

## TT - TT GT

## TS TECHNICAL DATA SHEET

MODEL		TS 10kVA	TS 20kVA	TS 30kVA	TS 40kVA	TS 60kVA	TS 80kVA
POWER	KVA	10	20	30	40	60	80
	KW	10	20	30	40	60	80
INPUT	Rated voltage	380/400/415 Vac three-phase with neutral					
	Voltage tolerance	±20%					
	Rated frequency	40 – 70 Hz					
	Power factor	≥0.99					
	Current distortion (THDi)	<3%					
OUTPUT	Rated voltage	380/400/415 V three-phase with neutral					
	Voltage stability	±1% (static load)					
	Frequency	50/60 Hz					
	Frequency stability	±0.01% (free running)					
	Power factor	1					
	Crest factor	3:1					
	Voltage distortion	<1% with linear load, <3% with distorting load					
	Permissible overload	110% for 60 minutes, 125% for 10 minutes, 150% for 1 minute, >150% and <300 for 3 seconds					
BATTERY	Number per string (batt 12V)	26 – 40 conf.	32 – 40 configurable				
	Max charging current *	10 A	21 A	30 A	39 A	60 A	78 A
	Common battery for parallel configuration	Supported					
	Internal battery (optional)	Up to 80 12 V 7/9 Ah battery blocks					N.A.
EFFICIENCY	VFI mode	Up to 96%					
	ECO mode	Up to 98%					
BYPASS	Rated voltage	380/400/415 V three-phase + neutral					
	Voltage tolerance	±5% – ±25% (programmable alarm)					
	Frequency	50/60 Hz					
	Frequency tolerance	±1 Hz/±3 Hz (selectable)					
GENERAL	Dimensions (WxDxH) mm	440x860x1390				600x827x1300	
	Weight (kg)	84	86	130	132	200	210
	Protection class	IP20					
	Cold start from the battery without mains power	Included			Optional		
	Parallel connection	Up to 6 units					
CONNECTIVITY	User interface	4.3 " colour LCD touch screen display with removable SD card					
	Built-in communication ports	USB, RS232, EPO, 1 in/3 out dry relay contacts (programmable) and additional slots for optional cards					
	Optional accessories	Cards: SNMP, RS485, ModBus, 6 in/6 out dry relay contacts (programmable), touch panel for remote monitoring of up to 64 units					
ENVIRONMENTAL PARAMETERS	Operating temperature**	0 – 40°C					
	Relative humidity	0 – 95% (without condensing)					
	Altitude (a.s.l.)	<1000 m with no power derating, >1000 m with 0.5% derating for every 100 m.					
	Audible noise at 1 m.	<52 dBA		<55 dBA		<60 dBA	
REGULATIONS	Standards	IEC EN 62040-1, IEC EN 62040-2, IEC EN 62040-3					
	Marking	CE, UKCA					

\* Subject to conditions \*\* To be verified according to the battery parameters

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## TS TECHNICAL DATA SHEET

MODEL		TS 160kVA	TS 200kVA
POWER	KVA	160	200
	KW	160	200
INPUT	Rated voltage	380/400/415 Vac three-phase with neutral	
	Voltage tolerance	±20%	
	Rated frequency	40-70 Hz	
	Power factor	≥0.99	
	Current distortion (THDi)	<3%	
OUTPUT	Rated voltage	380/400/415 V three-phase with neutral	
	Voltage stability	±1% (static load)	
	Frequency	50/60 Hz	
	Frequency stability	±0.01% (free running)	
	Power factor	1	
	Crest factor	3:1	
	Voltage distortion	<1% with linear load, <3% with distorting load	
	Overload	110% for 60 minutes, 125% for 10 minutes, 150% for 1 minute, >150% for 30 seconds	
BATTERY	Number per string (batt 12V)	36-43 configurable	
	Max charging current *	100 A	
	Common battery for parallel configuration	Supported	
	Internal battery (optional)	N.A.	
EFFICIENCY	VFI mode	Up to 96%	
	ECO mode	Up to 98%	
BYPASS	Rated voltage	380/400/415 V three-phase + neutral	
	Voltage tolerance	±20% (programmable alarm)	
	Frequency	50/60 Hz	
	Frequency tolerance	±1 Hz/±3 Hz (selectable)	
GENERAL	Dimensions (WxDxH) mm	800x800x1955	
	Weight (kg)	480	
	Protection class	IP20	
	Parallel connection	Up to 8 units	
CONNECTIVITY	User interface	10.1" colour LCD touch screen display with removable SD card	
	Built-in communication ports	USB, RS232, EPO, and additional slots for optional cards	
	Optional accessories	Cards: SNMP, RS-485 ModBus, 4 in/4 out dry relay contacts (programmable)	
ENVIRONMENTAL PARAMETERS	Operating temperature**	0-40°C	
	Relative humidity	0-95% (non-condensing)	
	Altitude (a.s.l.)	<1000 m without power derating, >1000 with 1% derating every 100 m	
	Audible noise at 1 m.	≤81dB	
REGULATIONS	Standards	IEC EN 62040-1, IEC EN 62040-2, IEC EN 62040-3	
	Marking	CE, UKCA	

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