

## FORTE Series

On-Line Double Conversion "3Level IGBT" Technology  
3 Phase in- 3 Phase out  
10 to 400 kVA

- ▶ 3Level IGBT Rectifier & Inverter Technology
- ▶ Real Digital Signal Processor (DSP) controlled transformerless design
- ▶ High Output Power Factor ( 1 )
- ▶ Increased AC-AC Efficiency ( 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



# FORTE Series Specifications

MODEL	FORTE 33010	FORTE 33015	FORTE 33020	FORTE 33030	FORTE 33040	FORTE 33060	FORTE 33080	FORTE 33100	FORTE 33120	FORTE 33160	FORTE 33200	FORTE 33250	FORTE 33300	FORTE 33400
Power (kVA)	10	15	20	30	40	60	80	100	120	160	200	250	300	400
Active Power (kW)	10	15	20	30	40	60	80	100	120	160	200	250	300	400
<b>INPUT</b>														
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*	<3%													
Input Power Factor	0,99													
<b>OUTPUT</b>														
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 Bypass Mode: <%200 continuous"													
Efficiency*	%97 (Online) , %98.5 (ECO MODE)													
<b>STATIC BYPASS LINE</b>														
Phase	3Ph+N+PE													
Bypass Voltage Range	380V / 400V / 415V (adjustable via display: -%15 +%12)													
Bypass Frequency Range	47 Hz - 53 Hz (adjustable)													
<b>BATTERY</b>														
Type	UPS cuts the output													
<b>FRONT DISPLAY PANEL</b>														
Display	35" TFT Touch Screen with UPS Operation Modes & Energy Flow Diagram													
<b>BYPASS</b>														
Number of Phases	3Ph+N+PE													
Charge Current (A)	Nominal Charge Current x 0,1 (adjustable via display)													
Battery QTY STANDARD	60													
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)													
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)													
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													
<b>ENVIRONMENTAL</b>														
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													
<b>PHYSICAL SPECIFICATIONS</b>														
Dimensions (WxDxH) (cm) - STANDARD		40 x 75 x 110			52 x 89 x 131		67x77x165			85 x 80 x 185			1685 x 80 x 182	
Weight (w/o battery) kg - STANDARD	100	114	116	122	180	202	253	285	405	522	570	600	700	710
Dimensions (WxDxH) (cm) - COMPACT	27 x 80 x 103													
Weight (w/o battery) kg - COMPACT	75	79	81											
<b>OPTIONS</b>														
Parallel Kit, Internal/External SNMP, Split Bypass, Remote Monitoring Panel, Isolation Transformer, Battery Cabinet														
* May vary depending on UPS power & Load & Environmental Conditions.														