GRIDCON® ACF COMPACT.

A big hit for smaller ratings and tight spaces in 3- or 4-wire environments.

GRIDCON® ACF compact is always used when only smaller ratings are needed and space is tight. The device offers the same features as GRIDCON® ACF Building version, but in a very compact form:

- 4-wire device with up to three times the neutral conductor current
- Operation up to 415 V +10% at full power without derating
- Rated current of 60 A, can be extended in a modular manner
- The most compact design of all GRIDCON® ACF versions
- Low losses
- Dynamic compensation of reactive power, harmonics, and flicker, as well as load balancing and neutral conductor relief in one unit

Its special characteristics make GRIDCON® ACF compact ideal for decentralized use and suitable for:

- Offices and commercial buildings
- Additions to rectifiers
- Hospitals
- Industrial plants with small connection ratings

Wall mounting allows for space-saving installation and decentralized use

Touch panel with uniform GRIDCON® ACF operating software

Proven MR technology on the inside: Contains an IGBT Power Unit with autonomous control and self-monitoring along with a CCU (Control Computer Unit)

Phase conductor and neutral conductor connection which can be compensated with up to three times the phase conductor current

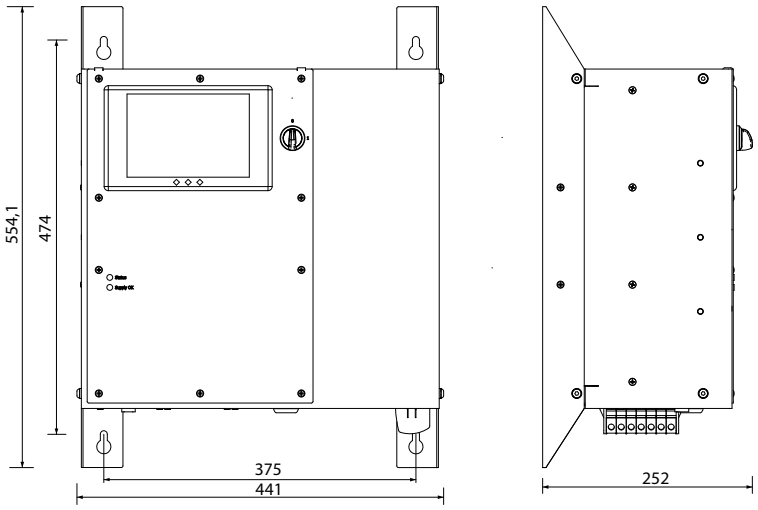
Connection of the externally fitted mobile measuring unit (MIO) – central current and voltage measurement along with digital inputs and outputs, which is normally installed directly in the distribution

Speed-controlled fans

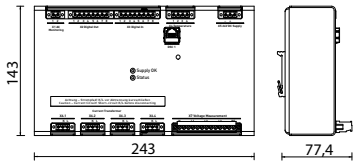
Technical data	GRIDCON® ACF Building version					GRIDCON® ACF compact
Nominal voltage	400 V (maximum 415 V) +10%					
Nominal frequency	50 Hz / 60 Hz					
Peak current	2 x rated current					
Connection	3-phase + PE + N / PEN, neutral conductor connection mandatory (network topology: TN)					
Compensation	3-wire operation: Outer conductors balanced and unbalanced (positive and negative sequence) 4-wire operation: Additionally neutral conductor (positive, negative and zero sequence)					
Filter function harmonics	1st .. 51st harmonic (50 Hz) // 1st .. 41st harmonic (60 Hz) All harmonics can be filtered simultaneously					
Additional functions	Dynamic reactive power compensation Active and reactive power balancing (up to 100% of rated current) Voltage stabilization via Q(U)-control Flicker compensation Neutral conductor relief					
Power losses	< 2,6% of compensation power maximum, < 2,3% in typical operation, < 0,7% when idle, < 100 W in standby					
Switching frequency	20 kHz (low-loss version)					
Control	Internal control computer with two digital signal processors					
Device setup and display	Via touch panel with graphic display or internal web server (TCP/IP) and PC – No additional software required					
Response time	<< 1 ms					
Interfaces	Ethernet (TCP/IP) Various field buses via optional Anybus modules (e.g. Profibus, Modbus) 4 x digital output (isolated, parameterized) for status messages 4 x digital input (24 VDC, parameterized) for external control and parameter set selection					
Current transformer	3-phase current measurement, xx/5 A or xx/1 A (parameterized) Current transformers are not included, 15 VA, class 1 or better recommended					
Inverter	3-Level IGBT with voltage link (DC electrolytic capacitors)					
Coloring	Standard: RAL 7035 light grey (other colors and designs on request)					Dark grey
Dimensions (approx. W x D x H)	Standard: 600 x 600 x 1800 mm Optional: Other form factors and dimensions on request					Device: 441 x 252 x 554 mm MIO: 243 x 77 x 143 mm
Cooling	Air cooling with speed-controlled fans					
IP protection degree	Standard: IP20, optional: IP21					
Ambient conditions	Maximum ambient temperature without derating: 40° C Recommended ambient temperature for continuous operation: < 25° C Minimum operating temperature: 0° C, relative humidity: maximum 95% Transport / storage: -20° C .. 70° C					
Number of modules	1	2	3	4	5	1
Compensation power	42 kvar	83 kvar	125 kvar	166 kvar	208 kvar	42 kvar
Rated current	60 A	120 A	180 A	240 A	300 A	60 A
Neutral current	180 A	360 A	540 A	720 A	900 A	180 A
Weight	About 225 kg	About 285 kg	About 345 kg	About 405 kg	About 465 kg	About 58 kg
Extendability	Up to a maximum of 5 modules (208 kvar, 300 A)					Up to 4 extension modules
EMC class	Standard: EN 55011, class A1 (industrial environment), optional: class B (residential environment)					
Standards	EN 50178, EN 61439-1, EN 61439-2, EN 61000-6-2, EN 61000-6-4, EN 55011					

GRIDCON® ACF compact + MIO

Main device with integrated control computer, touch panel, main switch and MIO

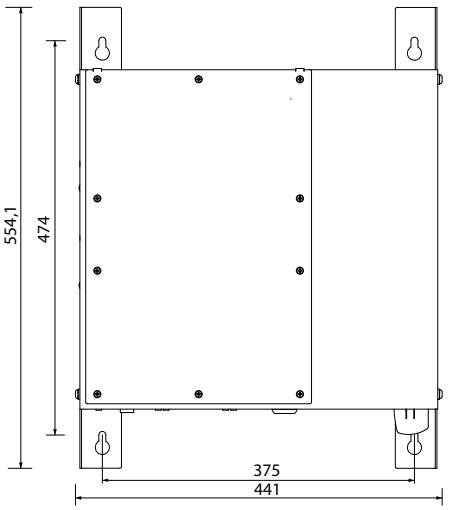


MIO (measurement unit with digital inputs and outputs)
To be installed seperatly, e.g. in supply section



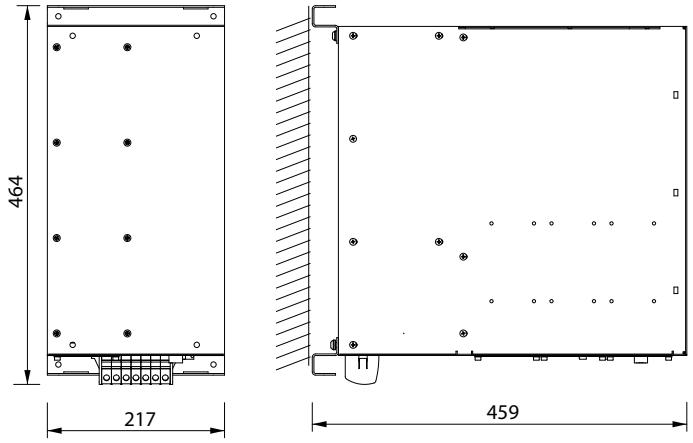
Extension module compact IPU

Extension module (IPU), controlled from main device



GRIDCON® ACF Building version – power unit (IPU) for separate installation / extension

Wall-mounted installation („book-style")



Installation in 19 inch frame (height of 5 RU)