

Panels for SUBMERSIBLE Pumps

THREE PHASE PUMPS

- Thermal memory of motors heating and cooling cycles.
- Automatic reset for well filling. Adjustable from 2 to 75 minutes.
- Trip cause indication.
- Control point for pressure switch, buoy, programmer...
- Includes: circuit breaker 3P or 3P+N, PF-R electronic relay, contactor, LEDs and on/off switch.
- Models with plastic case. Also include voltmeter, ammeter and φ meter.

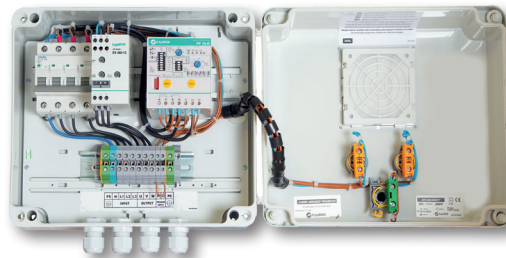
The cosine of phi (Cos φ) is the value of the cosine of the phase angle between the voltage and the intensity of the electrical current. This oscillates from a value slightly below 1 for a full load operating motor to almost 0 when it is dry running.

Therefore, in dry running situations, cos φ falls significantly. This reduction is monitored by the PF-R relay installed in FANOX three-phase protection panels, meaning that when it falls beneath the adjusted value, the panel shuts down the pump and protects it from damage.

- IP 55

WITHOUT LEVEL SENSORS

CBT



PROTECTION FUNCTIONS

- cos φ Underload
- $I >$ Overload
- Δ Phase imbalance or phase loss
- (φ) Phase sequence
- $I >>$ Short-circuit

Ref.	Code		Adjustable well filling time (min)	I _b (A)	Motor		Protections - Functions					Dimensions
	230V	400V			HP	kW	I >	cos φ	(φ)	Short circuit	Δ	
CBT-1/P	12301P-230		2 - 75	2 - 6,8	0,5 - 1,5	0,37 - 1,12	✓	✓	✓	✓	✓	230x250x150
CBT-2/P	12302P-230		2 - 75	6,8 - 9,6	1,5 - 2	1,12 - 1,5	✓	✓	✓	✓	✓	230x250x150
CBT-3/P	12303P-230		2 - 75	9,6 - 15,6	2 - 3	1,5 - 2,2	✓	✓	✓	✓	✓	230x250x150
CBT-5/P	12305P-230		2 - 75	15,6 - 22	3 - 5,5	2,2 - 4	✓	✓	✓	✓	✓	230x250x150
CBT-7/P	12307P-230		2 - 75	22 - 28	5,5 - 7,5	4 - 5,5	✓	✓	✓	✓	✓	230x250x150
CBT-10/P	12310P-230		2 - 75	28 - 37	7,5 - 10	5,6 - 7,5	✓	✓	✓	✓	✓	230x250x150
CBT-15/P	12315P-230		2 - 75	37 - 42	10-15	7,5 - 11	✓	✓	✓	✓	✓	230x250x150
CBT-20/P	12316P-230		2 - 75	42 - 56	15 - 20	11 - 15	✓	✓	✓	✓	✓	300x400x220
CBT-25/P	12317P-230		2 - 75	56 - 68	20 - 25	15 - 18,5	✓	✓	✓	✓	✓	300x400x220
CBT-30/P	12318P-230		2 - 75	68 - 80	25 - 30	18,5 - 22	✓	✓	✓	✓	✓	400x600x200
CBT-1/P		12301P-400	2 - 75	1,1 - 2	0,5 - 1	0,37 - 0,75	✓	✓	✓	✓	✓	230x250x150
CBT-2/P		12302P-400	2 - 75	2 - 3,8	1 - 2	0,75 - 1,5	✓	✓	✓	✓	✓	230x250x150
CBT-3/P		12303P-400	2 - 75	3,8 - 8,5	2 - 4,5	1,5 - 3,3	✓	✓	✓	✓	✓	230x250x150
CBT-5/P		12305P-400	2 - 75	8,5 - 9,5	4,5 - 5,5	3,3 - 4	✓	✓	✓	✓	✓	230x250x150
CBT-7/P		12307P-400	2 - 75	9,5 - 13	5,5 - 7,5	4 - 5,5	✓	✓	✓	✓	✓	230x250x150
CBT-10/P		12310P-400	2 - 75	16,5	10	7,5	✓	✓	✓	✓	✓	230x250x150
CBT-15/P		12315P-400	2 - 75	16,5 - 24	10 - 15	7,5 - 11	✓	✓	✓	✓	✓	230x250x150
CBT-20/P		12316P-400	2 - 75	24 - 32	15 - 20	11 - 15	✓	✓	✓	✓	✓	300x400x220
CBT-25/P		12317P-400	2 - 75	32 - 40	20 - 25	15 - 18,5	✓	✓	✓	✓	✓	300x400x220
CBT-30/P		12318P-400	2 - 75	40 - 47	25 - 30	18,5 - 22	✓	✓	✓	✓	✓	400x600x200
CBT-40/P		12319P-400	2 - 75	47 - 64	30 - 40	22 - 30	✓	✓	✓	✓	✓	400x600x200
CBT-50/P		12320P-400	2 - 75	64 - 79	40 - 50	30 - 37	✓	✓	✓	✓	✓	400x600x200
CBT-60/P		12332P-400	2 - 75	79 - 92	50 - 60	37 - 45	✓	✓	✓	✓	✓	400x600x200

- Equipment with halogen-free wiring