

Technical Datasheet – CapSub4 | System 1 | 60-75

CapSub4 System 1 60-75 is a complete bore pumping and control system - designed and configured by the manufacturer, and delivered complete with everything you need for DIY installation.

Best Suited to: Medium to two storey home and garden

Control

CapSmart-IPS (Intelligent Pressure Switch) - An automatic pump control system with advanced protection features:

- Fully automatic on/off electronic control
- Simple digital interface for display and setup
- Realtime display of Pressure and Current (Amps)
- Alarm Log for Diagnostics and Testing
- Advanced Protection against dry run, anti-seizure, antifreeze and over-pressurization
- Unique current sensing technology prevents motor burnout
- Standard 10amp 3 pin 240v power connection - Plug directly into standard powerpoint.

For more information on the CapSmart IPS, refer to the operating manual at:

<http://www.capsub.com.au/pages/techlibrary.aspx>

Pumping Power

The E4XP Series pump platform is newly designed from the ground-up, using the latest technology, materials and patented design innovations to deliver the most efficient, longest service life submersible pumps available.

The E4XP 30/16 Features:

- Desert Sand Out System[®] - delivers best in class capabilities for sandy bores, and can handle up to 300 gm³ of solids (twice the industry standard) with no deterioration in service life.
- Defender[®] - Integrated Galvanic Corrosion System protects the pump and motor from galvanic corrosion by passivating stainless steel components.
- Easy-Check[®] - Combining a unique low headloss check valve for improved flow, and innovative sealing and assembly system to extend pump life, avoid the possibility of the check valve jamming, and simplify inspection and maintenance
- Micro-cast Stainless Steel Pump Ends
- Fully enclosed Pump shaft
- Fully dismountable pump end

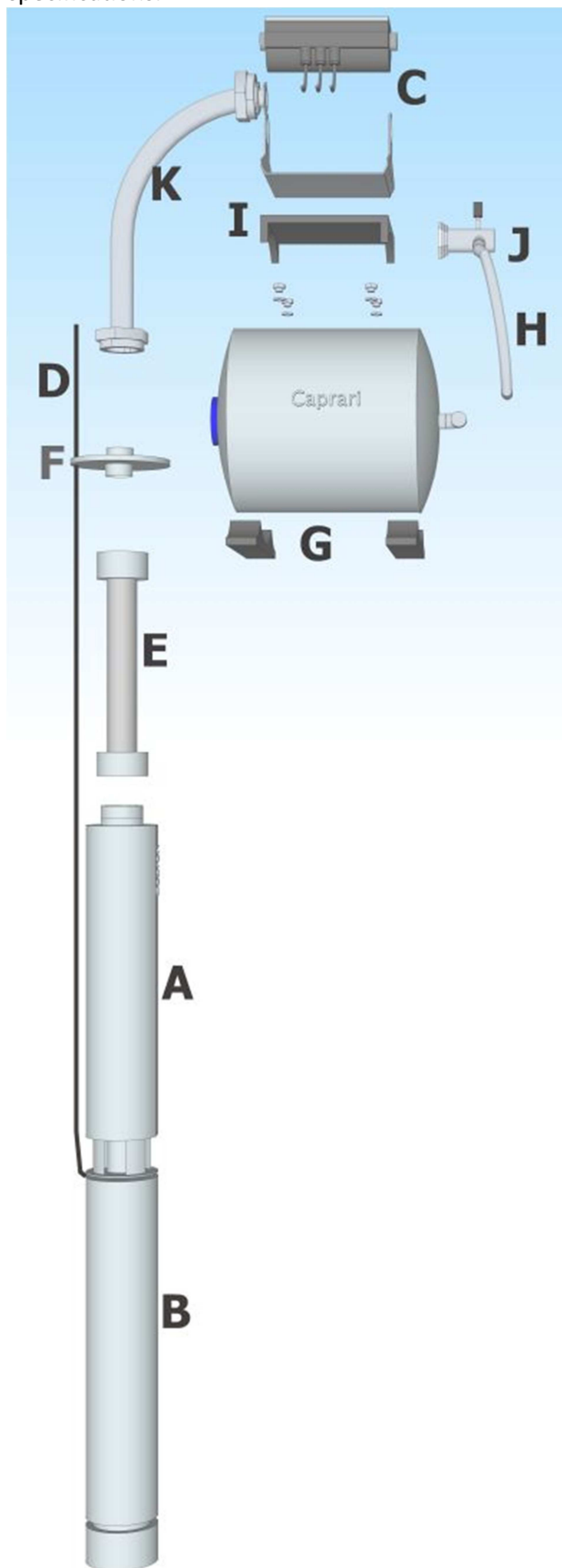
Performance Data

Flow	l/min	0	30	36	42	48	54	60	66	72	78	84	90
Head	m	103	91.5	89	86	83	79.5	75	69.5	64	58	51	43.5
Flow	gph	0	396	475	554	634	713	792	871	950	1,029	1,109	1,188
Head	feet	338	300	292	282	272	261	246	228	210	190	167	143

For Performance Curve and additional performance detail refer to page 3.

System in Detail – CapSub4 | System 1 | 60-75

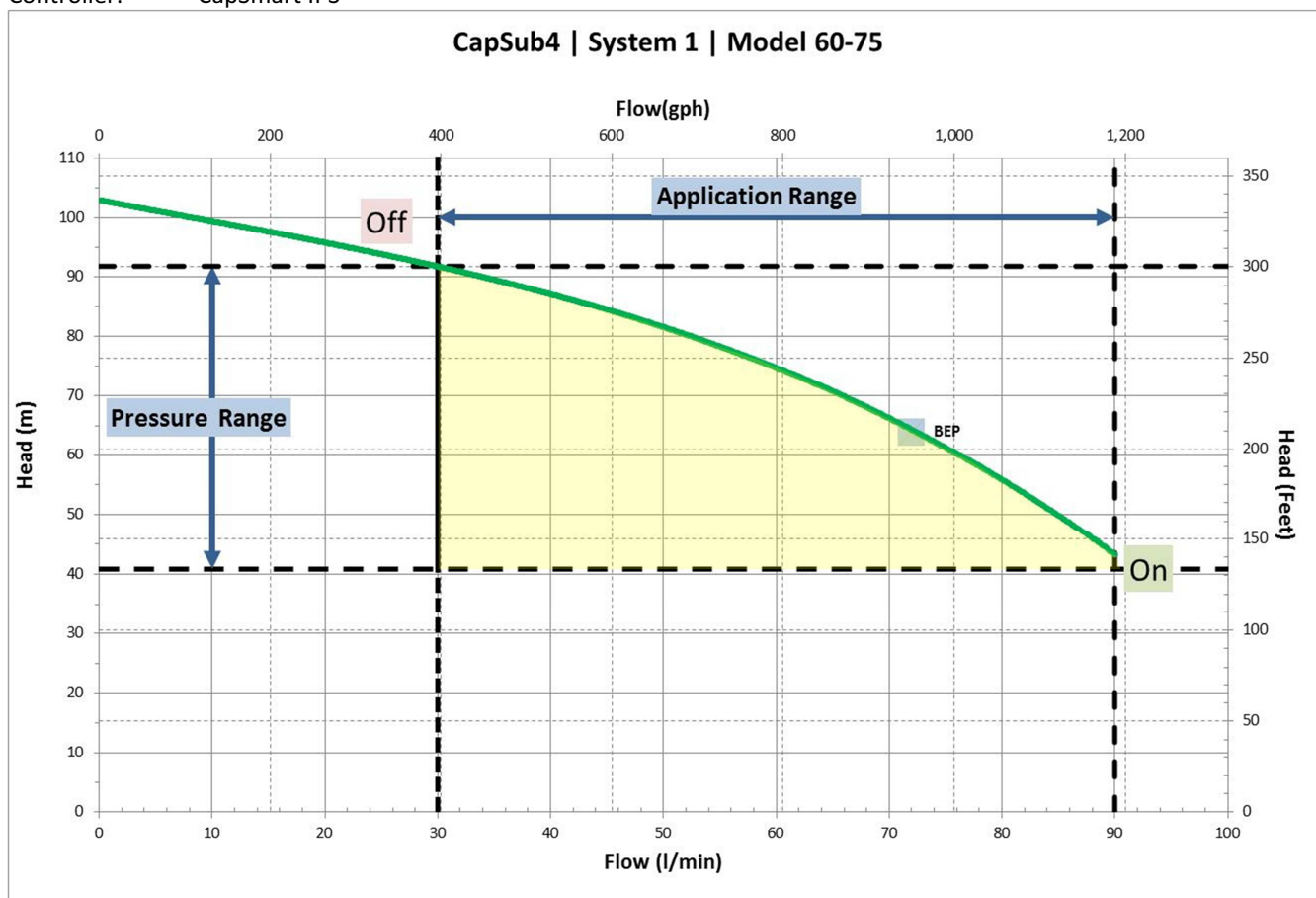
Every CapSub System includes everything you need for simple installation. It's professionally pre-wired, internally pre-plumbed with the pump unit, power supply and rising main configured to match your supplied bore specifications.



System	1
Model	60-75
Suitable for	Medium to Two Storey Home and Garden
Comes with everything you need	✓
Pumping Power	
A Caprari E4XP Series Pump Model	30/16
B Motor Model	4R204
Motor P2 Power (kW)	1.1
Max in-bore diameter (suits 4")	98mm
Controller	
C Controller Model	CapSmart IPS
Automatic On/Off Control	✓
Current sensing technology (Pump & Motor Protection)	✓
Plug and Play - 240v 10 Amp 3 Pin "IN" (2m Length)	✓
Power Out, to Motor	240V, 1 Phase
The Pump	
Galvanic Defender ® Corrosion Protection	✓
Easy Check ® High Flow Check Valve	✓
Desert Sand ® (Sand Protection system to 300gm3)	✓
Down the Bore	
D Electrical Drop Cable (High Quality Rubber Submersible rated)	2C+E 1.5mm
E Flexibore 100 Series Flexible Rising Main, c/- Stainless Steel Couplings	✓
Flexible Rising Main Size	32mm
Pump and Motor Suspension	Not Independently Required - Flexibore is designed to suspend the pump
F Solid Stainless Steel Bore Cap (Adjustable) - Suit Bores	4-6"
Bore Cap Outlet (Threaded)	1 1/4"
Additional Plumbing and Components	
Fits inside Std "Polyslab" Pump Cover	✓
G 18L Horizontal Pressure Tank	✓
H Connection Kit 316SS	1"
I Bracket	25 SS
J Delivery Connection (BSP)	32mm / 1 1/4"
K Flexible Swept Bend in Stainless Steel, c/- Unions	1 1/4"
Performance Characteristics	
Metric	
Max Head (m)	102
Max Flow (l/min)	90
Output at BEP	60 l/min @ 750 kPa
Imperial	
Max Pressure (psi)	145
Max Flow (gph)	1200
Output at BEP	800 gph @ 109psi

Performance Data – CapSub 4 | System 1 – 60-75

Pump Model: E4XP 30/16
Motor: 4R204
Controller: CapSmart IPS



Application Range 30 - 90 l/min | 396-1188 gph

Pressure Range 400kpa (ON) - 900 kpa (OFF) | 58psi (ON) - 131psi (OFF)
41m (ON) - 92m (OFF) | 134 Feet (ON) - 301 Feet (OFF)

How to read the Application Curve

This Application Curve defines the performance and application range of CapSmart IPS controller paired with Caprari E4XP 30/16 Submersible Pump and 4R204 Motor.

When flow demand is within the Application Range the controller runs the pump constantly, delivering pressure equivalent of the pump curve (the green line).

CapSmart IPS will switch the pump off when system pressure reaches the top of the pressure range (this will occur when, for example, a tap has been turned off). When system pressure falls below the bottom of the pressure range, the pump is switched on.

Using your own details

Plot the Total Dynamic Head* of your water delivery system against the vertical axis. Read across to the Pump Curve (the green line) to determine flow delivery. The closer to BEP (Best Efficiency Point) on the curve, the closer to the pump's optimal operating range.

*Calculate Total Dynamic Head for your bore installation using the CapSub selection tool:

<http://www.capsub.com.au/pages/SelectionGuide.aspx>

CapSub4 - System 1 - 60-75

Requested data

Flow	0 l/s
Head	0 m
Fluid	Clean Water
Pumpe type	Single head pump
No. of pumps	1

Operating pump data

Flow	
Head	
Shaft power	
Efficiency	%
Head H(Q=0)	103 m
Discharge connection	1 1/4"

Motor data

Frequency	50 Hz
Rated voltage	400 V
Nominal speed	2820 1/min
Number of poles	2
Rated power P2	1.1 kW
Rated current	2.8 A
Motor type	3~
Insulation class	B
Degree of protection	IP 68

Operating limits

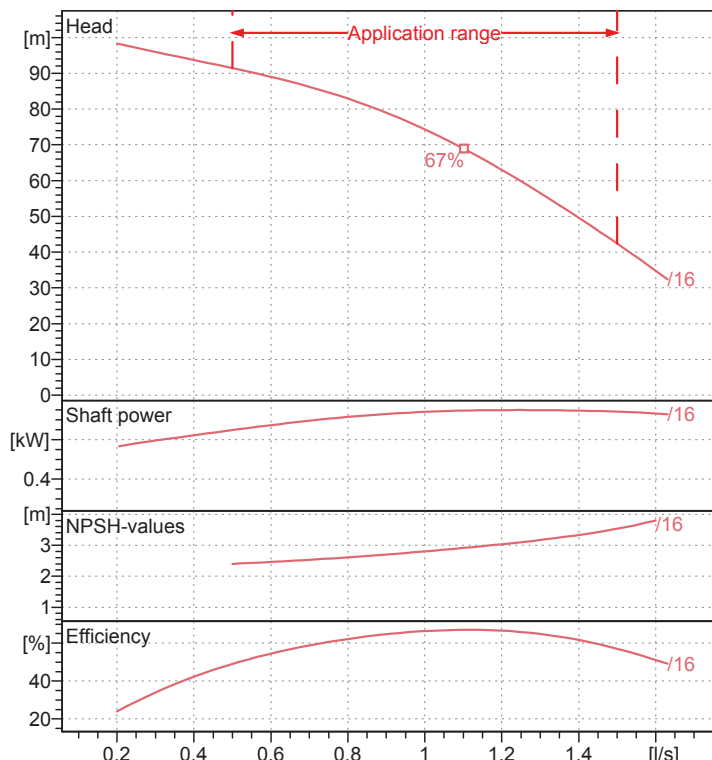
Starts per hour max.	20
Maximum temperature of pumped fluid	30 °C
Maximum content of solid	150 g/m³
Max. Density	998 kg/m³
Max. viscosity	1 mm²/s

General data

Weight	15.6 kg
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Materials

PUMP CONSTRUCTION	
Suction and delivery body	AISI 304 Precision cast stainless steel
Outer shell	AISI 304 Stainless steel
Shaft	AISI 304 Stainless steel
Protective bushing	Chromed, precision cast AISI 304
Impeller	Thermoplastic resin
Diffuser	Thermoplastic resin
Insert, middle disc and stage shell	AISI 304 Stainless steel
Transmission coupling	AISI 316 Stainless steel
Cable guard	AISI 304 Stainless steel
Cone strainer	AISI 304 Stainless steel
Swing check valve with spring return	
MOTOR CONSTRUCTION	
Upper bearing	Protected by a stainless steel cover
Shaft	Stainless steel
Outer shell	Stainless steel
Seal on shaft, external	Ring with rubber lip
Seal on shaft, internal	Mechanical in ceramic/graphite
Guide-Thrust bearing	Ball bearing steel



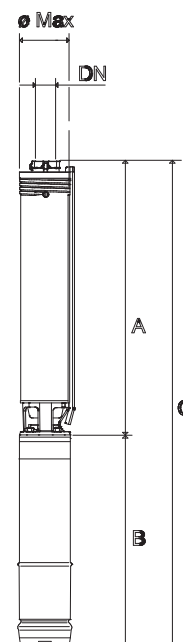
Operating data

ISO 9906-A

Q [l/s]	H [m]	P [kW]	Eff. [%]	NPSH [m]

A = 618
B = 420
C = 1038
DN = G1 1/4"
ø Max = 98

Dimensions mm



Remarks:

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