automatic shut-off.

There is an automatic shut-off circuit on the electric panel of each electric service pump. In certain situations, it allows automatic shut-off once the system pressure has been kept at higher values than the start-up values for at least twenty minutes.

The self-test and automatic shut-off versions are available for each type of GEND., GENY., GENI.. start-up and in combination between them (See identification codes page).

ACCESSORIES WICH CAN BE REQUESTED

- Protection against dry running for the electric jockey pump in one of the following versions:
 - Float switch, in case of suction lift.
 - Probes kit in the case of suction lift (needs probe module optional in the electric jockey pump).
 - Minimum pressure switch, in case of positive suction head.
- QAL12845 panel for independent power supply of the audible/visual alarms for no electrical power, start-up request, pump working and no start-up, for each service pump, as outlined by EN12845 (point 10.8.6.2). The panel is made up of a casing (IP55), complete with general switch, battery charger, battery (external with relative support), terminal board. The electric connection between the contacts on the electric service pump panel, power supply panels and alarms is to be seen to by the person installing the equipment.
- ALARM KIT (three flashing yellow lights and one red).
- Circuit for test flow of the service pumps. Includes the direct reading flow meter (sized according to the capacity of the service pump) with relative piping and on/off ball valve for diameters up to 2" inclusive, butterfly valve with lever handle from DN65 to DN100 diameter, butterfly valve with handwheel and reduction manual gear for DN125 diameter and above. Monitoring of the ON/OFF status included
- Membrane tank with relative ball valve, in the same number as that of the pumps present, for dampening any pressure oscillations in the system. 24 litre model with maximum pressure 8.10 or 16 bar according to the maximum head of the pumps.
- Priming tank for each service pump, in the case of suction lift installation.
- Accessories for the priming tank such as float switch tap, level indicator, valves, automatic air discharger on each service pump, in the case of suction lift installation.



All the main characteristics of the priming tanks, the flow meters and the available membrane tanks are shown in the accessories section.

SPECIAL EQUIPMENT UPON REQUEST**(Contact the Sales and technical Assistance Service)**

Sets for pumping sea water with electric pumps, valves, manifold and AISI 316 piping or compatible alloys.

Non-standard supply power sets.

Sets with three electric service pumps.

Sets with separate electric jockey pump supplied as a kit.

Sets inside prefabricated box.

Notes

The set is supplied without a suction manifold in accordance with the EN12845 Standard (points 10.6.2.2 and 10.6.2.3) which provides for independent suction for each pump.

Please see the EN12845 Standard on "Fixed systems and fire extinguishing – Automatic sprinkler systems – Design, installation and maintenance" - for sizing the suction piping, define whether the installation is to be considered suction lift or positive suction head for the use limits.

The Standard ask that, whenever possible, the pumps are installed with positive suction head, otherwise priming tanks must be provided with suitable automatic devices for signalling and reintegration.

The EN12845 Standard states that the water pressure should not exceed 12 bar (point 8.2.1).

In some applications it is possible to have pressures of over 12 bar (point 8.2.2).

In this case, pump sets with higher pressures than those within the regulatory limit are used.

The catalogue also shows booster sets with pump closing head up to 150 metres suitable for such installations.

COMMAND PANEL FOR THE ELECTRIC SERVICE PUMP

Painted metal casing (IP 54) complete with:

- General door-locking switch.
- Analogical amperometer.
- "MAN – AUT – 0" selector with extractable key only in automatic position.
- Keyboard for indicating electric voltage presence, correct phase sequence (three phase power supply), start-up request, pump functioning and no start-up, through LED lamps, lamp test button and starting and stopping buttons, according to the provisions of EN12845 paragraph 10.8.6.

Inside:

- 12/24V transformer for auxiliary circuits and electronic board.
- Fuse holder and fuses for power and auxiliary circuits.
- Line contact maker (direct start-up), line and star-triangle contact makers (star-triangle start-up), line contact makers and reactance switching (impedance start-up).
- Star/triangle exchanger timer or reactance switching.
- Relay for signalling no phase.
- Auxiliary relays.
- Amperometric transformer.
- Terminal for the monitoring of the ON/OFF valve status on delivery side.
- Terminal boards.
- Clean contacts (max24V, 1A) for activating acoustic/visual alarms for no phase, pump on demand, pump running and start failure.
- Cable glands (excluding the versions to be fixed to the floor).
- Wiring diagram.



COMMAND PANEL FOR THE ELECTRIC JOCKEY PUMP

Painted metal casing (IP 55) complete with:

- General door-locking switch.
- Visual indicators for line, running, thermal shutdown.
- Manual – automatic selector – excluded.

Inside:

- Transformer for 24V auxiliary circuits.
- Fuse holder and fuses for power and auxiliary circuits.
- Line contact maker.
- Overload cut-out switch.
- Pump shut-off timer (0 ÷ 90 s).
- Terminal boards.
- Cable glands.
- Wiring diagram.

Suitable for connecting to a float switch or a minimum pressure switch for preventing dry running. An optional level control module (supplied upon request) allows the connection of probes with the possibility of regulating the sensitivity according to the hardness of the water.



The set is supplied already assembled, calibrated and factory tested. The set is supplied complete with an instruction manual, pump manuals and wiring diagrams for the panels.

For the sets which include floor panels, the electrical panels are sent together with the set with separate packaging and supplied with 5 metres long connecting cables (longer lengths available upon request). The preparation of the steps and laying the cables are to be seen to by the person installing the equipment.

OPTIONS WHICH CAN BE REQUESTED

CP alternative

Series of clean contacts for checking the status of the electric service pump panel, as well as the contacts already provided for signalling alarms:

- No phase
- Motor running
- Selector position MAN-AUT-0
- No start-up
- Start-up request

Series of clean contacts for checking the status of the electric jockey pump:

- Pump running
- Thermal shutdown (overload)
- No water

KV alternative

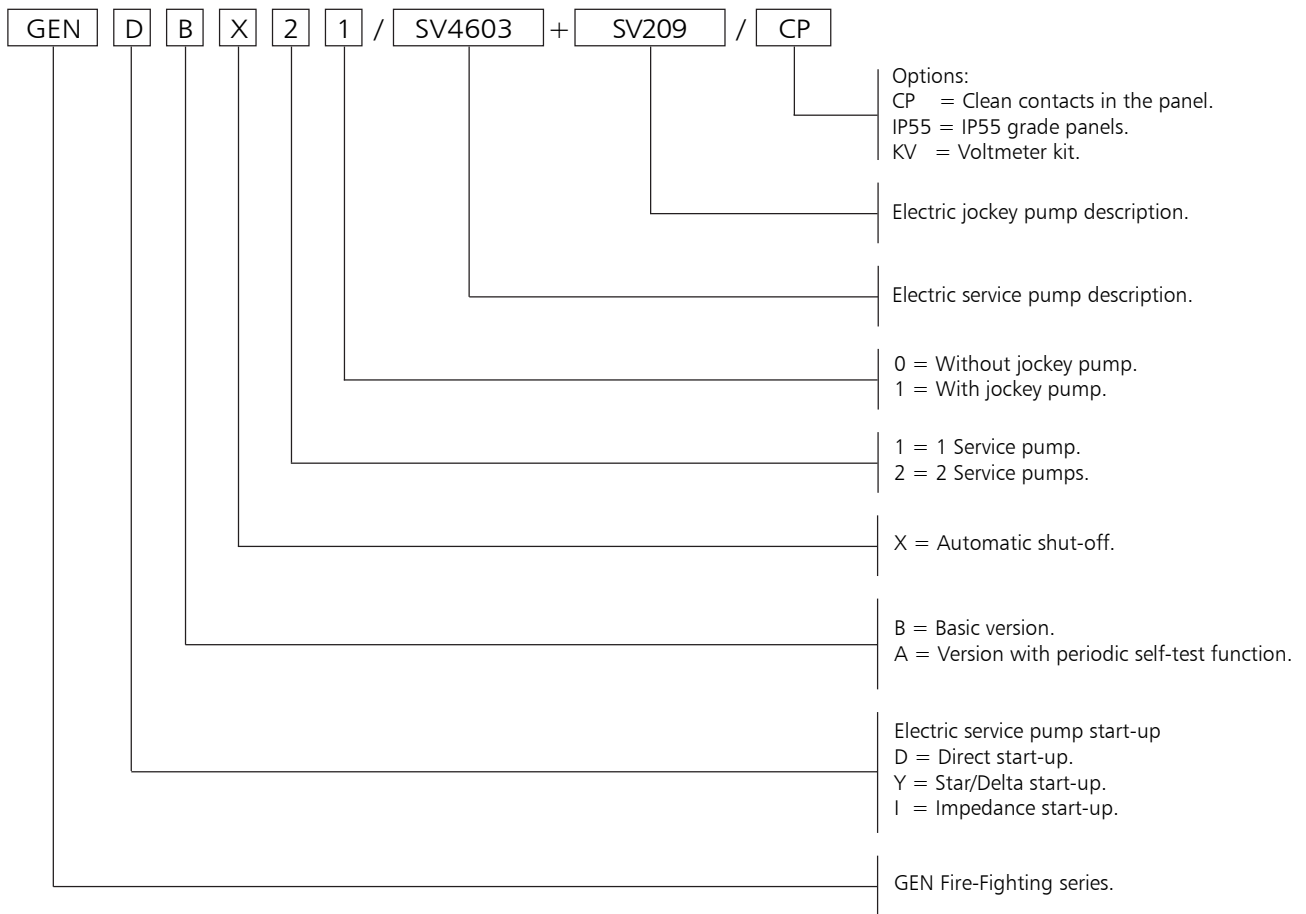
Control panel for the electric service pump with analogical voltmeter and with phase switch.

IP55 alternative

Electric service pump panel with extra IP55 protection.



IDENTIFICATION CODES



REFERENCE STANDARDS

- The Lowara fire-fighting booster sets are EC certified in conformity with the following directives:
 - Machine Directive 98/37/EC.
 - Low Voltage Directive 2006/95/CE.
 - Electromagnetic Compatibility Directive 89/336/EEC and subsequent modifications.
- The electric pump performance is declared to be in accordance with the following standard:

ISO 9906-A Rotodynamic pumps – hydraulic performance tests and acceptance criteria.
- The fire-fighting booster sets conform to the European fire-fighting Standard EN 12845-2004.
 The automatic shut-off versions also conform to the UNI 10779 Italian Standard for hydrant systems.



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GEN../SV SERIES BOOSTER SETS HYDRAULIC PERFORMANCE TABLE AT 50 HZ (JOCKEY PUMP)

PUMP TYPE	NOMINAL POWER		Q = DELIVERY									
			l/min 0	20	30	40	50	60	70	100	120	133
	kW	HP	m ³ /h 0	1,2	1,8	2,4	3	3,6	4,2	6	7,2	8
H = TOTAL HEAD METRES COLUMN OF WATER												
SV2 04	0,55	0,75	42,5	37,5	34	30,5	26	20,5	15			
SV2 06	0,75	1	64	56	51	45,5	38,5	31	22			
SV2 09	1,1	1,5	96	84	76,5	68,5	58	46,5	32,5			
SV2 12	1,5	2	128	112	102	91	77	62	44			
SV2 15	2,2	3	160,2	140	128	114	97	78	55,9			
SV4 07	1,1	1,5	70			59,5	56	53	51	37	26	18
SV4 09	1,5	2	90			76,5	73	68,5	65,5	47	33,5	23
SV4 13	2,2	3	131			111	105	99	95	68	48	34

Performance in accordance with the ISO 9906 - Annex A Standard.

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GEN../SV4..16 SERIES BOOSTER SETS HYDRAULIC PERFORMANCE TABLE AT 50 HZ (1 SERVICE PUMP)

PUMP TYPE	NOMINAL POWER	Q = DELIVERY															
		l/min 0	40	50	60	70	100	120	133	150	167	200	233	267	300	350	400
	kW	m ³ /h 0	2,4	3	3,6	4,2	6	7,2	7,98	9	10,02	12	13,98	16,02	18	21	24
H = TOTAL HEAD METRES COLUMN OF WATER																	
SV4 02	1 x 0,37	20	17	16	15	14,5	10,5	7,5	5								
SV4 03	1 x 0,55	30	25,5	24	23	22	16	11	7,5								
SV4 04	1 x 0,75	40	34	32	30,5	29	21	15	10								
SV4 05	1 x 1,1	50	42,5	40	38	36,5	26	18,5	12,5								
SV4 06	1 x 1,1	60	51	48	45,5	44	31,5	22	16								
SV4 07	1 x 1,1	70	59,5	56	53	51	37	26	18								
SV4 08	1 x 1,5	80	68	65	61	58,5	42	29,5	21								
SV4 09	1 x 1,5	90	76,5	73	68,5	65,5	47	33,5	23								
SV4 11	1 x 2,2	111	93,5	89	83,5	80,5	58	41	29								
SV4 13	1 x 2,2	131	111	105	99	95	68	48	34								
SV4 14	1 x 3	141	119	113	106	102	73,5	52	36								
SV8 02	1 x 1,1	27					24,8	24	23	22	20,5	17,2	13,2				
SV8 03	1 x 1,5	41					37	36	34,5	33	30,5	25,8	20				
SV8 04	1 x 2,2	55					50	47,5	46	44	41	34,5	26,5				
SV8 05	1 x 2,2	68					62	60	57,5	55	51	43	33				
SV8 06	1 x 3	82					74,5	71	69	66	61,5	52	40				
SV8 07	1 x 4	101					86,7	83	80	76	71,7	60	45				
SV8 08	1 x 4	110					99	95	92	87,5	81,5	69	53				
SV8 09	1 x 4	123					112	107	104	97,5	92	78	60				
SV8 11	1 x 5,5	150					137	130	127	119	112	95	73				
SV16 02	1 x 2,2	35								32,5	32	31	29,5	27,5	25	20	14,3
SV16 03	1 x 3	52								49	48	46	44	41	37,5	30,2	21,5
SV16 04	1 x 4	69								65	64	62	59	54,5	50	40,3	28,6
SV16 05	1 x 5,5	86								81	80	77	73	68,5	62	50	35,8
SV16 06	1 x 5,5	104								98	96	92	88	82	75	60,5	43
SV16 07	1 x 7,5	121								114	112	108	103	96	87	70,5	50
SV16 08	1 x 7,5	138								130	128	123	117	109	100	81	57

Performance in accordance with the ISO 9906 - Annex A Standard.

Performance relative to 1 service pump.

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GEN../SV33-92 SERIES BOOSTER SETS HYDRAULIC PERFORMANCE TABLE AT 50 HZ (1 SERVICE PUMP)

PUMP TYPE	NOMINAL POWER kW	Q = DELIVERY										
		l/min 0	250	300	367	417	500	583	667	750	900	1000
		m ³ /h 0	15	18	22	25	30	35	40	45	54	60
H = TOTAL HEAD METRES COLUMN OF WATER												
SV33 01/1	1 x 2,2	17,4	16,2	15,7	15	14	12,2	9,8	6,7			
SV33 01	1 x 3	23,8	21,7	21,2	20	20	17,8	15,5	12,7			
SV33 02/2	1 x 4	35,1	34,1	33,3	32	30	27	22,4	16,6			
SV33 02/1	1 x 4	40,8	38,8	37,9	36	35	32	27,5	22,3			
SV33 02	1 x 5,5	47,8	45	44,1	43	41	39	35	29,9			
SV33 03/2	1 x 5,5	57,7	55,2	53,8	51	49	44	38	29,6			
SV33 03/1	1 x 7,5	64,5	61,3	60	58	56	51	45	37			
SV33 03	1 x 7,5	71,5	67,4	66,0	64	62	58	52,0	44,6			
SV33 04/2	1 x 7,5	82	78,8	77	74	72	66	58	47,2			
SV33 04/1	1 x 11	88,9	85	83	81	78	73	65	55,1			
SV33 04	1 x 11	95,9	91,1	90	87	85	80	73	63,1			
SV33 05/2	1 x 11	106	101,6	100	96	93	85	76	63			
SV33 05/1	1 x 11	112,7	107,2	105	102	99	92	82	70			
SV33 05	1 x 15	120,4	114,9	113	110	107	101	92	80,5			
SV33 06/2	1 x 15	131,2	126,9	125	120	116	108	96	81,2			
SV33 06/1	1 x 15	139,1	133,5	131	128	124	116	105	90,4			
SV33 06	1 x 15	145,6	139	137	133	129	121	110	96,1			
SV46 01/1	1 x 3	19,5			19,2	18,8	17,9	16,7	15,1	13,1	8,5	4,6
SV46 01	1 x 4	27,2			24	23,5	22,5	21,4	19,9	18,2	14,3	10,8
SV46 02/2	1 x 5,5	38,8			39,8	39,2	37,8	35,7	32,9	29,4	21,1	13,9
SV46 02	1 x 7,5	52,6			48,5	47,7	46,1	44,2	41,7	38,7	31,4	25,1
SV46 03/2	1 x 11	64,7			65,1	64	62	60	56	52	40,4	30,8
SV46 03	1 x 11	80,8			74,3	73	71	68	65	60	50	40,7
SV46 04/2	1 x 15	92,4			90,7	90	87	83	79	73	58	45,6
SV46 04	1 x 15	107,3			99,8	98	96	92	87	82	68	55,9
SV46 05/2	1 x 18,5	117,2			114,8	113	110	106	100	93	75	60,2
SV46 05	1 x 18,5	134,5			125,1	123	120	116	110	103	86	71,5
SV46 06/2	1 x 22	143,7			139,3	138	134	129	122	113	92	73,4

Performance in accordance with the ISO 9906 - Annex A Standard.

Performance relative to 1 service pump.

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PUMP TYPE	NOMINAL POWER kW	Q = DELIVERY												
		l/min 0	500	600	700	750	900	1000	1200	1300	1417	1600	1800	2000
		m ³ /h 0	30	36	42	45	54	60	72	78	85	96	108	120
H = TOTAL HEAD METRES COLUMN OF WATER														
SV66 01/1	1 x 4	23,8	21,4	20,7	19,9	19,4	17,8	16,6	13,3	11,2	8,3			
SV66 01	1 x 5,5	29,2	25,8	24,8	23,8	23,3	21,8	20,7	17,9	16,1	13,5			
SV66 02/2	1 x 7,5	47,5	42,6	41,2	39,5	38,6	36	32,9	26,4	22,2	16,4			
SV66 02/1	1 x 11	54,2	49,6	48,2	46,7	45,8	42,9	40,6	34,8	31,2	26,2			
SV66 02	1 x 11	60,4	55,7	54,4	52,8	52	49,3	47,1	42	38,9	34,7			
SV66 03/2	1 x 15	78,4	71,6	70	67	66	62	58	49	43,3	35,3			
SV66 03/1	1 x 15	84,7	77,8	76	74	72	68	65	56	51	44,0			
SV66 03	1 x 18,5	91,4	84,7	83	81	79	75	72	64	60	53,5			
SV66 04/2	1 x 18,5	108,9	99,6	97	94	92	86	82	70	63	52,8			
SV66 04/1	1 x 22	115,2	105,9	103	100	99	93	89	78	71	61,8			
SV66 04	1 x 22	121,6	112,5	110	107	105	100	96	86	79	70,8			
SV66 05/2	1 x 30	139,1	127,5	124	120	118	111	106	92	83	70,4			
SV66 05/1	1 x 30	145,6	134	131	127	125	118	112	99	91	79,5			
SV66 05	1 x 30	152	140,4	137	133	131	125	119	107	99	88,5			
SV92 01/1	1 x 5,5	24,5				22,2	21,5	20,9	19,4	18,5	17,3	15	11,8	7,9
SV92 01	1 x 7,5	33,5				28,7	27,2	26,2	24,3	23,3	22,2	20,2	17,6	14,3
SV92 02/2	1 x 11	49,4				45,1	43,7	42,5	39,6	37,9	35,5	30,9	24,6	16,8
SV92 02	1 x 15	67,8				58,2	55	53	49,5	47,6	45,2	41,4	36,3	29,6
SV92 03/2	1 x 18,5	82,4				74,4	72	70	65	62	59	52	43,6	32,9
SV92 03	1 x 22	102,2				88,2	84	81	76	73	69	63	56	46,3
SV92 04/2	1 x 30	115,7				104	100	97	90	87	82	74	63	49
SV92 04	1 x 30	133,1				117	112	108	101	97	92	85	75	62,5
SV92 05/2	1 x 37	149,0				133,2	128	124	116	111	105	95	81	64,6

Performance in accordance with the ISO 9906 - Annex A Standard.

Performance relative to 1 service pump.

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GEN../SV4..16 SERIES BOOSTER SETS HYDRAULIC PERFORMANCE TABLE AT 50 HZ (2 SERVICE PUMPS)

PUMP TYPE	NOMINAL POWER kW	Q = DELIVERY															
		l/min 0	80	100	120	140	200	240	266	300	334	400	466	534	600	700	800
		m ³ /h 0	4,8	6	7,2	8,4	12	14,4	15,96	18	20,04	24	27,96	32,04	36	42	48
H = TOTAL HEAD METRES COLUMN OF WATER																	
SV4 02	2 x 0,37	20	17	16	15	14,5	10,5	7,5	5								
SV4 03	2 x 0,55	30	25,5	24	23	22	16	11	7,5								
SV4 04	2 x 0,75	40	34	32	30,5	29	21	15	10								
SV4 05	2 x 1,1	50	42,5	40	38	36,5	26	18,5	12,5								
SV4 06	2 x 1,1	60	51	48	45,5	44	31,5	22	16								
SV4 07	2 x 1,1	70	59,5	56	53	51	37	26	18								
SV4 08	2 x 1,5	80	68	65	61	58,5	42	29,5	21								
SV4 09	2 x 1,5	90	76,5	73	68,5	65,5	47	33,5	23								
SV4 11	2 x 2,2	111	93,5	89	83,5	80,5	58	41	29								
SV4 13	2 x 2,2	131	111	105	99	95	68	48	34								
SV4 14	2 x 3	141	119	113	106	102	73,5	52	36								
SV8 02	2 x 1,1	27					24,8	24	23	22	20,5	17,2	13,2				
SV8 03	2 x 1,5	41					37	36	34,5	33	30,5	25,8	20				
SV8 04	2 x 2,2	55					50	47,5	46	44	41	34,5	26,5				
SV8 05	2 x 2,2	68					62	60	57,5	55	51	43	33				
SV8 06	2 x 3	82					74,5	71	69	66	61,5	52	40				
SV8 07	2 x 4	101					86,7	83	80	76	71,7	60	45				
SV8 08	2 x 4	110					99	95	92	87,5	81,5	69	53				
SV8 09	2 x 4	123					112	107	104	97,5	92	78	60				
SV8 11	2 x 5,5	150					137	130	127	119	112	95	73				
SV16 02	2 x 2,2	35								32,5	32	31	29,5	27,5	25	20	14,3
SV16 03	2 x 3	52								49	48	46	44	41	37,5	30,2	21,5
SV16 04	2 x 4	69								65	64	62	59	54,5	50	40,3	28,6
SV16 05	2 x 5,5	86								81	80	77	73	68,5	62	50	35,8
SV16 06	2 x 5,5	104								98	96	92	88	82	75	60,5	43
SV16 07	2 x 7,5	121								114	112	108	103	96	87	70,5	50
SV16 08	2 x 7,5	138								130	128	123	117	109	100	81	57

Performance in accordance with the ISO 9906 - Annex A Standard.

Performance relative to 2 service pumps.

12845_2p-sv4-16-2p50-en_a_th



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GEN../SV33..92 SERIES BOOSTER SETS HYDRAULIC PERFORMANCE TABLE AT 50 HZ (2 SERVICE PUMPS)

PUMP TYPE	NOMINAL POWER kW	Q = DELIVERY										
		l/min 0	500	600	734	834	1000	1166	1334	1500	1800	2000
		m ³ /h 0	30	36	44,04	50,04	60	69,96	80,04	90	108	120
H = TOTAL HEAD METRES COLUMN OF WATER												
SV33 01/1	2 x 2,2	17,4	16,2	15,7	15	14	12,2	9,8	6,7			
SV33 01	2 x 3	23,8	21,7	21,2	20	20	17,8	15,5	12,7			
SV33 02/2	2 x 4	35,1	34,1	33,3	32	30	27	22,4	16,6			
SV33 02/1	2 x 4	40,8	38,8	37,9	36	35	32	27,5	22,3			
SV33 02	2 x 5,5	47,8	45	44,1	43	41	39	35	29,9			
SV33 03/2	2 x 5,5	57,7	55,2	53,8	51	49	44	38	29,6			
SV33 03/1	2 x 7,5	64,5	61,3	60	58	56	51	45	37			
SV33 03	2 x 7,5	71,5	67,4	66,0	64	62	58	52,0	44,6			
SV33 04/2	2 x 7,5	82	78,8	77	74	72	66	58	47,2			
SV33 04/1	2 x 11	88,9	85	83	81	78	73	65	55,1			
SV33 04	2 x 11	95,9	91,1	90	87	85	80	73	63,1			
SV33 05/2	2 x 11	106	101,6	100	96	93	85	76	63			
SV33 05/1	2 x 11	112,7	107,2	105	102	99	92	82	70			
SV33 05	2 x 15	120,4	114,9	113	110	107	101	92	80,5			
SV33 06/2	2 x 15	131,2	126,9	125	120	116	108	96	81,2			
SV33 06/1	2 x 15	139,1	133,5	131	128	124	116	105	90,4			
SV33 06	2 x 15	145,6	139	137	133	129	121	110	96,1			
SV46 01/1	2 x 3	19,5			19,2	18,8	17,9	16,7	15,1	13,1	8,5	4,6
SV46 01	2 x 4	27,2			24	23,5	22,5	21,4	19,9	18,2	14,3	10,8
SV46 02/2	2 x 5,5	38,8			39,8	39,2	37,8	35,7	32,9	29,4	21,1	13,9
SV46 02	2 x 7,5	52,6			48,5	47,7	46,1	44,2	41,7	38,7	31,4	25,1
SV46 03/2	2 x 11	64,7			65,1	64	62	60	56	52	40,4	30,8
SV46 03	2 x 11	80,8			74,3	73	71	68	65	60	50	40,7
SV46 04/2	2 x 15	92,4			90,7	90	87	83	79	73	58	45,6
SV46 04	2 x 15	107,3			99,8	98	96	92	87	82	68	55,9
SV46 05/2	2 x 18,5	117,2			114,8	113	110	106	100	93	75	60,2
SV46 05	2 x 18,5	134,5			125,1	123	120	116	110	103	86	71,5
SV46 06/2	2 x 22	143,7			139,3	138	134	129	122	113	92	73,4

Performance in accordance with the ISO 9906 - Annex A Standard.

Performance relative to 2 service pumps.

12845_2p-sv33-46-2p50-en_a_th

PUMP TYPE	NOMINAL POWER kW	Q = DELIVERY												
		l/min 0	1000	1200	1400	1500	1800	2000	2400	2600	2834	3200	3600	4000
		m ³ /h 0	60	72	84	90	108	120	144	156	170	192	216	240
H = TOTAL HEAD METRES COLUMN OF WATER														
SV66 01/1	2 x 4	23,8	21,4	20,7	19,9	19,4	17,8	16,6	13,3	11,2	8,3			
SV66 01	2 x 5,5	29,2	25,8	24,8	23,8	23,3	21,8	20,7	17,9	16,1	13,5			
SV66 02/2	2 x 7,5	47,5	42,6	41,2	39,5	38,6	36	32,9	26,4	22,2	16,4			
SV66 02/1	2 x 11	54,2	49,6	48,2	46,7	45,8	42,9	40,6	34,8	31,2	26,2			
SV66 02	2 x 11	60,4	55,7	54,4	52,8	52	49,3	47,1	42	38,9	34,7			
SV66 03/2	2 x 15	78,4	71,6	70	67	66	62	58	49	43,3	35,3			
SV66 03/1	2 x 15	84,7	77,8	76	74	72	68	65	56	51	44,0			
SV66 03	2 x 18,5	91,4	84,7	83	81	79	75	72	64	60	53,5			
SV66 04/2	2 x 18,5	108,9	99,6	97	94	92	86	82	70	63	52,8			
SV66 04/1	2 x 22	115,2	105,9	103	100	99	93	89	78	71	61,8			
SV66 04	2 x 22	121,6	112,5	110	107	105	100	96	86	79	70,8			
SV66 05/2	2 x 30	139,1	127,5	124	120	118	111	106	92	83	70,4			
SV66 05/1	2 x 30	145,6	134	131	127	125	118	112	99	91	79,5			
SV66 05	2 x 30	152	140,4	137	133	131	125	119	107	99	88,5			
SV92 01/1	2 x 5,5	24,5				22,2	21,5	20,9	19,4	18,5	17,3	15	11,8	7,9
SV92 01	2 x 7,5	33,5				28,7	27,2	26,2	24,3	23,3	22,2	20,2	17,6	14,3
SV92 02/2	2 x 11	49,4				45,1	43,7	42,5	39,6	37,9	35,5	30,9	24,6	16,8
SV92 02	2 x 15	67,8				58,2	55	53	49,5	47,6	45,2	41,4	36,3	29,6
SV92 03/2	2 x 18,5	82,4				74,4	72	70	65	62	59	52	43,6	32,9
SV92 03	2 x 22	102,2				88,2	84	81	76	73	69	63	56	46,3
SV92 04/2	2 x 30	115,7				104	100	97	90	87	82	74	63	49
SV92 04	2 x 30	133,1				117	112	108	101	97	92	85	75	62,5
SV92 05/2	2 x 37	149,0				133	128	124	116	111	105	95	81	65

Performance in accordance with the ISO 9906 - Annex A Standard.

Performance relative to 2 service pumps.

12845_2p-sv66-92-2p50-en_a_th



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GEN../SV4..16 BOOSTER SETS ELECTRICAL DATA TABLE AT 50 Hz

ELECTRIC SERVICE PUMP 3 X 400 V			ELECTRIC JOCKEY PUMP 3 X 400 V			CURRENT ABSORBED SET 3 X 400V			
TYPE	Pn kW	In A	TYPE	Pn kW	In A	GEN..10 A	GEN..11 A	GEN..20 A	GEN..21 A
SV402	0,37	1,34	SV204	0,55	1,43	1,34	2,77	2,68	4,11
SV403	0,55	1,43	SV206	0,75	2,02	1,43	3,45	2,86	4,88
SV404	0,75	2,02	SV206	0,75	2,02	2,02	4,04	4,04	6,06
SV405	1,1	2,61	SV209	1,1	2,61	2,61	5,22	5,22	7,83
SV406	1,1	2,61	SV209	1,1	2,61	2,61	5,22	5,22	7,83
SV407	1,1	2,61	SV209	1,1	2,61	2,61	5,22	5,22	7,83
SV408	1,5	3,45	SV209	1,1	2,61	3,45	6,06	6,9	9,51
SV409	1,5	3,45	SV212	1,5	3,45	3,45	6,9	6,9	10,35
SV411	2,2	5,03	SV212	1,5	3,45	5,03	8,48	10,06	13,51
SV413	2,2	5,03	SV214	2,2	5,03	5,03	10,06	10,06	15,09
SV414	3	6,01	SV214	2,2	5,03	6,01	11,04	12,02	17,05
SV802	1,1	2,61	SV206	0,75	2,02	2,61	4,63	5,22	7,24
SV803	1,5	3,45	SV206	0,75	2,02	3,45	5,47	6,9	8,92
SV804	2,2	5,03	SV209	1,1	2,61	5,03	7,64	10,06	12,67
SV805	2,2	5,03	SV209	1,1	2,61	5,03	7,64	10,06	12,67
SV806	3	6,01	SV209	1,1	2,61	6,01	8,62	12,02	14,63
SV807	4	8,02	SV212	1,5	3,45	8,02	11,47	16,04	19,49
SV808	4	8,02	SV212	1,5	3,45	8,02	11,47	16,04	19,49
SV809	4	8,02	SV212	1,5	3,45	8,02	11,47	16,04	19,49
SV811	5,5	10	SV215	2,2	5,03	10	15,03	20	25,03
SV1602	2,2	5,03	SV206	0,75	2,02	5,03	7,05	10,06	12,08
SV1603	3	6,01	SV209	1,1	2,61	6,01	8,62	12,02	14,63
SV1604	4	8,02	SV209	1,1	2,61	8,02	10,63	16,04	18,65
SV1605	5,5	10	SV209	1,1	2,61	10	12,61	20	22,61
SV1606	5,5	10	SV212	1,5	3,45	10	13,45	20	23,45
SV1607	7,5	13,4	SV212	1,5	3,45	13,4	16,85	26,8	30,25
SV1608	7,5	13,4	SV214	2,2	5,03	13,4	18,43	26,8	31,83

The current indicated is the maximum current absorbed by the electric pumps.

ENELP-SV4-16_2p50-en_a_te



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GEN../SV33..92 BOOSTER SETS ELECTRICAL DATA TABLE AT 50 Hz

ELECTRIC SERVICE PUMP 3 X 400 V			ELECTRIC JOCKEY PUMP 3 X 400 V			CURRENT ABSORBED SET 3 X 400V			
TYPE	Pn kW	In A	TYPE	Pn kW	In A	GEN..10 A	GEN..11 A	GEN..20 A	GEN..21 A
SV3301/1	2,2	5,03	SV204	0,55	1,43	5,03	6,46	10,06	11,49
SV3301	3	6,01	SV206	0,75	2,02	6,01	8,03	12,02	14,04
SV3302/2	4	8,02	SV206	0,75	2,02	8,02	10,04	16,04	18,06
SV3302/1	4	8,02	SV206	0,75	2,02	8,02	10,04	16,04	18,06
SV3302	5,5	10	SV206	0,75	2,02	10	12,02	20	22,02
SV3303/2	5,5	10	SV209	1,1	2,61	10	12,61	20	22,61
SV3303/1	7,5	13,4	SV209	1,1	2,61	13,4	16,01	26,8	29,41
SV3303	7,5	13,4	SV209	1,1	2,61	13,4	16,01	26,8	29,41
SV3304/2	7,5	13,4	SV209	1,1	2,61	13,4	16,01	26,8	29,41
SV3304/1	11	20	SV209	1,1	2,61	20	22,61	40	42,61
SV3304	11	20	SV212	1,5	3,45	20	23,45	40	43,45
SV3305/2	11	20	SV212	1,5	3,45	20	23,45	40	43,45
SV3305/1	11	20	SV212	1,5	3,45	20	23,45	40	43,45
SV3305	15	27	SV212	1,5	3,45	27	30,45	54	57,45
SV3306/2	15	27	SV215	2,2	5,03	27	32,03	54	59,03
SV3306/1	15	27	SV215	2,2	5,03	27	32,03	54	59,03
SV3306	15	27	SV215	2,2	5,03	27	32,03	54	59,03
SV4601/1	3	6,01	SV204	0,55	1,43	6,01	7,44	12,02	13,45
SV4601	4	8,02	SV206	0,75	2,02	8,02	10,04	16,04	18,06
SV4602/2	5,5	10	SV206	0,75	2,02	10	12,02	20	22,02
SV4602	7,5	13,4	SV209	1,1	2,61	13,4	16,01	26,8	29,41
SV4603/2	11	20	SV209	1,1	2,61	20	22,61	40	42,61
SV4603	11	20	SV209	1,1	2,61	20	22,61	40	42,61
SV4604/2	15	27	SV212	1,5	3,45	27	30,45	54	57,45
SV4604	15	27	SV212	1,5	3,45	27	30,45	54	57,45
SV4605/2	18,5	33,1	SV212	1,5	3,45	33,1	36,55	66,2	69,65
SV4605	18,5	33,1	SV215	2,2	5,03	33,1	38,13	66,2	71,23
SV4606/2	22	38,9	SV215	2,2	5,03	38,9	43,93	77,8	82,83
SV6601/1	4	8,02	SV206	0,75	2,02	8,02	10,04	16,04	18,06
SV6601	5,5	10	SV206	0,75	2,02	10	12,02	20	22,02
SV6602/2	7,5	13,4	SV206	0,75	2,02	13,4	15,42	26,8	28,82
SV6602/1	11	20	SV209	1,1	2,61	20	22,61	40	42,61
SV6602	11	20	SV209	1,1	2,61	20	22,61	40	42,61
SV6603/2	15	27	SV209	1,1	2,61	27	29,61	54	56,61
SV6603/1	15	27	SV209	1,1	2,61	27	29,61	54	56,61
SV6603	18,5	33,1	SV212	1,5	3,45	33,1	36,55	66,2	69,65
SV6604/2	18,5	33,1	SV212	1,5	3,45	33,1	36,55	66,2	69,65
SV6604/1	22	38,9	SV212	1,5	3,45	38,9	42,35	77,8	81,25
SV6604	22	38,9	SV212	1,5	3,45	38,9	42,35	77,8	81,25
SV6605/2	30	54	SV215	2,2	5,03	54	59,03	108	113,03
SV6605/1	30	54	SV215	2,2	5,03	54	59,03	108	113,03
SV6605	30	54	SV215	2,2	5,03	54	59,03	108	113,03
SV9201/1	5,5	10	SV206	0,75	2,02	10	12,02	20	22,02
SV9201	7,5	13,4	SV206	0,75	2,02	13,4	15,42	26,8	28,82
SV9202/2	11	20	SV209	1,1	2,61	20	22,61	40	42,61
SV9202	15	27	SV209	1,1	2,61	27	29,61	54	56,61
SV9203/2	18,5	33,1	SV209	1,1	2,61	33,1	35,71	66,2	68,81
SV9203	22	38,9	SV212	1,5	3,45	38,9	42,35	77,8	81,25
SV9204/2	30	54	SV212	1,5	3,45	54	57,45	108	111,45
SV9204	30	54	SV215	2,2	5,03	54	59,03	108	113,03
SV9205/2	37	65	SV215	2,2	5,03	65	70,03	130	135,03

The current indicated is the maximum current absorbed by the electric pumps.

ENELP-SV_2p50-en_a_te



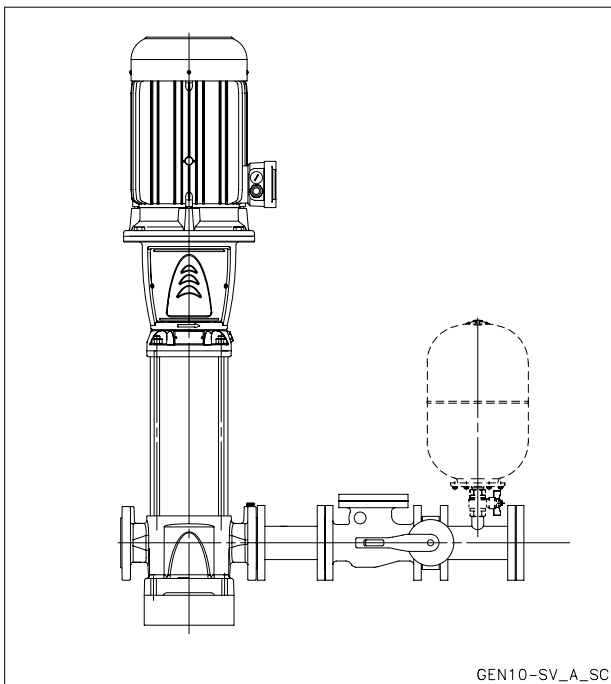
Lowara

**Fire-fighting
booster sets
EN 12845**
MARKET SECTORS

CIVIL, INDUSTRIAL

APPLICATIONS

- Automatic fire-fighting systems and network (Sprinkler).

**GEN..10
Series**

SPECIFICATIONS

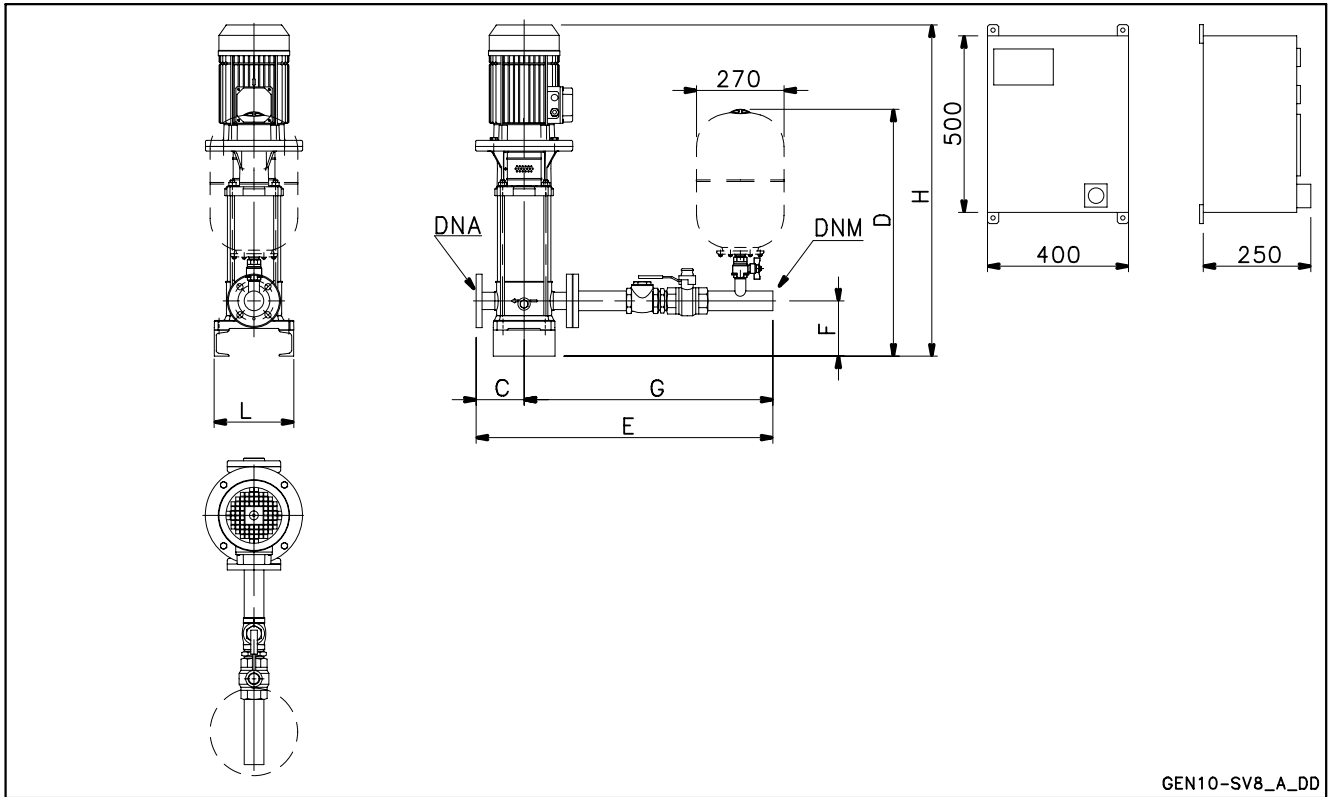
- **Flow** up to 120 m³/h.
- **Head** up to 150 m.
- Panel supply power voltage:
3 x 400V ± 10%.
- Frequency: 50 Hz.
- Voltage for controls outside panel:
24 Vac.
- Protection grade:
- electric panel: IP54.
- Electric pumps maximum power
37 kW.
- Motor start-up :
 - Direct for powers up to 7,5 kW inclusive for pump (GEND...).
 - Star/Delta for higher powers (GENY... set).
- **Electric service pump with vertical axis:**
 - SV Series (motor protection grade IP55).
- Maximum running pressure:
16 bar.



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GEN..10 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY



GEN10-SV8_A_DD

GEN..10	kW	DNA	DNM	C	D	E	F	G	H	L	FLOW N°
SV402	0,37	Rp 1"1/4	R 1"1/4	125	726	838	195	713	574	210	46
SV403	0,55	Rp 1"1/4	R 1"1/4	125	726	838	195	713	621	210	46
SV404	0,75	Rp 1"1/4	R 1"1/4	125	726	838	195	713	651	210	46
SV405	1,1	Rp 1"1/4	R 1"1/4	125	726	838	195	713	713	210	46
SV406	1,1	Rp 1"1/4	R 1"1/4	125	726	838	195	713	738	210	46
SV407	1,1	Rp 1"1/4	R 1"1/4	125	726	838	195	713	763	210	46
SV408	1,5	Rp 1"1/4	R 1"1/4	125	726	838	195	713	798	210	46
SV409	1,5	Rp 1"1/4	R 1"1/4	125	726	838	195	713	823	210	46
SV411	2,2	Rp 1"1/4	R 1"1/4	125	726	838	195	713	873	210	46
SV413	2,2	Rp 1"1/4	R 1"1/4	125	726	838	195	713	923	210	46
SV414	3	Rp 1"1/4	R 1"1/4	125	726	838	195	713	998	210	46
SV802	1,1	Rp 1"1/2	R 1"1/2	140	734	885	200	745	706	245	1
SV803	1,5	Rp 1"1/2	R 1"1/2	140	734	885	200	745	754	245	1
SV804	2,2	Rp 1"1/2	R 1"1/2	140	734	885	200	745	792	245	1
SV805	2,2	Rp 1"1/2	R 1"1/2	140	734	885	200	745	830	245	1
SV806	3	Rp 1"1/2	R 1"1/2	140	734	885	200	745	918	245	1
SV807	4	Rp 1"1/2	R 1"1/2	140	734	885	200	745	960	245	1
SV808	4	Rp 1"1/2	R 1"1/2	140	734	885	200	745	998	245	1
SV809	4	Rp 1"1/2	R 1"1/2	140	734	885	200	745	1036	245	1
SV811	5,5	Rp 1"1/2	R 1"1/2	140	734	885	200	745	1199	245	1
SV1602	2,2	Rp 2"	R 2"	150	750	946	210	796	726	245	3
SV1603	3	Rp 2"	R 2"	150	750	946	210	796	814	245	3
SV1604	4	Rp 2"	R 2"	150	750	946	210	796	856	245	3
SV1605	5,5	Rp 2"	R 2"	150	750	946	210	796	981	245	3
SV1606	5,5	Rp 2"	R 2"	150	750	946	210	796	1019	245	3
SV1607	7,5	Rp 2"	R 2"	150	750	946	210	796	1057	245	3
SV1608	7,5	Rp 2"	R 2"	150	750	946	210	796	1095	245	3

Dimensions in mm. Tolerance ± 10 mm.

gen10-sv8_a_td



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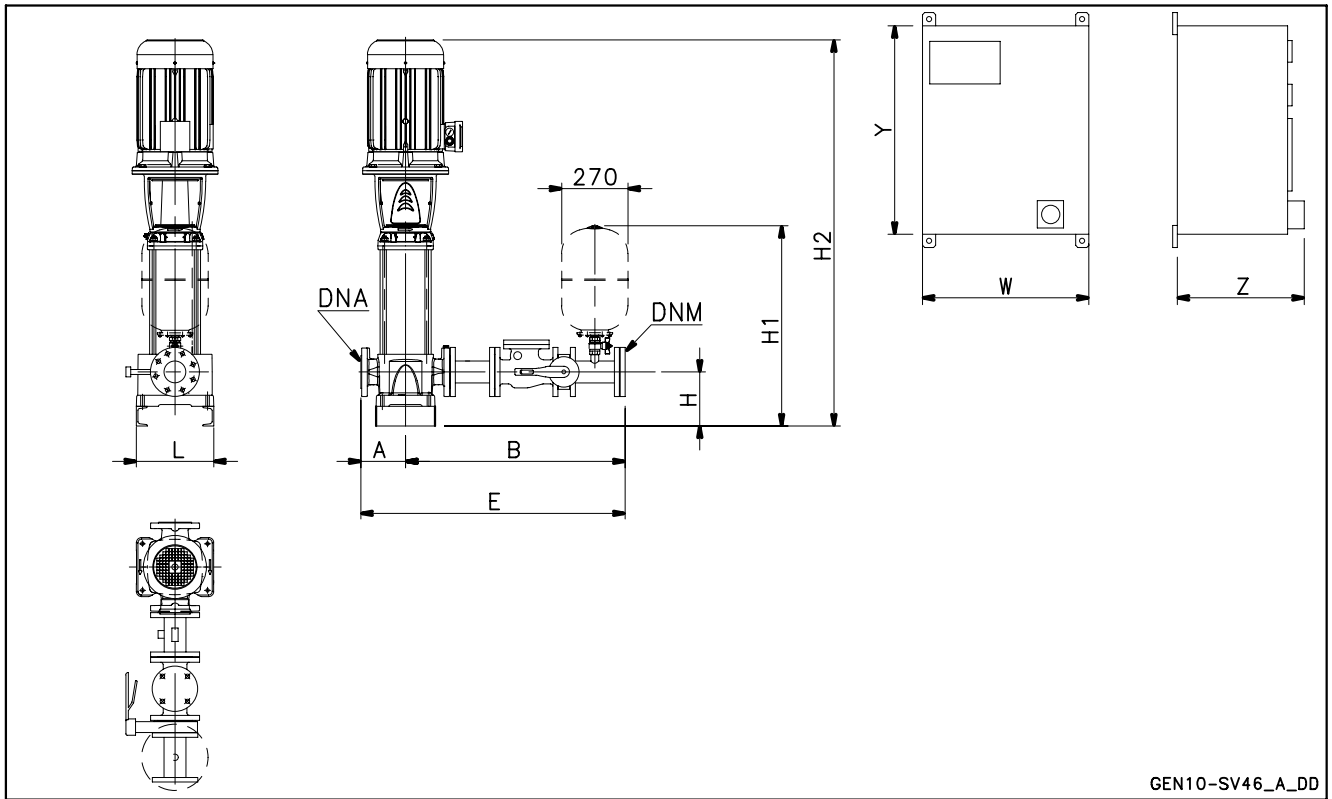
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GEN..10 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY





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GEN..10 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY

GEN..10	kW	DNA	DNM	A	B	E	H	H1	H2	L	X	Y	Z	FLOW N°
SV3301/1	2,2	65	65	160	978	1138	205	800	852	290	400	500	250	5
SV3301	3	65	65	160	978	1138	205	800	892	290	400	500	250	5
SV3302/2	4	65	65	160	978	1138	205	800	971	290	400	500	250	5
SV3302/1	4	65	65	160	978	1138	205	800	971	290	400	500	250	5
SV3302	5,5	65	65	160	978	1138	205	800	1058	290	400	500	250	5
SV3303/2	5,5	65	65	160	978	1138	205	800	1133	290	400	500	250	5
SV3303/1	7,5	65	65	160	978	1138	205	800	1133	290	400	500	250	5
SV3303	7,5	65	65	160	978	1138	205	800	1133	290	400	500	250	5
SV3304/2	7,5	65	65	160	978	1138	205	800	1208	290	400	500	250	5
SV3304/1	11	65	65	160	978	1138	205	800	1296	290	400	600	250	5
SV3304	11	65	65	160	978	1138	205	800	1296	290	400	600	250	5
SV3305/2	11	65	65	160	978	1138	205	800	1371	290	400	600	250	5
SV3305/1	11	65	65	160	978	1138	205	800	1371	290	400	600	250	5
SV3305	15	65	65	160	978	1138	205	800	1432	290	400	600	250	5
SV3306/2	15	65	65	160	978	1138	205	800	1507	290	400	600	250	5
SV3306/1	15	65	65	160	978	1138	205	800	1507	290	400	600	250	5
SV3306	15	65	65	160	978	1138	205	800	1507	290	400	600	250	5
SV4601/1	3	80	80	183	1023	1205	240	847	932	315	400	500	250	51
SV4601	4	80	80	183	1023	1205	240	847	936	315	400	500	250	51
SV4602/2	5,5	80	80	183	1023	1205	240	847	1098	315	400	500	250	51
SV4602	7,5	80	80	183	1023	1205	240	847	1098	315	400	500	250	51
SV4603/2	11	80	80	183	1023	1205	240	847	1261	315	400	600	250	51
SV4603	11	80	80	183	1023	1205	240	847	1261	315	400	600	250	51
SV4604/2	15	80	80	183	1023	1205	240	847	1397	315	400	600	250	51
SV4604	15	80	80	183	1023	1205	240	847	1397	315	400	600	250	51
SV4605/2	18,5	80	80	183	1023	1205	240	847	1516	315	500	700	250	51
SV4605	18,5	80	80	183	1023	1205	240	847	1516	315	500	700	250	51
SV4606/2	22	80	80	183	1023	1205	240	847	1591	315	500	700	250	51
SV6601/1	4	100	100	183	1071	1253	240	860	961	315	400	500	250	9
SV6601	5,5	100	100	183	1071	1253	240	860	1048	315	400	500	250	9
SV6602/2	7,5	100	100	183	1071	1253	240	860	1138	315	400	500	250	9
SV6602/1	11	100	100	183	1071	1253	240	860	1226	315	400	600	250	9
SV6602	11	100	100	183	1071	1253	240	860	1226	315	400	600	250	9
SV6603/2	15	100	100	183	1071	1253	240	860	1377	315	400	600	250	9
SV6603/1	15	100	100	183	1071	1253	240	860	1377	315	400	600	250	9
SV6603	18,5	100	100	183	1071	1253	240	860	1421	315	500	700	250	9
SV6604/2	18,5	100	100	183	1071	1253	240	860	1511	315	500	700	250	9
SV6604/1	22	100	100	183	1071	1253	240	860	1511	315	500	700	250	9
SV6604	22	100	100	183	1071	1253	240	860	1511	315	500	700	250	9
SV6605/2	30	100	100	183	1071	1253	240	860	1682	315	500	700	250	9
SV6605/1	30	100	100	183	1071	1253	240	860	1682	315	500	700	250	9
SV6605	30	100	100	183	1071	1253	240	860	1682	315	500	700	250	9
SV9201/1	5,5	100	100	183	1071	1253	240	860	1048	315	400	500	250	9
SV9201	7,5	100	100	183	1071	1253	240	860	1048	315	400	500	250	9
SV9202/2	11	100	100	183	1071	1253	240	860	1226	315	400	600	250	9
SV9202	15	100	100	183	1071	1253	240	860	1287	315	400	600	250	9
SV9203/2	18,5	100	100	183	1071	1253	240	860	1421	315	500	700	250	9
SV9203	22	100	100	183	1071	1253	240	860	1421	315	500	700	250	9
SV9204/2	30	100	100	183	1071	1253	240	860	1592	315	500	700	250	9
SV9204	30	100	100	183	1071	1253	240	860	1592	315	500	700	250	9
SV9205/2	37	100	100	183	1071	1253	240	860	1682	315	600	900	300	9

Dimensions in mm. Tolerance ± 10 mm.

gen10_sv46_a_td



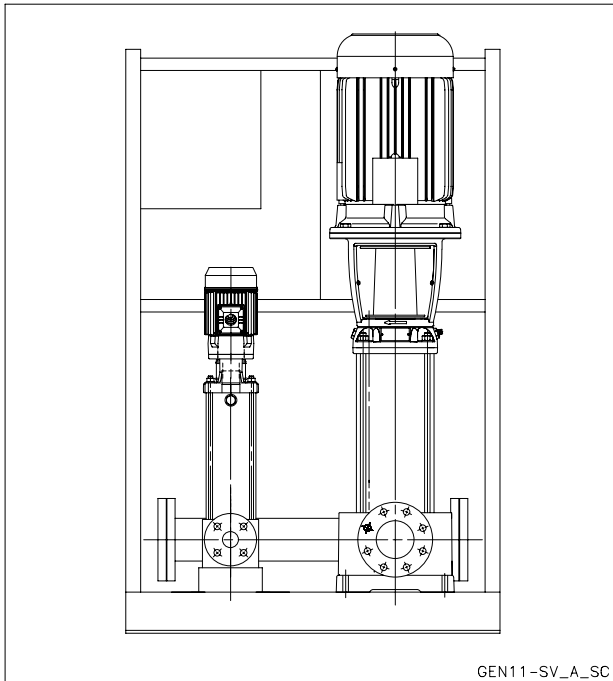
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**Fire-fighting
booster sets
EN 12845**
MARKET SECTORS

CIVIL, INDUSTRIAL

APPLICATIONS

- Automatic fire-fighting systems and network (Sprinkler).

**GEN..11
Series**

SPECIFICATIONS

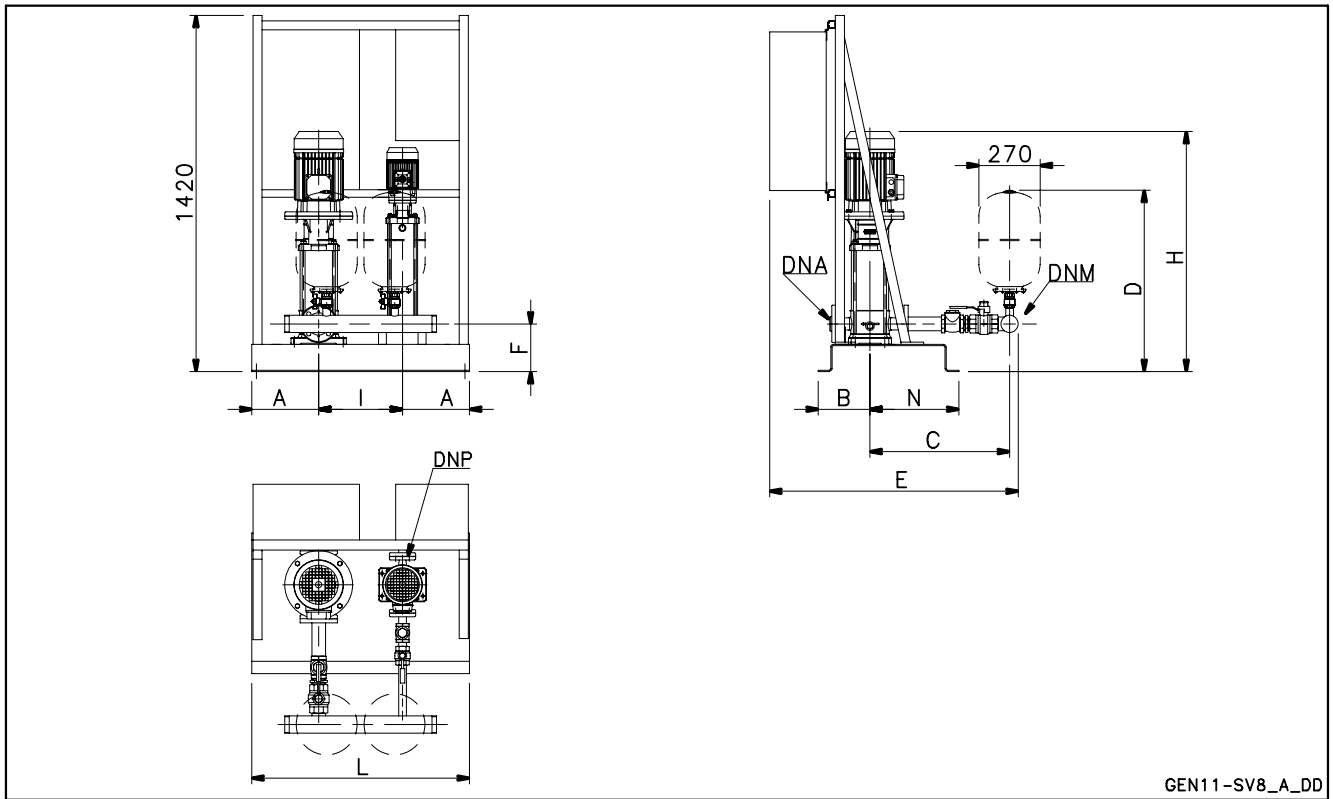
- **Flow** up to 120 m³/h.
- **Head** up to 150 m.
- Panel supply power voltage:
3 x 400V ± 10%.
- Frequency: 50 Hz.
- Voltage for controls outside panel:
24 Vac.
- Protection grade:
- electric panel: IP54.
- Electric pumps maximum power
37 kW.
- Motor start-up :
- Direct for powers up to 7,5 kW
inclusive for pump (GEND...).
- Star/Delta for higher
powers (GENY... set).
- **Electric service pump
with vertical axis:**
- SV Series (motor protection
grade IP55).
- **Electric jockey pump
with vertical axis:**
- SV Series (motor protection
grade IP55).
- Maximum running pressure:
16 bar.



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GEN..11 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY



GEN..11	kW	DNA	DNP	DNM	A	B	C	D	E	F	H	I	L	N	FLOW N°
SV402	0,37	Rp 1"1/4	Rp 1"	Rp 2"	205	228	538	775	1011	195	614	370	780	392	2
SV403	0,55	Rp 1"1/4	Rp 1"	Rp 2"	205	228	538	775	1011	195	661	370	780	392	2
SV404	0,75	Rp 1"1/4	Rp 1"	Rp 2"	205	228	538	775	1011	195	691	370	780	392	2
SV405	1,1	Rp 1"1/4	Rp 1"	Rp 2"	205	228	538	775	1011	195	753	370	780	392	2
SV406	1,1	Rp 1"1/4	Rp 1"	Rp 2"	205	228	538	775	1011	195	778	370	780	392	2
SV407	1,1	Rp 1"1/4	Rp 1"	Rp 2"	205	228	538	775	1011	195	803	370	780	392	2
SV408	1,5	Rp 1"1/4	Rp 1"	Rp 2"	205	228	538	775	1011	195	838	370	780	392	2
SV409	1,5	Rp 1"1/4	Rp 1"	Rp 2"	205	228	538	775	1011	195	863	370	780	392	2
SV411	2,2	Rp 1"1/4	Rp 1"	Rp 2"	205	228	538	775	1011	195	913	370	780	392	2
SV413	2,2	Rp 1"1/4	Rp 1"	Rp 2"	205	228	538	775	1011	195	963	370	780	392	2
SV414	3	Rp 1"1/4	Rp 1"	Rp 2"	205	228	538	775	1011	195	1038	370	780	392	2
SV802	1,1	Rp 1"1/2	Rp 1"	Rp 2"	205	228	570	780	1043	200	746	370	780	392	2
SV803	1,5	Rp 1"1/2	Rp 1"	Rp 2"	205	228	570	780	1043	200	794	370	780	392	2
SV804	2,2	Rp 1"1/2	Rp 1"	Rp 2"	205	228	570	780	1043	200	832	370	780	392	2
SV805	2,2	Rp 1"1/2	Rp 1"	Rp 2"	205	228	570	780	1043	200	870	370	780	392	2
SV806	3	Rp 1"1/2	Rp 1"	Rp 2"	205	228	570	780	1043	200	958	370	780	392	2
SV807	4	Rp 1"1/2	Rp 1"	Rp 2"	205	228	570	780	1043	200	1000	370	780	392	2
SV808	4	Rp 1"1/2	Rp 1"	Rp 2"	205	228	570	780	1043	200	1038	370	780	392	2
SV809	4	Rp 1"1/2	Rp 1"	Rp 2"	205	228	570	780	1043	200	1076	370	780	392	2
SV811	5,5	Rp 1"1/2	Rp 1"	Rp 2"	205	228	570	780	1043	200	1239	370	780	392	2

Dimensions in mm. Tolerance ± 10 mm.

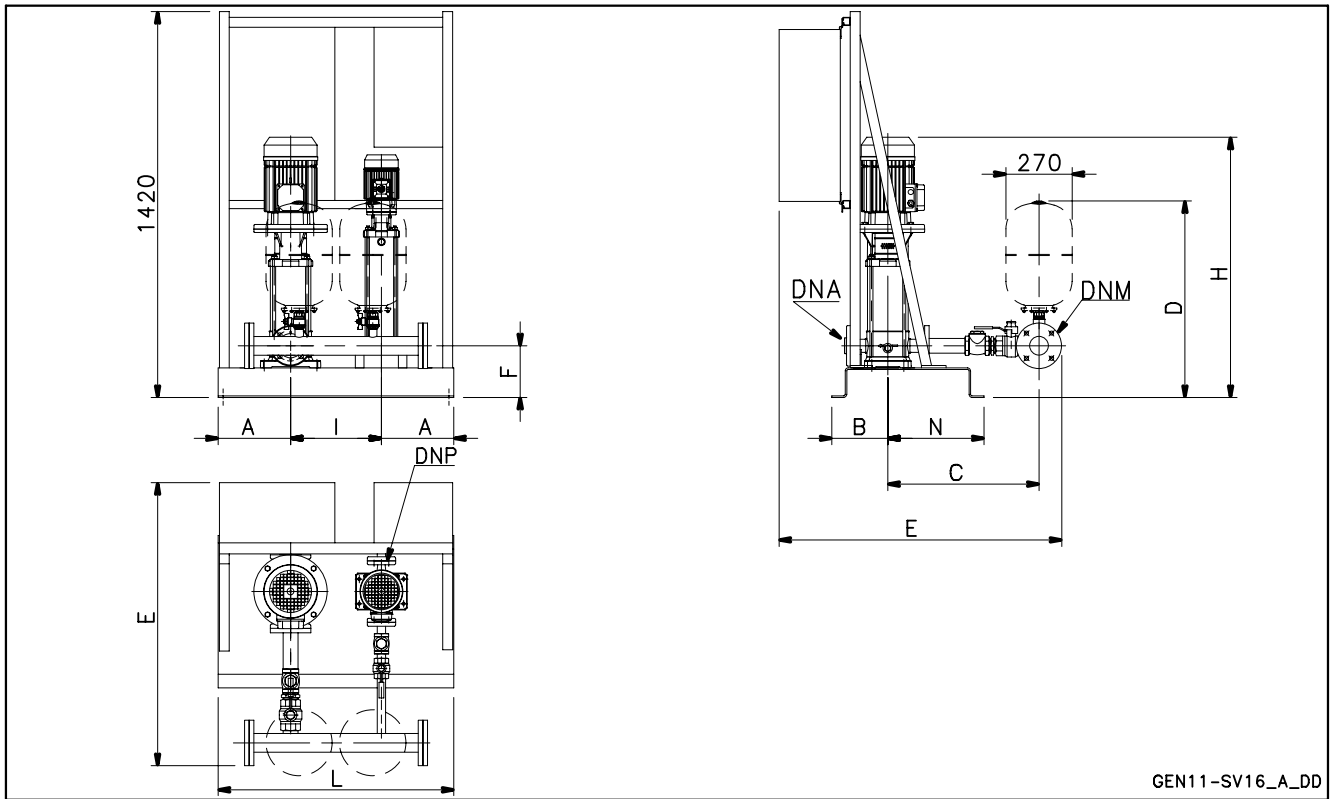
gen11-sv8_a_td



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GEN..11 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY



GEN..11	kW	DNA	DNP	DNM	A	B	C	D	E	F	H	I	L	N	FLOW N°
SV1602	2,2	Rp 2"	Rp 1"	65	205	228	632	798	1168	210	766	370	780	392	4
SV1603	3	Rp 2"	Rp 1"	65	205	228	632	798	1168	210	854	370	780	392	4
SV1604	4	Rp 2"	Rp 1"	65	205	228	632	798	1168	210	896	370	780	392	4
SV1605	5,5	Rp 2"	Rp 1"	65	205	228	632	798	1168	210	1021	370	780	392	4
SV1606	5,5	Rp 2"	Rp 1"	65	205	228	632	798	1168	210	1059	370	780	392	4
SV1607	7,5	Rp 2"	Rp 1"	65	205	228	632	798	1168	210	1097	370	780	392	4
SV1608	7,5	Rp 2"	Rp 1"	65	205	228	632	798	1168	210	1135	370	780	392	4

Dimensions in mm. Tolerance ± 10 mm.

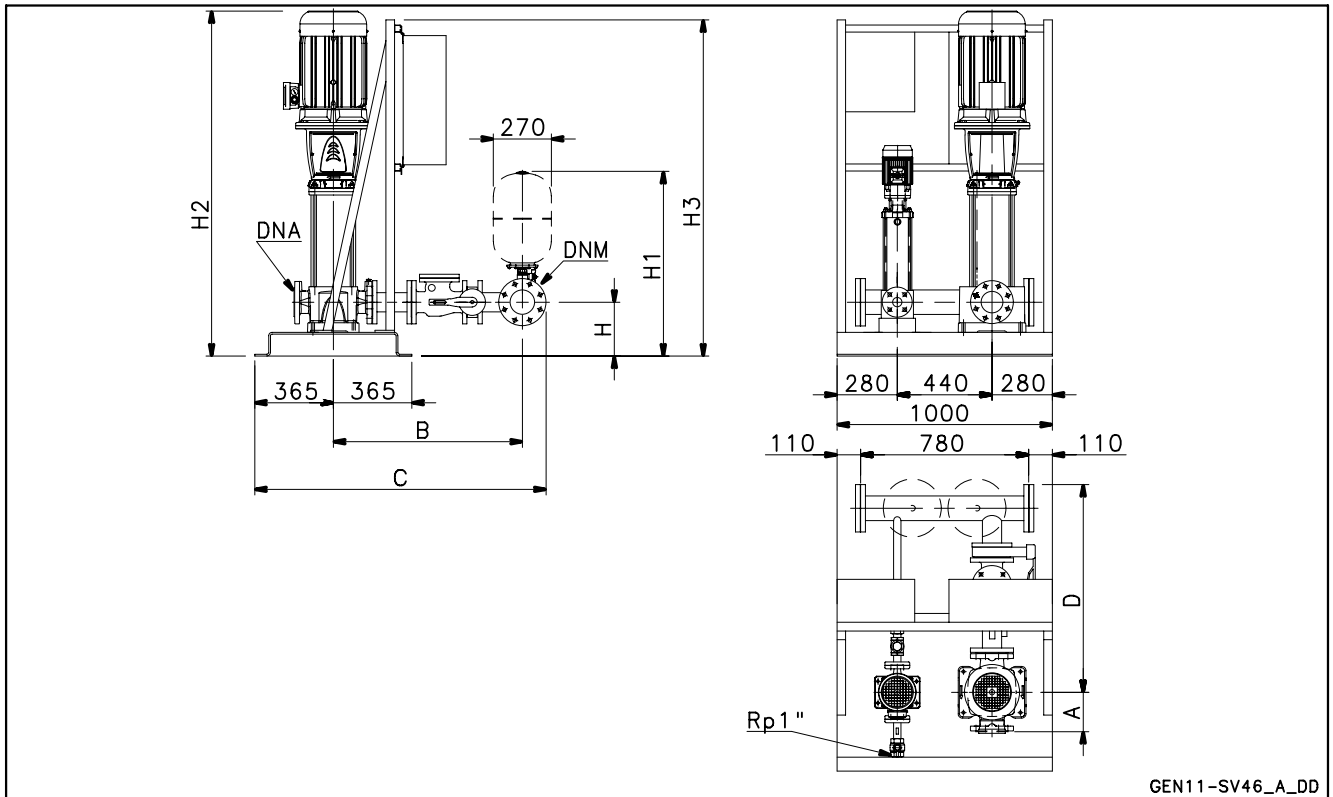
gen11-sv16_a_td



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GEN..11 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY



GEN11-SV46_A_DD



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GEN..11 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY

GEN..11	kW	DNA	DNM	A	B	C	D	H	H1	H2	H3	FLOW N°
SV3301/1	2,2	65	80	160	852	1317	952	215	810	862	1560	6
SV3301	3	65	80	160	852	1317	952	215	810	902	1560	6
SV3302/2	4	65	80	160	852	1317	952	215	810	981	1560	6
SV3302/1	4	65	80	160	852	1317	952	215	810	981	1560	6
SV3302	5,5	65	80	160	852	1317	952	215	810	1068	1560	6
SV3303/2	5,5	65	80	160	852	1317	952	215	810	1143	1560	6
SV3303/1	7,5	65	80	160	852	1317	952	215	810	1143	1560	6
SV3303	7,5	65	80	160	852	1317	952	215	810	1143	1560	6
SV3304/2	7,5	65	80	160	852	1317	952	215	810	1218	1560	6
SV3304/1	11	65	80	160	852	1317	952	215	810	1306	1560	6
SV3304	11	65	80	160	852	1317	952	215	810	1306	1560	6
SV3305/2	11	65	80	160	852	1317	952	215	810	1381	1560	6
SV3305/1	11	65	80	160	852	1317	952	215	810	1381	1560	6
SV3305	15	65	80	160	852	1317	952	215	810	1442	1560	6
SV3306/2	15	65	80	160	852	1317	952	215	810	1517	1560	6
SV3306/1	15	65	80	160	852	1317	952	215	810	1517	1560	6
SV3306	15	65	80	160	852	1317	952	215	810	1517	1560	6
SV4601/1	3	80	100	183	937	1412	1017	250	857	942	1560	8
SV4601	4	80	100	183	937	1412	1017	250	857	946	1560	8
SV4602/2	5,5	80	100	183	937	1412	1017	250	857	1108	1560	8
SV4602	7,5	80	100	183	937	1412	1017	250	857	1108	1560	8
SV4603/2	11	80	100	183	937	1412	1017	250	857	1271	1560	8
SV4603	11	80	100	183	937	1412	1017	250	857	1271	1560	8
SV4604/2	15	80	100	183	937	1412	1017	250	857	1407	1560	8
SV4604	15	80	100	183	937	1412	1017	250	857	1407	1560	8
SV4605/2	18,5	80	100	183	937	1412	1017	250	857	1526	1740	8
SV4605	18,5	80	100	183	937	1412	1017	250	857	1526	1740	8
SV4606/2	22	80	100	183	937	1412	1017	250	857	1601	1740	8
SV6601/1	4	100	125	183	996	1486	1091	250	870	971	1560	53
SV6601	5,5	100	125	183	996	1486	1091	250	870	1058	1560	53
SV6602/2	7,5	100	125	183	996	1486	1091	250	870	1148	1560	53
SV6602/1	11	100	125	183	996	1486	1091	250	870	1236	1560	53
SV6602	11	100	125	183	996	1486	1091	250	870	1236	1560	53
SV6603/2	15	100	125	183	996	1486	1091	250	870	1387	1560	53
SV6603/1	15	100	125	183	996	1486	1091	250	870	1387	1560	53
SV6603	18,5	100	125	183	996	1486	1091	250	870	1431	1740	53
SV6604/2	18,5	100	125	183	996	1486	1091	250	870	1521	1740	53
SV6604/1	22	100	125	183	996	1486	1091	250	870	1521	1740	53
SV6604	22	100	125	183	996	1486	1091	250	870	1521	1740	53
SV6605/2	30	100	125	183	996	1486	1091	250	870	1692	1740	53
SV6605/1	30	100	125	183	996	1486	1091	250	870	1692	1740	53
SV6605	30	100	125	183	996	1486	1091	250	870	1692	1740	53
SV9201/1	5,5	100	125	183	996	1486	1091	250	870	1058	1560	12
SV9201	7,5	100	125	183	996	1486	1091	250	870	1058	1560	12
SV9202/2	11	100	125	183	996	1486	1091	250	870	1236	1560	12
SV9202	15	100	125	183	996	1486	1091	250	870	1297	1560	12
SV9203/2	18,5	100	125	183	996	1486	1091	250	870	1431	1740	12
SV9203	22	100	125	183	996	1486	1091	250	870	1431	1740	12
SV9204/2	30	100	125	183	996	1486	1091	250	870	1602	1740	12
SV9204	30	100	125	183	996	1486	1091	250	870	1602	1740	12

Dimensions in mm. Tolerance ± 10 mm.

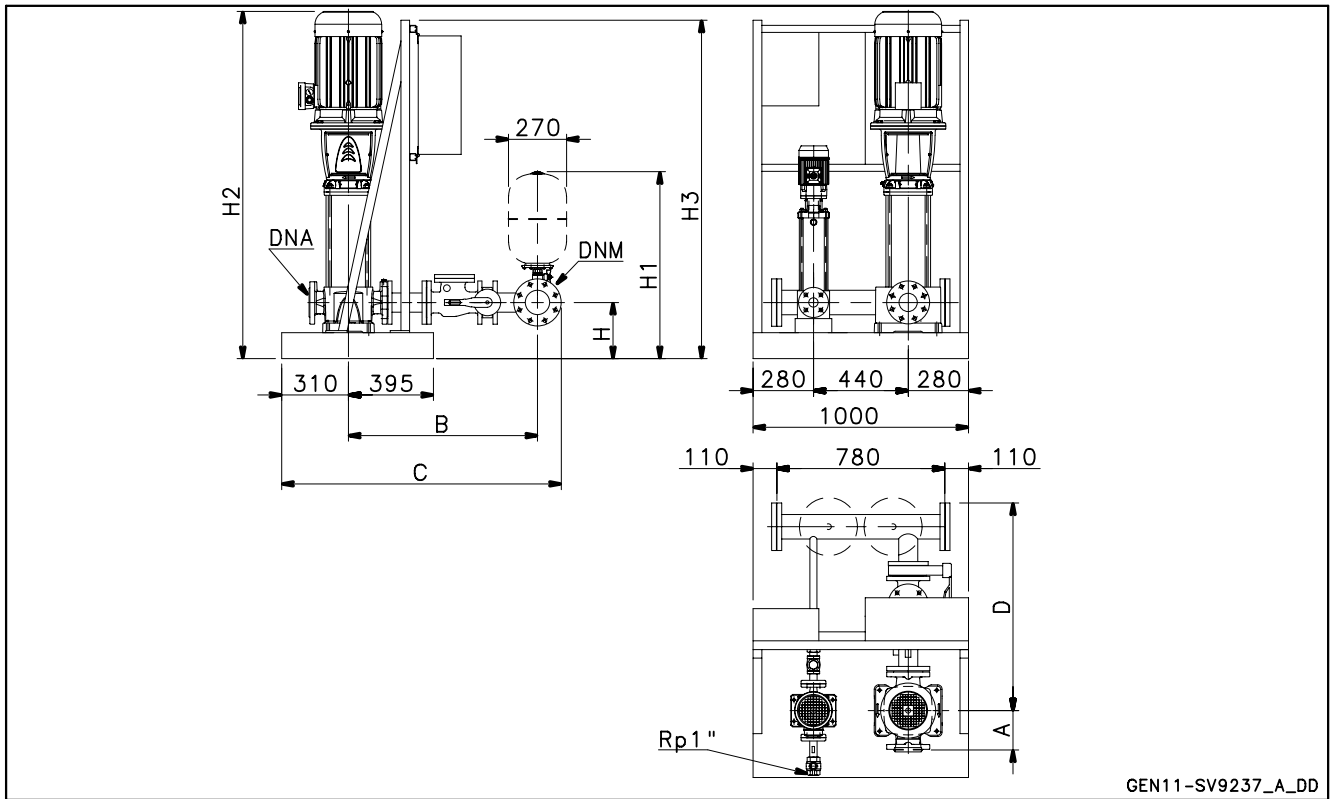
gen11_sv46_b_td



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**GEN..11 SERIES FIRE-FIGHTING BOOSTER SETS
THREE-PHASE POWER SUPPLY**



GEN11-SV9237_A_DD

GEN..11	kW	DNA	DNM	A	B	C	D	H	H1	H2	H3	FLOW N°
SV9205/2	37	100	125	183	996	1431	1121	260	880	1702	1940	12

Dimensions in mm. Tolerance ± 10 mm.

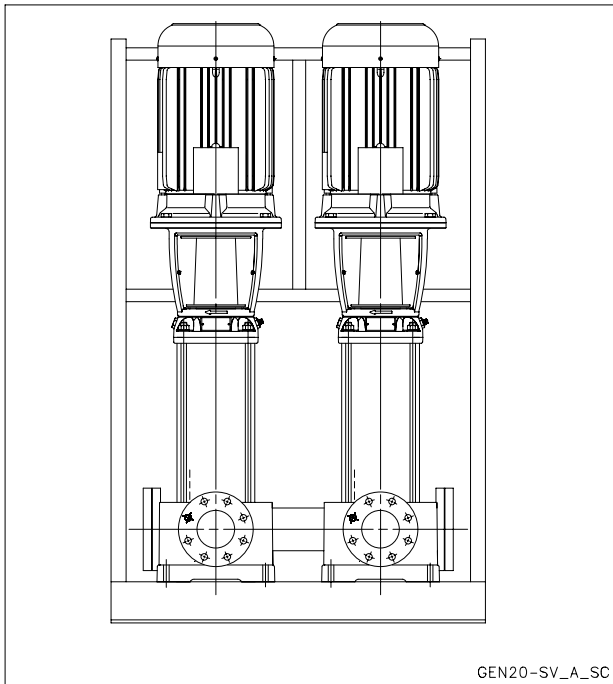
gen11_sv9237_a_td

**Fire-fighting
booster sets
EN 12845**
MARKET SECTORS

CIVIL, INDUSTRIAL

APPLICATIONS

- Automatic fire-fighting systems and network (Sprinkler).

**GEN..20
Series**

SPECIFICATIONS

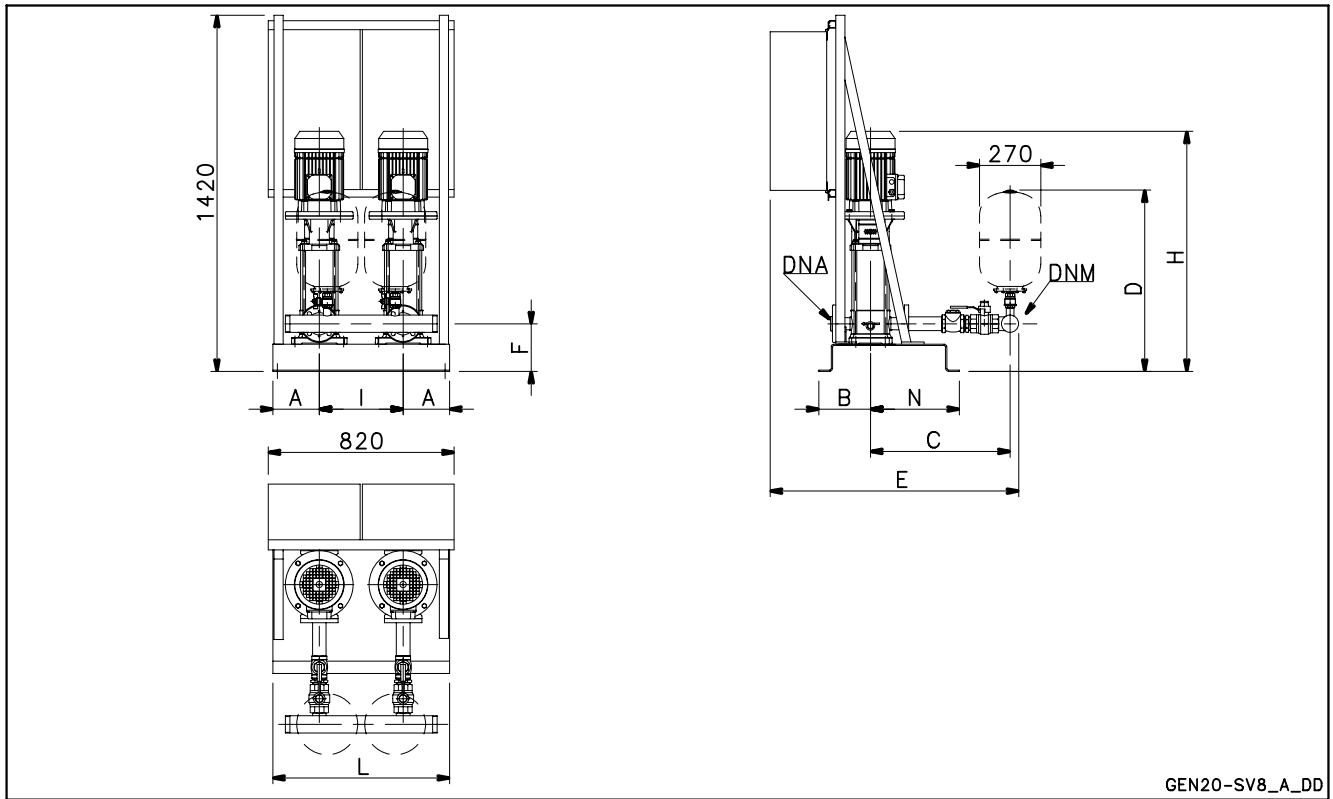
- **Flow** up to 240 m³/h.
- **Head** up to 150 m.
- Panel supply power voltage:
3 x 400V ± 10%.
- Frequency: 50 Hz.
- Voltage for controls outside panel:
24 Vac.
- Protection grade:
- electric panel: IP54.
- Electric pumps maximum power
37 kW.
- Motor start-up :
 - Direct for powers up to 7,5 kW inclusive for pump (GEND...).
 - Star/Delta for higher powers (GENY... set).
- **Electric service pump with vertical axis:**
 - SV Series (motor protection grade IP55).
- Maximum running pressure:
16 bar.



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GEN..20 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY



GEN..20	kW	DNA	DNM	A	B	C	D	E	F	H	I	L	N	FLOW N°
SV402	0,37	Rp 1"1/4	Rp 2"	205	228	538	775	1011	195	614	370	780	392	2
SV403	0,55	Rp 1"1/4	Rp 2"	205	228	538	775	1011	195	661	370	780	392	2
SV404	0,75	Rp 1"1/4	Rp 2"	205	228	538	775	1011	195	691	370	780	392	2
SV405	1,1	Rp 1"1/4	Rp 2"	205	228	538	775	1011	195	753	370	780	392	2
SV406	1,1	Rp 1"1/4	Rp 2"	205	228	538	775	1011	195	778	370	780	392	2
SV407	1,1	Rp 1"1/4	Rp 2"	205	228	538	775	1011	195	803	370	780	392	2
SV408	1,5	Rp 1"1/4	Rp 2"	205	228	538	775	1011	195	838	370	780	392	2
SV409	1,5	Rp 1"1/4	Rp 2"	205	228	538	775	1011	195	863	370	780	392	2
SV411	2,2	Rp 1"1/4	Rp 2"	205	228	538	775	1011	195	913	370	780	392	2
SV413	2,2	Rp 1"1/4	Rp 2"	205	228	538	775	1011	195	963	370	780	392	2
SV414	3	Rp 1"1/4	Rp 2"	205	228	538	775	1011	195	1038	370	780	392	2
SV802	1,1	Rp 1"1/2	Rp 2"	205	228	570	780	1043	200	746	370	780	392	2
SV803	1,5	Rp 1"1/2	Rp 2"	205	228	570	780	1043	200	794	370	780	392	2
SV804	2,2	Rp 1"1/2	Rp 2"	205	228	570	780	1043	200	832	370	780	392	2
SV805	2,2	Rp 1"1/2	Rp 2"	205	228	570	780	1043	200	870	370	780	392	2
SV806	3	Rp 1"1/2	Rp 2"	205	228	570	780	1043	200	958	370	780	392	2
SV807	4	Rp 1"1/2	Rp 2"	205	228	570	780	1043	200	1000	370	780	392	2
SV808	4	Rp 1"1/2	Rp 2"	205	228	570	780	1043	200	1038	370	780	392	2
SV809	4	Rp 1"1/2	Rp 2"	205	228	570	780	1043	200	1076	370	780	392	2
SV811	5,5	Rp 1"1/2	Rp 2"	205	228	570	780	1043	200	1239	370	780	392	2

Dimensions in mm. Tolerance ± 10 mm.

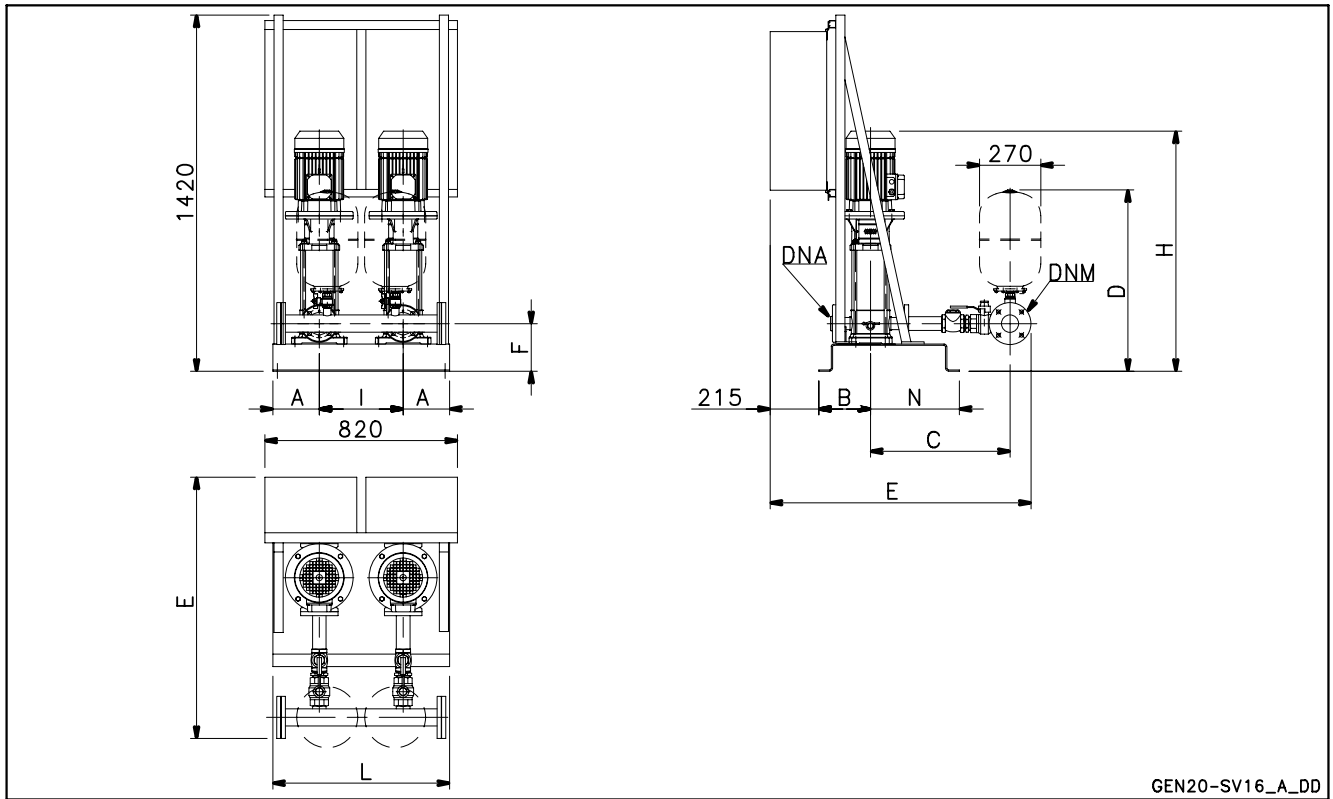
gen20-sv8_a_td



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GEN..20 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY



GEN20-SV16_A_DD

GEN..20	kW	DNA	DNM	A	B	C	D	E	F	H	I	L	N	FLOW N°
SV1602	2,2	Rp 2"	65	205	228	632	798	1168	210	766	370	780	392	4
SV1603	3	Rp 2"	65	205	228	632	798	1168	210	854	370	780	392	4
SV1604	4	Rp 2"	65	205	228	632	798	1168	210	896	370	780	392	4
SV1605	5,5	Rp 2"	65	205	228	632	798	1168	210	1021	370	780	392	4
SV1606	5,5	Rp 2"	65	205	228	632	798	1168	210	1059	370	780	392	4
SV1607	7,5	Rp 2"	65	205	228	632	798	1168	210	1097	370	780	392	4
SV1608	7,5	Rp 2"	65	205	228	632	798	1168	210	1135	370	780	392	4

Dimensions in mm. Tolerance ± 10 mm.

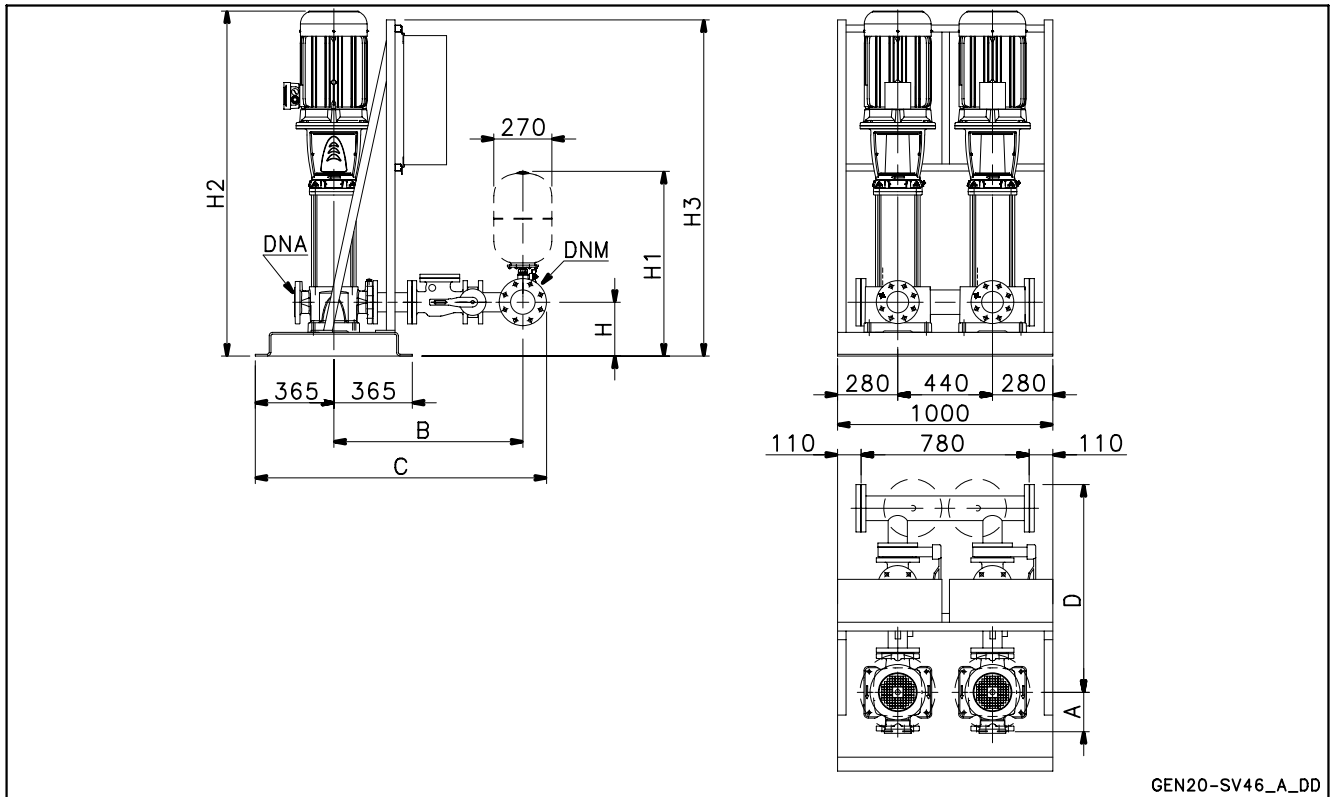
gen20-sv16_a_td



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GEN..20 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY



GEN20-SV46_A_DD

**GEN..20 SERIES FIRE-FIGHTING BOOSTER SETS
THREE-PHASE POWER SUPPLY**

GEN..20	kW	DNA	DNM	A	B	C	D	H	H1	H2	H3	FLOW N°
SV3301/1	2,2	65	80	160	852	1317	952	215	810	862	1560	6
SV3301	3	65	80	160	852	1317	952	215	810	902	1560	6
SV3302/2	4	65	80	160	852	1317	952	215	810	981	1560	6
SV3302/1	4	65	80	160	852	1317	952	215	810	981	1560	6
SV3302	5,5	65	80	160	852	1317	952	215	810	1068	1560	6
SV3303/2	5,5	65	80	160	852	1317	952	215	810	1143	1560	6
SV3303/1	7,5	65	80	160	852	1317	952	215	810	1143	1560	6
SV3303	7,5	65	80	160	852	1317	952	215	810	1143	1560	6
SV3304/2	7,5	65	80	160	852	1317	952	215	810	1218	1560	6
SV3304/1	11	65	80	160	852	1317	952	215	810	1306	1560	6
SV3304	11	65	80	160	852	1317	952	215	810	1306	1560	6
SV3305/2	11	65	80	160	852	1317	952	215	810	1381	1560	6
SV3305/1	11	65	80	160	852	1317	952	215	810	1381	1560	6
SV3305	15	65	80	160	852	1317	952	215	810	1442	1560	6
SV3306/2	15	65	80	160	852	1317	952	215	810	1517	1560	6
SV3306/1	15	65	80	160	852	1317	952	215	810	1517	1560	6
SV3306	15	65	80	160	852	1317	952	215	810	1517	1560	6
SV4601/1	3	80	100	183	937	1412	1017	250	857	942	1560	8
SV4601	4	80	100	183	937	1412	1017	250	857	946	1560	8
SV4602/2	5,5	80	100	183	937	1412	1017	250	857	1108	1560	8
SV4602	7,5	80	100	183	937	1412	1017	250	857	1108	1560	8
SV4603/2	11	80	100	183	937	1412	1017	250	857	1271	1560	8
SV4603	11	80	100	183	937	1412	1017	250	857	1271	1560	8
SV4604/2	15	80	100	183	937	1412	1017	250	857	1407	1560	8
SV4604	15	80	100	183	937	1412	1017	250	857	1407	1560	8
SV4605/2	18,5	80	100	183	937	1412	1017	250	857	1526	1740	8
SV4605	18,5	80	100	183	937	1412	1017	250	857	1526	1740	8
SV4606/2	22	80	100	183	937	1412	1017	250	857	1601	1740	8
SV6601/1	4	100	125	183	996	1486	1091	250	870	971	1560	53
SV6601	5,5	100	125	183	996	1486	1091	250	870	1058	1560	53
SV6602/2	7,5	100	125	183	996	1486	1091	250	870	1148	1560	53
SV6602/1	11	100	125	183	996	1486	1091	250	870	1236	1560	53
SV6602	11	100	125	183	996	1486	1091	250	870	1236	1560	53
SV6603/2	15	100	125	183	996	1486	1091	250	870	1387	1560	53
SV6603/1	15	100	125	183	996	1486	1091	250	870	1387	1560	53
SV6603	18,5	100	125	183	996	1486	1091	250	870	1431	1740	53
SV6604/2	18,5	100	125	183	996	1486	1091	250	870	1521	1740	53
SV6604/1	22	100	125	183	996	1486	1091	250	870	1521	1740	53
SV6604	22	100	125	183	996	1486	1091	250	870	1521	1740	53
SV9201/1	5,5	100	125	183	996	1486	1091	250	870	1058	1560	12
SV9201	7,5	100	125	183	996	1486	1091	250	870	1058	1560	12
SV9202/2	11	100	125	183	996	1486	1091	250	870	1236	1560	12
SV9202	15	100	125	183	996	1486	1091	250	870	1297	1560	12
SV9203/2	18,5	100	125	183	996	1486	1091	250	870	1431	1740	12
SV9203	22	100	125	183	996	1486	1091	250	870	1431	1740	12

 Dimensions in mm. Tolerance ± 10 mm.

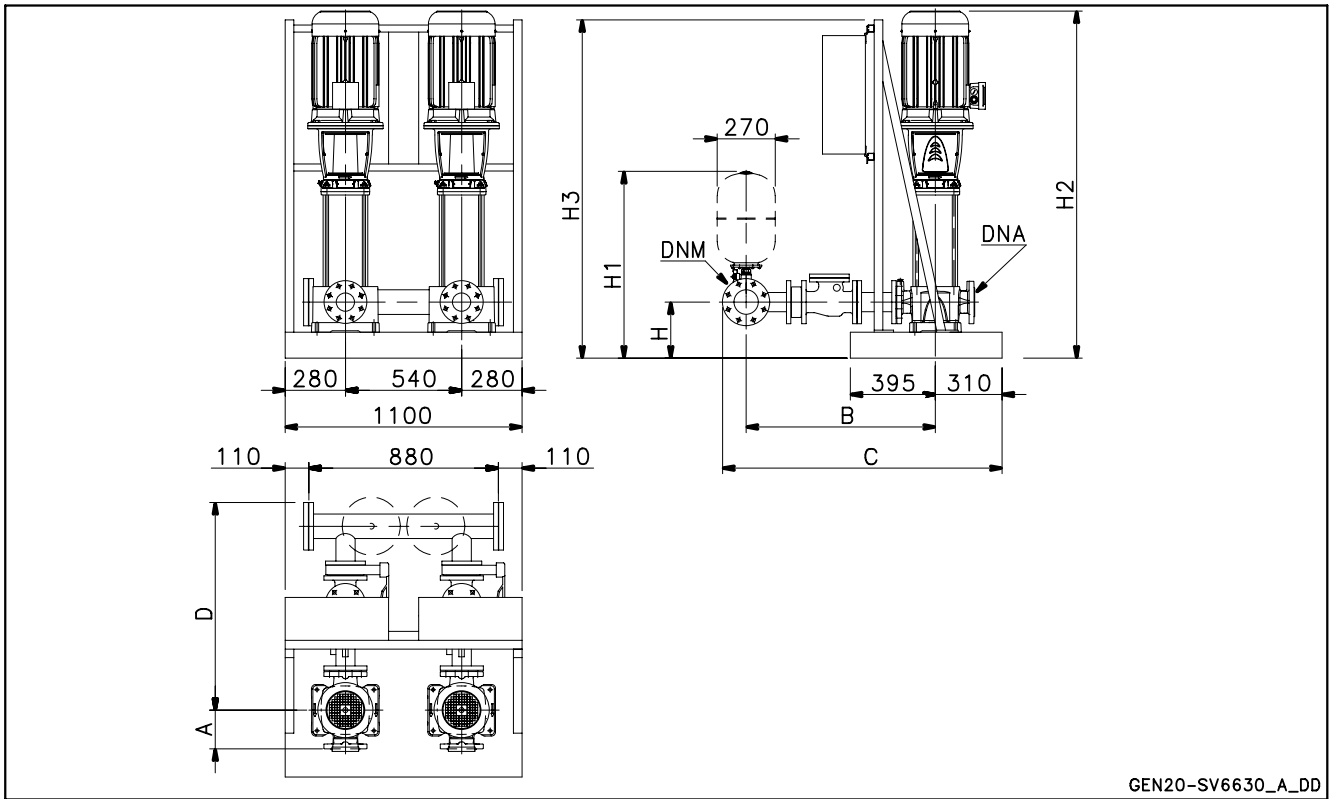
gen20_sv46_b_td



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GEN..20 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY



GEN20-SV6630_A_DD

GEN..20	kW	DNA	DNM	A	B	C	D	H	H1	H2	H3	FLOW N°
SV6605/2	30	100	125	183	996	1431	1121	260	880	1702	1750	12
SV6605/1	30	100	125	183	996	1431	1121	260	880	1702	1750	12
SV6605	30	100	125	183	996	1431	1121	260	880	1702	1750	12
SV9204/2	30	100	125	183	996	1431	1121	260	880	1612	1750	12
SV9204	30	100	125	183	996	1431	1121	260	880	1612	1750	12
SV9205/2	37	100	125	183	996	1431	1121	260	880	1702	1940	12

Dimensions in mm. Tolerance ± 10 mm.

gen20_sv9237_a_td

Fire-fighting booster sets EN 12845

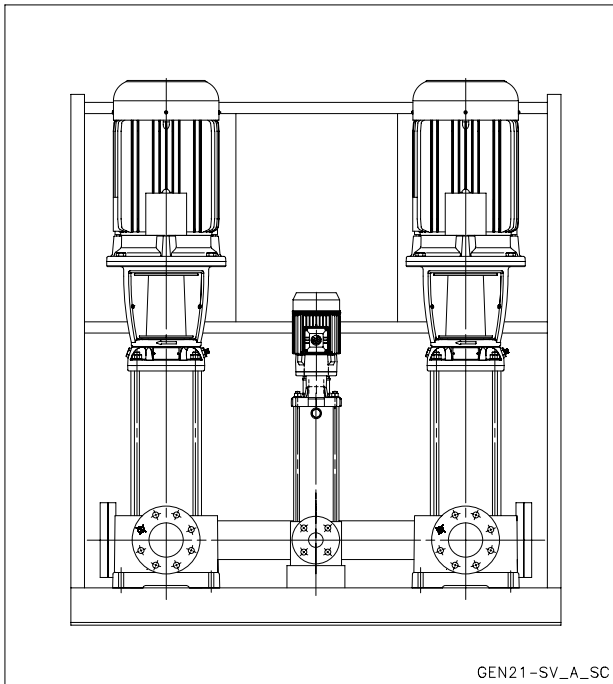
MARKET SECTORS

CIVIL, INDUSTRIAL

APPLICATIONS

- Automatic fire-fighting systems and network (Sprinkler).

GEN..21 Series



SPECIFICATIONS

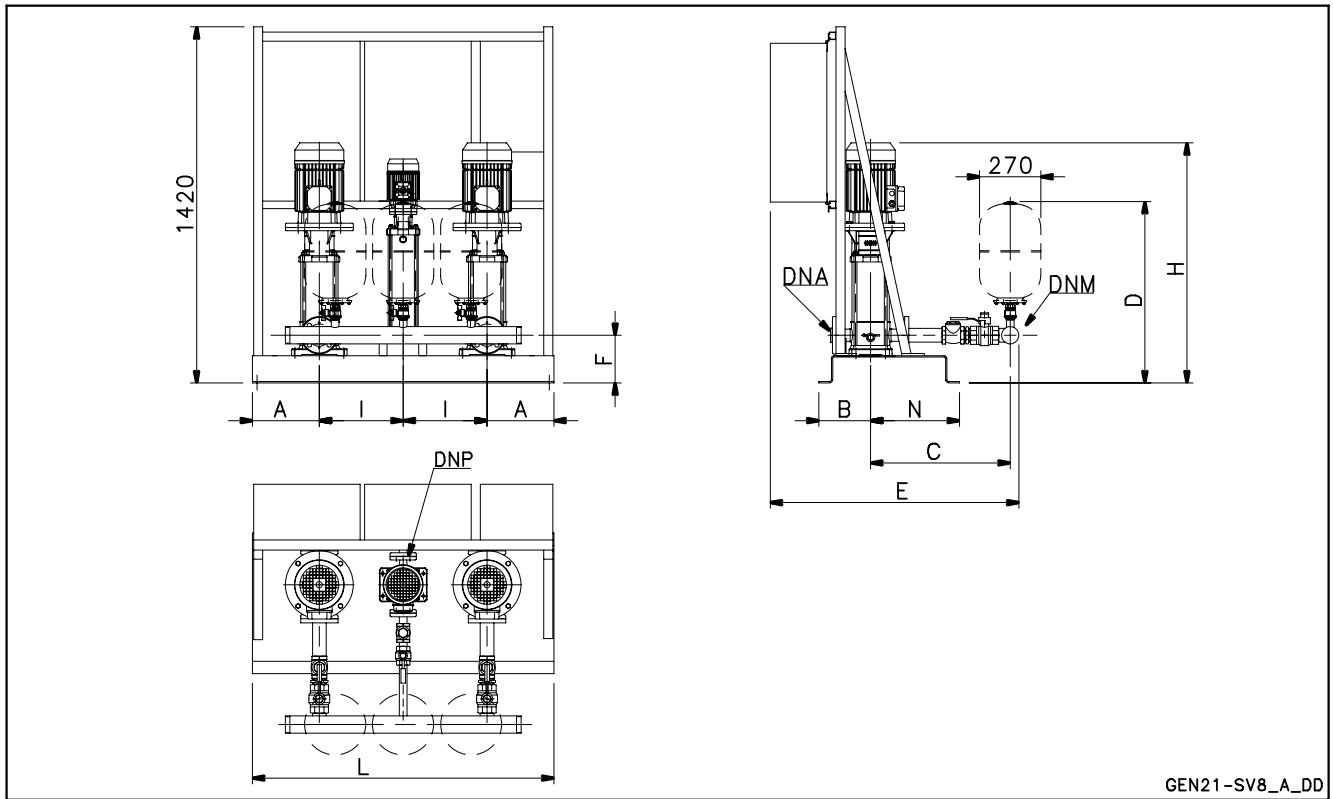
- **Flow** up to 240 m³/h.
- **Head** up to 150 m.
- Panel supply power voltage:
3 x 400V ± 10%.
- Frequency: 50 Hz.
- Voltage for controls outside panel:
24 Vac.
- Protection grade:
- electric panel: IP54.
- Electric pumps maximum power
37 kW.
- Motor start-up :
 - Direct for powers up to 7,5 kW inclusive for pump (GEND...).
 - Star/Delta for higher powers (GENY... set).
- **Electric service pump with vertical axis:**
 - SV Series (motor protection grade IP55).
- **Electric jockey pump with vertical axis:**
 - SV Series (motor protection grade IP55).
- Maximum running pressure:
16 bar.



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GEN..21 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY



GEN21-SV8_A_DD

GEN..21	kW	DNA	DNP	DNM	A	B	C	D	E	F	H	I	L	N	FLOW N°
SV402	0,37	Rp 1"1/4	Rp 1"	Rp 2"	235	228	538	775	1011	195	614	370	1210	392	2
SV403	0,55	Rp 1"1/4	Rp 1"	Rp 2"	235	228	538	775	1011	195	661	370	1210	392	2
SV404	0,75	Rp 1"1/4	Rp 1"	Rp 2"	235	228	538	775	1011	195	691	370	1210	392	2
SV405	1,1	Rp 1"1/4	Rp 1"	Rp 2"	235	228	538	775	1011	195	753	370	1210	392	2
SV406	1,1	Rp 1"1/4	Rp 1"	Rp 2"	235	228	538	775	1011	195	778	370	1210	392	2
SV407	1,1	Rp 1"1/4	Rp 1"	Rp 2"	235	228	538	775	1011	195	803	370	1210	392	2
SV408	1,5	Rp 1"1/4	Rp 1"	Rp 2"	235	228	538	775	1011	195	838	370	1210	392	2
SV409	1,5	Rp 1"1/4	Rp 1"	Rp 2"	235	228	538	775	1011	195	863	370	1210	392	2
SV411	2,2	Rp 1"1/4	Rp 1"	Rp 2"	235	228	538	775	1011	195	913	370	1210	392	2
SV413	2,2	Rp 1"1/4	Rp 1"	Rp 2"	235	228	538	775	1011	195	963	370	1210	392	2
SV414	3	Rp 1"1/4	Rp 1"	Rp 2"	235	228	538	775	1011	195	1038	370	1210	392	2
SV802	1,1	Rp 1"1/2	Rp 1"	Rp 2"	235	228	570	780	1043	200	746	370	1210	392	2
SV803	1,5	Rp 1"1/2	Rp 1"	Rp 2"	235	228	570	780	1043	200	794	370	1210	392	2
SV804	2,2	Rp 1"1/2	Rp 1"	Rp 2"	235	228	570	780	1043	200	832	370	1210	392	2
SV805	2,2	Rp 1"1/2	Rp 1"	Rp 2"	235	228	570	780	1043	200	870	370	1210	392	2
SV806	3	Rp 1"1/2	Rp 1"	Rp 2"	235	228	570	780	1043	200	958	370	1210	392	2
SV807	4	Rp 1"1/2	Rp 1"	Rp 2"	235	228	570	780	1043	200	1000	370	1210	392	4
SV808	4	Rp 1"1/2	Rp 1"	Rp 2"	235	228	570	780	1043	200	1038	370	1210	392	4
SV809	4	Rp 1"1/2	Rp 1"	Rp 2"	235	228	570	780	1043	200	1076	370	1210	392	4
SV811	5,5	Rp 1"1/2	Rp 1"	Rp 2"	235	228	570	780	1043	200	1239	370	1210	392	4

Dimensions in mm. Tolerance ± 10 mm.

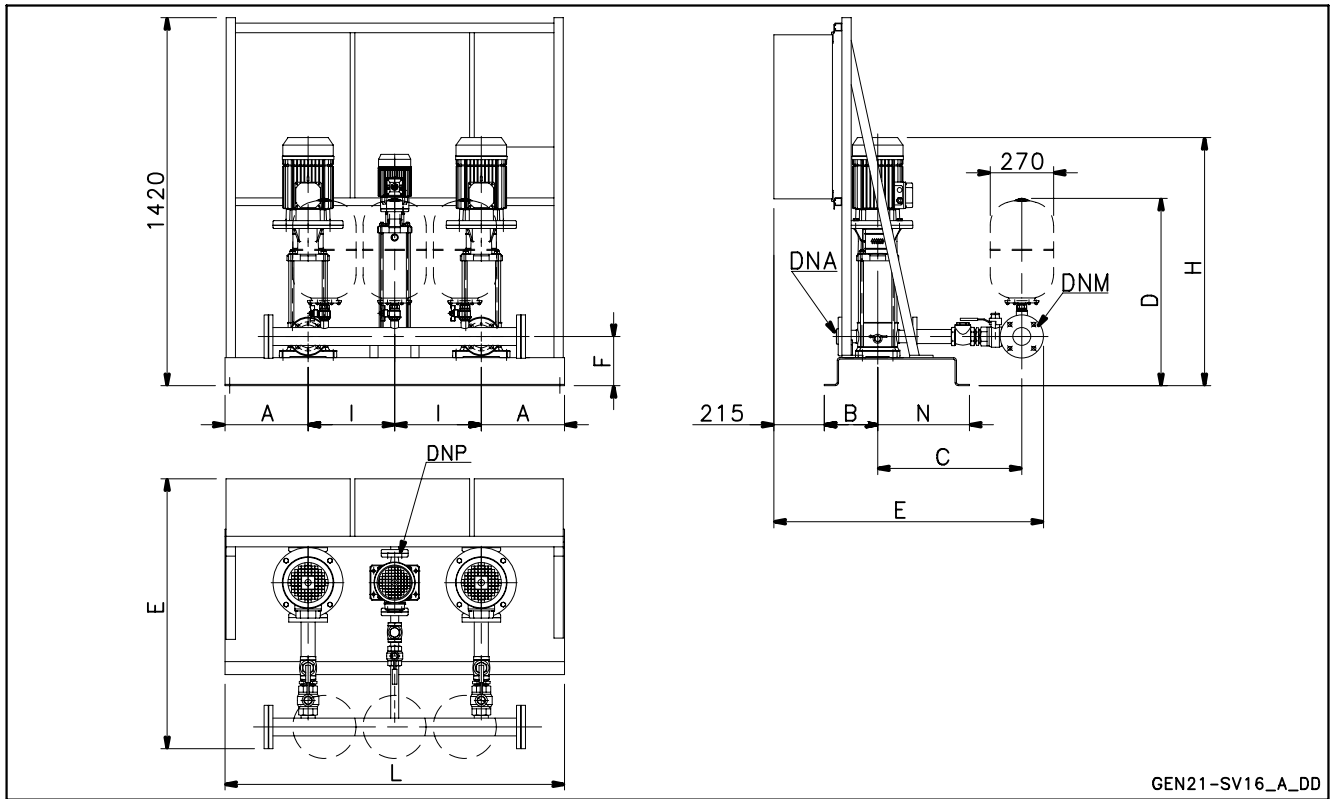
gen21-sv8_a_td



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**GEN..21 SERIES FIRE-FIGHTING BOOSTER SETS
THREE-PHASE POWER SUPPLY**



GEN..21	kW	DNA	DNP	DNM	A	B	C	D	E	F	H	I	L	N	FLOW N°
SV1602	2,2	Rp 2"	Rp 1"	65	235	228	632	798	1168	210	766	370	1210	392	4
SV1603	3	Rp 2"	Rp 1"	65	235	228	632	798	1168	210	854	370	1210	392	4
SV1604	4	Rp 2"	Rp 1"	65	235	228	632	798	1168	210	896	370	1210	392	4
SV1605	5,5	Rp 2"	Rp 1"	65	235	228	632	798	1168	210	1021	370	1210	392	4
SV1606	5,5	Rp 2"	Rp 1"	65	235	228	632	798	1168	210	1059	370	1210	392	4
SV1607	7,5	Rp 2"	Rp 1"	65	235	228	632	798	1168	210	1097	370	1210	392	4
SV1608	7,5	Rp 2"	Rp 1"	65	235	228	632	798	1168	210	1135	370	1210	392	4

Dimensions in mm. Tolerance ± 10 mm.

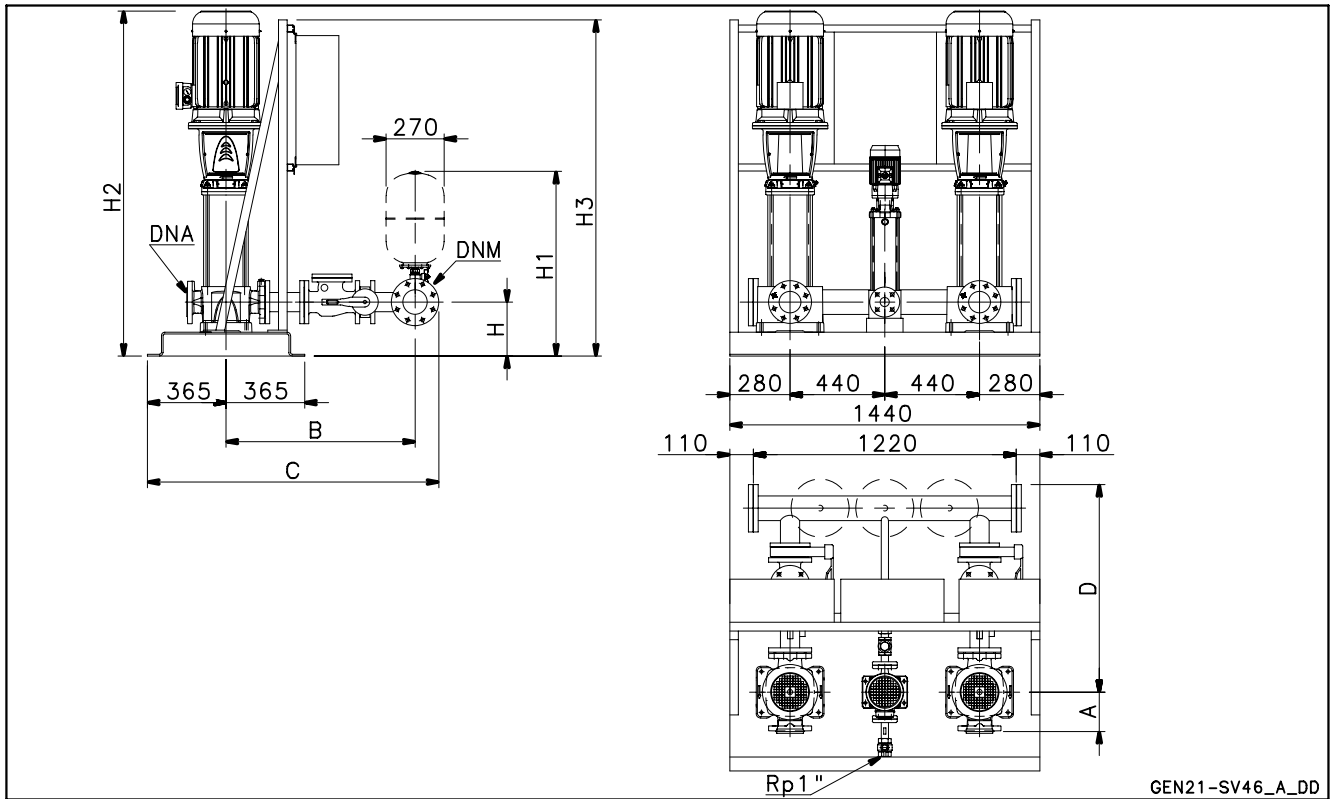
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GEN..21 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY



GEN21-SV46_A_DD



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GEN..21 SERIES FIRE-FIGHTING BOOSTER SETS THREE-PHASE POWER SUPPLY

GEN..21	kW	DNA	DNM	A	B	C	D	H	H1	H2	H3	FLOW N°
SV3301/1	2,2	65	80	160	852	1317	952	215	810	862	1560	6
SV3301	3	65	80	160	852	1317	952	215	810	902	1560	6
SV3302/2	4	65	80	160	852	1317	952	215	810	981	1560	6
SV3302/1	4	65	80	160	852	1317	952	215	810	981	1560	6
SV3302	5,5	65	80	160	852	1317	952	215	810	1068	1560	6
SV3303/2	5,5	65	80	160	852	1317	952	215	810	1143	1560	6
SV3303/1	7,5	65	80	160	852	1317	952	215	810	1143	1560	6
SV3303	7,5	65	80	160	852	1317	952	215	810	1143	1560	6
SV3304/2	7,5	65	80	160	852	1317	952	215	810	1218	1560	6
SV3304/1	11	65	80	160	852	1317	952	215	810	1306	1560	6
SV3304	11	65	80	160	852	1317	952	215	810	1306	1560	6
SV3305/2	11	65	80	160	852	1317	952	215	810	1381	1560	6
SV3305/1	11	65	80	160	852	1317	952	215	810	1381	1560	6
SV3305	15	65	80	160	852	1317	952	215	810	1442	1560	6
SV3306/2	15	65	80	160	852	1317	952	215	810	1517	1560	6
SV3306/1	15	65	80	160	852	1317	952	215	810	1517	1560	6
SV3306	15	65	80	160	852	1317	952	215	810	1517	1560	6
SV4601/1	3	80	100	183	937	1412	1017	250	857	942	1560	8
SV4601	4	80	100	183	937	1412	1017	250	857	946	1560	8
SV4602/2	5,5	80	100	183	937	1412	1017	250	857	1108	1560	8
SV4602	7,5	80	100	183	937	1412	1017	250	857	1108	1560	8
SV4603/2	11	80	100	183	937	1412	1017	250	857	1271	1560	8
SV4603	11	80	100	183	937	1412	1017	250	857	1271	1560	8
SV4604/2	15	80	100	183	937	1412	1017	250	857	1407	1560	8
SV4604	15	80	100	183	937	1412	1017	250	857	1407	1560	8
SV4605/2	18,5	80	100	183	937	1412	1017	250	857	1526	1740	8
SV4605	18,5	80	100	183	937	1412	1017	250	857	1526	1740	8
SV4606/2	22	80	100	183	937	1412	1017	250	857	1601	1740	8
SV6601/1	4	100	125	183	996	1486	1091	250	870	971	1560	53
SV6601	5,5	100	125	183	996	1486	1091	250	870	1058	1560	53
SV6602/2	7,5	100	125	183	996	1486	1091	250	870	1148	1560	53
SV6602/1	11	100	125	183	996	1486	1091	250	870	1236	1560	53
SV6602	11	100	125	183	996	1486	1091	250	870	1236	1560	53
SV6603/2	15	100	125	183	996	1486	1091	250	870	1387	1560	53
SV6603/1	15	100	125	183	996	1486	1091	250	870	1387	1560	53
SV6603	18,5	100	125	183	996	1486	1091	250	870	1431	1740	53
SV6604/2	18,5	100	125	183	996	1486	1091	250	870	1521	1740	53
SV6604/1	22	100	125	183	996	1486	1091	250	870	1521	1740	53
SV6604	22	100	125	183	996	1486	1091	250	870	1521	1740	53
SV6605/2	30	100	125	183	996	1486	1091	250	870	1692	1740	53
SV6605/1	30	100	125	183	996	1486	1091	250	870	1692	1740	53
SV6605	30	100	125	183	996	1486	1091	250	870	1692	1740	53
SV9201/1	5,5	100	125	183	996	1486	1091	250	870	1058	1560	12
SV9201	7,5	100	125	183	996	1486	1091	250	870	1058	1560	12
SV9202/2	11	100	125	183	996	1486	1091	250	870	1236	1560	12
SV9202	15	100	125	183	996	1486	1091	250	870	1297	1560	12
SV9203/2	18,5	100	125	183	996	1486	1091	250	870	1431	1740	12
SV9203	22	100	125	183	996	1486	1091	250	870	1431	1740	12
SV9204/2	30	100	125	183	996	1486	1091	250	870	1602	1740	12
SV9204	30	100	125	183	996	1486	1091	250	870	1602	1740	12

Dimensions in mm. Tolerance \pm 10 mm.

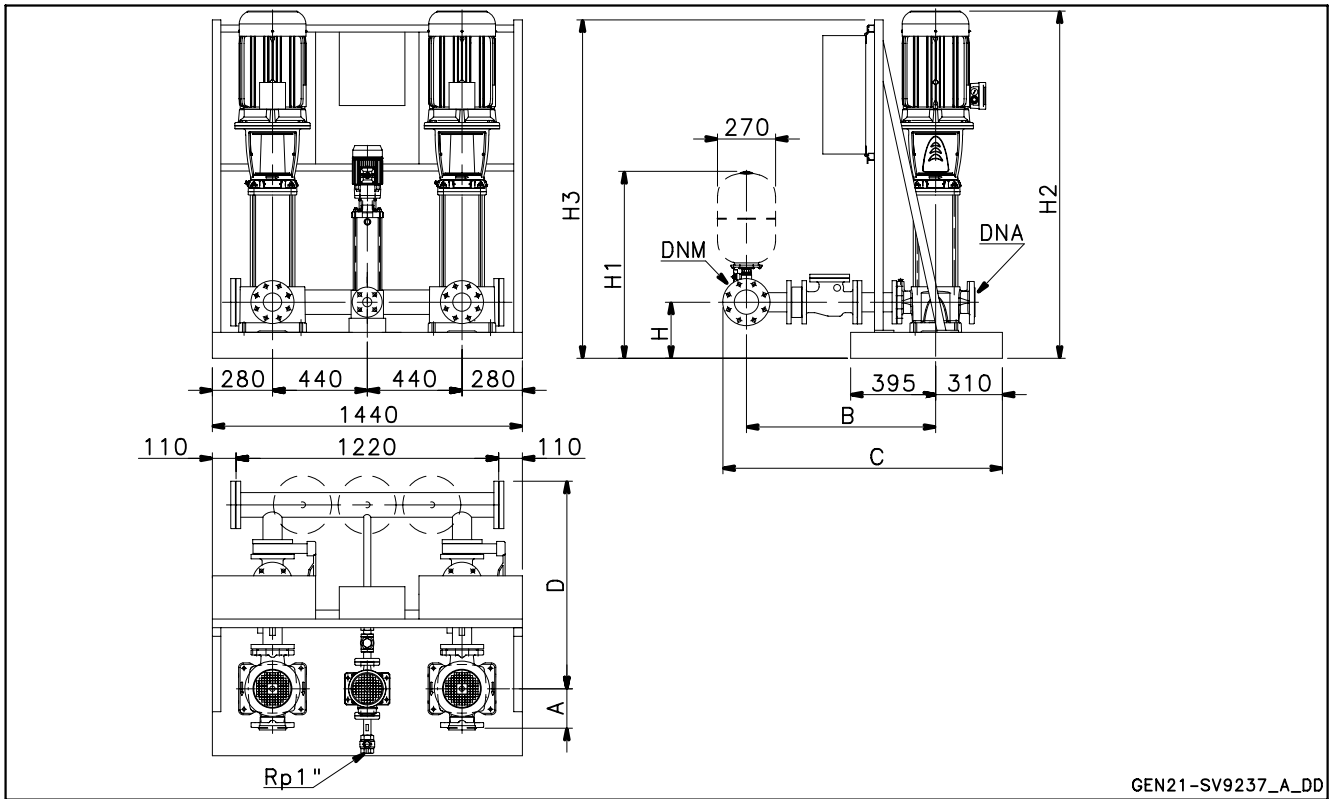
gen21_sv46_b_td



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**GEN..21 SERIES FIRE-FIGHTING BOOSTER SETS
THREE-PHASE POWER SUPPLY**



GEN..21	kW	DNA	DNM	A	B	C	D	H	H1	H2	H3	FLOW N°
SV9205/2	37	100	125	183	996	1431	1121	260	880	1702	1940	12

Dimensions in mm. Tolerance ± 10 mm.

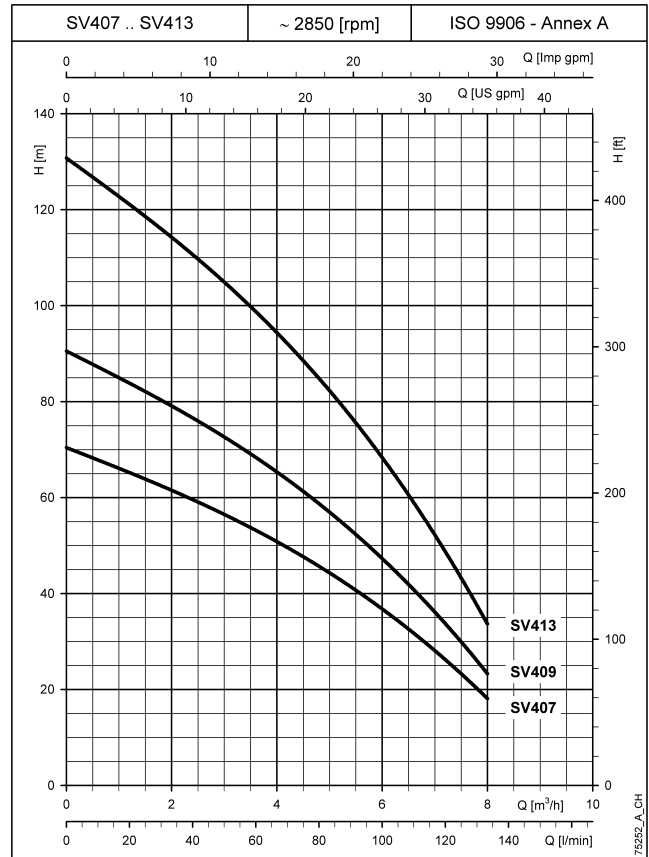
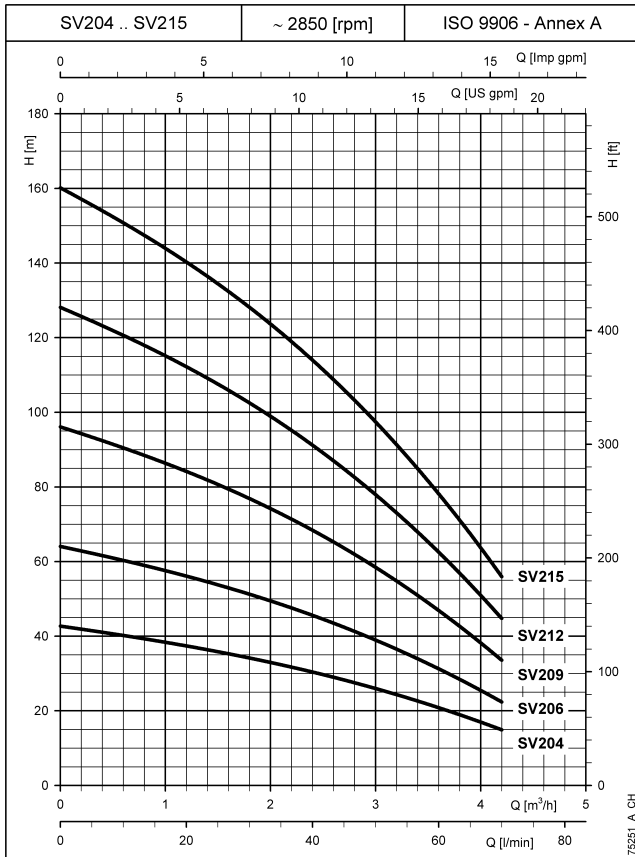
gen21_sv9237_a_td



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GEN SERIES BOOSTER SETS OPERATING CHARACTERISTICS AT 50 Hz (JOCKEY PUMP)



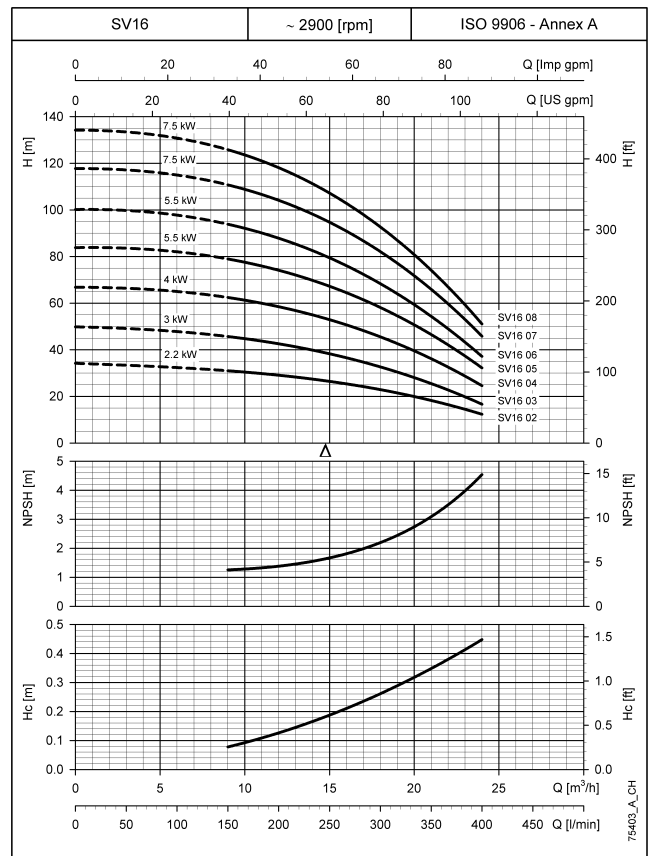
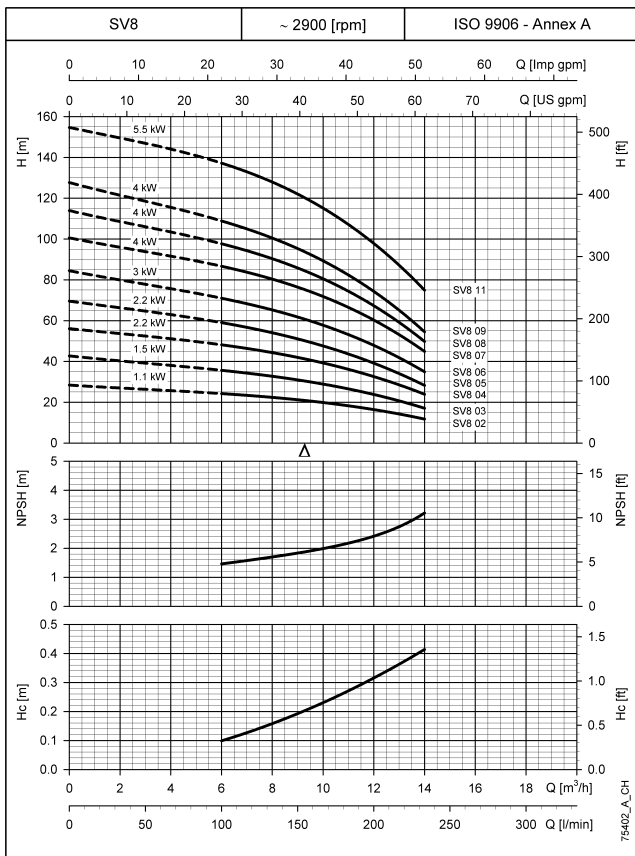
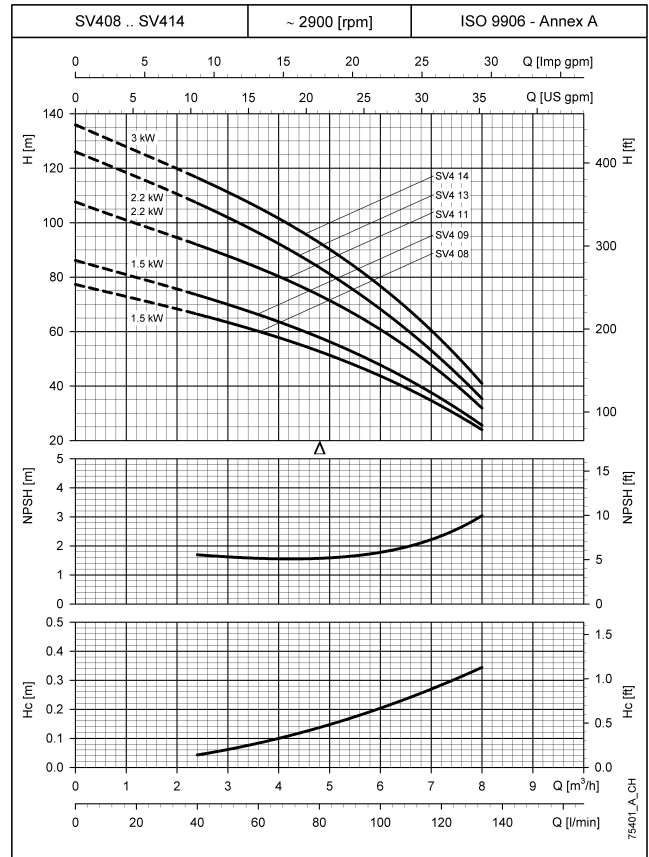
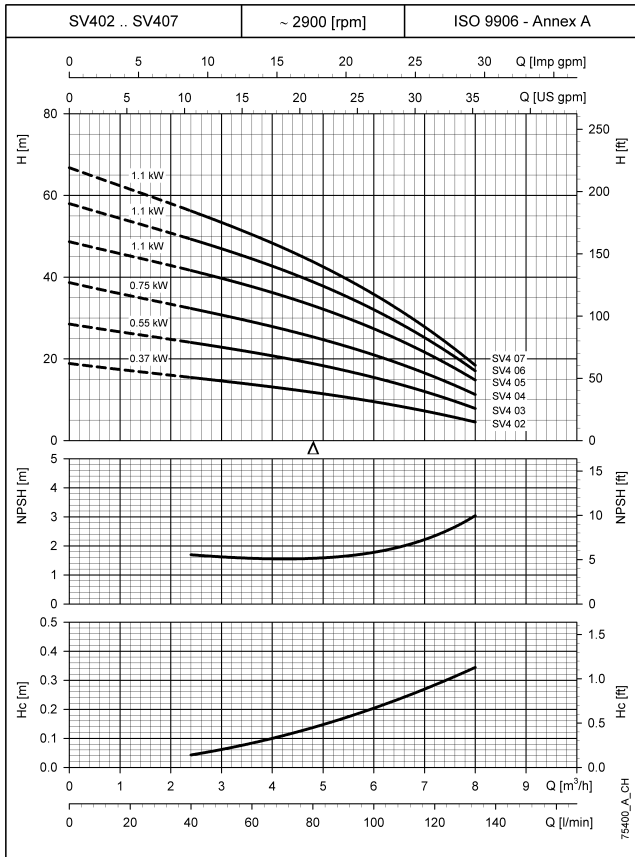
The performance curves do not take into account flow resistance in the valves and piping.
 The curves indicate the performance with one pump running.
 These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
 The NPSH values are laboratory values, for practical use we suggest increasing these values by 0,5 m.



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GEN SERIES BOOSTER SETS OPERATING CHARACTERISTICS AT 50 Hz (SERVICE PUMP)



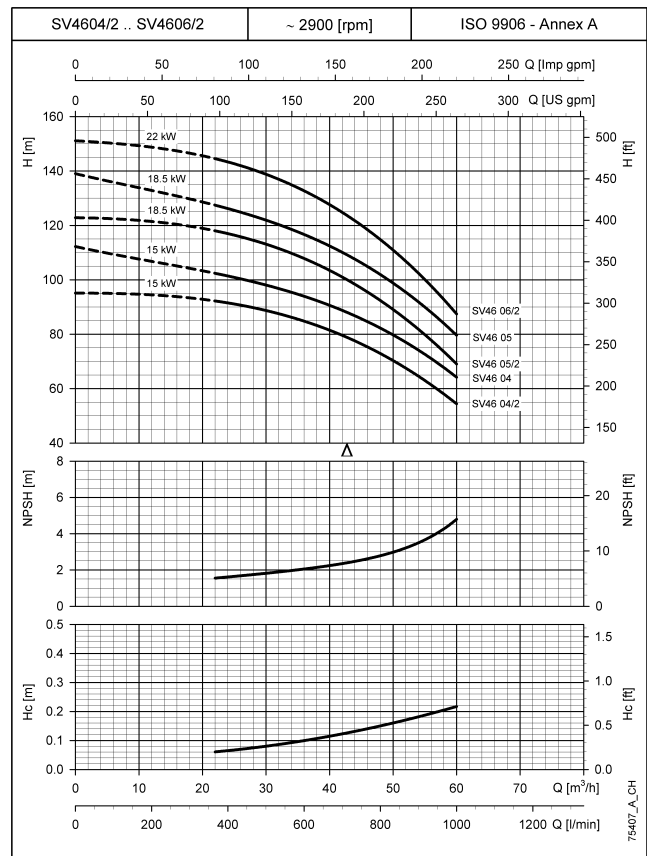
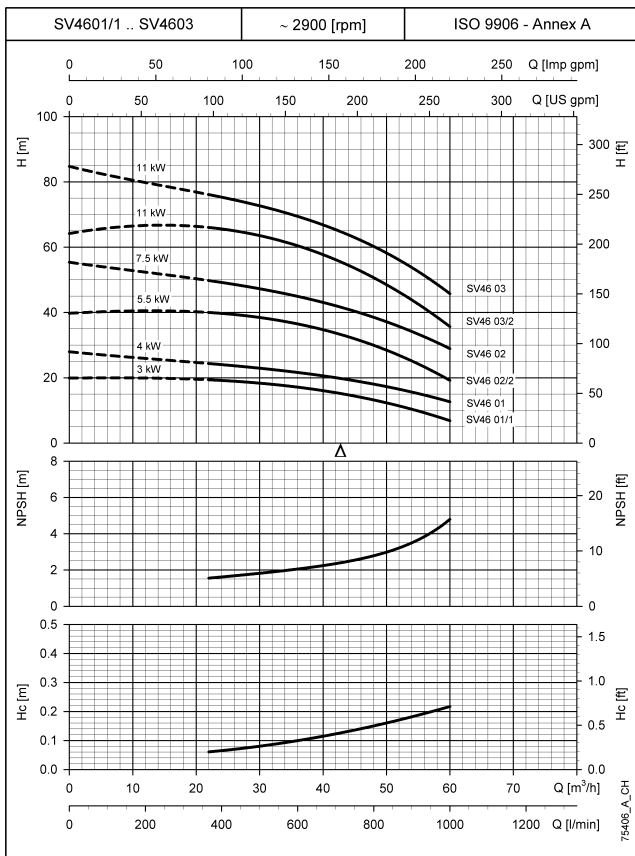
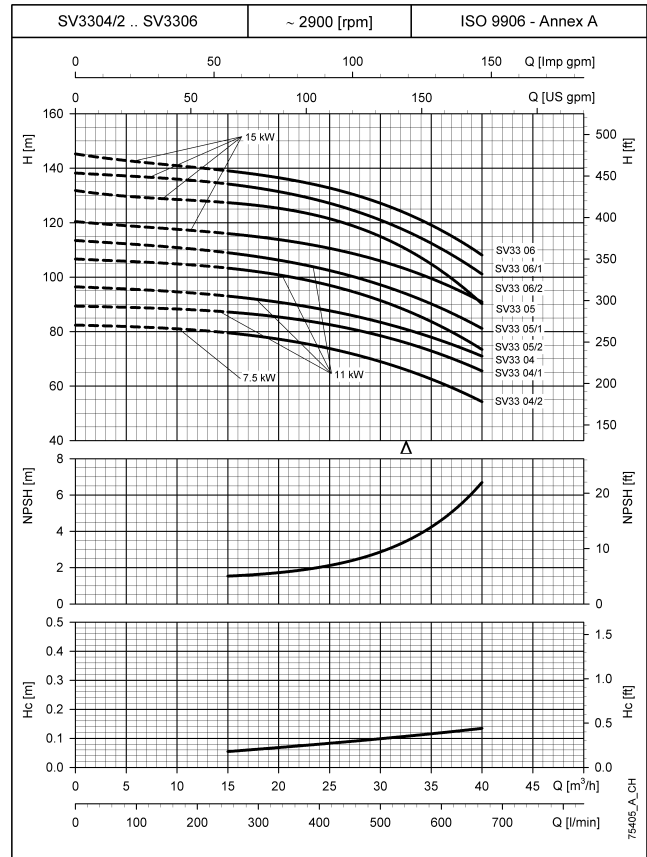
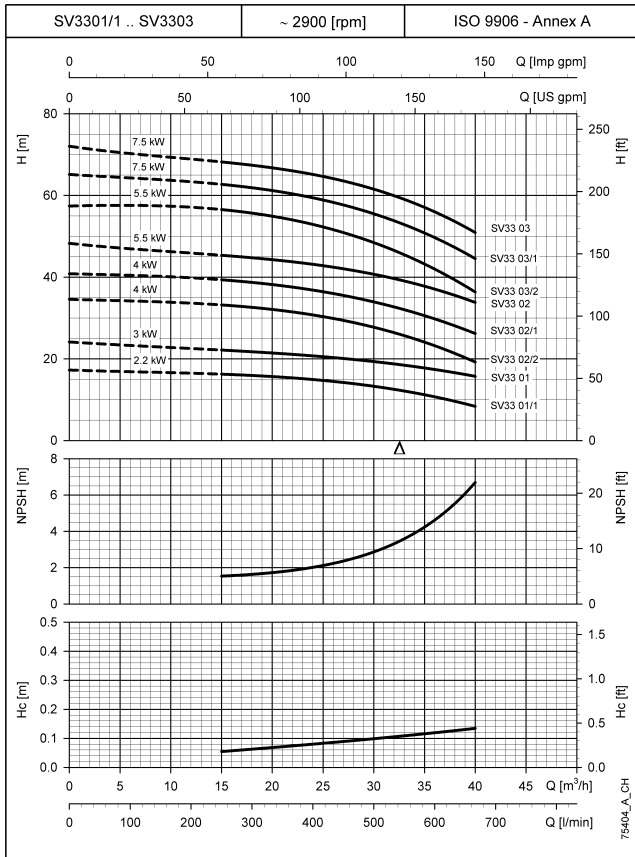
The curves indicate the performance with one pump running. The Δ symbol indicates the reference flow.
 These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
 The NPSH values are laboratory values, for practical use we suggest increasing these values by 0,5 m.
 Hc: Curve showing loss in charge of the non-return valve installed on the head side of the service pump.



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GEN SERIES BOOSTER SETS OPERATING CHARACTERISTICS AT 50 Hz (SERVICE PUMP)



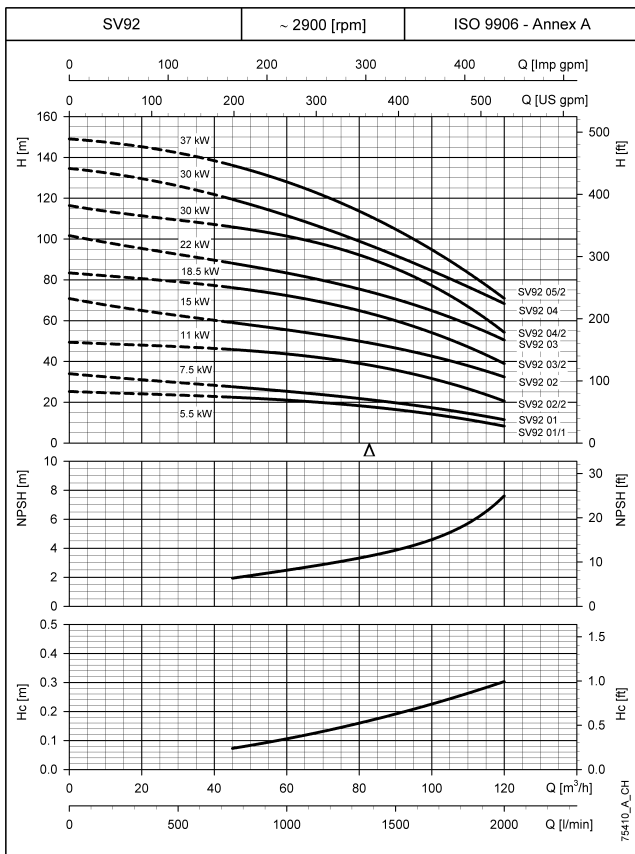
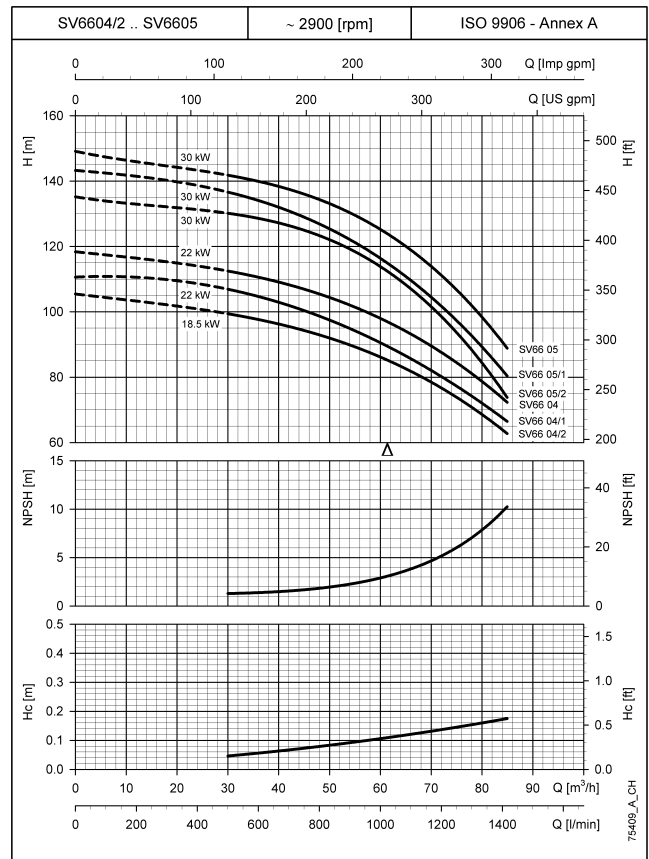
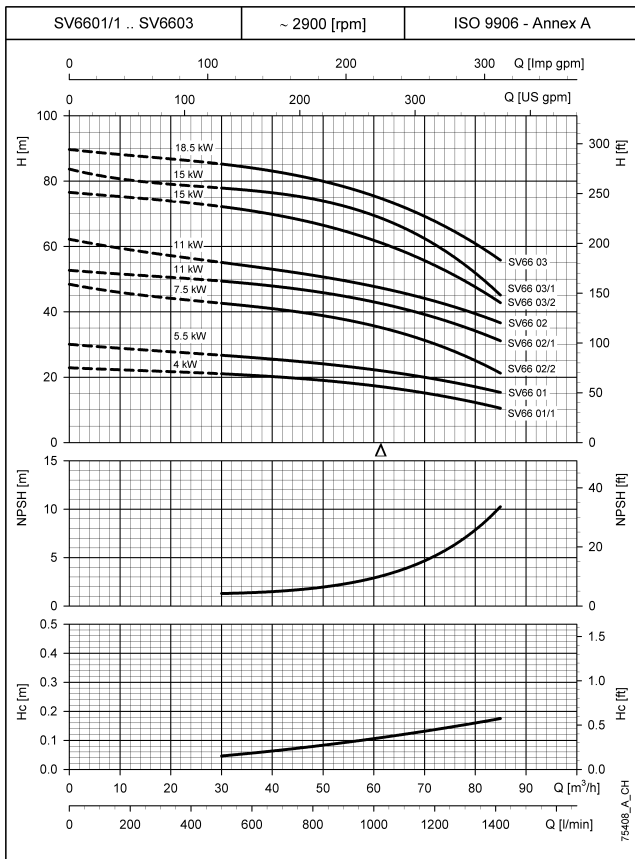
The curves indicate the performance with one pump running. The Δ symbol indicates the reference flow.
 These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
 The NPSH values are laboratory values, for practical use we suggest increasing these values by 0,5 m.
 Hc: Curve showing loss in charge of the non-return valve installed on the head side of the service pump.



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GEN SERIES BOOSTER SETS OPERATING CHARACTERISTICS AT 50 Hz (SERVICE PUMP)



The curves indicate the performance with one pump running. The Δ symbol indicates the reference flow.

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

The NPSH values are laboratory values, for practical use we suggest increasing these values by 0,5 m.

Hc: Curve showing loss in charge of the non-return valve installed on the head side of the service pump.



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ACCESSORIES

DIAPHRAGM TANKS

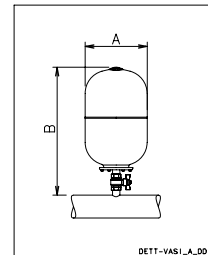
The booster sets are ready for installation, directly on the manifold, of 24-litre diaphragm tanks, one for each pump. The sets are also equipped with caps to close off the unused couplings. Larger tanks can also be connected to the unused end of the discharge manifold. For proper sizing of the tank please refer to the technical appendix.

Kit featuring the following accessories are **available on request**:

- diaphragm tank;
- on-off ball valve;
- operating instructions;
- packaging.

DIAPHRAGM TANK KIT

Volume Litres	PN bar	DIMENSIONS (mm)			Materials		
		ø A	B	Valve	Diaphragm	Vessel	Valve
8	8	205	390	1" FF	EPDM	Painted steel	Nickel-plated brass
24	8	270	555	1" FF	EPDM	Painted steel	Nickel-plated brass
24	10	270	555	1" FF	EPDM	Painted steel	Nickel-plated brass
24	16	270	555	1" FF	EPDM	Painted steel	Nickel-plated brass
24	10	270	575	1" FF	Butyl	Stainless steel	AISI 316 Stainless steel



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DETT-VAS1_A_DD

COUNTERFLANGE KIT

Counterflange coupling kits made of zinc-plated or stainless steel are available on request.

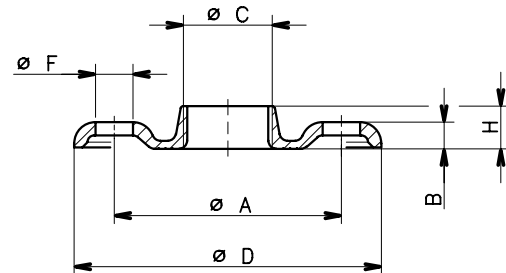
The counterflange kits are equipped with:

- N. 2 flanges.
- gasket and bolts/screws.

THREADED COUNTERFLANGES

KIT TYPE	DN	ø C	DIMENSIONS (mm)				HOLES		
			ø A	B	ø D	H	ø F	N°	PN
2"	50	Rp 2	125	16	165	24	18	4	25
2" 1/2	65	Rp 2 1/2	145	16	185	23	18	4	16
3"	80	Rp 3	160	17	200	27	18	8	16

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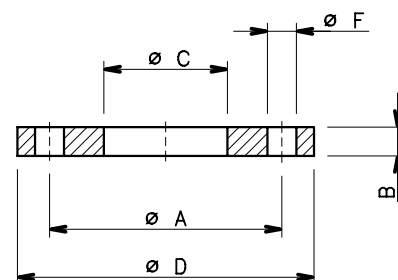


04430_B_DD

WELD-ON COUNTERFLANGES

KIT TYPE	DN	ø C	DIMENSIONS (mm)				HOLES		
			ø A	B	ø D	ø F	N°	PN	
2"	50	61	125	19	165	18	4	16	
2"1/2	65	77	145	20	185	18	4	16	
3"	80	90	160	20	200	18	8	16	
4"	100	116	180	22	220	18	8	16	
5"	125	141,5	210	22	250	18	8	16	
6"	150	170,5	240	24	285	22	8	16	
8"	200	221,5	295	26	340	22	12	16	
10"	250	276,5	355	29	405	26	12	16	
12"	300	327,5	410	32	460	26	12	16	

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04431_A_DD

ACCESSORIES FOR BOOSTER SETS

SUCTION SIDE KIT

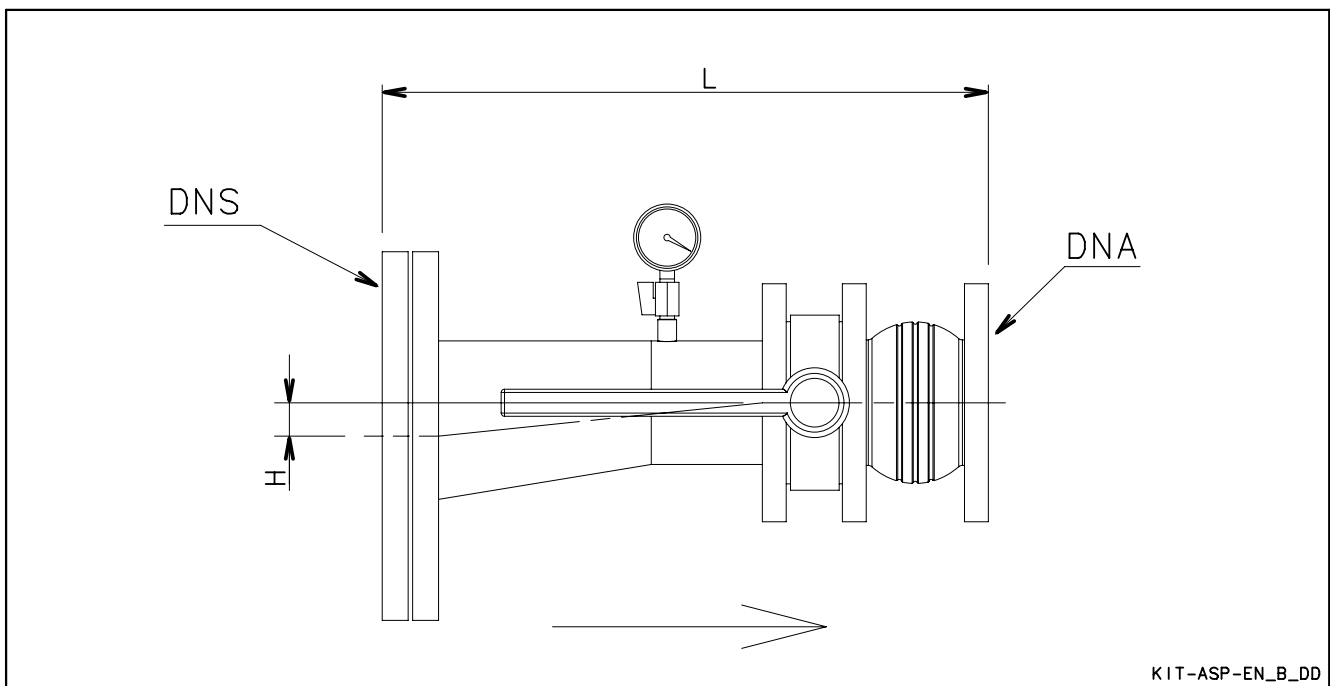
The EN 12845 fire-fighting booster sets are supplied without valves and stubs on the suction side of the service pump and can be completed with suitable kits that depend on legal standards. These requirements are expressed by EN 12845 (chapter 10.5 and chapter 10.6) and are connected with the maximum speed value of the water in the pipes, their minimum section and type of installation - suction lift or positive suction head.

To provide for one suction kit for each duty pump.

The suction side kit are equipped with:

- Expansion joint (must be fixed in the suction side of the pump).
- On/off butterfly valve with lever handle up to DN100 diameter, butterfly valve with handwheel and reduction manual gear for DN125 diameter and above. Monitoring of the ON/OFF status included (Lockable kit available on request).
- Suction flanged pipe.
- Pressure gauge.
- Weld-on flange.

The following table summarises the pump type installed on the fire-fighting sets and the kit that corresponds to the installation type.



PUMP	POSITIVE SUCTION HEAD				SUCTION LIFT			
	DNS	DNA	L	H	DNS	DNA	L	H
SV4	65	32	396	17	65	32	396	23
SV8	65	40	376	14	65	40	376	20
SV16	65	50	369	8	65	50	369	14
SV33	100	65	482	19	100	65	482	19
SV46	100	80	449	13	100	80	449	25
SV66	125	100	472	13	125	100	472	27
SV92	150	100	582	27	150	100	582	27

Dimensions in mm. Tolerance ± 10 mm.

kit-asp-en_b_td

ALARM KIT

The alarm kit is used for providing audible and visual signals for the alarms signalling no line (yellow colour), start-up request (yellow colour), pump working (red colour), no start-up (yellow colour).

In accordance with the EN 12845 standard, the alarms are placed in a permanently supervised room (EN 12845 point 10.8.6.2).

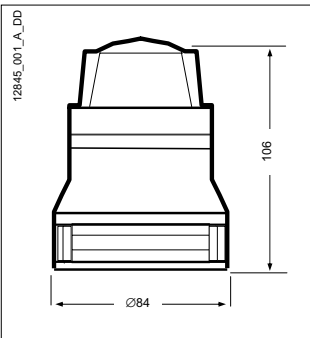
The kit includes:

- 3 integrated audible and yellow flashing visual alarms.
- 1 integrated audible and red flashing visual alarm.

One kit must be used for each service pump.

The alarms are suitable to be connected to the alarm battery electric panel or to an independent power supply source. The electric connections must be seen to by the person installing the equipment.

DESCRIPTION	VALUE
Power supply voltage	12 V cc
Current rating	0,42 A
Dimensions	84 x 106 mm
Protection grade	IP30
Sound	Intermittent or continuous
Light	Flashing or fixed
Colour	Red or yellow



12845-001_A_DD

12845-all-en_a_td

ALARM ELECTRIC PANEL WITH BATTERY AND BATTERY CHARGER

Electric panel for independent power supply of the audible-visual alarms supplied complete with hermetic battery and assembly accessories. Guarantees the independence of the alarm power supply as per legal standard EN 12845, through back-up battery.

The plastic electric panel (transparent cover) with general door-locking switch includes the back-up battery charger and connection terminals.

The kit includes:

- QAL 12856 electric panel complete with brackets for fixing it to the wall and cable glands.
- Back-up battery.
- Battery support bracket for fixing it to the wall.
- Battery connection cable.
- Wiring diagram.
- Packaging.

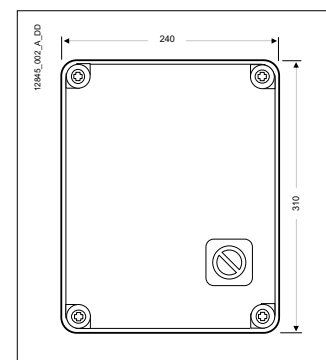
The panel allows two alarm kits to be connected (total of 8 audible-visual alarms), The electric connections must be seen to by the person installing the equipment.

ALARM BACK-UP PANEL

DESCRIPTION	VALUE
Power supply voltage (single-phase)	230V 1~ 50-60 Hz
Current rating *	3,5 A
Dimensions	320 x 240 x 120 mm
Protection grade	IP55
Battery (external)	Hermetic lead
Battery voltage rating	12 Vcc
Battery capacity rating	27 Ah (uncharged in 20 h)
Battery dimensions	170 x 175 x 125 mm
Battery weight	9 kg

* Current rating of battery charger.

12845-tal-en_c_td





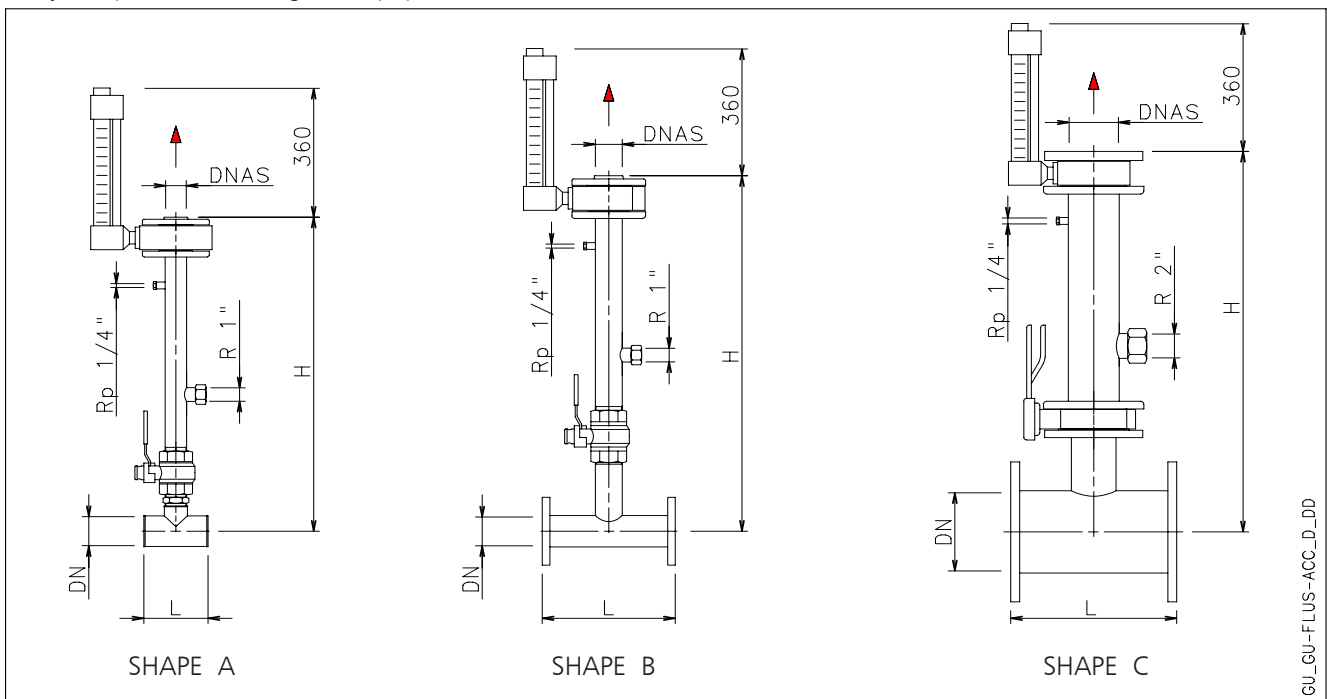
FLOW METER KIT

The flow meter is supplied as part of the assembly kit. The EN 12845 standard requires the presence of the flow meter for checking the hydraulic performance during the test stage and duration periodic inspections.

The kit includes:

- Direct reading flow meter.
- On/off ball valve for diameters up to 2" inclusive, butterfly valve with lever handle from DN65 to DN100 diameter, butterfly valve with handwheel and reduction manual gear for DN125 diameter and above. Monitoring of the ON/OFF status included (Lockable kit available on request).
- Connection piping.

The meter is available in various sizes according to the flow of a service pump and suitable for being connected to the offtake of the head manifold. For a correct match, identify the type as shown in the set size tables. The flow meter must be installed, where possible, in a stretch of piping with a steady flow and sufficient back pressure at the discharge outlet. The assembly and the discharge piping towards the tank and discharge outlet are to be seen to by the person installing the equipment.



GU_GU-F-LUS-ACC_D_DD

TYPE	DIMENSIONS (mm)			Q max (m3/h)	DIMENSIONS (mm)								
	SHAPE	DN	DNAS		Q	L	H						
45	A	25	40	40	76	395	55	C	125	200	1000	340	1345
46	A	32	40	40	90	400	32	B	150	40	40	380	545
1	A	40	40	40	100	405	33	B	150	50	65	380	565
47	A	40	50	65	116	425	15	C	150	80	130	380	655
2	A	50	40	40	105	415	16	C	150	100	250	380	660
3	A	50	50	65	105	435	17	C	150	125	420	380	775
4	B	65	40	40	340	500	28	C	150	150	580	380	900
5	B	65	50	65	340	520	56	C	150	200	1000	380	1380
50	C	65	65	100	340	605	34	B	200	40	40	380	570
48	C	65	80	130	340	810	35	B	200	50	65	380	590
58	C	65	100	250	340	815	18	C	200	80	130	380	680
29	B	80	40	40	340	505	19	C	200	100	250	380	690
6	B	80	50	65	340	525	20	C	200	125	420	380	800
51	C	80	65	100	340	615	21	C	200	150	580	380	925
7	C	80	80	130	340	615	22	C	200	200	1000	380	1170
57	C	80	100	250	340	820	36	B	250	40	40	440	600
30	B	100	40	40	340	520	37	B	250	50	65	440	620
8	B	100	50	65	340	540	38	C	250	80	130	440	705
52	C	100	65	100	340	625	39	C	250	100	250	440	715
9	C	100	80	130	340	625	23	C	250	125	420	440	825
10	C	100	100	250	340	635	24	C	250	150	580	440	950
49	C	100	125	420	340	945	25	C	250	200	1000	440	1195
31	B	125	40	40	340	530	40	B	300	40	40	440	625
11	B	125	50	65	340	550	41	B	300	50	65	440	645
53	C	125	65	100	340	640	42	C	300	80	130	440	730
12	C	125	80	130	340	640	43	C	300	100	250	440	740
13	C	125	100	250	340	650	44	C	300	125	420	440	850
14	C	125	125	420	340	760	26	C	300	150	580	440	975
54	C	125	150	580	340	1085	27	C	300	200	1000	440	1220

Shape A-B: DNAS flange threaded version
Shape C: DNAS flange version to be welded

gu-acc_gu-flus-acc-en_i_td

PRIMING TANK

The priming tank is used in suction lift installations and carries out the function of maintaining the pump body and suction pipe full of water even if there are leaks through the bottom valve. Each pump must have its own independent priming tank, placed at a higher level than the pump. The tank must be connected to a water source for adding water and keeping it full. The diameter of the connecting pipe to the pump depends on the use class. The return piping for re-circulation can be connected to the tank, which must also provide for discharge if it is too full. A level indicator automatically actions the service pump if the level of the tank drops and is not reintegrated. The hydraulic connections must be seen to by the person installing the equipment. The horizontal 500 l tank is made of zinc-plated steel.

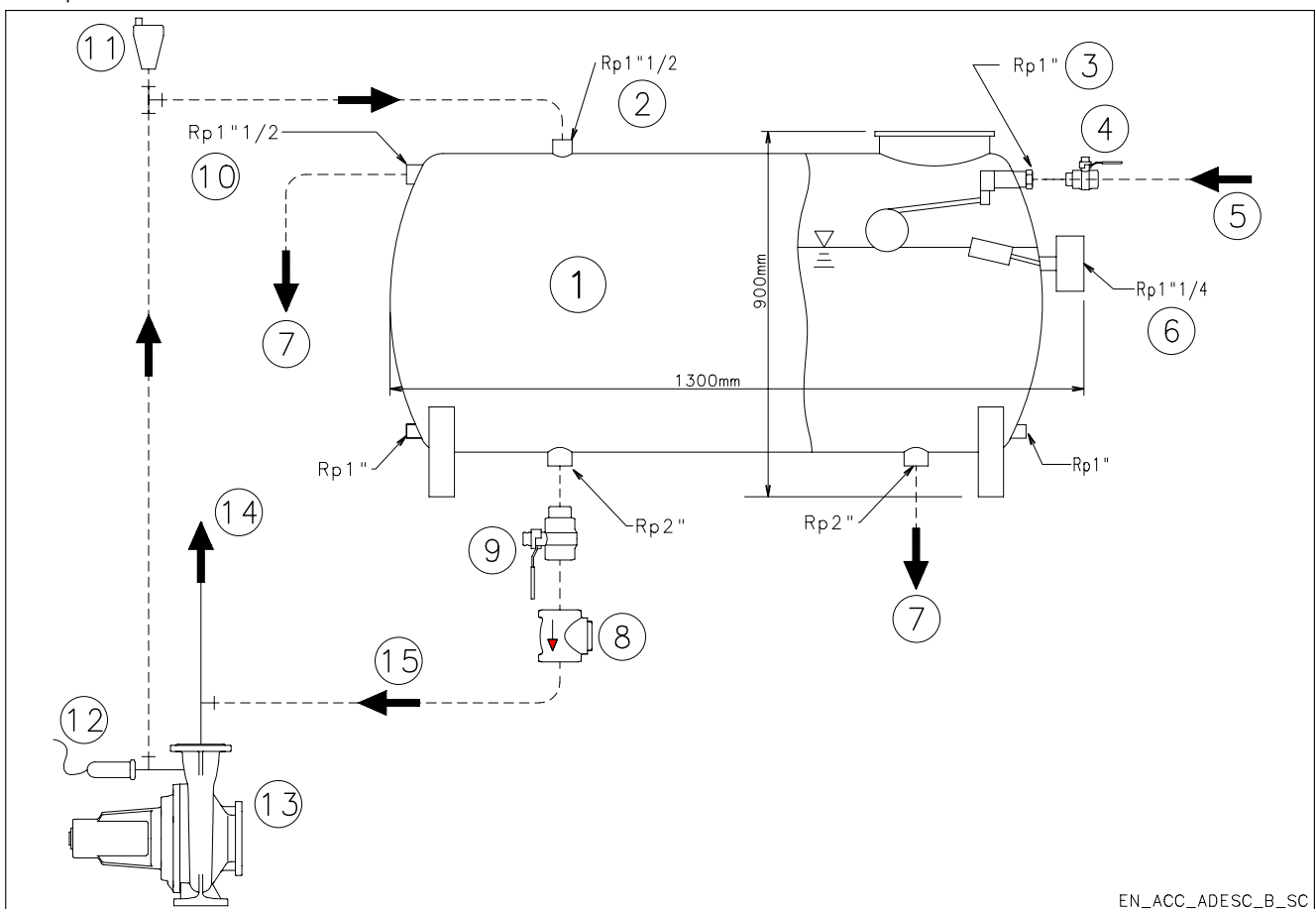
ACCESSORIES PRIMING TANK KIT

The available accessories kit includes:

- Filling and discharge valves, reductions, non-return valve, closing plugs and automatic air discharger.
- Float switch tap complete with ring nut for fixing to the hole through the tank.
- Level indicator to connect to the electric panel and assembly instruction sheet.

Available on request tank support, height 75, 100, 150, 200 cm.

Example of connection to the the tank and accessories:



EN_ACC_ADESC_B_SC

N°	DESCRIPTION	N°	DESCRIPTION
1	Pump priming tank	9	Priming supply on-off valve
2	Pipe return from pump delivery side	10	Over flow
3	Floating valve	11	Pump air bleed
4	In flow on-off valve	12	Pressure switch
5	In flow	13	Pump
6	Low level switch	14	To trunk main
7	Drain	15	Pipe connection to delivery side of the pump
8	Priming supply non return valve		



ELECTRIC JOCKEY PUMP KIT

The jockey pump or compensation pump has the job of keeping the system under pressure and compensating for any small loses without the intervention of the service pumps. In fact, the jockey pump is commanded by an automatic shut-off panel. Should an electric jockey pump of a different size from the standard be required or should it be installed later on sets which are not predisposed, or should non-standard different size requirements be required, it is possible to configure the booster set with just the service pumps and add the electric jockey pump, also later on.

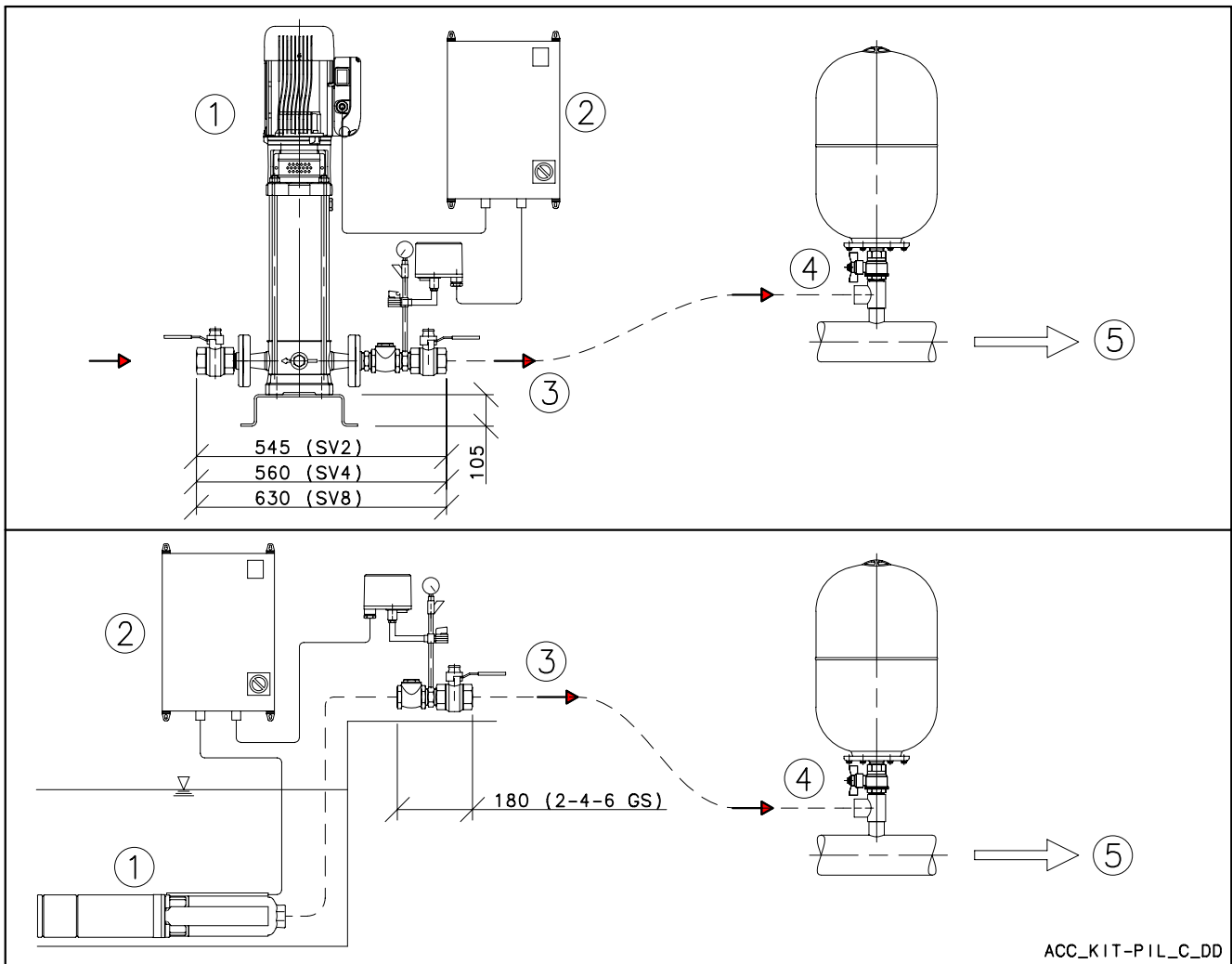
The kit includes:

- the hydraulic components for installing the electric pump (base, valves, pressure switch).
- the pre-chosen electric pump and the relative electric panel.

The hydraulic connection to the set can be easily carried out using one of the couplings on the delivery manifold for the membrane tanks using an adaptor.

Kits are available for the vertical electric jockey pumps SV2, SV4, SV8 series and submersed series 2GS, 4GS, 6GS.

The diagram illustrates some connection examples:



ACC_KIT-PIL_C_DD

N°	DESCRIPTION
1	Electric pump
2	Control Box
3	Connection to trunk main
4	Pipe connection to delivery side of the jockey pump
5	To trunk main

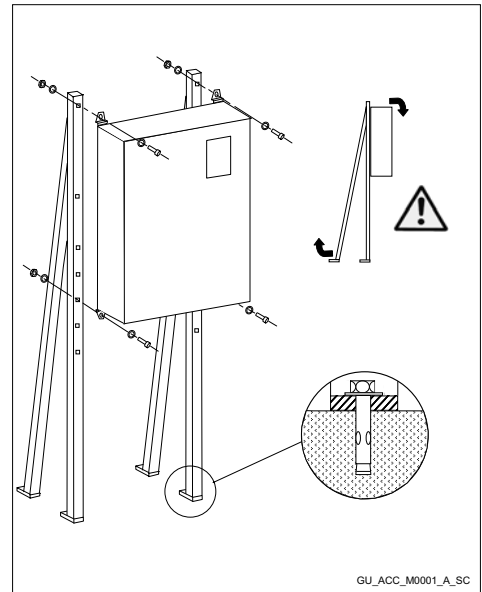


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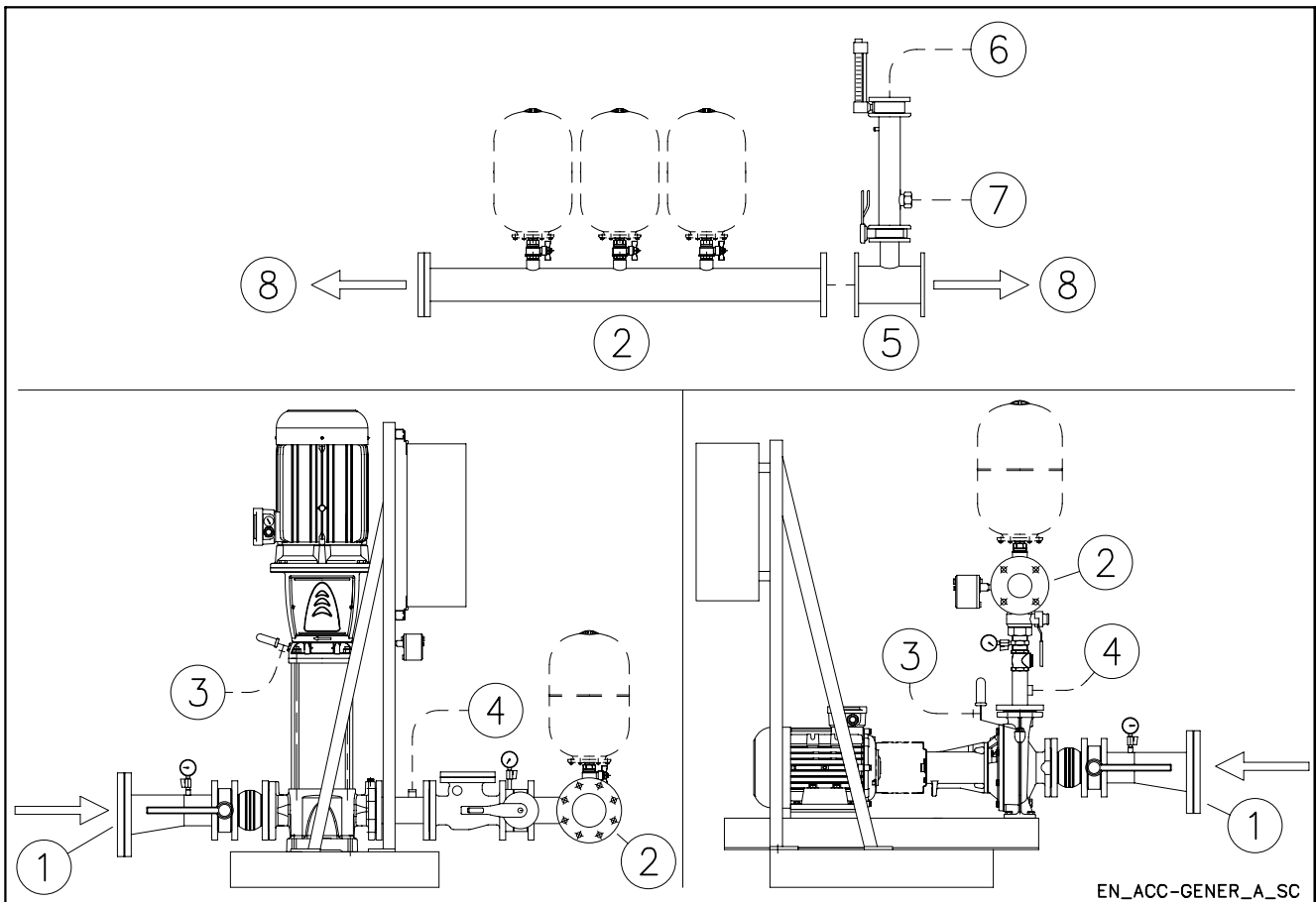
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PANEL BRACKET KIT

The electric command panels supplied separately, for example in the sets with submersed pumps, are suitable for being mounted on the wall. Universal bracket kit are available, upon request, for supporting the panels; it must be fixed to the floor using blocks.



HYDRAULIC CONNECTION FOR FIRE-FIGHTING EN 12845 SETS



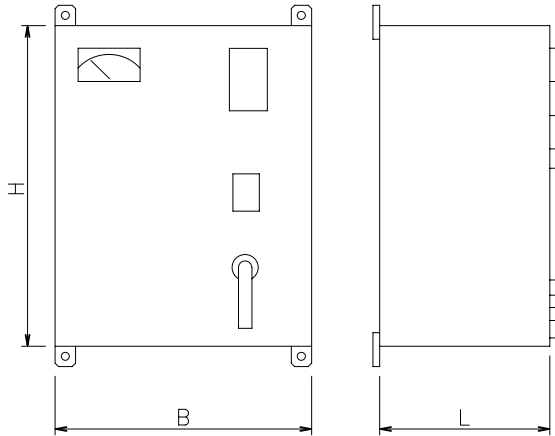
N°	DESCRIPTION	N°	DESCRIPTION
1	Suction piping kit *	5	Flow meter kit *
2	Delivery manifold	6	Drain
3	Drain	7	Open discharge
4	From priming tank *	8	To trunk main

* See the instruction sheets.



COMMAND PANEL DIMENSIONS

SERVICE PUMP PANEL



POWER (kW)	B	L	H
from 0,7 to 7,5	400	200	500
from 11 to 15	400	200	600
from 18,5 to 30	500	200	700
from 37 to 55	600	250	800
from 75 to 90	600	300	1500
from 110 to 132	600	400	1700

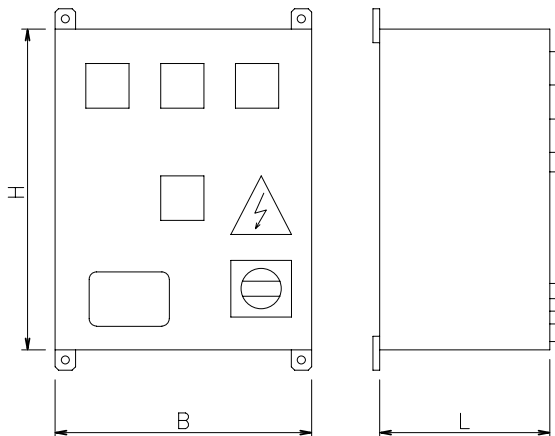
IP55: same dimensions as standard panels

qe-serv-en_b_td

Power over 55 kW: floor cupboard

QE-ELP_B_DD

JOCKEY PUMP PANEL



GRADE	B	L	H
IP54	250	160	300
IP55	250	160	300

qe-pil-en_a_td

QE-PIL_A_DD

GATE VALVE LOCKABLE KIT

The main gate valves on the suction and delivery side of every service pump and in the flow meter kit are lockable. The gate valve lockable kit allows to seal the position of the valves on the wished state.

The kit includes:

- N. 10 plastic seal.



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ACCESSORIES

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ALARMS



FLOAT SWITCHES



VALVES MONITORED



VALVES



HYDROTUBE



FLOW METERS



EXPANSION JOINT



PRESSURE SWITCH



ITT

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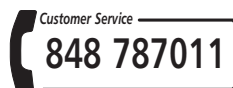
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