Selecting your BELUK power factor control relay

Function	Feature	CXD Edition2	CX Edition2	CM R 2.7.x	CM 3phase 2.7.x	CM T/RT 2.7.x
Control variable	average kVAr of fundamental wave	x	x	x	x (separate per phase)	x
	actual kvar of fundamental wave	-	-	-	-	x (real time)
Control mode	Best Fit	x	x	x	x	x
	LiFo	-	x	x	x	x
	combined filter	-	x	x	x	x
	progressive	x	x	x	x	x
	FAST (real time)	-	-	-	-	x
Special features	- automatic detection and correction of phases	x	x	x	x	x
	- automatic detection and correction of CT polarity	x	x	x	x	x
	- automatic detection of connected exits	x	x	x	x	x
	- automatic detection of capacitor sizes	x	x	x	x	x
	- overvoltage protection	x	x	x	x	x
	- undervoltage protection	x	x	x	x	x
	- Harmonic overload protection	x	x	x	x	x
	- overtemperature protection	-	x	x	x	x
Measuring values	cos phi (DPF, displacement power factor)	x	x	x	3x	x
	PF (Lambda, Power Factor)	x	x	x	3x	x
	V	x	x	x	x	x
	A	-	x	x	3x	x
	kVA	-	x	x	3x	x
	kW	-	x	x	3x	x
	kvar	-	x	x	3x	x
	Hz	-	x	x	x	x
	delta Q (kvar to reach target)	-	x	x	3x	x
	THD I	-	-	x	3x	x
	2nd - 31st harmonic of current	-	-	x	3x	x
	THD U	x	x	x	x	x
	3rd - 19th harmonic of voltage	-	x	2nd- 31st	2nd- 31st	2nd- 31st
	°C	-	x	x	x	x
Displayed information	°C max	-	x	x	x	x
	OPH (operation hours)	-	x	x	x	x
	switch cycles per step	x	x	x	x	x
	capacitor size	x	x	x	x	x
	exit status indication	x	x	x	x	x
	APF (average power factor)	-	x	x	x	x
	kvarh, kWh (imp., exp)	-	-	x	x	x
Voltage supply	separate AC supply	-	o	x	x	x
	separate DC supply	-	o	-	-	-
	supply combined with measuring voltage	x	x	-	-	-
	Range	360-480V	100-550V	110/230V	110/230V	110/230V
Voltage measuring	range	360-480V	110-550V	50 - 530V	50 - 530V	50 - 530V
Current measuring	range	15mA - 6A	15mA - 6A	15mA - 6A	3x 15mA - 6A	15mA - 6A
Temperature measuring	measuring by internal NTC	-	-	x	x	x
	measuring by external NTC	-	x (NTC is an accessory)	-	-	-
	overtemp signal by temperature switch	-	x (switch is an accessory)	-	-	-
Digital input	100V - 250V AC	-	-	x	x	x
	voltfree	-	x temp-sensor input	-	-	-
	24VDC	-	-	o	o	o
Exits	number of control exits	4R / 6R / 8R / 10R / 12R / 14R	4R / 6R / 8R / 10R / 12R / 14R / 6T /12T	6R / 12R	6R / 12R / 6T /12T / 6R6T	6R / 12R / 6R6T
	alarm contact	by using a control exit	N/C	C/O	C/O	C/O
	fancontrol	-	x (when NTC is connected a control exit can be used)	x by digital output	x by digital output	x by digital output
Alarm and monitoring system	control alarm	x	x	x	x	x
	undervoltage	x	x	x	x	x
	overvoltage	x	x	x	x	x
	overtemperature switch-off	-	x	x	x	x
	fancontrol	-	x	x	x	x
	defective steps	x	x	x	x	x
	THD U Alarm	x	x	x	x	x
	THD U switch-off	x	x	x	x	x
	THD I Alarm	-	-	x	x	x
	THD I switch-off	-	-	x	x	x
	maintenance alarm	-	x	x	x	x
	over current alarm	x	x	x	x	x
	low current alarm	x	x	x	x	x
	cosphi - alarm	-	-	x	x	x
	digital input alarm	-	x	x	x	x
	KW overload	-	-	x	x	x
	KVAR overload	-	-	x	x	x
	KW export	-	x	x	x	x
Data logging	alarm-history	-	-	o	o	o
	setup-history	-	-	o	o	o
	realtime-clock	-	-	o	o	o
Interface	serial interface (TTL)	x	x	x	x	x
	Modbus RTU	o	o	o	o	o
Display		LCD with backlit	LCD with backlit	LCD with backlit	LCD with backlit	LCD with backlit
Connection	plugable terminal blocks screwtype	x	x	x	x	x
	spring type terminals	-	-	-	-	-
Protection class of front		IP54	IP54	IP54	IP54	IP54

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x = available

o = optional

- = not available

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