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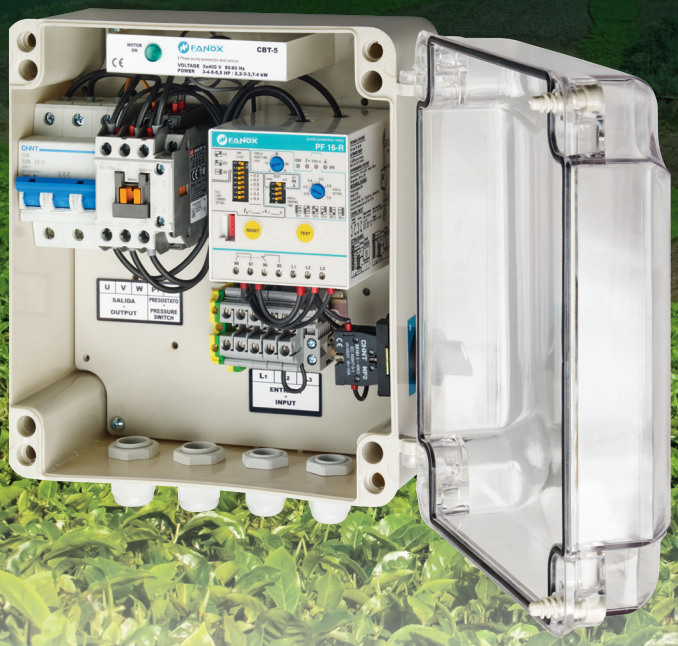

DAVEY
Borehole

Model Numbers:
CBM2, CBM3, CBT1, CBT2, CBT5

APPLICATIONS

Ideal for protecting borehole pumps against dry running without using level electrodes, borehole pump control application. Can be used for surface pumps in some cases.

BOREHOLE MOTOR PROTECTION CONTROL PANELS

FEATURES & BENEFITS

Davey's Fanox Protection Control Panels offer a comprehensive solution for single and three-phase control and protection of submersible pumps in domestic, industrial and agricultural installations.

Single phase models monitor current and voltage to ensure motors are protected from:

- Overload
- Underload
- Dry running

Three phase models add phase angle measurement to provide even more accurate protection in closed head or dry run circumstances.Three phase maodels also include:

- Phase loss or imbalance protection
- Incorrect phase sequence (direction of rotation) protection

Borehole Accessories

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SINGLE PHASE PANELS – CBM2 & CBM3

Main Advantages:

- Thermal memory that memorises heating and cooling cycles of the motor
- Automatic reset, adjustable from 2 to 240 minutes
- Indication of tripping cause
- Control point for pressure switch, float switch, etc.
- Includes: circuit breaker 1P+N, PS electronic relay, contactor, LED's and on/off switch

Protection against:

- Dry running by monitoring undercurrent
- Overload with thermal memory
- Overvoltage (+ 15%)
- Short-circuit

Models	IP Rating	Approx. motor current (Amps)	Power of single-phase 230V motor		Adjustable well filling time (minutes)	Protections				Dimensions (mm)	Suit Davey Borehole Motors
			HP	kW		I <	I >	U >	I >>		
CBM2	54	3 – 11	0.5 – 1.5	0.37 – 1.1	2 – 70	✔	✔	✔	✔	230 x 250 x 150	DM1037W2, DME1037W2, DM1037, DME1037, DM1055W2, DME1055W2, DME1075W2, DM1075, DME1075, DM1110W2, DM1110, DME1110
CBM3	54	11 - 16	2.0 – 3.0	1.5 – 2.2	2 – 240	✔	✔	✔	✔	230 x 250 x 150	DM1150, DME1150, DM1220, DME1220

THREE PHASE PANELS – CBT1, CBT2 & CBT5

Main Advantages:

- Thermal memory that memorises heating and cooling cycles of the motor.
- Automatic reset for well filling and adjustable from 2 to 75 minutes.
- Indication of tripping cause.
- Control point for pressure switch, float, switch, etc.
- Includes: circuit breaker 3P or 3P+N, PF electronic relay, contactor, LED's and on/off switch.

Protection against:

- Dry running by monitoring cos φ
- Overload with thermal memory
- Phase loss/imbalance
- Incorrect phase sequence
- Short-circuit

Models	IPR Rating	Approx. motor current (Amps)	Power of three-phase 400V motor		Adjustable well filling time (minutes)	Protections					Dimensions (mm)	Suit Davey Borehole
			HP	kW		cos φ	I >			I >>		
CBT1	54	1.1 - 2	0.5 - 1.0	0.37 - 0.75	2 – 75	✔	✔	✔	✔	✔	230 x 250 x 150	DM3037, DME3037, DM3055, DME3055, DM3075, DME3075
CBT2	54	2.8 - 3.8	1.5 - 2.0	1.1 - 1.5	2 – 75	✔	✔	✔	✔	✔	230 x 250 x 150	DM3110, DME3110, DM3150, DME3150
CBT5	54	5.5 - 9.5	3.0 - 5.5	3.0 – 4.0	2 - 75	✔	✔	✔	✔	✔	230 x 250 x 150	DM3220, DME3220, DM3400, DME3400

PROTECTION DEFINITIONS	
I <	Dry running by monitoring undercurrent
I >	Overload with thermal memory
U >	Overvoltage (+15%)
cos φ	Dry running by monitoring the phase angle (cos φ)
	Phase loss/imbalance
	Incorrect phase sequence
I >>	Short-circuit

H/O & MFG SCORESBY
Certified System Quality ISO 9001
Certified System Environment ISO 14001

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