


Compliance to:

2014/35/EU (Low Voltage)
 2014/30/EU (electromagnetic compatibility)
 2011/65/CE (RoHS directive)
 2015/863/CE
 2017/2102/CE
 2012/19/CE (RAEE directive)

Reference standards:

EN 61010-1:2010+A1:2019
 EN 61326-1:2013
 EN 61000-6-2:2019
 EN 61000-6-3:2007+A1:2011

Automatic power factor controllers with 12 relays, and microprocessor designed for signal processing of strongly distorted waveforms to ensure accurate control of the electrical parameters of the plant.

All measurements are made starting from the analysis of the waveform using FFT (Fast Fourier Transform) algorithm in floating point to ensure the maximum precision.

In addition to the normal power factor management functions, the device monitors the network and preserves the capacitor banks by disconnecting them in cases of high harmonic distortion or in case of mains voltage micro-interruptions or drops.

The microprocessor management allows to distribute the insertion/disconnection of the capacitive banks extending the life time.

The software allows to set each battery with the nominal value of the capacitor and also to set advanced functions such as battery fixed (useful for fixed rephasing), thresholds of temperature for ventilation control and relay and / or trip intervention, TA setting, trip times activation / deactivation and reconnection time.

The measures of Power Factor (Inductive / Capacitive), RMS Voltage, RMS Current, Delta Power (Inductive, Capacitive), THDI and temperature are displayed. Serial interface with RS485 - standard modbus RTU embedded.

Optional C.T. with 1,0A full scale.

DPF12.XXX

Power Supply input	
Operating rated voltage	110Vac -20% +10% 230Vac -20% +10% 440Vac -20% +10%
Frequency	50 / 60Hz
Power consumption	5VA
Recommended fuse	0.5A

Voltage input	
Measuring range	85 → 525Vac
Frequency range	50 or 60Hz ±5%
Accuracy	5%

Current input	
Maximum rated current	6.0A
Operating current range	0.25 - 5.0A
Accuracy	±5% (0.25 → 5.0A)
Input type	Shunt for external C.T.
Power consumption	< 1VA
Optional	/1A (1,25A max, 0,05 → 1,0A operative current range)

Temperature measure	
Operating Temperature range	0 → +100°C
Accuracy	±1°C
Sensor type	NTC 10k

Settings range	
Power factor setpoint	0.50 ind → 0.50 Cap
External CT ratio	1.0 → 5000 (25000A)
Step Capacity range	0.0 → 6500.0 kVar
Minimum connection period (Sensitivity SENS time)	1.0 sec → 100.0sec

Relay output	
Quantity	13
Features	12 banks 1 alarms / fan
Maximum switching voltage	440Vac - 1A (AC15)
Maximum rated current	250Vac - 10A(AC1)
Maximum current on common terminal	10A
Maximum power	1250VA
Electrical Life	1*10 ⁵ ops
Mechanical working life	2*10 ⁷ ops

Connection	
Type	Plug in – removable
Conductor cross section	0.5mm → 2.0mm

User interface	
Display	16 characters - 4row
Backlight color	yellow
Keypad	4 keys

Serial interface	
Type	RS485 (default)
Protocol	Modbus-RTU

Environment operating condition	
Operating temperature	-20 → +55°C
Storage temperature	-30 → +60°C
Relative humidity (non-condensing)	< 80%

Mechanical characteristics	
Dimensions	144*144*57mm
Panel Cutout	138*138mm
Weight	280g
Enclosure	Self-extinguishing V0 plastic
Mounting type	Panel Flush mount
Protection degree	IP41 front (IP54 with optional cover) IP20 rear