Data sheet

Solar Kit of CSE TV ZV G and DV 193

Main Features	
Application	designed to connect a solar thermal system to a hot water storage tank not fitted with an integrated solar heat exchanger; the plate heat exchanger in the kit is used to transfer heat between solar fluid and hot water; DHW circulation is ensured by the CSE TV ZV G pump station, for circulation of solar fluid an S2 solar pump station is needed (not Included).
Description	the kit consists of a DV 193 plate heat exchanger and CSE TV ZV G pump station with UPM3 DHW 15-70 pump, non-return valve and thermometer; kit variants differ in the heat transfer size of the DV 193 plate heat exchanger
Working fluid	water (DHW circuit), antifreeze solar fluid (solar circuit)

Codes	Type of kit	Connection sizes*
16065	CSE TV ZV G + DV 193-20E	2x 3/4" union nut for solar circuit 2x 3/4 " M for DHW circuit
16066	CSE TV ZV G + DV 193-30E	
17148	CSE TV ZV G + DV 193-45E	
17149	CSE TV ZV G + DV 193-60E	

** connection to a solar circuit with 125 mm pitch permitting direct connection to a solar pump station*

Accessory (not included in supply)	
16792	PWM signal cable, l = 2 m

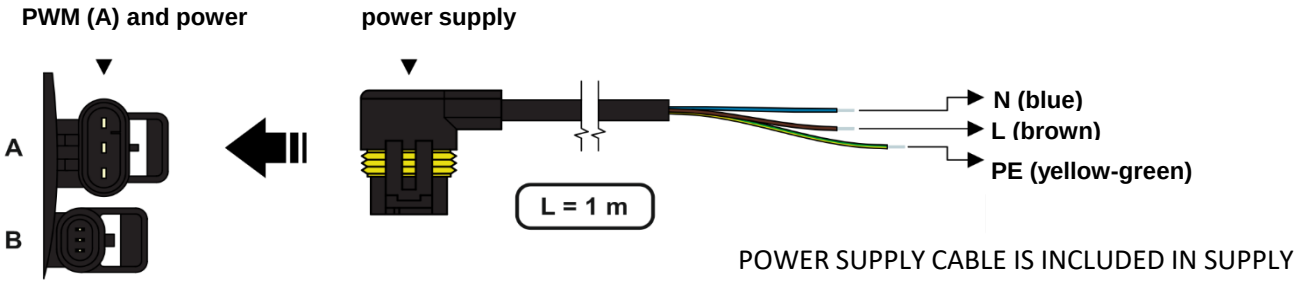
Data for UPM3 DHW 15-70 pump

Technical data	
Working temperature	2 to 95°C
Max. working press.	10 bar
Max. ambient temper.	70°C
Max. rel. humidity	95 %, non condensing

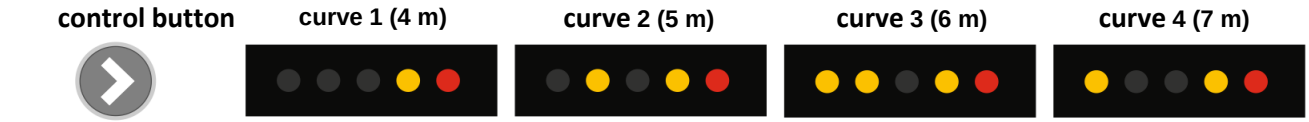
Min. pressures at pump suction port to avoid cavitation	
Min. pressures at suction port	0.5 mH_2O at 75 °C 5,1 mH_2O bar at 95°C

Electric data for UPM3 DHW 15-70 pump	
Power supply	1x 230 V, 50 Hz
Power input (min/max)	2/52 W
Current (min./max.)	0.04/0.52 A
IP rating	IP44
Max. speed	5766 rpm

Electric connection of UPM3 DHW 15-70 pump



Selected profile display during pump operation



→ **when the control button is pressed for less than 2 s, the currently selected curve is shown**
→ **with no PWM signal the pump runs at max. speed**
→ **with PWM signal the pump speed changes with the signal value up to the maximum of the selected curve**

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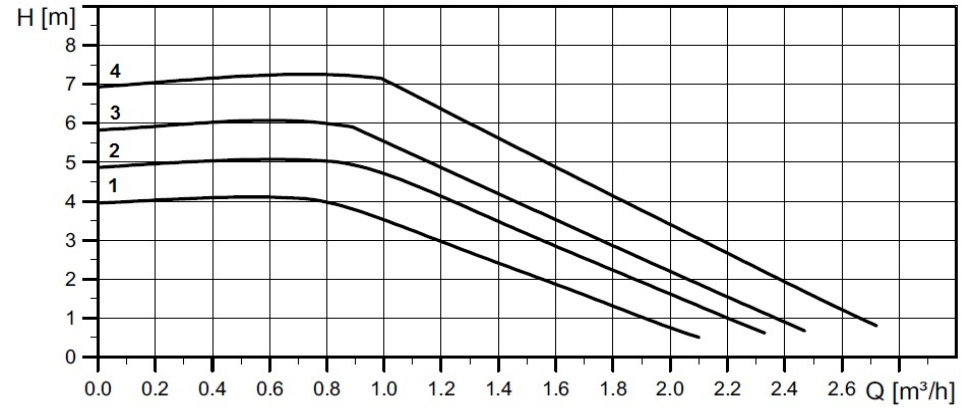
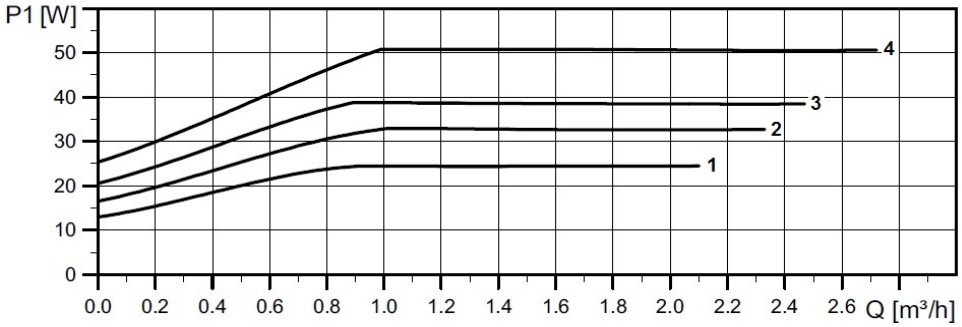
Performance curves of the pump



Curve	Max. H
1	4 m
2	5 m
3	6 m
4	7 m



Curve	Max.P
1	25 W
2	33 W
3	39 W
4	52 W

Data for DV 193 heat exchanger

Technical data

Type	DV 193-20	DV 193-30	DV 193-45	DV 193-60
Number of plates	20	30	45	60
Heat-exch. surface	0.28 sqm	0.42 sqm	0.63 sqm	0.84 sqm

Materials for the kit of CSE TV ZV G and DV 193

Heat exchanger	stainless steel AISI 316 L, copper soldered
Pump housing	polyphenylensulfid (PPS)
Heat exchanger insulation	EPDM
Pump station insulation	EPP RG 60 g/l

Recommended sizes of R0BC tanks and number of collectors for various kit variants

Pump station	Heat exchanger	No. of collectors	Min. tank size	Max. tank size
CSE TV ZV G	DV 193-20	1	R0BC 200	R0BC 200
		2	R0BC 200	R0BC 300
		3	R0BC 300	R0BC 500
	DV 193-30	4	R0BC 400	R0BC 750
		5	R0BC 500	R0BC 750
	DV 193-45	6	R0BC 750	R0BC 1000
		7	R0BC 750	R0BC 1000
		8	R0BC 1000	R0BC 1500
	DV 193-60	9	R0BC 1000	R0BC 1500
		10	R0BC 1000	R0BC 2000

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Pressure drop for separate heat exchangers