

FOR UNINTERRUPTIBLE POWER



Technical Service



Periodically Maintenance



Uninterruptible
Power Supplies

Voltage Stabilizers

Batteries

IS POWER

ISTPOWER provides effective solutions for uninterrupted power needs of customers with its 20 years of experience



IS ENERJİ

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ABOUT US

IST Energy, one of the power electronics companies in Turkey, was founded in İstanbul in 2019, with the purpose of offering its 20 years of experience back to the Power Electronics sector and meeting the Power Electronics solutions required by its customers with the best price and highest quality service.

Our company supplies Uninterruptible Power Supplies, Rectifiers, Battery Chargers, Frequency Converters, Servo and Static Fully Automatic Voltage Regulators, Inverters and Batteries in the fastest way.

Our sales and after-sales services are carried out at ISO 9001: 2015 Quality Standard, and besides ISO 9001, we have ISO 14001 Environmental Certificate and ISO 45001 Occupational Health and Safety Certificates as a company that respectful to environment and people.

Our most important **mission** is to provide high technology, user-friendly, durable, long-lasting and highly efficient products in accordance with the wishes of our customers and to keep customer satisfaction at the highest level with our after-sales services.

Our **vision** is to become a leading supplier of environmentally friendly green energy solutions and to contribute to a more livable environment, by becoming one of the reputable and large companies in our country and in the world in the field of power electronics.

Our Certificates



ISO 9001:2015



ISO 14001:2015



ISO 45001:2018

LI SERIES

1 Phase Input - 1 Phase Output 600 VA - 2000VA

- ✓ Micro Processor Controlled
- ✓ Highly Reliable
- ✓ 3 Steps Increase – 2 Steps Decrease AVR Feature
- ✓ Wide Input Voltage Range
- ✓ Cold Start
- ✓ Automatic Restart
- ✓ Voltage Fluctuation, Overload, Short Circuit Protection
- ✓ Self-Test at Startup
- ✓ Charges Batteries While UPS OFF
- ✓ Electromagnetic Compatibility



TECHNICAL SPECIFICATIONS

MODEL	LI-600	LI-650	LI-850	LI-1000	LI-1200	LI-1500	LI-2000
Power (VA)	600	650	850	1000	1200	1500	2000
Power (W)	360	390	510	600	720	900	1200
INPUT							
Voltage	220Vac/230Vac/240Vac						
Voltage Tolerance	-30%/+25						
Frequency	50/60Hz (Automatic Detect)						
OUTPUT							
Power Factor	0,6						
Voltage Regulation	±%10 (BatteryMode)						
Frequency	50/60Hz ±1Hz						
Wave Form	Simulated Sine Wave						
Transfer Time	<6ms						
Output Socket	2xSchuko	2xSchuko	2xSchuko	3xSchuko	3xSchuko	3xSchuko	2xSchuko
BATTERY							
Battery Voltage	12Vdc			24Vdc			
Battery Quantity	1	1	1	2	2	2	2
Battery Capacity	12V-7Ah	12V-7Ah	12V-7Ah	12V-7Ah	12V-7Ah	12V-9Ah	12V-9Ah
Charge Time	5 hrs for %90 Capacity						
Battery Protection	Discharge Protection, Battery Replacement Signal						
Battery Management	Yes						
FUNCTIONS							
Display	Green Led - Mains Normal / Yellow Led – From Battery / Red Led - UPS Failure						
Alarms	Battery Mode, Audible Alarm for Low Battery and Overload						
Short Circuit Protection	Online Mode: AC Fuse and Electronic Protection / Battery Mode: Electronic Protection						
Voltage Regulation	3 Steps Increase – 2 Steps Decrease AVR						
Cold Start	Yes						
ENVIRONMENTAL							
Operating Temperature	0°C - 40°C						
Audible Noise	<40dB (from1m.)						
STANDARDS							
LVD&EMC	EN62040-1:2008(LVD), EN62040-2:2006(EMC)						
PHYSICAL							
Dimensions (WxDxH) mm	308*90*170			385*98*170		370*150*170	
Weight(kg)	4,52	4,52	5,22	8,98	8,98	10,68	13,27



Home



Office



Emergency



Computer

MF-U SERIES

1 Phase Input - 1 Phase Output 1 kVA - 10 kVA

- ✓ Online, Double Conversion
- ✓ DSP Controlled
- ✓ Wide Input Voltage Range
- ✓ Input PFC Feature
- ✓ Output Power Factor 0,9
- ✓ Selectable Charge Current (1-3-5-8 A) for 6-10 kVA UPS
- ✓ Eco-friendly
- ✓ Cold Start
- ✓ Zero Transfer Time
- ✓ Smart Battery Management Feature
- ✓ Electromagnetic Compatibility



TECHNICAL SPECIFICATIONS

MODEL	MF-U-1	MF-U-2	MF-U-3	MF-U-6	MF-U-10
Apparent Power (VA)	1.000	2.000	3.000	6.000	10.000
Active Power (W)	900	1.800	2.700	5.400	9.000
INPUT					
Voltage	208Vac/220Vac/230Vac/240Vac				
Voltage Tolerance	(115–295) ±5 Vac for %50 Load (145–295) ±5 Vac for %100 Load			(115–295) ±5 Vac for %50 Load (165–295) ±5 Vac for %100 Load	
Frequency	45-55Hz ±%0,5 / 55-65Hz±%0,5 (Automatic Detect)			40-70Hz ± %0,5 (Automatic Detect)	
Power Factor	≥0,98			≥0,99	
Bypass Voltage Tolerance	Nominal Output Voltage ±32Vac			160 Vac - Nominal Output Voltage ±32Vac	
OUTPUT					
Voltage	208Vac/220Vac/230Vac/240Vac – Selectable from LCD				
Voltage Regulation	±%1				
Power Factor	0,9				
Frequency	Online Mode: Sync with Mains (50/60Hz) / Battery Mode: ± 0,2Hz				
Wave Form	Pure Sine Wave				
Crest Factor	3:1				
Harmonic Distortion	Linear Load: ≤%3; Non Linear Load: ≤%5			Lineer Load ≤%2; Non Lineer Load≤%5	
Transfer Time	Mains-Battery Mode: 0 ms Inverter-BypassMode: 4 ms			Mains-Battery Mode: 0 ms Inverter-Bypass Mode: 0 ms	
Overload Capacity	30secs@%105-150Load;300ms@>%150Load			3 min@%105-%125 Load 30 secs@%125-150 Load 100 ms@>%150 Load	
EFFICIENCY					
Online Mode	≥%90			≥%92	
Battery Mode	≥%87			≥%91	
Eco Mode	≥%98			≥%98	
BATTERY					
Battery Voltage	24Vdc	48Vdc	72Vdc	192Vdc	
Battery Quantity / Capacity	2*12V-7/9Ah	4*12V-7/9Ah	6*12V-7/9Ah	16*12V-7Ah	16*12V-7/9Ah
Battery Charge Current (Standart)	1 A				
Battery Charge Current (Long)	6 A			1/3/5/8 A Selectable	
Battery Charge Time	8 hrs for %80 Capacity				
ALARMLAR					
Low Battery	Audible Alarm / 4sn				
Overload	Audible Alarm – Twice / 1sec				
UPS General Failure	Long Audible Alarm				
ENVIRONMENTAL					
Operating Temperature	0°C-40°C				
Relative Humidity	%20-%90 (Non Condensed)				
Audible Noise	≤50dB (from 1m.)			≤55dB (from 1m.)	
COMMUNICATION					
Standart RS232	Windows 98/2000/2003/XP/Vista/7/8				
SNMP	Power Management with SNMP - Web Browser (Optional)				
STANDARDS					
LVD&EMC	EN62040-1:2008 (LVD); EN62040-2:2006 (EMC)				
PHYSICAL					
Dimensions (WxDxH) mm	144*330*215	190*430*341		191*462*710	
Weight (kg)	13	25	29	67	75



MF-I SERIES

1 Phase Input - 1 Phase Output 6 kVA - 20 kVA

Compact and ruggedly designed 1/1 Phase MF-I Series UPS with 3-Level IGBT topology is the perfect choice to protect loads in industrial and critical working.

Online Double Conversion technology (VFI-SS-111)

High Efficiency up to 96%

Ability to Start from Battery with Cold Start

Extending Battery Life up to 35% with Smart Charging System

Triple Charging System with Heat Compensation

Ability to Connect a Flexible Number of Batteries

Longer Lasting Fan Run Time with Smart Fan Speed Control

Ability to Work as a Frequency Converter (Between 50 Hz / 60 Hz)

Input Operating Voltage (up to -40%) that Can Vary According to the Load, which Reduces Battery Usage

Short Circuit, Overload, Lightning and Voltage Surge Protection

Optional parallel operation with common or separate battery

Standard Internal Static and Manual Bypass



SOFTWARE & CONNECTION SOLUTIONS

RS232 and RS485 Connection

2 Configurable Input Contacts

Alarm Relay Card, GenSet Contact, EPO Contact

Optional USB Connection

Remote Control Panel

Battery Temperature Sensor for Stable Charging Temperature

JBUS, PROFIBUS Connection

SNMP IT Manager Monitoring

Environment Sensors for Data Centers (Humidity, Temperature, Smoke, etc.)

GSM, Telnet, GPRS connection

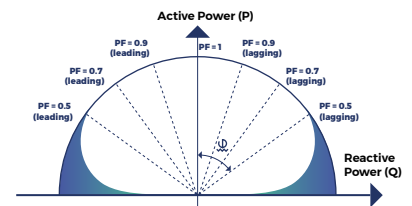
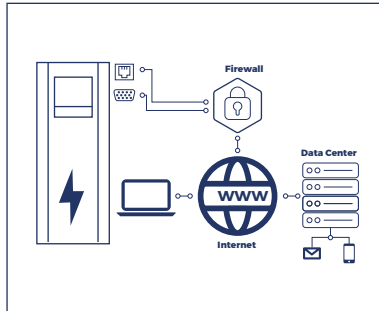
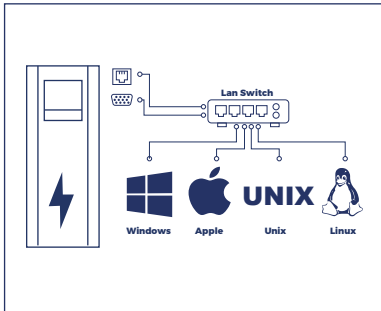
Automatic Shutdown of PC's and Servers

Remote Monitoring Panel

Building Management System

Notification of Power Events by E-mail

24/7 technical service support with remote monitoring



MF-I SERIES

1 Phase Input - 1 Phase Output 6 kVA - 20 kVA

TECHNICAL SPECIFICATIONS

MODEL	MF-I-06	MF-I-10	MF-I-15	MF-I-20
Apparent Power (kVA)	6	10	15	20
Active Power (kW)	5,4	9	13,5	18
INPUT				
Voltage	220Vac/230Vac/240Vac			
Voltage Tolerance	±40 for %50 Load			
	±20 for %100 Load			
Frequency	45-65Hz			
Power Factor	≥0,99			
THDi	≤%5			
OUTPUT				
Voltage	220Vac/230Vac/240Vac – Selectable from Front Panel			
Voltage Regulation	±%1			
Power Factor	0,9 (Optional 0.8, 1)			
Frequency	50/60Hz: ± 0,01			
Wave Form	Pure Sine Wave			
Crest Factor	3:1			
Harmonic Distortion	Linear Load: ≤%2; Non Linear Load: ≤%5			
Efficiency	%96@%50Load			
	Up to 98 for Eco Mode (Optional)			
Overload Capacity	1 min@%150 Load			
BYPASS				
Voltage Tolerance	±%10			
Type	Internal Static ByPass and Manuel Maintenance ByPass			
Overload Capacity	1 min@%150 Load			
BATTERY				
Type	VRLA-AGM / GEL / NiCd / Li-ion			
Internal Battery Qty /Capacity	14/16/20 - 7/9 Ah	20/28 - 7/9 Ah	28 - 7/9 Ah	
Charge Current	1A		4A	
External Battery Qty (With 4A Charge Unit)	30	40		
External Battery Qty (With 13A Charge Board)	30-46 (Standart 30 pcs. Selectable from Panel)			
Battery Test	Automatic and Manuel			
Battery Charge Time	<6-8 hrs			
GENERAL				
Front Panel	LCD Screen, Status LED's			
Communication (Optional)	RS485, Genset, SNMP, GSM Modem , Relay Contacts, Input Contacts, Modbus ve USB			
Accessories (Optional)	Isolation Transformer, Remote Panel			
ENVIRONMENTAL				
Operating Temperature	0°C-40°C			
Storage Temperature	-15°C...+40°C			
Relative Humidity	<%95 (Non Condensed)			
Audible Noise	≤55dB (from 1m.)			
STANDARDS				
Harmonized Standards	EN 62040-1-1 (LVD), EN 62040-2 (EMC), EN 62040-3 (Performance)			
PHYSICAL				
Dimensions (WxDxH) mm	256*580*635		256*673*735	
Weight (kg)	30	38	40	42

TMF-U SERIES

3 Phase Input - 1 Phase Output 10 kVA - 20 kVA

- ✓ DSP Processor Technology
- ✓ High Frequency Double Conversion Technology
- ✓ Wide Input Voltage Range; 110- 300 Vac
- ✓ Input PFC
- ✓ Output Power Factor 0,9
- ✓ Selectable Battery Voltage ; 192 / 240 Vdc.
- ✓ Selectable End of Discharge Battery Voltage (EOD) from Panel
- ✓ 3/1 Phase or 1/1 Phase Operating Options
- ✓ Cold Start
- ✓ Zero Transfer Time
- ✓ Energy Saving with Eco Mode
- ✓ Smart Battery Management
- ✓ Generator Compatible Operation
- ✓ Charges Batteries While UPS OFF
- ✓ Automatic Controlled Fan Speed
- ✓ Standard RS 232 Communication
- ✓ RS 485/SNMP/AS400/USB Com. Ports (Optional)
- ✓ Emergency Power Off (EPO) (Optional)
- ✓ Manual ByPass (Optional)
- ✓ N+1 Parallel Operation (Optional)
- ✓ Adding Extra Batteries for More Backup (Optional)
- ✓ Electromagnetic Compatibility



Industry



Data Center



Server



Communication



CNC



Warehouse

TMF-U SERIES

3 Phase Input - 1 Phase Output 10 kVA - 20 kVA

TECHNICAL SPECIFICATIONS

MODEL	TMF-U-10	TMF-U-10L	TMF-U-15L	TMF-U-20L
Apparent Power (kVA)	10	10	15	20
Active Power (kW)	9	9	13,5	18
INPUT				
Voltage	3/1; 360Vac/380Vac/400Vac/415Vac 1/1; 208Vac/220Vac/230Vac/240Vac Adjustable from LCD Panel			
Voltage Tolerance	3/1; %50 Load (190-520) ±5 Vac; %100 Load (277-520) ±5 Vac 1/1; %50 Load (110–300) ±5 Vac; %100Load (160–300) ±5 Vac			
Frequency	40-70Hz±%0,5 (Automatic Detect)			
Power Factor	3/1:≥0,95; 1/1:≥0,99			
BYPASS				
Bypass Voltage Tolerance	160Vac - Nominal Output Voltage +32Vac			
Frequency	50/60Hz ± 5Hz			
OUTPUT				
Voltage	208Vac/220Vac/230Vac/240Vac – Selectable from LCD Panel			
Voltage Regulation	±%1			
Frequency	OnlineMode: Sync with Mains (50/60Hz) / Battery Mode: ± 0,2 Hz			
Wave Form	Pure Sine Wave			
Crest Factor	3:1			
Harmonic Distortion	Lineer Load ≤%2; Non Lineer Load ≤%5			
Transfer Time	Online Mode - Battery Mode: 0 ms Inverter - Bypass Mode: 0 ms			
Overload Capacity	3 min.for %105-%125 Load 30 secs for %125-150 Load 100 ms for >%150 Load			
EFFICIENCY				
Online Mode	≥%93			
Battery Mode	≥%92			
Eco Mode	≥%98			
BATTERY				
Battery Voltage	192Vdc/240Vdc (Selectable with Jumper)			
Battery Quantity/Capacity	16*12V9Ah	NA		
Battery Charge Current (Standart)	1 A	NA		
Battery Charge Current (Long)	NA	7 A		
Battery Charge Time	8 hrs for %90 Capacity			
ALARMLAR				
Low Battery	Audible Alarm / 4secs			
Overload	Audible Alarm – Twice / 1sec			
UPS General Faiure	Long Audible Alarm			
ENVIRONMENTAL				
Operating Temperature	0°C - 40°C			
Relative Humidity	%20-%90 (Non Condensed)			
Audible Noise	≤58dB (from 1m.)		≤60dB (from 1m.)	
COMMUNICATION				
Standard RS232 / Optional USB	Windows 98/2000/2003/XP/Vista/7/8			
Optional SNMP	Power Management with SNMP / Web Browser (Optional)			
STANDARDS				
LVD&EMC	EN62040-1:2008 (LVD); EN62040-2:2006 (EMC)			
PHYSICAL				
Dimensions (WxDxH) mm	262*580*732		262*580*628	
Weight (kg)	74	30	39	40



Industry



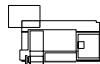
Data Center



Server



Communication



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Warehouse

TMF-I SERIES

3 Phase Input - 1 Phase Output 10 kVA - 40 kVA

Compact and ruggedly designed 3/1 Phase MF-I Series UPS with 3-Level IGBT topology is the perfect choice to protect loads in industrial and critical working.

Online Double Conversion technology (VFI-SS-111)

High Efficiency up to 96%

Ability to Start from Battery with Cold Start

Extending Battery Life up to 35% with Smart Charging System

Triple Charging System with Heat Compensation

Ability to Connect a Flexible Number of Batteries

Longer Lasting Fan Run Time with Smart Fan Speed Control

Ability to Work as a Frequency Converter (Between 50 Hz / 60 Hz)

Input Operating Voltage (up to -40%) that Can Vary According to the Load, which Reduces Battery Usage

Short Circuit, Overload, Lightning and Voltage Surge Protection

Optional parallel operation with common or separate battery

Standard Internal Static and Manual Bypass

Remote Monitoring and Management Software

SOFTWARE & CONNECTION SOLUTIONS

RS232 and RS485 Connection

2 Configurable Input Contacts

Alarm Relay Card, GenSet Contact, EPO Contact

Optional USB Connection

Remote Control Panel

Battery Temperature Sensor for Stable Charging Temperature

JBUS, PROFIBUS Connection

SNMP IT Manager Monitoring

Environment Sensors for Data Centers (Humidity, Temperature, Smoke, etc.)

GSM, Telnet, GPRS connection

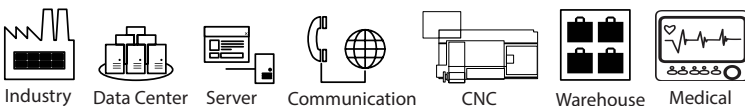
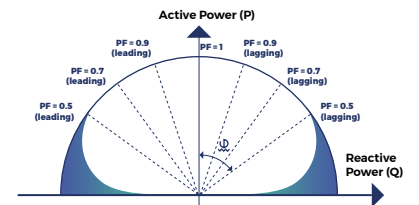
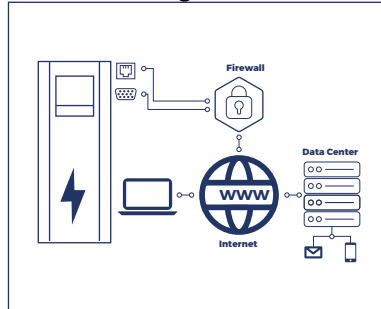
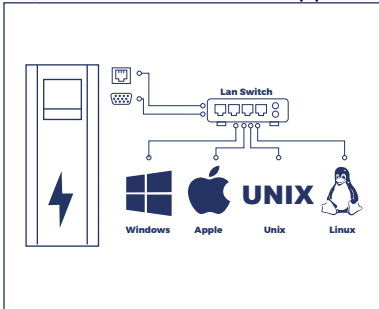
Automatic Shutdown of PC's and Servers

Remote Monitoring Panel

Building Management System

Notification of Power Events by E-mail

24/7 technical service support with remote monitoring



TMF-I SERIES

3 Phase Input - 1 Phase Output 10 kVA - 40 kVA

TECHNICAL SPECIFICATIONS

MODEL		TMF-I-10	TMF-I-15	TMF-I-20	TMF-I-30	TMF-I-40
Apparent Power (kVA)		10	15	20	30	40
Active Power (kW)		9	13,5	18	27	36
INPUT						
Voltage		3:1 // 380, 400, 415 V 3P+N+GND 1:1 // 220, 230, 240 V 1P+N+GND (Optional)				
Voltage Tolerance		-40%/+20 for %50 Load ±20 for %100 Load				
Frequency		45-65Hz				
Power Factor		3/1:≥0,95; 1/1:≥0,99			≥0,99	
OUTPUT						
Voltage		220Vac/230Vac/240Vac – Selectable from LCD Panel				
Voltage Regulation		±%1				
Frequency		OnlineMode: Sync with Mains (50/60Hz) ± 0,01				
Wave Form		Pure Sine Wave				
Crest Factor		3:1				
Harmonic Distortion		Lineer Load ≤%2; Non Lineer Load ≤%5				
Power Factor		0,9 (0,8 and 1 Optional)				
Efficiency		Up to %96				
Eco Mode Efficiency		Up to %98 (Optional)				
BYPASS						
Voltage Tolerance		±%10				
Type		Internal Static ByPass and Manuel Maintenance ByPass				
Overload Capacity		1 min@%150 Load				
BATTERY						
Type		VRLA-AGM / GEL / Ni-Cd / Li-ion				
Battery Qty	Internal	20 - 7/9 Ah	28 - 7/9 Ah	2x30 - 7/9 Ah	-	
	With 4A Charge Board	40				
	With13A Charge Board	30-46 (Standart 30 pcs. Selectable from Panel)				
Charge Current		1 A	4A			
Battery Test		Automatic and Manuel				
Battery Charge Time		<6-8 hrs				
GENERAL						
Topology		3-Level, Double Conversion Online				
Front Panel		LCD Screen, Status LED's				
Communication (Optional)		RS485, Genset, SNMP, GSM Modem , Dry Contact, Modbus, USB				
Accessories (Optional)		Isolation Transformer, Remote Panel				
ENVIRONMENTAL						
Operating Temperature		0°C-40°C				
Storage Temperature		-15°C...+40°C				
Relative Humidity		<%95 (Non Condensed)				
Audible Noise		≤55dB (from 1m.)				
Protection Level		Standart IP20 (Others Optional)				
STANDARDS						
Harmonized Standards		EN 62040-1-1 (LVD), EN 62040-2 (EMC), EN 62040-3 (Performance)				
PHYSICAL						
Dimensions (WxDxH) mm		256*580*635	256*673*735		305*862*991	
Weight (kg)		38	40	50	65	71



Industry



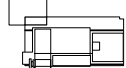
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Server



Communication



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Warehouse



Medical

TF-C SERIES

3 Phase Input - 3 Phase Output 10 kVA - 30 kVA

- ✓ IGBT Rectifier & Inverter
- ✓ DSP Digital Processor Technology
- ✓ High Frequency Double Conversion Technology
- ✓ Active Input Power Factor Correction (APFC)
- ✓ Wide Input Voltage Range
- ✓ High Output Power Factor
- ✓ Cold Start
- ✓ Automatic Frequency Detection
- ✓ 50/60 Hz Frequency Converter Mode
- ✓ Up to %98 High Efficiency (Eco Mode)
- ✓ Load Controlled Automatic Fan Control Speed
- ✓ Automatic Power On / Off by User Set Up to Load Capacity
- ✓ Selectable Battery Quantity 14/16/18/20
- ✓ Compact, Small Design
- ✓ LCD+LED Panel
- ✓ User Friendly, Easy to Use
- ✓ Zero Transfer Time
- ✓ Energy Saving with Eco Mode
- ✓ Charges Batteries up to %90 Capacity in 4 hours by Quick Charge System
- ✓ Long Battery Life with Advanced Battery Management (ABM)
- ✓ Generator Compatible Operation
- ✓ Alarm Log Recording
- ✓ Standard Emergency Power Off (EPO)
- ✓ Standard Mechanical Bypass Switch
- ✓ Standard RS 232/USB Communication Ports
- ✓ RS 485/SNMP/AS400 Communication Ports (Optional)
- ✓ N+1, Up to 6 Unit Parallel Operation (Optional)
- ✓ Adding Extra Batteries for more Backup (Optional)
- ✓ Electromagnetic Compatibility



Industry



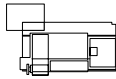
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Communication



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TF-C SERIES

3 Phase Input - 3 Phase Output 10 kVA - 30 kVA

TECHNICAL SPECIFICATIONS

MODEL	TF-C-10	TF-C-15	TF-C-20	TF-C-30
Apparent Power (kVA)	10	15	20	30
Active Power (kW)	9	13,5	18	27
INPUT				
Voltage	3P+N+GND; 360Vac/380Vac/400Vac/415Vac			
Voltage Tolerance	277~485 Vac (<%50Load) 190~277 Vac (%50-%100Load)			
Frequency	50 – 60Hz (Automatic Detect)			
Frequency Range	40-70Hz±%0,5			
Power Factor	≥0,99			
THDi	≤%5			
Bypass Voltage Tolerance	-%40 ~ +%15 Vac (Adjustable)			
OUTPUT				
Voltage	3P+N+GND; 360Vac/380Vac/400Vac/415Vac – Selectable from LCD			
Voltage Regulation	±%1			
Frequency	Online Mode: Sync with Mains; (45~55Hz) / Battery Mode: 50/60Hz ± 0,1 Hz			
Wave Form	Pure Sine Wave			
Crest Factor	3:1			
THDv	Lineer Load≤%2; Non Lineer Load≤%5			
Transfer Time	Online Mode - Battery Mode:0 ms / Inverter - ByPass Mode: 0 ms			
Inverter Overload Capacity	10 min@%102-%125 Load then ByPass 1 min@%125-150 Load then ByPass 0,5 sec@>%150 Load then ByPass			
ByPass Overload Capacity	20min@%102-%125LoadthenShutDown 2min@%125-150LoadthenShutDown 1sec@>%150LoadthenShutDown			
BATTERY				
Battery Voltage	240 Vdc for Standart Models ; 168/192/216/240 Vdc (Optional) for Long Backup Models			
Battery Quantity/Capacity	20*12V-9Ah	40*12V-7Ah	40*12V-9Ah	
Battery Charge Time	4 hrs for %90 Capacity at StandartModels; Up to Battery Capacity at Long Backup Models			
SYSTEM				
Efficiency	Online Mod:≥%93 / Eco Mode %98			
Panel	LCD+LED			
Alarms	Battery Mode, Low Battery, Fan Failure			
Parallel Working	Up to 6 Unit			
ENVIRONMENTAL				
Operating Temperature	0°C-40°C			
Relative Humidity	%20-%90 (Non Condensed)			
Audible Noise	≤ 60 dBA (from 1 m.)	≤65 dBA (from 1 m.)		
COMMUNICATION				
Standart RS232 / Optional USB	Windows 98/2000/2003/XP/Vista/7/8			
Optional SNMP	Power Management with SNMP ,Web Browser (Optional)			
STANDARDS				
LVD&EMC	EN62040-1:2008 (LVD); EN62040-2:2006 (EMC)			
PHYSICAL				
Net Dimensions (WxDxH)mm	350*655*732 (Long Model)			
	350*785*858 (Standart)	350*785*1078 (Standart)		
Packaged Dimensions (WxDxH) mm	472*780*920 (Long Model)			
	472*910*1050 (Standart)	472*910*1260 (Standart)		
Net Weight (kg)	55(L), 115(St)	60(L), 155(St)	61(L), 175(St)	65(L), 235(St)
Gross Weight (kg)	65(L), 125(St)	70(L), 170(St)	71(L), 190(St)	75(L), 250(St)



Industry



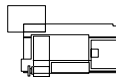
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Server



Communication



CNC



Warehouse

TF-U SERIES

3 Phase Input - 3 Phase Output 10 kVA - 250 kVA

- ✓ IGBT Rectifier & Inverter
- ✓ Online Double Conversion
- ✓ DSP Processor Controlled
- ✓ Wide Input Voltage Range
- ✓ Standard CNC Load Software
- ✓ Input PFC (>0,99)
- ✓ Low THD
- ✓ Up to % 95 High Efficiency
- ✓ Eco Mode
- ✓ Up to 500 Event History
- ✓ Cold Start
- ✓ Zero Transfer Time
- ✓ Static and Manuel Bypass
- ✓ Smart Battery Management
- ✓ Generator Compatible Operation
- ✓ Advanced Communication Options
- ✓ Electromagnetic Compatibility



Industry



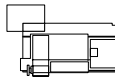
Data Center



Server



Communication



CNC



Warehouse

TF-U SERIES

3 Phase Input - 3 Phase Output 10 kVA - 250 kVA

TECHNICAL SPECIFICATIONS

MODEL	TFU-10	TFU-15	TFU-20	TFU-30	TFU-40	TFU-45	TFU-60	TFU-80	TFU-100	TFU-120	TFU-160	TFU-200	TFU-250
Apparent Power (kVA)	10	15	20	30	40	45	60	80	100	120	160	200	250
Active Power (kW)	8	12	16	24	32	36	48	64	80	96	128	160	200
INPUT													
Power Factor	0,99												
Voltage	3P+N+GND - 380Vac/400Vac/415Vac												
Voltage Tolerance	176/280Vac ± %5@%100Load 125/280Vac ± %5@%50Load 80/280 Vac ± %5@%0-25Load												
Frequency	50/60Hz (Optional)												
Frequency Range	44-66Hz												
THDi	<%4						<%5						
OUTPUT													
Power Factor	0,8												
Voltage	3P+N+GND - 380Vac/400Vac/415Vac												
Voltage Regulation	±%1												
THDv	<%3												
Crest Factor	3:1												
Frequency	50/60Hz												
Frequency Regulation	0,01Hz												
Overload Capacity	10min@%125Load - 30secs@%150Load												
Efficiency	>%94												
BATTERY													
Battery Quantity	2x31								2x30				
Battery Protection	Automatic Deep Discharge Protection												
Battery Test	Standart (Automatic/Manuel)												
PANEL													
LEDs	Input, ByPass, Inverter, Load, Failure Leds												
LCD	%Load, Input-Output Voltages, Frequency, Current, Battery Voltage, Load Current, Temperature, Alarm Logs, Adjustments												
STATIC BYPASS													
Voltage Tolerance	175/253Vac												
Frequency Range	47-53Hz or 57-63Hz												
ENVIRONMENTAL													
Operating Temperature	0°C-40°C(20-25°C is adviced for Long Battery Life)												
Relative Humidity	0-%95(Non Condensed)												
Operation Altitude	<1.000m.												
IP Protection Level	IP20												
COMMUNICATION													
RS-232	Standard												
Dry Contact	Standard												
SNMP	Optional												
STANDARDS													
LVD&EMC	EN62040-1:2008(LVD),EN62040-2:2006(EMC)												
PHYSICAL													
Dimensions (WxDxH) cm	46*84*93				46*94*120		56*82*128		56*102*130		110*95*150		
Weight (kg)	82	85	85	90		110	165	170	220	235	480	530	700



Industry



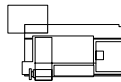
Data Center



Server



Communication



CNC



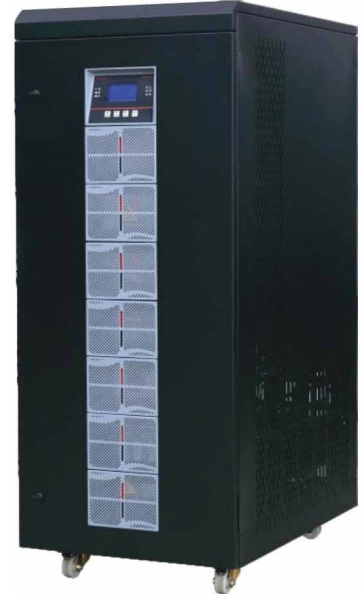
Warehouse

TF-G SERIES

3 Phase Input - 3 Phase Output 10 kVA - 600 kVA

TF-G Series UPS's are, 3 Phase in/3 Phase out 10-600 kVA True Online, Transformer-free, Double Conversion UPS Systems with IGBT rectifier providing high input power factor and low input current THD. They produce microprocessor controlled pure sine wave output to critical loads. Industrial manufacturing machines, hospital and monitoring equipment, heavy industry, medical equipment, communication and laboratory equipment, etc. are the main fields of use with a proved reliable high technology.

- ✓ DSP Controlled Online Double Conversion
- ✓ IGBT Rectifier and Inverter
- ✓ Up to 0.99 Input Power Factor Correction
- ✓ Low Input THDi < %5
- ✓ Regenerative Operating
- ✓ Re-Adjustable Battery Charge Current
- ✓ High Efficiency
- ✓ Energy Saving with Eco Mode
- ✓ Built-in Self-Test
- ✓ Silent Performance
- ✓ High Performance for Critical Medical Equipment
- ✓ Generator Compatible Operation
- ✓ Parallel Operation (Optional)
- ✓ Static Bypass at UPS Overload or UPS Failure
- ✓ Overload, Over Temperature, Short Circuit Protections
- ✓ Optional Remote Surveillance via SNMP
- ✓ Advanced LCD Panel
- ✓ Up to 500 Event History



TF-G SERIES

3 Phase Input - 3 Phase Output 10 kVA - 600 kVA

TECHNICAL SPECIFICATIONS

MODEL	TF-G-10	TF-G-20	TF-G-30	TF-G-40	TF-G-60	TF-G-80	TF-G-100	TF-G-120
Apparent Power (kVA)	10	20	30	40	60	80	100	120
Active Power (kW)	8	16	24	32	48	64	80	96
INPUT								
Voltage	380/400/415 Vac 3 Ph+N+PE (Optional 440 Vac)							
Voltage Range	±5...%20 (Adjustable with %1 Step)							
Frequency	50 Hz (Optional 60 Hz)							
Frequency Range	±5%							
Power Factor	> 0,99							
THDi	<%5							
OUTPUT								
Voltage	380/400/415 Vac 3 Ph+N+PE (Optional 440 Vac)							
Voltage Regulation	<±1%							
Frequency	50 Hz (Optional 60 Hz)							
Frequency Range	Synchronized to Network ± %2 in Line Mode; Operating from battery ± %0,2							
Power Factor	0,8							
Efficiency	Online (%100 Load)	93%						
	Eco Mode							
Overload	%100<Load<%125: 10 min.; %125<Load<150 : 1 min. ; Load>150: ByPass							
Crest Factor	3:1							
THDv	<3% Linear Load, <5% Non Linear Load							
BYPASS								
Voltage Range	380/400/415 Vac 3 Ph+N+PE ±%20							
Frequency Range	50 Hz ± %10							
BATTERY								
Battery Type	Dry Type 12 Vdc							
Quantity	60							
Float Charge Voltage	810 Vdc							
Min. Discharge Voltage	630 Vdc							
Battery Test	Automatic/Manuel							
Battery Protection	Deep Discharge Protection							
GENERAL								
Topology	High Frequency PWM, IGBT Technology							
Operating Type	Static, Online, DSP Control							
Display	Graphic LCD Monitor, Control Panel, Mimic Diagram							
LED	Line, Battery, Inverter, Load, Fault Indications							
Protections	Overload, Over Temperature, Short Circuit							
Optional Features	Parallel Operation, EPO							
ENVIRONMENTAL								
Operating Temperature	0~40 °C							
Storage Temperature	-25 ~ +70 °C							
Cooling	Forced Air Cooling							
Relative Humidity	%20-%90 (Non-condensing)							
Altitude	<1000m							
Protection Level	IP20							
Acoustic Noise (from 1m.)	<55 dBA			<60 dBA			<65 dBA	
PHYSICAL								
Dimensions (WxDxH)mm	350*795*1150			500*805*1250			550x805x1335	
Weight (kg)	115	125	160	170	180	230	240	
COMMUNICATION								
Dry Contact	Low Battery, System ByPass, Line Failure							
Optional Ports	SNMP, Modbus, RS485							
STANDARDS								
Harmonized Standards	EN 62040-1(LVD), EN 62040-2(EMC), EN 62040-3 (VFI-SS-111)							



Industry



Data Center



Server



Communication



CNC



Warehouse



Medical

TF-G SERIES

3 Phase Input - 3 Phase Output 10 kVA - 600 kVA

TECHNICAL SPECIFICATIONS

MODEL	TF-G-160	TF-G-200	TF-G-250	TF-G-300	TF-G-400	TF-G-500	TF-G-600
Apparent Power (kVA)	160	200	250	300	400	500	600
Active Power (kW)	128	160	200	240	320	400	480
INPUT							
Voltage	380/400/415 Vac 3 Ph+N+PE (Optional 440 Vac)						
Voltage Range	±%5...%20 (Adjustable with %1 Step)						
Frequency	50 Hz (Optional 60 Hz)						
Frequency Range	±5%						
Power Factor	> 0,99						
THDi	<%5						
OUTPUT							
Voltage	380/400/415 Vac 3 Ph+N+PE (Optional 440 Vac)						
Voltage Regulation	<±1%						
Frequency	50 Hz (Optional 60 Hz)						
Frequency Range	Synchronized to Network ± %2 in Line Mode; Operating from battery ± %0,2						
Power Factor	0,8						
Efficiency	Online (%100 Load)	94%					
	Eco Mode	98%					
Overload	%100<Load<%125: 10 min.; %125<Load<150 : 1 min. ; Load>150: ByPass						
Crest Factor	3:1						
THDv	<3% Linear Load, <5% Non Linear Load						
BYPASS							
Voltage Range	380/400/415 Vac 3 Ph+N+PE ±%20						
Frequency Range	50 Hz ± %10						
BATTERY							
Battery Type	Dry Type 12 Vdc						
Quantity	60						
Float Charge Voltage	810 Vdc						
Min. Discharge Voltage	630 Vdc						
Battery Test	Automatic/Manuel						
Battery Protection	Deep Discharge Protection						
GENERAL							
Topology	High Frequency PWM, IGBT Technology						
Operating Type	Static, Online, DSP Control						
Display	Graphic LCD Monitor, Control Panel, Mimic Diagram						
LED	Line, Battery, Inverter, Load, Fault Indications						
Protections	Overload, Over Temperature, Short Circuit						
Optional Features	Parallel Operation, EPO						
ENVIRONMENTAL							
Operating Temperature	0~40 °C						
Storage Temperature	-25 ~ +70 °C						
Cooling	Forced Air Cooling						
Relative Humidity	%20-%90 (Non-condensing)						
Altitude	<1000m						
Protection Level	IP20						
Acoustic Noise (from 1m.)	<65 dBA		<70 dBA		<74 dBA		
PHYSICAL							
Dimensions (WxDxH)mm	685*1050*1745		1608*868*1900			2190*810*2029	
Weight (kg)	490	540	870	890	1370	1480	1690
COMMUNICATION							
Dry Contact	Low Battery, System ByPass, Line Failure						
Optional Ports	SNMP, Modbus, RS485						
STANDARDS							
Harmonized Standards	EN 62040-1(LVD), EN 62040-2(EMC), EN 62040-3 (VFI-SS-111)						



Industry



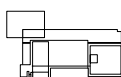
Data Center



Server



Communication



CNC



Warehouse



Medical

TF-I SERIES

3 Phase Input - 3 Phase Output 3L 10 kVA-250 kVA

TF-I Series UPS's use the latest generation power components and next generation high efficiency 3-level topology to provide a functional, safe, easy to install and use product with the latest power conversion technology.

Our TF-I Series UPS's, which provide compact and high-performance three-phase power protection with excellent high efficiency and scalable runtime, are safely used for all kinds of industrial, IT, hospital, lighting and other critical business applications.

- ✓ IGBT PWM Rectifier & Inverter Technology
- ✓ Multiprocessor Digital Control
- ✓ Energy Saving thanks to High Efficiency up to 96%
- ✓ Automatic Soft-Start
- ✓ Cold Start
- ✓ Optional Dual AC Input
- ✓ Ability to Connect a Flexible Number of Batteries
- ✓ Variable Input Operating voltage (up to -36%) depending on the Load Reduces Battery Usage
- ✓ Short Circuit, Overload, Lightning and Voltage Surge Protection
- ✓ Up to 8 Unit Parallel Working
- ✓ Intelligent Backup Management (N,N+1 and N+X)
- ✓ Excellent Generator Compatibility
- ✓ Programmable Dry Contacts
- ✓ Multi-Language Large LCD Display
- ✓ Low Noise Level and Higher Fan Life Thanks to Intelligent Fan Control
- ✓ Frequency Converter Mode (50/60 Hz)
- ✓ Advanced Intelligent Battery Management
- ✓ Longer Battery Life and Better Performance with Dedicated EBM Battery Charge Management
- ✓ Optional 1/1, 1/3, 3/1 and 3/3 Phase Operation Mode
- ✓ Battery Temperature Sensor for Balanced Charge Temperature
- ✓ Easy Maintenance Thanks to Its Modular Structure
- ✓ Inrush Currents can be Controlled Thanks to Programmable Easy Start.
- ✓ Automatic Power Loading Test
- ✓ Wide Communication Options
- ✓ EPO (Emergency Power Off) Contact
- ✓ Remote Monitoring Panel
- ✓ Environment Sensors for Data Centers (Humidity, Temperature, Smoke etc.)
- ✓ 256 Detailed Real-Time Event Logs
- ✓ Data Analysis via the User Panel
- ✓ Remote Monitoring and Management Software
- ✓ Remote Monitoring Panel
- ✓ Reporting by e-mail
- ✓ 24/7 Technical Service Support with Remote Monitoring



TF-I SERIES

3 Phase Input - 3 Phase Output 3L 10 kVA-250 kVA

TECHNICAL SPECIFICATIONS

MODEL	TF-I-10	TF-I-15	TF-I-20	TF-I-30	TF-I-40	TF-I-60
Apparent Power (kVA)	10	15	20	30	40	60
Active Power (kW)	9	13,5	18	27	36	54
INPUT						
Voltage	380, 400, 415 Vac 3P+N+GND					
Voltage Tolerance	-%36/+%20 for %40 Load ±20 for %100 Load					
Frequency	45-65Hz					
THDi	≤%3					
Power Factor	≥0,99					
OUTPUT						
Voltage	380, 400, 415 Vac 3P+N+GND					
Voltage Regulation	±%1					
Frequency	OnlineMode: Sync with Mains (50/60Hz) ± 0,01Hz					
Wave Form	Pure Sine Wave					
Crest Factor	3:1					
Harmonic Distortion	Lineer Load ≤%2; Non Lineer Load ≤%5					
Power Factor	0,9 (0,8 and 1 Optional)					
Efficiency	Up to %96 @%50 Load					
Eco Mode Efficiency	Up to %98 (Optional)					
BYPASS						
Voltage Tolerance	±%10					
Type	Internal Static ByPass and Manuel Maintenance ByPass					
Overload Capacity	1 min@%150 Load					
BATTERY						
Type	VRLA-AGM / GEL / Ni-Cd / Li-ion					
Battery Qty	Internal	20 - 7/9 Ah	32 - 7/9 Ah	2x30 - 7/9 Ah	40 - 18 Ah	
	With 4A Charge Board	40				
	With13A Charge Board	30-46 (Standart 30 pcs. Selectable from Panel)				40-46
Charge Current	1 A	4A				13A
Battery Test	Automatic and Manuel					
Battery Charge Time	<6-8 hrs					
GENERAL						
Topology	3-Level, Double Conversion Online					
Front Panel	LCD Screen, Status LED's					
Communication (Optional)	RS485, Genset, SNMP, GSM Modem , Dry Contact, Modbus, USB					
Battery Temperature Sensor	Yes					
Emergency Power Off (EPO)	Yes					
Parallel Working	Optional Up to 8 Units					
Accessories (Optional)	Isolation Transformer, Remote Control Panel					
ENVIRONMENTAL						
Operating Temperature	0°C-40°C					
Advised Operating Temperature	20 - 25 °C					
Storage Temperature	-15°C...+55°C					
Relative Humidity	<%95 (Non Condensed)					
Audible Noise (from 1m.)	≤55dB		≤58dB			
Protection Level	Standart IP20 (Others Optional)					
STANDARDS						
Harmonized Standards	EN 62040-1-1 (LVD), EN 62040-2 (EMC), EN 62040-3 (Performance) VFI-SS-111					
PHYSICAL						
Dimensions (WxDxH) mm	300*700*800		300*850*990		430*950*1200	
Weight (kg)	48	51	65	71	90	115



Industry



Data Center



Server



Communication



CNC



Warehouse



Medical

TF-I SERIES

3 Phase Input - 3 Phase Output 3L 10 kVA-250 kVA

TECHNICAL SPECIFICATIONS

MODEL	TF-I-80	TF-I-100	TF-I-120	TF-I-160	TF-I-200	TF-I-250
Apparent Power (kVA)	80	100	120	160	200	250
Active Power (kW)	72	90	108	144	180	225
INPUT						
Voltage	380, 400, 415 V 3P+N+GND					
Voltage Tolerance	-%36/+%20 for %40 Load ±20 for %100 Load					
Frequency	45-65Hz					
THDi	≤%3					
Power Factor	≥0,99					
OUTPUT						
Voltage	380, 400, 415 V 3P+N+GND					
Voltage Regulation	±%1					
Frequency	OnlineMode: Sync with Mains (50/60Hz) ± 0,01Hz					
Wave Form	Pure Sine Wave					
Crest Factor	3:1					
Harmonic Distortion	Lineer Load ≤%2; Non Lineer Load ≤%5					
Power Factor	0,9 (0,8 and 1 Optional)					
Efficiency	Up to %96 @%50 Load					
Eco Mode Efficiency	Up to %98 (Optional)					
BYPASS						
Voltage Tolerance	±%10					
Type	Internal Static ByPass and Manuel Maintenance ByPass					
Overload Capacity	1 min@%150 Load					
BATTERY						
Type	VRLA-AGM / GEL / Ni-Cd / Li-ion					
Battery Test	Automatic and Manuel					
Battery Charge Time	<6-8 hrs					
GENERAL						
Topology	3-Level, Double Conversion Online					
Front Panel	LCD Screen, Status LED's					
Communication (Optional)	RS485, Genset, SNMP, GSM Modem , Dry Contact, Modbus, USB					
Battery Temperature Sensor	Yes					
Emergency Power Off (EPO)	Yes					
Parallel Working	Optional Up to 8 Units					
Accessories (Optional)	Isolation Transformer, Remote Panel					
ENVIRONMENTAL						
Operating Temperature	0°C-40°C					
Advised Operating Temperature	20-25 °C					
Storage Temperature	-15°C...+55°C					
Relative Humidity	<%95 (Non Condensed)					
Audible Noise (from 1m.)	≤62dB			≤65dB		
Protection Level	Standart IP20 (Others Optional)					
STANDARDS						
Harmonized Standards	EN 62040-1-1 (LVD), EN 62040-2 (EMC), EN 62040-3 (Performance) VFI-SS-111					
PHYSICAL						
Dimensions (WxDxH) mm	540*960*1300					
Weight (kg)	205	210	220	260	292	



Industry



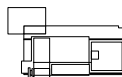
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Server



Communication



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Warehouse



Medical

SMR-A SERIES

Mono Phase 5 kVA - 30 kVA Servo Stabilizer

SMR-A Series Servo Stabilizer regulates the mains voltage as fully automatic. It has been manufactured with the capacity to operate smoothly even when the voltage fluctuates at full load. Input-Output voltages can be monitored instantly on the display panel.

- ✓ Fully Automatic Servo Stabilizer
- ✓ Wide Model Options*
- ✓ High Speed Regulation
- ✓ Wide Input Voltage Range (130-260 Vac)
- ✓ Adjustable Output Voltage
- ✓ Digital Voltmeter
- ✓ Low Tolerance Precise Output Voltage
- ✓ High Efficiency More than %95
- ✓ Optional Protection Options
 - Over Voltage
 - Overload
 - Short Circuit
 - Over Temperature
- ✓ 250 ° C Heat Resistant Glass Fiber Wire Transformer Winding
- ✓ Mechanical Construction Compatible with Heavy Industry Conditions
- ✓ Mechanical ByPass Switch

* (Customized Production is Made Upon Request)



SMR-A SERIES

Mono Phase 5 kVA - 30 kVA Servo Stabilizer

TECHNICAL SPECIFICATIONS

MODEL	SMR-5.0	SMR-7.5	SMR-10	SMR-15	SMR-20	SMR-30
Power (kVA)	5	7,5	10	15	20	30
INPUT						
Nominal Voltage	220/230 Vac					
Voltage Regulation Range	130/230 Vac; 160/250 Vac; 180/260Vac					
Operating Frequency Range	50/60 Hz ±%5					
OUTPUT						
Output Voltage	220/230 Vac (Adjustable)					
Output Voltage Adjustment	±10V					
Output Tolerance	± 2%					
Correction Speed	80 V/sec					
Overload Capacity	%110 for 10 min; %125 for 1 min.					
Possible Load Fluctation	0....%100					
Power Factor	0,8					
Efficiency	%95 (Full Load)					
GENERAL						
Panel	2 Lines 7 Segment Display					
Warnings	Buzzer for Ouput Over Voltage					
Harmonic Distortion	NA					
Cooling System	Forced Air Cooling (Fan)					
Mechanical ByPass	With Pako Switch					
Protections	Optional Over Voltage/Over Current, Short Circuit					
IP Level	IP20 (Others optional)					
ENVIRONMENTAL						
Operating Temperature	-10°C/+50°C					
Storage Temperature	-25°C / +60°C					
Relative Humidity	<90%, DIN(40040)					
Operation Altitude	<3.000m.					
Audible Noise	<60dB					
STANDARDS						
Safety	IEC/EN 62103					
EMC	EN/IEC 61000-6-4; EN/IEC 61000-6-2					
PHYSICAL						
Dimensions (cm)	45*35*27	55*40*30	55*40*30	55*40*30	50*54*86	50*54*86
Weight (kg)	35	39,5	49	61	100	125



Home

Office

Industry

Data Center

CNC

Printing

Rd-TV Tx

Lift

SMR-D SERIES

Mono Phase 1 kVA - 50 kVA Servo Stabilizer

SMR-D Series Mono Phase Servo Stabilizer regulates the mains voltage as fully automatic. It has been manufactured with the capacity to operate smoothly even when the voltage fluctuates at full load. The servo system within Servo Voltage Regulators provides the control of the DC motor with thyristor. Thanks to the booster transformer and variac (auto transformer) , voltage regulation is made at the output.

- ✓ Microprocessor Controlled Fully Automatic Servo Stabilizer
- ✓ Wide Model Options*
- ✓ Ability to drive non-linear loads
- ✓ Wide power and voltage range
- ✓ High efficiency, quiet operation
- ✓ Manual By-Pass feature
- ✓ Over current and short circuit protection
- ✓ Cooling with smart fan system
- ✓ Aesthetic and ergonomic design, small size, long life
- ✓ Production in a compact structure with quality materials, minimum risk of failure
- ✓ Chassis technology that is not affected by dust, humidity, vibration
- ✓ Reliable use for all electrical devices
- ✓ Over and under voltage protection (Optional)



SMR-D SERIES

Mono Phase 1 kVA - 50 kVA Servo Stabilizer

TECHNICAL SPECIFICATIONS

MODEL	SMR-D-1.0	SMR-D-2.0	SMR-D-3.5	SMR-D-5.0	SMR-D-7.5	SMR-D-10	SMR-D-15	SMR-D-20	SMR-D-30	SMR-D-40	SMR-D-50
Power (kVA)	1	2	3,5	5	7,5	10	15	20	30	40	50
INPUT											
Nominal Voltage	220/230 Vac										
Voltage Regulation Range	110/240 Vac; 160/260 Vac; 180/260Vac										
Operating Frequency Range	50/60 Hz ±%5										
OUTPUT											
Output Voltage	220/230/240 Vac										
Output Tolerance	± 2%										
Correction Speed	90 V/sec										
Overload Capacity	%200 for 10 secs										
Power Factor	0,8										
Efficiency	>%95 (Full Load)										
GENERAL											
Panel	74x74 mm RMS Panel Voltmetre										
Harmonic Distortion	NA										
Cooling System	Smart Air Cooling (Fan)										
Mechanical ByPass	Manuel by Pako Switch										
Protections	Optional Over/Low Voltage; Over Current; Short Circuit										
IP Level	IP20 (Others Optional)										
ENVIRONMENTAL											
Operating Temperature	-10°C/+50°C										
Stotage Temperature	-25°C / +60°C										
Relative Humidity	<90%, DIN(40040)										
Operation Altitude	<3.000m.										
Audible Noise	<50dB										
STANDARDS											
Safety	IEC/EN 62103										
EMC	EN/IEC 61000-6-4; EN/IEC 61000-6-2										
PHYSICAL											
Dimensions W*D*H (cm)	45,5*37*29,5			29,5			59*42*35	50*52*86			
Weight (kg)	25	28	29	30	34	47	55	95	130	155	180



Home Office Data Center Printing Rd-TV Tx Lift

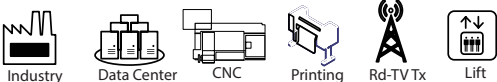
STR-A SERIES

3 Phase 15 kVA - 1600 kVA Servo Stabilizer

STR-A Series 3 Phase Servo Stabilizer regulates the mains voltage as fully automatic. It has been manufactured with the capacity to operate smoothly even when the voltage fluctuates at full load. Input-Output voltages can be monitored instantly on the display panel.

- ✓ Fully Automatic Servo Stabilizer
- ✓ Wide Model Options*
- ✓ High Speed Regulation
- ✓ Wide Input Voltage Range (200-450 Vac)
- ✓ Adjustable Output Voltage
- ✓ Digital Voltmeter
- ✓ Low Tolerance Precise Output Voltage
- ✓ High Efficiency More than %95
- ✓ -10 °C / +55 °C Operating Temperature
- ✓ 10 mins operating at %125 Overloading
- ✓ Optional Protection Options
 - Over Voltage
 - Phase Protection
 - Overload
 - Short Circuit
 - Over Temperature
 - Adjustable Delay Protection Unit
- ✓ 250 ° C Heat Resistant Glass Fiber Wire Transformer Winding
- ✓ Mechanical Construction Compatible with Heavy Industry Conditions
- ✓ Mechanical ByPass Switch

* (Customized Production is Made Upon Request)



STR-A SERIES

3 Phase 15 kVA - 1600 kVA Servo Stabilizer

TECHNICAL SPECIFICATIONS

Power (kVA)	STR-A-15	STR-A-23	STR-A-30	STR-A-45	STR-A-60	STR-A-75	STR-A-100	STR-A-120	STR-A-150	STR-A-200	STR-A-250	STR-A-300	STR-A-400	STR-A-500	STR-A-600	STR-A-800	STR-A-1000	STR-A-1600
INPUT																		
Nominal Gerilim	3P+N+GND 380/400/415 Vac																	
Gerilim Çalışma Aralığı	220/400 Vac; 275/430 Vac; 310/450 Vac																	
Çalışma Frekansı	50/60 Hz ±%5																	
OUTPUT																		
Output Gerilim	3P+N+GND 380/400 Vac (Adjustable)																	
Output Gerilim Adjustment	±10V																	
Output Tolerance	± 2%																	
Correction Speed	80 V/sec																	
Overload Capacity	%110 for 10 min; %125 for 1 min.																	
Possible Load Fluctation	0....%100																	
Power Factor	0,8																	
Efficiency	%95 (Full Load)																	
GENERAL																		
Panel	3pcs 2 Lines 7 Segment Display																	
Warnings	Buzzer for Ouput Over Gerilim																	
Harmonic Distortion	NA																	
Cooling System	Forced Air Cooling (Fan)																	
Mechanical ByPass	With Pako Switch										With Change Over Switch							
Protections	Optional Over Gerilim/Over Current, Phase Protection,Short Circuit																	
IP Level	IP20 (Others optional)																	
ENVIRONMENTAL																		
Operating Temperature	-10°C/+50°C																	
Stotage Temperature	-25°C / +60°C																	
Relative Humidity	<90%, DIN(40040)																	
Operation Altitude	<3.000m.																	
Audible Noise	<65dB																	
STANDARDS																		
Safety	IEC/EN 62103																	
EMC	EN/IEC 61000-6-4; EN/IEC 61000-6-2																	
PHYSICAL																		
Dimensions (cm)	43*58*113				55*90*137			60*95*145		(60x3)x80x150			(60x3)x110x150		(60x3)x180x140		(70x3)x220x175	
Weight (kg)	133	142	170	200	303	312	367	429	473	600	690	750	750	1200	1350	2250	2550	4500



STR-D SERIES

3 Phase 6 kVA - 2000 kVA Servo Stabilizer

STR -D Series 3 PhaseS Servo Stabilizer regulates the mains voltage as fully automatic. It has been manufactured with the capacity to operate smoothly even when the voltage fluctuates at full load. The servo system within Servo Voltage Regulators provides the control of the DC motor with thyristor. Thanks to the booster transformer and variac (auto transformer) , voltage regulation is made at the output.

- ✓ Microprocessor Controlled Fully Automatic Servo Stabilizer
- ✓ Wide Model Options*
- ✓ Ability to drive non-linear loads
- ✓ Wide power and voltage range
- ✓ High efficiency, quiet operation
- ✓ Manual By-Pass feature
- ✓ Over current and short circuit protection
- ✓ Cooling with smart fan system
- ✓ Aesthetic and ergonomic design, small size, long life
- ✓ Production in a compact structure with quality materials, minimum risk of failure
- ✓ Chassis technology that is not affected by dust, humidity, vibration
- ✓ Reliable use for all electrical devices
- ✓ Over and under voltage protection (Optional)



STR-D SERIES

3 Phase 6 kVA - 2000 kVA Servo Stabilizer

TECHNICAL SPECIFICATIONS

MODEL	STR-D-0006	STR-D-0010	STR-D-0015	STR-D-0022	STR-D-0030	STR-D-0045	STR-D-0060	STR-D-0075	STR-D-0100	STR-D-0120	STR-D-0150
Power (kVA)	6	10	15	22,5	30	45	60	75	100	120	150
INPUT											
Nominal Voltage	380/400/415 Vac 3P+N+GND										
Voltage Regulation Range	190/485Vac			275-450 Vac				310-450 Vac			
Operating Frequency Range	50/60 Hz ±%5										
OUTPUT											
Output Voltage	380/400/415 Vac 3P+N+GND										
Output Tolerance	± 2%										
Correction Speed	90 V/sec										
Overload Capacity	%200 for 10 secs										
Power Factor	0,8										
Efficiency	>%96 (Full Load)										
GENERAL											
Panel	True RMS Panel Voltmetre										
Harmonic Distortion	NA										
Cooling System	Smart Air Cooling (Fan)										
Mechanical ByPass	Manuel										
Protections	Optional Over/Low Voltage; Over Current; Short Circuit										
IP Level	IP20 (Others Optional)										
ENVIRONMENTAL											
Operating Temperature	-10°C/+50°C										
Storage Temperature	-25°C / +60°C										
Relative Humidity	<90%, DIN(40040)										
Operation Altitude	<3.000m.										
Audible Noise	<50dB										
STANDARDS											
Safety	IEC/EN 62103										
EMC	EN/IEC 61000-6-4; EN/IEC 61000-6-2										
PHYSICAL											
Dimensions W*D*H (mm)	405*640*1170			405*640*1270		605*890*1400			660*940*1650		
Weight (kg)	85	95	105	125	145	165	260	280	310	400	425

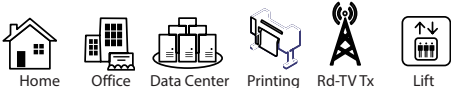


STR-D SERIES

3 Phase 6 kVA - 2000 kVA Servo Stabilizer

TECHNICAL SPECIFICATIONS

MODEL	SΦR-D-200	SΦW-D-250	SΦW-D-300	SΦW-D-400	SΦW-D-500	STR-D-600	STR-D-800	STR-D-1000	STR-D-1250	STR-D-1600	STR-D-2000
Power (kVA)	200	250	300	400	500	600	800	1000	1250	1600	2000
INPUT											
Nominal Voltage	380/400/415 Vac 3P+N+GND										
Voltage Regulation Range	190/415Vac				275-450 Vac				310-450 Vac		
Operating Frequency Range	50/60 Hz ±%5										
OUTPUT											
Output Voltage	380/400/415 Vac 3P+N+GND										
Output Tolerance	± 2%										
Correction Speed	90 V/sec										
Overload Capacity	%200 for 10 secs										
Power Factor	0,8										
Efficiency	>%95 (Full Load)										
GENERAL											
Panel	True RMS Panel Voltmetre										
Harmonic Distortion	NA										
Cooling System	Smart Air Cooling (Fan)										
Mechanical ByPass	Manuel										
Protections	Optional Over/Low Voltage; Over Current; Short Circuit										
IP Level	IP20 (Others Optional)										
ENVIRONMENTAL											
Operating Temperature	-10°C/+50°C										
Stotage Temperature	-25°C / +60°C										
Relative Humidity	<90%, DIN(40040)										
Operation Altitude	<3.000m.										
Audible Noise	<60dB										
STANDARDS											
Safety	IEC/EN 62103										
EMC	EN/IEC 61000-6-4; EN/IEC 61000-6-2										
PHYSICAL											
Dimensions W*D*H (mm)	1800*1210*1230			1800* 1210* 1730			2100* 1440* 2080	2100* 1220* 1830	2400* 1120* 2080	2400* 1720* 1880	2400* 1720* 2080
Weight (kg)	1050	1100	1200	1650	2000	2100	2900	3450	3900	4300	6000



VRLA BATTERIES

IST POWER

General Features

Dry Type Maintenance Free
VRLA AGM Technology
Wide Capacity Options
Durable
Long Life

Application Areas

Uninterruptible Power Supplies (UPS)
DC Power Systems
Medical Systems
Emergency Lighting
Fire Alarm and Security Systems
Automatic Control Systems
Communication Systems
Signaling Systems



TECHNICAL SPECIFICATIONS

Brand	Model No.	Nominal Voltage	Capacity	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)	Terminal
XPOWER	XP7-12	12V	7Ah	65	151	99	2,00	T2
XPOWER	XP9-12	12V	9Ah	65	151	99	2,30	T2
XPOWER	XP12-12	12V	12Ah	99	151	99	3,10	T2
XPOWER	XP18-12	12V	18Ah	76	181	166	4,80	T12
XPOWER	XP26-12	12V	26Ah	177	168	126	7,40	T12
XPOWER	XP40-12	12V	40Ah	166	197	181	11,80	T16A
XPOWER	XP65-12	12V	65Ah	166	350	179	19,10	T16A
XPOWER	XP80-12	12V	80Ah	169	260	215	22,00	T14
DEEPPPOWER	NP7-12	12V	7Ah	65	151	94	2,10	T2
DEEPPPOWER	NP9-12	12V	9Ah	65	151	94	2,50	T2
DEEPPPOWER	NP12-12	12V	12Ah	98	151	94	3,40	T2
DEEPPPOWER	NP18-12	12V	18Ah	77	181	167	5,00	T12
DEEPPPOWER	NP26-12	12V	26Ah	175	166	125	7,90	T12
DEEPPPOWER	NP40-12	12V	40Ah	166	197	174	12,60	T16A
DEEPPPOWER	NP55-12	12V	55Ah	138	230	211	16,20	T14
DEEPPPOWER	NP65-12	12V	65Ah	166	350	179	20,40	T16A
DEEPPPOWER	NP80-12	12V	80Ah	169	260	211	23,20	T14
DEEPPPOWER	NP100-12	12V	100Ah	171	330	220	28,50	T16A
SSB	SB7.2-12	12V	7.2Ah	65	151	100	2,10	T2
SSB	SB9-12	12V	9Ah	65	151	100	2,50	T2
SSB	SB12-12	12V	12Ah	98	151	100	3,65	T12
SSB	SB18-12	12V	18Ah	77	181	167	5,50	T12
SSB	SB26-12	12V	26Ah	175	166	125	8,05	T12
SSB	SB40-12	12V	40Ah	166	197	181	13,50	T16A
SSB	SB55-12	12V	55Ah	138	230	229	16,10	T14
SSB	SB65-12	12V	65Ah	166	350	179	20,40	T16A
SSB	SB80-12	12V	80Ah	169	260	215	23,50	T14
SSB	SB100-12	12V	100Ah	171	331	220	29,30	T16A



Home

Office

Emergency

Computer

Data Center

Server

Communication

Medical



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