

FORTE

3 Phase In – 3 Phase Out / 10kVA – 250kVA
 3 Phase In – 1 Phase Out / 10kVA – 40kVA

- 3 Level IGBT Rectifier & Inverter Technology
- Real Digital Signal Processor (DSP) controlled transformerless design
- High Output Power Factor (PF:1, kVA=kW)
- Increased AC-AC Efficiency (up to 96,5%)
- Unity Input Power Factor (p.f. > 0,99)
- Low Input Current THD (<4%)
- Low Output Voltage THD (<2%)
- Wide input voltage range
- Built-in Static & Manual Bypass
- Soft Start Feature
- Parallel connection availability up to 8 units
- Adjustable Battery Qty with optional DC-DC Charger/Booster at 10-15-20kVA Compact version
- Intelligent battery management system extends the life time of batteries
- Colorful Graphical Multi-Functional TouchScreen LCD Panel
- Event Log Display up to 500 Events
- Advanced communication possibility via RS232
- MODBUS connection through RS 485
- Generator Port for Generator Friendly Operation
- EPO Port for Emergency Power Off
- 50/60Hz Frequency Converter Operation Mode (Adjustable from LCD Panel)
- Management and monitoring software available for all operating systems
- Communication with computers and network systems through Optional SNMP
- Optional Programmable 4pcs Relays for dry contact signals
- Compact dimension



High Efficiency, Real Economy

- High efficiency of up to 96,5%, reduces the operational cost and provides significant energy saving.
- Continuous Operation, Unique Operational Efficiency, Minimized occupied Installation Area, Maximum Power Delivery, Reduced Infrastructure Material Cost (cable, transformer, generator), Low Cooling Expenses, Optimized TCO (Total Cost of Ownership) features of FORTE guarantees fast return of your investment.



10-20kVA COMPACT

10-30kVA

40-60kVA

80-100kVA

120-250kVA

FORTE

TECHNICAL SPECIFICATIONS

MODEL (380-400-415V 3ph version)	FORTE 33010	FORTE 33015	FORTE 33020	FORTE 33030	FORTE 33040	FORTE 33060	FORTE 33080	FORTE 33100	FORTE 33120	FORTE 33160	FORTE 33200	FORTE 33250
Power (kVA)	10	15	20	30	40	60	80	100	120	160	200	250
Active Power (kW)	10	15	20	30	40	60	80	100	120	160	200	250
MODEL (200-208-220V 3Ph version)	FORTE U33005	FORTE U33007	FORTE U33010	FORTE U33015	FORTE U33020	FORTE U33030	FORTE U33040	FORTE U33050	FORTE U33060	FORTE U33080	FORTE U33100	FORTE U33125
Power (kVA)	5	7.5	10	15	20	30	40	50	60	80	100	125
Active Power (kW)	5	7.5	10	15	20	30	40	50	60	80	100	125
INPUT												
Phase	3Ph+N+PE											
Nominal Voltage	380V / 400V / 415V											
Voltage Range (%100 Load)	(-15%) (+20%)											
Voltage Range (%50 Load)	(-45%) (+20%)											
Nominal Frequency (Hz)	50 or 60											
Frequency Range (Online Mode)	45-65Hz											
Input Current THD*	<4%											
Input Power Factor	0,99											
OUTPUT												
Output Power Factor	1											
Phase	3Ph+N+PE											
Nominal Voltage	380V / 400V / 415V (adjustable via display)											
Static Voltage Regulation @%100 Linear Load	<%1											
Output Voltage THD* (Online&Battery Mode)	< % 2 (Linear Load)											
Crest Factor	3:1											
Frequency (Hz)	50 Hz / 60 Hz											
Frequency Range	± %0.01 (Battery Mode)											
Overload	"Online - Battery Mode: <%125 Load 10 min, <%150 Load 1 min BypassMode: <%200 continuous"											
Efficiency*	up to 96.5% (Online) , 98.5% (ECO MODE)											
STATIC BYPASS LINE												
Phase	3Ph+N+PE											
Bypass Voltage Range	380V / 400V / 415V (adjustable via display: -%15 +%12)											
Bypass Frequency Range	47 Hz - 53 Hz (adjustable)											
BATTERY												
Type	Maintenance-Free Lead Acid Batteries											
Charge Current (A)	Nominal Charge Current x 0,1 (adjustable via display)											
Battery QTY STANDARD	60											
Battery QTY for FORTE-U version	34											
Internal Battery QTY STANDARD	60pcs 12V 7-9Ah											
Battery QTY COMPACT	20 - 52	30 - 52	36 - 52									
Battery Protection	Deep Discharge Protection, Temperature-compensated Battery Charging											
Battery Test	Standard (Automatic & Manual)											
FRONT DISPLAY PANEL												
Display	3.5" TFT Touch Screen with UPS Operation Modes & Energy Flow Diagram											
Color Graphic Touch Screen TFT	Load %, Input / Output / Bypass Voltage, Output Power (W & VA), Output Current, Output Power Factor, Battery ± Voltage, Input / Output Frequency, DC Bus ± Voltage, Back-up Time, Internal Temperature											
Event Log	500pcs (details can be checked via display)											
COMMUNICATION												
Interface (Communication Port)	RS232 & RS485 MODBUS & SNMP (optional)											
Dry Contact Signals (Optional)	4pcs Relays configurable to ; " General Alarm", "Input Failure", "Battery Failure", "Output Failure", "Bypass Active", "Output Overload",											
Others as standard	High Temperature" Dry contact signals											
ENVIRONMENTAL												
Storage Temperature (°C)	-25°C - +70°C (15 - 40°C recommended for longer battery life time)											
Operating Temperature (°C)	0 - 40°C (20 - 25 °C recommended for longer battery life time)											
Relative Humidity	0-%95 (non-condensing)											
Operating Altitude (maximum m.)	1000 m											
Protection Class	IP20											
Standards	EN 62040-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance), EN 60950											
PHYSICAL SPECIFICATIONS												
Dimensions (WxDxH) (cm) - STANDARD	FORTE 33010 U33005	FORTE 33015 U33007	FORTE 33020 U33010	FORTE 33030 U33015	FORTE 33040 U33020	FORTE 33060 U33030	FORTE 33080 U33040	FORTE 33100 U33050	FORTE 33120 U33060	FORTE 33160 U33080	FORTE 33200 U33100	FORTE 33250 U33125
Weight (w/o battery) kg - STANDARD	100	114	116	122	180	202	253	285	405	522	570	600
Dimensions (WxDxH) (cm) - COMPACT	27 x 80 x 103											
Weight (w/o battery) kg - COMPACT	75	79	81									
OPTIONS												
Parallel Kit, Internal/External SNMP, Split Bypass, Remote Monitoring Panel, Isolation Transformer, Battery Cabinet, Backfeed Protection												