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REGULATED POWER SUPPLY

The fine quality and reputation guarantee



PRODUCTS CATALOG



Cooperation produces value,
credit creates future.

BRIEF introduction company

Zhejiang Mingch Electrical Co.,Ltd. is a manufacturer specialized in development, production, marketing as a body electric power voltage regulator/transformer/frequency inverter/soft starter/variator/UPS/solar inverter.

Since origination, it has been persisting in taking the science and technology as the forerunner, the abundant technology as a backing, and positively introducing the overseas advanced technology, increasingly improve and consummate the products, many years specialized management, the product best-selling nation, While exports to Bangladesh, Myanmar, India, Russia, Indonesia, Thailand and other countries in Southeast Asia and Africa, some of them are well sold to the world meanwhile receive high praise from the majority of customers.

The company has been persisting in regarding "being realistic, innovation, development" as the management idea, combining with today's modern science and technology and economical high speed development, application of information technology and micro electron technology as well as the massive of current consumer has more and more serious requirement on the quality of the power supply, but our country AC electrical network construction and the development is not extremely balanced, under so worse electric quantity supply situation, a new series electric power voltage regulator products are researched and developed that has satisfied each kind of special current consumer, each kind of use place to the voltage regulator's demand. The company product is widely used in situation where all need normal voltage guaranteed, such as the industry and mining enterprises, the textile machinery, the printing packing, the petroleum chemical industry, the school, the market, the elevator, the posts and telecommunications correspondence, the medical machinery and so on.

Zhejiang Mingch Electrical Co.,Ltd. promises "taking the good faith as base, the long-term service" promptly to help you exclude the difficulty and anxiety. Zhejiang Mingch Electrical Co.,Ltd. sincerely expects for your joining, shares double-win joyfully.



Corporate Culture



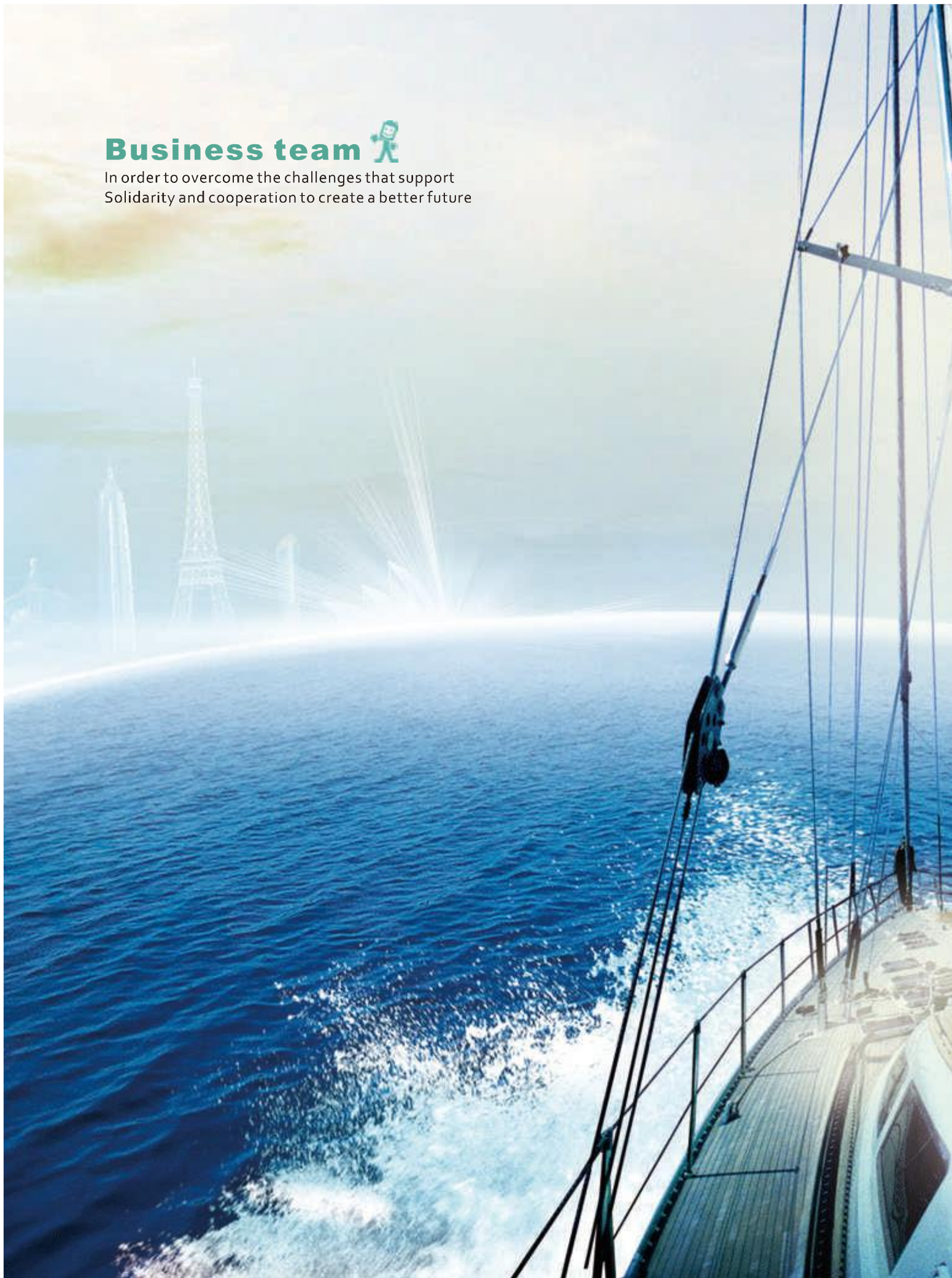
Cooperation Produces Value, Credit Creates Future



- Management Philosophy: Excellence, Innovation, Persistence, Credit.
- Corporate culture: People oriented, and team foremost.
- Core values: Cooperation produces value, credit creates future.

Business team

In order to overcome the challenges that support
Solidarity and cooperation to create a better future



CONTENT

the company group



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PRECISE PURIFIED VOLTAGE REGULATOR POWER SUPPLY
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POWER SOCKET&PLUG



Cooperation produces value, credit creates future.

www.mingchele.com

SBWTHREE PHASES Series

COMPENSATED POWER VOLTAGE REGULATOR



SBW THREE PHASES Series

COMPENSATED POWER VOLTAGE REGULATOR



SBW three phases AC voltage stabilizer is a contact adjustable automatic voltage compensation high power regulating power device . When voltage from support network is varied due to loading current effected , it automatically regulates the output voltage to ensure the normal function of the varied of electric equipments. This series product compared with other types of voltage regulator , it has large capacity , high efficiency ,no waveform distortion , stable voltage regulation and other advantages , it supports widely load applied , stand by the instantaneous overload and continuous long work , manual/auto switch, can provide over voltage、lack phase、phase order and machine faulty automatically protect.

Conveniently assemble and reliably operating(can be made digital display/analog display)



SBW-100KVA



SPECIFICATIONS:

INPUT VOLTAGE	Three phase:304V-456V / 323V-437V Single phase:176V-264V / 187V-253V
OUTPUT VOLTAGE	Single phase :220V Three phases :380V
OUTPUT DEVIANCE	1-5% Adjustable
FREQUENCY	50Hz~60Hz
EFFICIENCY	≥95%
RESPONSE TIME	≤1.5S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
OVERLOAD	DOUBLE RETED CURRENT,ONE MIN
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT、LACK PHASES

OUTLINE & PACKING

MODEL	OUTPUT POWER(KVA)	OUTLINE(CM)	NET WEIGHT(KG)
SBW-50K	50	80X54X135	250
SBW-60K	60	80X54X135	255
SBW-100K	100	85X62X150	314
SBW-150K	150	100X70X165	402
SBW-180K	180	100X70X165	515
SBW-200K	200	100X70X165	562
SBW-225K	225	110X80X185	670
SBW-250K	250	110X80X185	710
SBW-300K	300	110X80X195	755
SBW-320K	320	110X80X195	810
SBW-400K	400	100X120X200	972
SBW-500K	500	110X125X200	1000
SBW-500K	500	100X80X200 Double cabinets	1139
SBW-600K	600	110X135X200	1450
SBW-600K	600	100X80X200 Double cabinets	1790



SBW-300KVA



OVER VOLTAGE
PROTECTION



LOW VOLTAGE
PROTECTION



OVER LOAD
PROTECTION



OVER TEMP
PROTECTION



DELAY TIME



SBW THREE PHASES Series

COMPENSATED POWER VOLTAGE REGULATOR

ISO9001 CE

SBW three phases AC voltage stabilizer is a contact adjustable automatic voltage compensation high power regulating power device . When voltage from support network is varied due to loading current effected , it automatically regulates the output voltage to ensure the normal function of the varied of electric equipments. This series product compared with other types of voltage regulator , it has large capacity , high efficiency , no waveform distortion , stable voltage regulation and other advantages , it supports widely load applied , stand by the instantaneous overload and continuous long work, manual/auto switch, can provide over voltage, lack phase, phase order and machine faulty automatically protect. Conveniently assemble and reliably operating(can be made digital display/analog display)



SBW-50KVA



SBW-300KVA



SPECIFICATIONS:

INPUT VOLTAGE	Three phase:304V-456V / 323V-437V Single phase:176V-264V / 187V-253V
OUTPUT VOLTAGE	Single phase :220V Three phases :380V
OUTPUT DEVIANCE	1-5% Adjustable
FREQUENCY	50HZ~60HZ
EFFICIENCY	≥95%
RESPONSE TIME	≤1.5S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
OVERLOAD	DOUBLE RETED CURRENT,ONE MIN
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT、LACK PHASES

OUTLINE & PACKING

MODEL	OUTPUT POWER(KVA)	OUTLINE(CM)	NET WEIGHT(KG)
SBW-50K	50	80X54X135	250
SBW-60K	60	80X54X135	255
SBW-100K	100	85X62X150	314
SBW-150K	150	100X70X165	402
SBW-180K	180	100X70X165	515
SBW-200K	200	100X70X165	562
SBW-225K	225	110X80X185	670
SBW-250K	250	110X80X185	710
SBW-300K	300	110X80X195	755
SBW-320K	320	110X80X195	810
SBW-400K	400	100X120X200	972
SBW-500K	500	110X125X200	1000
SBW-500K	500	100X80X200 Double cabinets	1139
SBW-600K	600	110X135X200	1450
SBW-600K	600	100X80X200 Double cabinets	1790



OVER VOLTAGE
PROTECTION



LOW VOLTAGE
PROTECTION



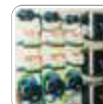
OVER LOAD
PROTECTION



OVER TEMP
PROTECTION



DELAY TIME



DBW SINGLE PHASE Series

COMPENSATED POWER VOLTAGE REGULATOR

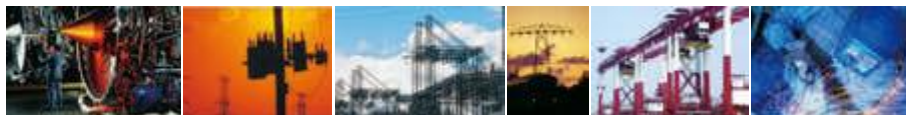


DBW single phases AC voltage stabilizer is a contact adjustable automatic voltage compensation high power regulating power device . When voltage from support network is varied due to loading current effected, it automatically regulates the output voltage to ensure the normal function of the varied of electric equipments. This series product compared with other types of voltage regulator , it has large capacity , high efficiency , no waveform distortion , stable voltage regulation and other advantages , it supports widely load applied , stand by the instantaneous overload and continuous long work, manual/auto switch, can provide over voltage、 and machine faulty automatically protect.

Conveniently assemble and reliably operating(can be made digital display/analog display)



DBW-50KVA



SPECIFICATIONS:

INPUT VOLTAGE	Single phase:176V-264V / 187V-253V
OUTPUT VOLTAGE	Single phase :220V
OUTPUT DEVIANCE	1-5% Adjustable
FREQUENCY	50HZ~60HZ
EFFICIENCY	≥95%
RESPONSE TIME	≤1.5S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
OVERLOAD	DOUBLE RETED CURRENT,ONE MIN
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、 OVERCURRENT

OUTLINE & PACKING



DBW-200KVA

MODEL	OUTPUT POWER(KVA)	OUTLINE(CM)	WEIGHT(KG)
DBW-20K	20	65X56X135	278
DBW-30K	30	65X56X135	300
DBW-40K	40	65X56X135	320
DBW-50K	50	80X60X150	350
DBW-60K	60	80X60X150	370
DBW-70K	70	80X60X150	390
DBW-80K	80	80X60X150	420
DBW-100K	100	90X70X170	460
DBW120K	120	90X70X170	490
DBW-150K	150	90X70X170	515
DBW-180K	180	100X80X190	560
DBW-200K	200	100X80X190	590



OVER VOLTAGE
PROTECTION



LOW VOLTAGE
PROTECTION



OVER LOAD
PROTECTION



OVER TEMP
PROTECTION



DELAY TIME



SBW-Z THREE PHASES Series

COMPENSATED POWER VOLTAGE REGULATOR



SINGLE COLOR



888



OVER VOLTAGE PROTECTION



LOW VOLTAGE PROTECTION



OVER LOAD PROTECTION



OVER TEMP PROTECTION



DELAY TIME

SBW-Z THREE PHASES Series

COMPENSATED POWER VOLTAGE REGULATOR



SBW-Z three phases AC voltage stabilizer is a contact adjustable automatic voltage compensation high power regulating power device. When voltage from support network is varied due to loading current effected, it automatically regulates the output voltage to ensure the normal function of the varied of electric equipments.

This series product compared with other types of voltage regulator, it has large capacity, high efficiency, no waveform distortion, stable voltage regulation and other advantages, it supports widely load applied, stand by the instantaneous overload and continuous long work, manual / auto switch, can provide over voltage, lack phase, phase order and machine faulty automatically protect. Conveniently assemble and reliably perating



SBW-Z-50KVA



SPECIFICATIONS:

INPUT VOLTAGE	Three phase:304V-456V / 323V-437V Single phase:176V-264V / 187V-253V
OUTPUT VOLTAGE	Single phase :220V Three phases :380V
OUTPUT DEVIANCE	1-5% Adjustable
FREQUENCY	50HZ~60HZ
EFFICIENCY	≥95%
RESPONSE TIME	≤1.5S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
OVERLOAD	DOUBLE RETED CURRENT,ONE MIN
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVCURRENT、LACK PHASES

OUTLINE & PACKING

MODEL	OUTPUT POWER(KVA)	OUTLINE(CM)	NET WEIGHT(KG)
SBW-Z-50K	50	80X54X135	250
SBW-Z-60K	60	80X54X135	255
SBW-Z-100K	100	85X62X150	314
SBW-Z-150K	150	100X70X165	402
SBW-Z-180K	180	100X70X165	515
SBW-Z-200K	200	100X70X165	562
SBW-Z-225K	225	110X80X185	670
SBW-Z-250K	250	110X80X185	710
SBW-Z-300K	300	110X80X195	755
SBW-Z-320K	320	110X80X195	810
SBW-Z-400K	400	100X120X200	972
SBW-Z-500K	500	110X125X200	1000
SBW-Z-500K	500	100X80X200 Double cabinets	1139
SBW-Z-600K	600	110X135X200	1450
SBW-Z-600K	600	100X80X200 Double cabinets	1790



SBW-Z-300KVA



OVER VOLTAGE
PROTECTION



LOW VOLTAGE
PROTECTION



OVER LOAD
PROTECTION



OVER TEMP
PROTECTION



DELAY TIME



SBW-F THREE

PHASES INDIVIDUAL CONTROL Series

COMPENSATED POWER VOLTAGE REGULATOR

ISO9001 CE

SBW-F three phases individual control AC voltage stabilizer is a contact adjustable automatic voltage compensation high power regulating power device .Whenvoltage from support network is varied due to loading current effected, it automatically regulates the output voltage to ensure thenormal function of the varied of electric equipments.
This series product compared with other types of voltage regulator, it has large capacity,high efficiency, no waveform distortion ,stable voltage regulation and other advantages, it supports widely load applied , stand by the instantaneous overload and continuous long work , manual 1 auto switc h, can provide over voltage、 lack phase、 phase order and machine faulty automatically protect.Conveniently assemble and reliably operating



SBW-F-50K



SPECIFICATIONS:

INPUT VOLTAGE	Three phase:304V-456V / 323V-437V Single phase:176V-264V / 187V-253V
OUTPUT VOLTAGE	Single phase :220V Three phases :380V
OUTPUT DEVIANCE	1-5% Adjustable
FREQUENCY	50HZ~60HZ
EFFICIENCY	≥95%
RESPONSE TIME	≤1.5S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
OVERLOAD	DOUBLE RETED CURRENT,ONE MIN
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、 OVERCURRENT、 LACK PHASES



SBW-F-800K



OUTLINE & PACKING

MODEL	SBW-F-50K	SBW-F-100K	SBW-F-150K	SBW-F-180K	SBW-F-225K	SBW-F-250K	SBW-F-320K
OUTPUT POWER(KVA)	50	100	150	180	225	250	320
OUTLINE(CM)	110X85X137	115X90X200	120X100X185	120X100X185	125X100X195	125X100X195	135X100X195
NET WEIGHT(KG)	450	540	650	750	860	875	990

SBW-F THREE

PHASES INDIVIDUAL CONTROL Series

COMPENSATED POWER VOLTAGE REGULATOR



SBW-F-3000K



SPECIFICATIONS:

INPUT VOLTAGE	Three phase:304V-456V / 323V-437V Single phase:176V-264V / 187V-253V
OUTPUT VOLTAGE	Single phase :220V Three phases :380V
OUTPUT DEVIANCE	1-5% Adjustable
FREQUENCY	50HZ-60HZ
EFFICIENCY	≥95%
RESPONSE TIME	≤1.5S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
OVERLOAD	DOUBLE RETED CURRENT,ONE MIN
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT、LACK PHASES



OUTLINE & PACKING

SBW-F-400K	SBW-F-500K	SBW-F-600K	SBW-F-800K	SBW-F-1000K	SBW-F-1200K	SBW-F-1600K	SBW-F-2000K	SBW-F-3000K
400	500	600	800	1000	1200	1600	2000	3000
150X85X200	150X85X200	150X85X200	85X120X200 Three cabinet	85X120X200 Three cabinets	85X120X200 Three cabinets	135X130X220 Three cabinets	135X130X220 Three cabinets	145X200X220 Three cabinets
1017	1155	1344	2750	3280	4050	5500	6000	6900

DJW /SJW Series

ISO9001 CE

MICROCOMPUTER NON CONTACT AC VOLTAGE REGULATOR

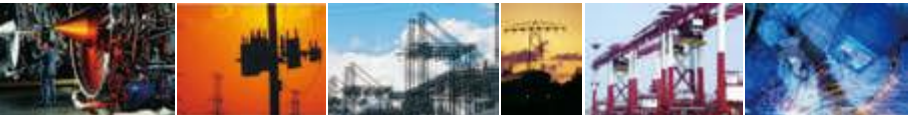
DJW/SJW series single phase /three phases micro computer non contact compensated power voltage regulator is introducing international latest technique , it combines with advanced winding compensation method and non contact switch, microcomputer control of ac voltage regulator technique in a body , with high efficiency saving energy quick adjustment automatically three phases balance , no mechanical failure and wear of carbon brush , it designed with time delay over voltage undervoltage alarm protection , in the meanwhile , the ac voltage regulator breakthrough to solve both the system and devices in transient process of running on non contact switch effecting the damage of common mode current shock and over voltage, the strong instantaneous overload ability , thus greatly increase the reliability of the system operation.



DJW-30K

SPECIFICATIONS:

INPUT VOLTAGE	Three phase:304V-456V / 323V-437V Single phase:176V-264V / 187V-253V
OUTPUT VOLTAGE	Single phase :220V Three phases :380V
OUTPUT DEVIANCE	±2.5%
FREQUENCY	50HZ~60HZ
EFFICIENCY	≥95%
RESPONSE TIME	0.2-0.5S
AMBIENT TEMPERATURE	-15℃~+40℃
INSULATION RESISTANCE	≥5MΩ
OVERLOAD	DOUBLE RETED CURRENT,ONE MIN
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT、LACK PHASES



DJW-100K

OUTLINE & PACKING

Single phase	MODEL(KVA)	RATED CAPACITY(KVA)	MAX OUTPUT CURRENT(A)	OUTLINE(CM)
	DJW-10K	10	45	60X42X108
	DJW-15K	15	68	60X42X108
	DJW-20K	20	91	60X42X108
	DJW-30K	30	136	60X42X108
	DJW-50K	50	227	60X52X125
	DJW-60K	60	272	60X52X125
	DJW-80K	80	364	70X62X158
	DJW-100K	100	455	70X62X158



DJW /SJW Series

MICROCOMPUTER NON CONTACT AC VOLTAGE REGULATOR



DJW/SJW series single phase /three phases micro computer non contact compensated power voltage regulator is introducing international latest technique ,it combines with advanced winding compensation method and non contact switch, microcomputer control of ac voltage regulator technique in a body , with high efficiency saving energy quick adjustment automatically three phases balance ,no mechanical failure and wear of carbon brush , it designed with time delay over voltage undervoltage alarm protection , in the meanwhile , the ac voltage regulator breakthrough to solve both the system and devices in transient process of running on non contact switch effecting the damage of common mode current shock and over voltage, the strong instantaneous overload ability , thus greatly increase the reliability of the system operation.



SJW-30K



SJW-250K

SPECIFICATIONS:

INPUT VOLTAGE	Three phase:304V-456V / 323V-437V Single phase:176V-264V / 187V-253V
OUTPUT VOLTAGE	Single phase :220V Three phases :380V
OUTPUT DEVIANCE	±2.5%
FREQUENCY	50HZ-60HZ
EFFICIENCY	≥95%
RESPONSE TIME	≤1.5S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
OVERLOAD	DOUBLE RETED CURRENT,ONE MIN
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVCURRENT、LACK PHASES



OUTLINE & PACKING

Three phases	MODEL(KVA)	RATED CAPACITY(KVA)	MAX OUTPUT CURRENT(A)	OUTLINE(CM)
	SJW-10K	10	15	60X57X128
	SJW-15K	15	23	60X57X128
	SJW-20K	20	30	60X57X128
	SJW-30K	30	45	70X62X158
	SJW-50K	50	76	70X62X158
	SJW-100K	60	152	70X62X158
	SJW-150K	80	227	72X80X168
	SJW-180K	180	273	72X80X168
	SJW-200K	200	303	72X80X168
	SJW-225K	225	333	82X100X178
	SJW-250K	250	379	82X100X178
	SJW-300K	300	455	82X100X178
	SJW-400K	400	850	85X120X200
	SJW-500K	500	980	90X125X210
	SJW-600K	600	1160	90X125X210
	SJW-800K	800	1400	100X150X220
	SJW-1000K	1000	1680	100X150X220



TND/SVC SINGLE PHASE Series

FULLY AUTOMATIC AC VOLTAGE REGULATOR



ISO9001 CE



TND/SVC SINGLE PHASE Series

FULLY AUTOMATIC AC VOLTAGE REGULATOR



TND/SVC series fully automatically voltage regulator consist of contact auto transformer, servo motor, automatic control circuit etc . When grid voltage instability or load change , automatically sampling control circuit sends a signal to drive servo motor, adjust the position of the self coupling voltage regulator for carbon brush, make the output voltage rating reach the stable state.

This product has the waveform distortionless, reliable performance. long-term operation and other characteristics , has time delay, over voltage, undervoltage protected function . It can be widely used in electricity which need stable voltage , it is a kind of ideal voltage stabilized supply. Ensure that your normal operation of electrical equipment

SPECIFICATIONS:



TND/SVC-500VA

INPUT VOLTAGE	100V-250V / 130V-250V / 140V-260V / 160V-250V
OUTPUT VOLTAGE	220V
OUTPUT DEVIANCE	±3%
FREQUENCY	50HZ~60HZ
EFFICIENCY	≥90%
RESPONSE TIME	≤1S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVCURRENT



TND/SVC-3000VA



OUTLINE & PACKING



TND/SVC-10000VA

MODEL(KVA)	WEIGHT(KG)	OUTLINE(CM)	QTY
TND-0.5K	4	19X16X14	4
TND-1K	5.5	21X19X17	4
TND-1.5K	5.8	21X19X17	4
TND-2K	10	29X24X20	2
TND-3K	12	29X24X25	2
TND-5K	15	36X22X29	2
TND-7K	16.5	36X22X29	2
TND-10K	27	42X24X36	1
TND-15K	64	42X38X76	1
TND-20K	70	42X38X76	1
TND-30K	95	45X43X87	1
TND-40K	107	49X43X88	1
TND-50K	135	57X60X98	1
TND-60K	150	57X60X98	1
TND-5K(vertical)	17	32X28X46	1
TND-10K(vertical)	36	36X28X51	1



TND/SVC SINGLE PHASE Series

FULLY AUTOMATIC AC VOLTAGE REGULATOR

ISO9001 CE

TND/SVC series fully automatically voltage regulator consist of contact auto transformer, servo motor, automatic control circuit etc . When grid voltage instability or load change , automatically sampling control circuit sends a signal to drive servo motor, adjust the position of the self coupling voltage regulator for carbon brush, make the output voltage rating reach the stable state. This product has the waveform distortionless, reliable performance. long-term operation and other characteristics , has time delay, over voltage, undervoltage protected function . It can be widely used in electricity which need stable voltage , it is a kind of ideal voltage stabilized supply. Ensure that your normal operation of electrical equipment



TND/SVC-10000VA

SPECIFICATIONS:

INPUT VOLTAGE	100V-250V / 130V-250V / 140V-260V / 160V-250V
OUTPUT VOLTAGE	220V
OUTPUT DEVIANCE	±3%
FREQUENCY	50HZ~60HZ
EFFICIENCY	≥90%
RESPONSE TIME	≤1S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT



OUTLINE & PACKING

MODEL(KVA)	WEIGHT(KG)	OUTLINE(CM)	QTY
TND-0.5K	4	19X16X14	4
TND-1K	5.5	21X19X17	4
TND-1.5K	5.8	21X19X17	4
TND-2K	10	29X24X20	2
TND-3K	12	29X24X25	2
TND-5K	15	36X22X29	2
TND-7K	16.5	36X22X29	2
TND-10K	27	42X24X36	1
TND-15K	64	42X38X76	1
TND-20K	70	42X38X76	1
TND-30K	95	45X43X87	1
TND-40K	107	49X43X88	1
TND-50K	135	57X60X98	1
TND-60K	150	57X60X98	1
TND-5K(vertical)	17	32X28X46	1
TND-10K(vertical)	36	36X28X51	1



TND/SVC-15000VA



TND/SVC SINGLE PHASE Series

FULLY AUTOMATIC AC VOLTAGE REGULATOR



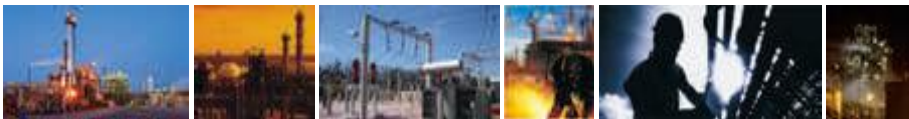
TND/SVC series fully automatically voltage regulator consist of contact auto transformer, servo motor, automatic control circuit etc . When grid voltage instability or load change , automatically sampling control circuit sends a signal to drive servo motor, adjust the position of the self coupling voltage regulator for carbon brush, make the output voltage rating reach the stable state. This product has the waveform distortionless, reliable performance. long-term operation and other characteristics , has time delay, over voltage, undervoltage protected function . It can be widely used in electricity which need stable voltage , it is a kind of ideal voltage stabilized supply. Ensure that your normal operation of electrical equipment



TND/SVC-10000VA

SPECIFICATIONS:

INPUT VOLTAGE	100V-250V / 130V-250V / 140V-260V / 160V-250V
OUTPUT VOLTAGE	220V
OUTPUT DEVIANCE	±3%
FREQUENCY	50HZ~60HZ
EFFICIENCY	≥90%
RESPONSE TIME	≤1S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT



OUTLINE & PACKING

MODEL(KVA)	WEIGHT(KG)	OUTLINE(CM)	QTY
TND-0.5K	4	19X16X14	4
TND-1K	5.5	21X19X17	4
TND-1.5K	5.8	21X19X17	4
TND-2K	10	29X24X20	2
TND-3K	12	29X24X25	2
TND-5K	15	36X22X29	2
TND-7K	16.5	36X22X29	2
TND-10K	27	42X24X36	1
TND-15K	64	42X38X76	1
TND-20K	70	42X38X76	1
TND-30K	95	45X43X87	1
TND-40K	107	49X43X88	1
TND-50K	135	57X60X98	1
TND-60K	150	57X60X98	1
TND-5K(vertical)	17	32X28X46	1
TND-10K(vertical)	36	36X28X51	1



TND/SVC-15000VA



TND/SVC SINGLE PHASE Series

FULLY AUTOMATIC AC VOLTAGE REGULATOR

ISO9001 CE

TND/SVC series fully automatically voltage regulator consist of contact auto transformer, servo motor, automatic control circuit etc . When grid voltage instability or load change , automatically sampling control circuit sends a signal to drive servo motor, adjust the position of the self coupling voltage regulator for carbon brush, make the output voltage rating reach the stable state. This product has the waveform distortionless, reliable performance. long-term operation and other characteristics , has time delay, over voltage, undervoltage protected function . It can be widely used in electricity which need stable voltage , it is a kind of ideal voltage stabilized supply. Ensure that your normal operation of electrical equipment



TND/SVC-3000VA



TND/SVC-15kVA



TND/SVC-30kVA

SPECIFICATIONS:

INPUT VOLTAGE	100V-250V / 130V-250V / 140V-260V / 160V-250V
OUTPUT VOLTAGE	220V
OUTPUT DEVIANCE	±3%
FREQUENCY	50HZ~60HZ
EFFICIENCY	≥90%
RESPONSE TIME	≤1S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OCCURENT



OUTLINE & PACKING

MODEL(KVA)	WEIGHT(KG)	OUTLINE(CM)	QTY
TND-0.5K	4	19X16X14	4
TND-1K	5.5	21X19X17	4
TND-1.5K	5.8	21X19X17	4
TND-2K	10	29X24X20	2
TND-3K	12	29X24X25	2
TND-5K	15	36X22X29	2
TND-7K	16.5	36X22X29	2
TND-10K	27	42X24X36	1
TND-15K	64	42X38X76	1
TND-20K	70	42X38X76	1
TND-30K	95	45X43X87	1
TND-40K	107	49X43X88	1
TND-50K	135	57X60X98	1
TND-60K	150	57X60X98	1
TND-5K(vertical)	17	32X28X46	1
TND-10K(vertical)	36	36X28X51	1



OVER VOLTAGE
PROTECTION



LOW VOLTAGE
PROTECTION



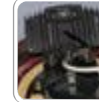
OVER LOAD
PROTECTION



OVER TEMP
PROTECTION



DELAY TIME



AVR SINGLE PHASE Series



SERVOTYPE FULLY AUTOMATIC AC VOLTAGE REGULATOR
 AVR series fully automatically voltage regulator consist of contact, autotransformer, servo motor, automatic control circuit etc. When grid voltage instability or load change, automatically sampling control circuit sends a signal to drive servo motor, adjust the position of the self coupling voltage regulator for carbon brush, make the output voltage rating reach the stable state.



We focus , SO professional !



AVR SINGLE PHASE Series

FULLY AUTOMATIC AC VOLTAGE REGULATOR

ISO9001 CE

AVR series fully automatically voltage regulator consist of contact autotransformer, servo motor, automatic control circuit etc. When grid voltage instability or load change, automatically sampling control circuit sends a signal to drive servo motor, adjust the position of the self coupling voltage regulator for carbon brush, make the output voltage rating reach the stable state.

This product has the waveform distortionless, reliable performance. long-term operation and other characteristics, has time delay, over voltage, undervoltage protected function. It can be widely used in electricity which need stable voltage, it is a kind of ideal voltage stabilized supply. Ensure that your normal operation of electrical equipment.



AVR-650VA



AVR-1000VA



AVR-3000VA

MODEL		AVR-500VA	AVR-1000VA	AVR-2200VA	AVR-2500VA	AVR-3000VA	AVR-5000VA	AVR-8000VA	AVR-10KVA
Power		500VA	1000VA	2200VA	2500VA	3000VA	5000VA	8000VA	10KVA
Input	Input voltage range	100V-250V / 130V-250V / 140V-260V / 160V-250V							
	Input frequency	50-60Hz							
Output	Output voltage	220V AC							
	Output precision	±3%							
Efficiency		90%							
Phase		Single phase							
Meter display status		Input voltage/Output voltage							
Led display Status	Working	GREEN, Indicating power ON/OFF							
	Delaying	YELLOW, Indicating DELAY ON/OFF							
	Over-v	RED, Indicating if the machine is working regularly							
Environmental	Operating temperature	0~40℃							
	Storage temperature	-15℃~45℃							
	Operating relative humidity	10% RH~102%RH; Non-condensing							
Physical	Packing size(cm)	47.5X26 X37	38.5X29 X44	38.5X29 X44	38.5X29 X44	47X40.5 X27.5	47X40.5 X27.5	47X24 X27.5	47X24 X27.5
	Qty	6	4	4	4	2	2	1	1



AVR SINGLE PHASE Series

RELAY TYPE FULLY AUTOMATIC AC VOLTAGE REGULATOR



AVR series fully automatic ac voltage regulator is on the basis of SVC series product to newly design products, with good functions such as time delay, over voltage, undervoltage etc, the use of relay switch output transformer tap, quick response, low energy consumption, can be widely used where need stable voltage like household, hospital, office, industrial automation and so on



AVR-0.5KVA



AVR-2KVA



AVR-5KVA

MODEL		AVR-500VA	AVR-1000VA	AVR-1500VA	AVR-2000VA	AVR-3000VA	AVR-5000VA	AVR-8000VA	AVR-10KVA
Power		500VA	1000VA	1500VA	2000VA	3000VA	5000VA	8000VA	10KVA
Input	Input voltage range	80V-270V / 160V-250V / 120V-250V / 100V-250V AC							
	Input frequency	50-60Hz							
Output	Output voltage	220V AC							
	Output precision	±8%							
Efficiency		95%							
Phase		Single phase							
Meter display status		Input voltage/Output voltage							
Led display Status	Working	GREEN, Indicating power ON/OFF							
	Delaying	YELLOW, Indicating DELAY ON/OFF							
	Over-v	RED, Indicating if the machine is working regularly							
Environmental	Operating temperature	0~40℃							
	Storage temperature	-15℃~45℃							
	Operating relative humidity	10% RH~102%RH; Non-condensing							
Physical	Packing size(cm)	47.5X26 X37	38.5X29 X44	38.5X29 X44	38.5X29 X44	47X40.5 X27.5	47X40.5 X27.5	47X24 X27.5	47X24 X27.5
	Qty	6	4	4	4	2	2	1	1



AVR SINGLE PHASE Series

RELAY TYPE FULLY AUTOMATIC AC VOLTAGE REGULATOR

ISO9001 CE

AVR series fully automatic ac voltage regulator is on the basis of SVC series product to newly design products, with good functions such as time delay, over voltage, undervoltage etc, the use of relay switch output transformer tap , quick response, low energy consumption, can be widely used where need stable voltage like household ,hospital , office , industrial automation and so on



AVR-5kVA



AVR-10kVA



AVR-15kVA

MODEL		AVR-500VA	AVR-1000VA	AVR-1500VA	AVR-2000VA	AVR-3000VA	AVR-5000VA	AVR-8000VA	AVR-10KVA
Power		500VA	1000VA	1500VA	2000VA	3000VA	5000VA	8000VA	10KVA
Input	Input voltage range	80V-270V / 160V-250V / 120V-250V / 100V-250V AC							
	Input frequency	50-60Hz							
Output	Output voltage	220V AC							
	Output precision	±8%							
Efficiency		95%							
Phase		Single phase							
Meter display status		Input voltage/Output voltage							
Led display Status	Working	GREEN,Indicating power ON/OFF							
	Delaying	YELLOW,IndicatingDELAY ON/OFF							
	Over-v	RED,Indicating if the machine is working regularly							
Environmental	Operating temperature	0~40℃							
	Storage temperature	-15℃~45℃							
	Operating relative humidity	10% RH~102%RH; Non-condensing							



AVR SINGLE PHASE Series

RELAY TYPE FULLY AUTOMATIC AC VOLTAGE REGULATOR

ISO9001 CE

AVR series fully automatic ac voltage regulator is on the basis of SVC series product to newly design products, with good functions such as time delay, over voltage, undervoltage etc, the use of relay switch output transformer tap , quick response, low energy consumption, can be widely used where need stable voltage like household ,hospital , office , industrial automation and so on



AVR-10kVA



AVR-30kVA



AVR-20kVA

MODEL		AVR-500VA	AVR-1000VA	AVR-1500VA	AVR-2000VA	AVR-3000VA	AVR-5000VA	AVR-8000VA	AVR-10KVA
Power		500VA	1000VA	1500VA	2000VA	3000VA	5000VA	8000VA	10KVA
Input	Input voltage range	80V-270V / 160V-250V / 120V-250V / 100V-250V AC							
	Input frequency	50-60Hz							
Output	Output voltage	220V AC							
	Output precision	±8%							
Efficiency		95%							
Phase		Single phase							
Meter display status		Input voltage/Output voltage							
Led display Status	Working	GREEN,Indicating power ON/OFF							
	Delaying	YELLOW,IndicatingDELAY ON/OFF							
	Over-v	RED,Indicating if the machine is working regularly							
Environmental	Operating temperature	0~40℃							
	Storage temperature	-15℃~45℃							
	Operating relative humidity	10% RH~102%RH; Non-condensing							



AVR SINGLE PHASE Series

RELAY TYPE FULLY AUTOMATIC AC VOLTAGE REGULATOR



AVR series fully automatic ac voltage regulator is on the basis of SVC series product to newly design products, with good functions such as time delay, over voltage, under voltage etc, the use of relay switch output transformer tap, quick response, low energy consumption, can be widely used where need stable voltage like household, hospital, office, industrial automation and so on.



AVR-3KVA



AVR-5KVA



AVR-10KVA

MODEL		AVR-500VA	AVR-1000VA	AVR-1500VA	AVR-2000VA	AVR-3000VA	AVR-5000VA	AVR-8000VA	AVR-10KVA
Power		500VA	1000VA	1500VA	2000VA	3000VA	5000VA	8000VA	10KVA
Input	Input voltage range	80V-270V / 160V-250V / 120V-250V / 100V-250V AC							
	Input frequency	50-60Hz							
Output	Output voltage	220V AC							
	Output precision	±8%							
Efficiency		95%							
Phase		Single phase							
Meter display status		Input voltage/Output voltage							
Led display Status	Working	GREEN, Indicating power ON/OFF							
	Delaying	YELLOW, Indicating DELAY ON/OFF							
	over-v	RED, Indicating if the machine is working regularly							
Environmental	Operating temperature	0~40℃							
	Storage temperature	-15℃~45℃							
	Operating relative humidity	10% RH~102%RH; Non-condensing							



AVRSINGLE PHASE Series

RELAY TYPE FULLY AUTOMATIC AC VOLTAGE REGULATOR

ISO9001 CE

AVR series fully automatic ac voltage regulator is on the basis of SVC series product to newly design products, with good functions such as time delay, over voltage, under voltage etc, the use of relay switch output transformer tap, quick response, low energy consumption, can be widely used where need stable voltage like household, hospital, office, industrial automation and so on.



AVR-500VA



AVR-1000VA



AVR-1500VA

MODEL		AVR-500VA	AVR-1000VA	AVR-1500VA	AVR-2000VA	AVR-3000VA	AVR-5000VA	AVR-8000VA	AVR-10KVA
Power		500VA	1000VA	1500VA	2000VA	3000VA	5000VA	8000VA	10KVA
Input	Input voltage range	80V-270V / 160V-250V / 120V-250V / 100V-250V AC							
	Input frequency	50-60Hz							
Output	Output voltage	220V AC							
	Output precision	±8%							
Efficiency		95%							
Phase		Single phase							
Meter display status		Input voltage/Output voltage							
Led display Status	Working	GREEN, Indicating power ON/OFF							
	Delaying	YELLOW, Indicating DELAY ON/OFF							
	over-v	RED, Indicating if the machine is working regularly							
Environmental	Operating temperature	0~40℃							
	Storage temperature	-15℃~45℃							
	Operating relative humidity	10% RH~102%RH; Non-condensing							
Physical	Packing size(cm)	41.5X24.5 X34	41.5X24.5 X34	49.5X27.5 X39.5	49.5X27.5 X39.5	60X35.5 X24.5	59.5X36.5 X28	36.5X36 X29	36.5X36 X29
	Qty	4	4	4	4	2	2	1	1



TNS THREE PHASES Series

FULLY AUTOMATIC AC VOLTAGE REGULATOR



TNS series three phases high precision automatic voltage regulator is combined with TND (SVC) single phase high precision automatic voltage regulator . Three phases adjust individually to guarantee steady safe voltage in per phase, The incoming power of network is three phases four wires system, starlike (Y) connection , the output power can be made in three phases four wires or three phases three wires , three ampere meters indicate the output current per phase, testing the outline voltage of per phase by a switch & a voltage meter shift.



TNS-9KVA



TNS-50KVA

SPECIFICATIONS:

INPUT VOLTAGE	233V-433V / 240V-450V / 277V-433V
OUTPUT VOLTAGE	380V
OUTPUT DEVIANCE	±3%
FREQUENCY	50HZ~60HZ
EFFICIENCY	>90%
RESPONSE TIME	<1S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	>5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVCURRENT



OUTLINE & PACKING

MODEL(KVA)	RATED CAPACITY(KVA)	NET WEIGHT(KG)	OUTLINE(CM)
TNS-1.5K	1.5	20	48.5X22.5X17
TNS-3K	3	24	48.5X22.5X17
TNS-4.5K	4.5	28	48.5X22.5X17
TNS-9K	9	45	36X28X68
TNS-10K	10	67	38X32X78
TNS-15K	15	81	44X36X78
TNS-20K	20	112	52X40X86
TNS-30K	30	124	49X46X97
TNS-40K	40	175	64X57X118
TNS-50K	50	185	64X57X118
TNS-60K	60	196	64X57X118
TNS-75K	75	228	67X55X132
TNS-100K	100	257	81X70X147
TNS-120K	120	310	76X63X129
TNS-150K	150	350	83X64X123
TNS-180K	180	400	91X69X123



TNS THREE PHASES Series

FULLY AUTOMATIC AC VOLTAGE REGULATOR

ISO9001 CE

TNS series three phases high precision automatic voltage regulator is combined with TND (SVC) single phase high precision automatic voltage regulator . Three phases adjust individually to guarantee steady safe voltage in per phase, The incoming power of network is three phases four wires system, starlike (Y) connection, the output power can be made in three phases four wires or three phases three wires , three ampere meters indicate the output current per phase, testing the outline voltage of per phase by a switch & a voltage meter shift.



TNS-30KVA

SPECIFICATIONS:

INPUT VOLTAGE	233V-433V / 240V-450V / 277V-433V
OUTPUT VOLTAGE	380V
OUTPUT DEVIANCE	±3%
FREQUENCY	50HZ~60HZ
EFFICIENCY	>90%
RESPONSE TIME	<1S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	>5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT



OUTLINE & PACKING

MODEL(KVA)	RATED CAPACITY(KVA)	NET WEIGHT(KG)	OUTLINE(CM)
TNS-1.5K	1.5	20	48.5X22.5X17
TNS-3K	3	24	48.5X22.5X17
TNS-4.5K	4.5	28	48.5X22.5X17
TNS-9K	9	45	36X28X68
TNS-10K	10	67	38X32X78
TNS-15K	15	81	44X36X78
TNS-20K	20	112	52X40X86
TNS-30K	30	124	49X46X97
TNS-40K	40	175	64X57X118
TNS-50K	50	185	64X57X118
TNS-60K	60	196	64X57X118
TNS-75K	75	228	67X55X132
TNS-100K	100	257	81X70X147
TNS-120K	120	310	76X63X129
TNS-150K	150	350	83X64X123
TNS-180K	180	400	91X69X123



TNS-50KVA



TNS THREE PHASES Series

FULLY AUTOMATIC AC VOLTAGE REGULATOR



TNS series three phases high precision automatic voltage regulator is combined with TND (SVC) single phase high precision automatic voltage regulator . Three phases adjust individually to guarantee steady safe voltage in per phase, The incoming power of network is three phases four wires system, starlike (Y) connection, the output power can be made in three phases four wires or three phases three wires , three ampere meters indicate the output current per phase, testing the outline voltage of per phase by a switch & a voltage meter shift.



TNS-15KVA



TNS-30KVA



TNS-50KVA

SPECIFICATIONS:

INPUT VOLTAGE	233V-433V / 240V-450V / 277V-433V
OUTPUT VOLTAGE	380V
OUTPUT DEVIANCE	±3%
FREQUENCY	50HZ~60HZ
EFFICIENCY	>90%
RESPONSE TIME	<1S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	>5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT



OUTLINE & PACKING

MODEL(KVA)	RATED CAPACITY(KVA)	NET WEIGHT(KG)	OUTLINE(CM)
TNS-1.5K	1.5	20	48.5X22.5X17
TNS-3K	3	24	48.5X22.5X17
TNS-4.5K	4.5	28	48.5X22.5X17
TNS-9K	9	45	36X28X68
TNS-10K	10	67	38X32X78
TNS-15K	15	81	44X36X78
TNS-20K	20	112	52X40X86
TNS-30K	30	124	49X46X97
TNS-40K	40	175	64X57X118
TNS-50K	50	185	64X57X118
TNS-60K	60	196	64X57X118
TNS-75K	75	228	67X55X132
TNS-100K	100	257	81X70X147
TNS-120K	120	310	76X63X129
TNS-150K	150	350	83X64X123
TNS-180K	180	400	91X69X123



TNS

THREE

PHASES Series

FULLY AUTOMATIC AC VOLTAGE REGULATOR

ISO9001 CE

TNS series three phases high precision automatic voltage regulator is combined with TND (SVC) single phase high precision automatic voltage regulator . Three phases adjust individually to guarantee steady safe voltage in per phase, The incoming power of network is three phases four wires system, starlike (Y) connection, the output power can be made in three phases four wires or three phases three wires , three ampere meters indicate the output current per phase, testing the outline voltage of per phase by a switch & a voltage meter shift.



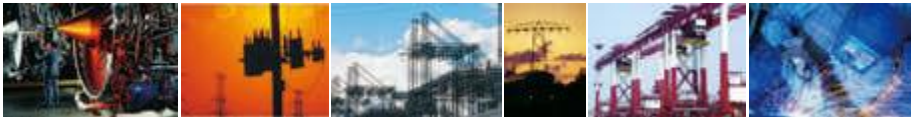
TNS-30KVA



TNS-50KVA

SPECIFICATIONS:

INPUT VOLTAGE	233V-433V / 240V-450V / 277V-433V
OUTPUT VOLTAGE	380V
OUTPUT DEVIANCE	±3%
FREQUENCY	50HZ~60HZ
EFFICIENCY	>90%
RESPONSE TIME	<1S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	>5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT



OUTLINE & PACKING

MODEL(KVA)	RATED CAPACITY(KVA)	NET WEIGHT(KG)	OUTLINE(CM)
TNS-1.5K	1.5	20	48.5X22.5X17
TNS-3K	3	24	48.5X22.5X17
TNS-4.5K	4.5	28	48.5X22.5X17
TNS-9K	9	45	36X28X68
TNS-10K	10	67	38X32X78
TNS-15K	15	81	44X36X78
TNS-20K	20	112	52X40X86
TNS-30K	30	124	49X46X97
TNS-40K	40	175	64X57X118
TNS-50K	50	185	64X57X118
TNS-60K	60	196	64X57X118
TNS-75K	75	228	67X55X132
TNS-100K	100	257	81X70X147
TNS-120K	120	310	76X63X129
TNS-150K	150	350	83X64X123
TNS-180K	180	400	91X69X123



TSD SINGLE PHASE Series

SERVOTYPE HIGH PRECISION FULLY AUTOMATIC AC VOLTAGE REGULATOR



TSD series fully automatically voltage regulator consist of contact auto transformer, servo motor, automatic control circuit etc.When grid voltage instability or load change , automatically sampling control circuit sends a signal to drive servo motor, adjust the position of the self coupling voltage regulator for carbon brush, make the output voltage rating reach the stable state.

This product has the waveform distortionless, reliable performance. long-term operation and other characteristics, has time delay,over voltage, undervoltage protected function. It can be widely used in electricity which need stable voltage, itis a kind of ideal voltage stabilized supply. Ensure that your normal operation of electrical equipment.

SPECIFICATIONS:

INPUT VOLTAGE	100V-250V / 130V-250V / 140V-260V / 160V-250V
OUTPUT VOLTAGE	220V
OUTPUT DEVIANCE	±3%
FREQUENCY	50HZ~60HZ
EFFICIENCY	>90%
RESPONSE TIME	<1S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	>5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT
THE DELAY TIME	5±2min



TSD-3KVA



TSD-5KVA



TSD-15KVA



OUTLINE & PACKING

MODEL(KVA)	RATED CAPACITY(KVA)	WEIGHT(KG)	OUTLINE(CM)
TSD-3K	3	27	39X26X15
TSD-5K	5	32	41X28X18
TSD-8K	8	40	41X28X18
TSD-10K	10	45	41X28X18
TSD-15K	15	51	44X32X20.5



TSD SINGLE PHASE Series

SERVOTYPE HIGH PRECISION FULLY AUTOMATIC AC VOLTAGE REGULATOR

ISO9001 CE

TSD series fully automatically voltage regulator consist of contact auto transformer, servo motor, automatic control circuit etc. When grid voltage instability or load change , automatically sampling control circuit sends a signal to drive servo motor, adjust the position of the self coupling voltage regulator for carbon brush, make the output voltage rating reach the stable state.

This product has the waveform distortionless, reliable performance. long-term operation and other characteristics, has time delay, over voltage, undervoltage protected function. It can be widely used in electricity which need stable voltage, it is a kind of ideal voltage stabilized supply. Ensure that your normal operation of electrical equipment.



TSD-3KVA



TSD-5KVA



TSD-10KVA

SPECIFICATIONS:

INPUT VOLTAGE	100V-250V / 130V-250V / 160V-250V
OUTPUT VOLTAGE	220V
OUTPUT DEVIANCE	±3%
FREQUENCY	50HZ~60HZ
EFFICIENCY	>90%
RESPONSE TIME	<1S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	>5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT
THE DELAY TIME	5±2min



OUTLINE & PACKING

MODEL(KVA)	RATED CAPACITY(KVA)	WEIGHT(KG)	OUTLINE(CM)
TSD-3K	3	27	39X26X15
TSD-5K	5	32	41X28X18
TSD-8K	8	40	41X28X18
TSD-10K	10	45	41X28X18
TSD-12K	12	51	44X32X20.5



TSD SINGLE PHASE Series

SERVOTYPE HIGH PRECISION FULLY AUTOMATIC AC VOLTAGE REGULATOR



TSD series fully automatically voltage regulator consist of contact auto transformer, servo motor, automatic control circuit etc.When grid voltage instability or load change , automatically sampling control circuit sends a signal to drive servo motor, adjust the position of the self coupling voltage regulator for carbon brush, make the output voltage rating reach the stable state.

This product has the waveform distortionless, reliable performance. long-term operation and other characteristics, has time delay,over voltage, undervoltage protected function. It can be widely used in electricity which need stable voltage, itis a kind of ideal voltage stabilized supply. Ensure that your normal operation of electrical equipment.

SPECIFICATIONS:

INPUT VOLTAGE	100V-250V / 130V-250V / 160V-250V
OUTPUT VOLTAGE	220V
OUTPUT DEVIANCE	±3%
FREQUENCY	50HZ~60HZ
EFFICIENCY	>90%
RESPONSE TIME	<1S
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	>5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	OVERVOLTAGE、OVERCURRENT
THE DELAY TIME	5±2min



TSD-10kVA



TSD-30kVA



TSD-20kVA



OUTLINE & PACKING

MODEL(KVA)	RATED CAPACITY(KVA)	WEIGHT(KG)	OUTLINE(CM)
TSD-3K	3	9.5	33X25X17.5
TSD-5K	5	12	33X25X17.5
TSD-8K	8	18	41X32X20
TSD-10K	10	22	41X32X20
TSD-12K	12	26	41X32X20



ST VOLTAGE TRANSFORMER Series

ISO9001 CE

VOLTAGE TRANSFORMER

ST series voltage transformer can automatically change the output voltage according to the input voltage without manual adjustment. It is simple and fast to operate. It is suitable for Rice cooker, hair dryers, face steamers, toilet covers, juicers, hot pots, kitchenware, air purifiers, computers, televisions, printers and other electrical appliances. It is a very useful transformer.



SPECIFICATIONS:

INPUT VOLTAGE	240V, 220V, AND OTHER CUSTOMIZED VOLTAGES
OUTPUT VOLTAGE	120V, 110V, AND OTHER CUSTOMIZED VOLTAGES
OUTPUT DEVIANCE	NO DEVIATION
FREQUENCY	50Hz/60Hz
EFFICIENCY	>90%
RESPONSE TIME	BE PROMPT IN RESPONDING
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	>5MΩ
WAVEFORM DISTORTION	NON-LACK FIDELITY WAREFORM
PROTECT	SHORT CIRCUIT PROTECTION



BKSeries

CONTROL TRANSFORMER

INDUSTRIAL CONTROL TRANSFORMER



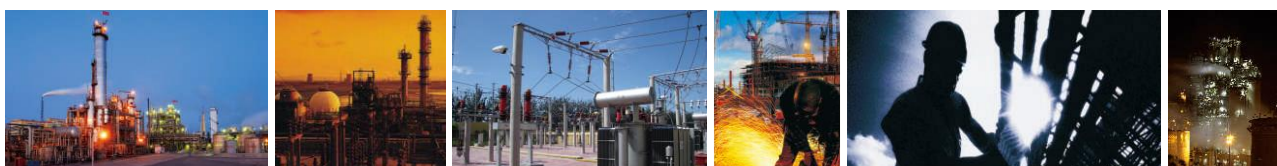
Application

BK series machine tool control transformer is a kind of new product by reference to sample of SIMENS Company, it accords with standards like VDE0550, IEC204-1, IEC439, GB5226, etc. It is suitable for AC circuit of 50-60Hz, output rated voltage less than 220V, input rated voltage less than 500V, worked as control power supply for mechanical equipment and general electrical appliance and as power supply for work lighting and signal lamp.



Specifications

Type	Rated capacity (VA)	Input voltage	output voltage			
BK-25	25	220V-240V	6V	12V	24V	36V
BK-50	50					
BK-100	100					
BK-150	150					
BK-200	200					
BK-250	250					
BK-300	300					
BK-500	500					
BK-1000	1000					
BK-1500	1500					
BK-2500	2500					



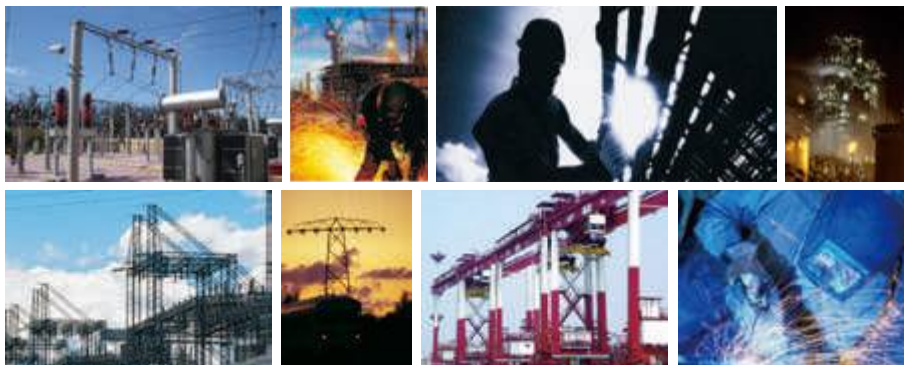
SBK/SG THREE PHASES Series

DRY TRANSFORMER

ISO9001 CE

SBK/SG series three phases dry transformer apply to ac 50/60Hz, voltage 1000V and under circuits, it is low-voltage complete switch equipment and electrical transmission control device of three phases power transformer.

This series of three phases dry transformer can be made open type and protected type, with low loss, low noise, good fireproof performance and no pollution etc.



OUTLINE & PACKING

CAPACITY(KVA)	OPEN TYPE DIMENSION(CM)	PROTECTED TYPE DIMENSION(CM)
0.5	25X16X22	28X33X28
1	25X18X22	28X33X28.5
1.5	25X20X22	32X37X30.5
2	25X20X22	32X37X30.5
3	35X21.5X28.5	38X40X32.5
4	35X23X28.5	38X40X36
5	35X23X28.5	38X40X36
7	39.5X27X33.5	50X38X47
8	45X28X35	50X38X47
10	45X28X35	50X38X47
15	51X27.5X39	63X40X53
20	55X28X43	63X40X53
25	55X29.5X43	63X40X53
30	61X29X45	70X40X56
40	77X39X57	90X53X77
50	77X39X57	90X53X77
100	89X46X80	95X55X73
200	96X56X96	105X55X80
300	110x43x98	140x75x160
400	110x43x98	150x80x160
500	120x46x110	160x90x180
600	120x46x110	160x90x180
800	140x52x130	180x100x200
1000	160x60x150	180x100x200



OVER VOLTAGE PROTECTION



LOW VOLTAGE PROTECTION



OVER LOAD PROTECTION



OVER TEMP PROTECTION



DELAY TIME

JJW SINGLE PHASE Series



Precise purified voltage regulator power supply



JJW SINGLE PHASE Series

PRECISE PURIFIED VOLTAGE REGULATOR POWER SUPPLY

ISO9001 CE

JJW series single phase precision purifying ac automatic voltage regulator has adopted the international advanced power regulation technology of sine energy distribution , represents the latest development of ac automatic voltage regulator. The circuit is paralleled composed of sine energy distributor and large power filter. It owns voltage stability of high precision , fast dynamic response, strong overload ability ,excellent anti-interference ability , high efficiency , can work continuously for long time, long using life and other advantages. It is a perfect product which instead of the 614 series relay type voltage regulator and magnetic saturation type voltage regulator . Especially suitable for computer network project electronic instruments , medical equipments , scientific research, measurement and testing ancillary equipments and so on. It can provide a no noisy and safe reliable working environment.



JJW-1KVA



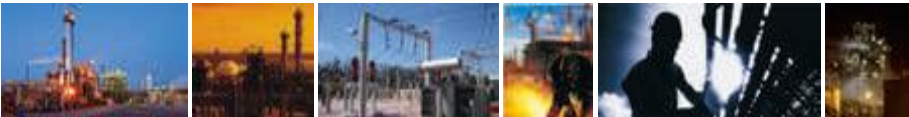
JJW-2KVA



JJW-10KVA

SPECIFICATIONS:

INPUT VOLTAGE	176V-253V / 187V-253V
OUTPUT VOLTAGE	220V
OUTPUT DEVIANCE	±1%
FREQUENCY	50HZ~60HZ
EFFICIENCY	>92%
RESPONSE TIME	<50ms
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
WAVEFORM DISTORTION	≤5%
PROTECT	OVERVOLTAGE、OVERCURRENT
NOISE	≤50dB



OUTLINE & PACKING

MODEL(KVA)	RATED CAPACITY(KVA)	WEIGHT(KG)	OUTLINE(CM)
JJW-1K	1	14	36X17X28
JJW-2K	2	19	38.5X18X32.5
JJW-3K	3	26	44X20.5X35.5
JJW-5K	5	34	47X23.5X44.5
JJW-10K	10	57	51X25X49
JJW-15K	15	73	61X29X52
JJW-20K	20	90	61X29X52



JSW THREE PHASES Series

PRECISE PURIFIED VOLTAGE REGULATOR POWER SUPPLY



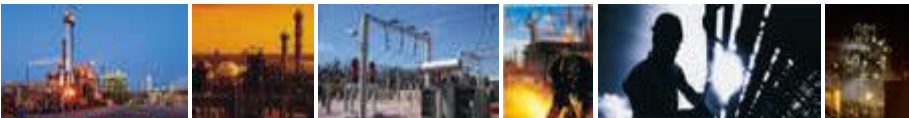
JSW three phases precision purifying ac automatic voltage regulator is by JJW series single phase ac automatic voltage regulator through the “star” connection. So it owns all the advantages of the single phase voltage regulator, it is perfect product for producing enterprises, scientific research unit , medical equipment , healthy fields , all kinds of test equipment , measurement equipment , electronic instruments, supply widely used in computer, communications, office and other place where need to be regulated power occasion



JSW-9K

SPECIFICATIONS:

INPUT VOLTAGE	323V-440V / 304V-440V
OUTPUT VOLTAGE	380V
OUTPUT DEVIANCE	± 1%
FREQUENCY	50HZ~60HZ
EFFICIENCY	>92%
RESPONSE TIME	<50ms
AMBIENT TEMPERATURE	-10℃~+40℃
INSULATION RESISTANCE	≥5MΩ
WAVEFORM DISTORTION	≤5%
PROTECT	OVERVOLTAGE、OVERCURRENT
NOISE	≤50dB



JSW-30K

OUTLINE & PACKING

MODEL(KVA)	RATED CAPACITY(KVA)	WEIGHT(KG)	OUTLINE(CM)
JSW-3K	3	55	53X34X76.5
JSW-6K	6	80	54X33X76.5
JSW-9K	9	105	58X35X87
JSW-15K	15	128	58X38.5X90
JSW-20K	20	150	58X38.5X90
JSW-30K	30	180	71.5X43X114.5
JSW-50K	50	240	72X66X117



TDGC₂J/TSGC₂J Series

ISO9001 CE

CONTACT REGULATOR

APPLICATION

This series products take advantage of good appearance、reasonable structure、waveform distortionless、small volume、high efficiency、easy to use and reliable operation etc. It owns superior performance.

USE OCCASIONS

This series of contact voltage regulator can be widely used in industry(such as metallurgy、chemical、instrumentation、mechanical、electrical manufacturing and light industry etc.) in scientific experiments、utilities and household appliances , in order to realize the voltage regulation, temperature control, dimming, power control etc. TDGC2J TSGC2J contact voltage regulator

STRUCTURAL CHARACTERISTICS

This series products take advantage of waveform distortionless、small volume、high efficiency、easy to use and reliable operation etc. It can sun long time, is an ideal ac voltage power regulator.



MODEL	CAPACOTY (KVA)	PHASE NUMBER	FREQUENCY (HZ)	INPUT VOLTAGE(V)	OUTPUT VOLTAGE RANGE(V)	OUTPUT CURRENT (A)
TDGC2J-0.5	0.5	1	50	220	0-250	2
TDGC2J-1	1	1	50	220	0-250	4
TDGC2J-2	2	1	50	220	0-250	8
TDGC2J-3	3	1	50	220	0-250	12
TDGC2J-5	5	1	50	220	0-250	20
TDGC2J-7	7	1	50	220	0-250	28
TDGC2J-10	10	1	50	220	0-250	40
TDGC2J-15	15	1	50	220	0-250	60
TDGC2J-20	20	1	50	220	0-250	80
TDGC2J-30	30	1	50	220	0-250	120
TDGC2J-40	40	1	50	220	0-250	160
TDGC2J-50	50	1	50	220	0-250	200
TDGC2J-60	60	1	50	220	0-250	400
TSGC2J-3	3	3	50	380	0-430	4
TSGC2J-6	6	3	50	380	0-430	8
TSGC2J-9	9	3	50	380	0-430	12
TSGC2J-15	15	3	50	380	0-430	20
TSGC2J-20	20	3	50	380	0-430	27
TSGC2J-30	30	3	50	380	0-430	40
TSGC2J-40	40	3	50	380	0-430	54
TSGC2J-50	50	3	50	380	0-430	64
TSGC2J-60	60	3	50	380	0-430	80



OVER VOLTAGE
PROTECTION



LOW VOLTAGE
PROTECTION



OVER LOAD
PROTECTION



OVER TEMP
PROTECTION



DELAY TIME



POWER INVERTER

MCC SERIES



OVERVIEW:

inverter is a machine which change dc (battery,storage battery) into alternating current (220v,50hz sine wave). it make by the inverter bridge, control logic and filter circuit. widely used in air conditioners, home theater, electric wheel, electric tools, sewing machines, and dvd, vcd, computer, tv, washer,range hood, refrigerator, video, massage, fans, lighting, and so on.

FEATURES:

- 1.high conversion efficiency, fast start;
- 2.good safety performance: short circuit, overload, over/under voltage, over temperature 5 kinds of protection functions;
3. good physical properties: all-aluminum shell products, good heat dissipation performance, hard oxidation surface treatment, good resistance to friction and resistance to extrusion or hitting some external forces;
4. strong adaptability and stability with load.

SPECIFICATION:



MODEL NO.	12V	24V	36V	48V	60V
RATED INPUT VOLTAGE	10.5V-15V	21V-32V	30V-48V	40V-62V	50V-78V
LOW VOLTAGE PROTECTION	10V	20V	30V	40V	50V
LOW PRESSURE ALARM	10.5V	21V	31V	41V	51V
LOW VOLTAGE RECOVERY	13V	26V	39V	52V	68V
HIGH VOLTAGE PROTECT	15V	32V	48V	62V	78V
HIGH VOLTAGE RECOVERY	14.5V	31.5V	47.5V	61.5V	77.5V
HIGH PRESSURE ALARM	14.8V	31.8V	47.8V	61.8V	77.8V
DC INPUT FUSE	YES	YES	YES	YES	YES
MAX CONVERSION EFFICIENCY	80%	85%	87%	88%	89%



MODEL NO	500W	800W	1000W	1500W	2000W	2500W	3000W	3500W	4000W	5000W	6000W
AC OUTPUT RANGE	220V-230V	220V-230V	220V-230V	220V-230V	220V-230V	220V-230V	220V-230V	220V-230V	220V-230V	220V-230V	220V-230V
AC VOLTAGE FREQUENCY	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz
CONTINUOUS OUTPUT POWER	400W	640W	800W	1200W	1600W	2000W	2400W	2800W	3200W	4000W	4800W
MAX OUTPUT POWER	500W	800W	1000W	1500W	2000W	2500W	3000W	3500W	4000W	5000W	6000W
OVERLOAD PROTECT POWER	550W	880W	1100W	1650W	2200W	2750W	3300W	3850W	4400W	5500W	6600W
INATANTANEOUS IMPACT POWER	1000W	1600W	2000W	3000W	4000W	5000W	6000W	7000W	8000W	10000W	12000W
WAVEFORM DISTORTION	≤3%	≤3%	≤3%	≤3%	≤3%	≤3%	≤3%	≤3%	≤3%	≤3%	≤3%
USB VOLTAGE	5.0V	5.0V	5.0V	5.0V	5.0V	5.0V	5.0V	5.0V	5.0V	5.0V	5.0V
USB CURRENT	500mA	500mA	500mA	500mA	500mA	500mA	500mA	500mA	500mA	500mA	500mA
OUTPUT SHORT CIRCUIT PROTECT	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
OVER TEMPERATURE PROTECT	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
STATUS INDICATION	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
WORK TEMPERATURE RANGE	0~+40°	0~+40°	0~+40°	0~+40°	0~+40°	0~+40°	0~+40°	0~+40°	0~+40°	0~+40°	0~+40°
STORAGE TEMPERATURE RANGE	-10~55%	-10~55%	-10~55%	-10~55%	-10~55%	-10~55%	-10~55%	-10~55%	-10~55%	-10~55%	-10~55%
WORK HUMIDITY RANGE	10-90%	10-90%	10-90%	10-90%	10-90%	10-90%	10-90%	10-90%	10-90%	10-90%	10-90%
STORAGE HUMIDITY RANGE	5-95%	5-95%	5-95%	5-95%	5-95%	5-95%	5-95%	5-95%	5-95%	5-95%	5-95%
SIZE OF PRODUCT (W*D*H)(mm)	200*110*60	210*150*78	285*165*90	285*165*90	360*165*90	425*165*90	400*218*155	400*218*155	400*218*155	490*218*155	490*218*155
SIZE OF PACKAGE(W*D*H)(mm)	241*156*105	248*193*125	344*218*144	344*218*144	425*224*154	500*224*154	468*284*229	468*284*229	468*284*229	558*283*227	558*283*227
STATIC INPUT CURRENT	≤0.5A	≤0.5A	≤0.5A	≤0.5A	≤0.5A	≤0.5A	≤0.5A	≤0.5A	≤0.5A	≤0.5A	≤0.5A



POWER INVERTER

MCC SERIES

OVERVIEW:

inverter is a machine which change dc (battery, storage battery) into alternating current (220v, 50hz sine wave). it make by the inverter bridge, control logic and filter circuit. widely used in air conditioners, home theater, electric wheel, electric tools, sewing machines, and dvd, vcd, computer, tv, washer, range hood, refrigerator, video, massage, fans, lighting, and so on.

FEATURES:

1. high conversion efficiency, fast start;
2. good safety performance: short circuit, overload, over/under voltage, over temperature 5 kinds of protection functions;
3. good physical properties: all-aluminum shell products, good heat dissipation performance, hard oxidation surface treatment, good resistance to friction and resistance to extrusion or hitting some external forces;
4. strong adaptability and stability with load.

SPECIFICATION PARAMETERS



Model	700W/1200W/2200W/3000W/4000W/6000W					
Output Power	350W/600W/1100W/1500W/2000W/3000W					
Delivery Efficiency	>88%	>88%	>88%	>88%	>88%	
Input Voltage	DC12V	DC24V	DC48V	DC60V	DC72V	
Input Voltage Range	DC10-15V	DC20-30V	DC40-60V	DC50-75V	DC60-90V	
Output Voltage	AC230V±5%					
Output Frequency	50Hz					
Discharge Waveform	Modified Sine Wave					
No-load Current	<0. 2A	<0. 15A	<0. 15A	<0. 15A	<0. 15A	
Low Pressure Alarm	10. 5±0. 5V	21±0. 5V	42±1V	52. 5±1V	63±1V	
Low Voltage Protection	10±0. 5V	20±0. 5V	40±1V	50±1V	60±1V	
Low Pressure Recovery	12±0. 5V	24±0. 5V	48±1V	60±1V	72±1V	
High Pressure Protection	15. 5±0. 5V	30. 5±0. 5V	60. 5±1V	75. 5±1V	90. 5±1V	
High Pressure Recovery	15±0. 5V	30±0. 5V	60±1V	75±1V	90±1V	
Working Environment Temperature	-10℃-40℃					
Storage Environment Temperature	-40℃-85℃					
Humidity Storage	≤85%					
MODEL NO	700W	1200W	2200W	3000W	4000W	6000W
SIZE OF PRODUCT (W*D*H) (mm)	160*115*60	180*115*60	275*140*65	275*140*65	340*170*90	400*170*90
SIZE OF PACKAGE (W*D*H) (mm)	175*120*80	200*120*80	300*150*95	300*150*95	355*180*105	430*185*105

PROTECTION CHARACTERISTICS

Protection Function	The alarm system chirps	characteristic
Low Pressure Alarm	A loud sirens du-du	The input DC voltage is less than the low voltage alarm voltage, the low voltage alarm reminds the battery to undervoltage, the inverter throws the normal work
Undervoltage Protection	Three short sounds du du du-du du du	If the input voltage is restored to normal immediately after the alarm, the alarm will last 30 s before automatically restarting the output.
Overvoltage Protection	Three short sounds du du du-du du du	If the input voltage is restored to normal immediately after the alarm, the alarm will last 30 s before automatically restarting the output.
Overtemperature Protection	Four short sounds du du du du-du du du du	When the internal temperature of the inverter exceeds 85 degrees, the output is cut off and restarted automatically.
Overload Protection	Two short sounds du du-du du	When the load power exceeds the maximum output power of the inverter, the inverter automatically cuts off the output and needs to be restarted manually.
Short-circuit Protection	Five short sounds du du du du du-du du du du du	When the output is short circuit, the inverter automatically cuts off the output and needs manual recovery.
Reverse Connection Protection		Inverter internal fuse, replace the new fuse inverter can be used normally.





MC9001

FREQUENCY CONVERTER SERIES

MC9001

FREQUENCY CONVERTER Series

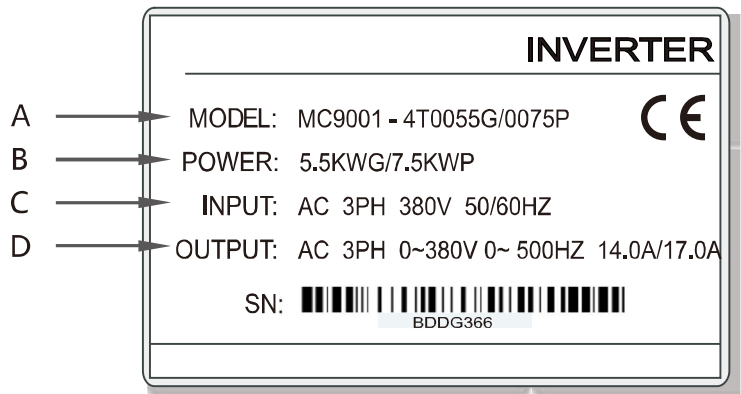
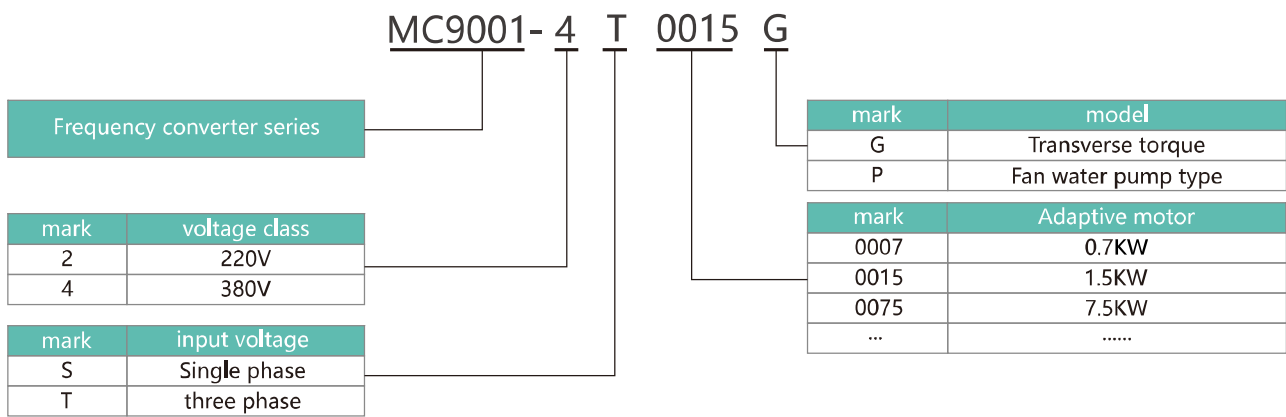
ISO9001 CE

Product profile

The MC9001 series frequency converter adopts the high-performance vector control technology, which realizes the high torque output at low speed, has good dynamic characteristics, super overload capacity, stable performance, powerful protection function, simple man-machine interface, simple operation. Can be used for weaving, paper, wire drawing, machine tool, packaging, food, fan, water pump and a variety of automatic production equipment drive.



Model & nameplate definition



A: frequency inverter model
B: rated power
C: rated input
D: rated output

FREQUENCY CONVERTER Series

specification

- ◆ input: rated voltage / frequency Single-phase 220V, three-phase 220V, three-phase 380V, 50Hz / 60Hz variable
allowable voltage: -20%~ + 20% voltage imbalance: <3% Frequency: $\pm 5\%$
- ◆ output: Output rated voltage is 0~220V / 380V Output frequency range is 0Hz~500Hz

control function

- ◆ Frequency resolution: digital setting: 0.01Hz; simulation setting: maximum frequency 0.025%
- ◆ Overload capacity: 150% rated current for 60s shutdown (MC9001-4T4500G: 130% rated current running for 60s shutdown)
- ◆ Modulation mode: optimize the spatial voltage vector SVPWM modulation
- ◆ Control mode: open-loop vector control (SVC); closed-loop vector control (FVC); and V / F control.
- ◆ Start-up torque: 0.25Hz / 150% (SVC); 0Hz / 180% (FVC).
- ◆ V / F curve: four ways: straight line; multi-point type; complete V / F separation; incomplete V / F separation.
- ◆ Increase and deceleration curve: straight-line or S-curve increase and deceleration mode; Four acceleration and deceleration times, acceleration and deceleration time range 0.0~6500.0s.
- ◆ DC brake: DC brake starting frequency: 0.00Hz~ maximum frequency; Brake time: 0.0s~36.0s; Brake action current value: 0.0%~100.0%.
- ◆ Point movement control: point movement frequency range: 0.00Hz~50.00Hz;
- ◆ Tap action, acceleration and deceleration time is 0.0s~6500.0s.
- ◆ Built-in PID: it can easily realize the process control closed-loop control system.
- ◆ Overvoltage and overvoltage loss speed control: automatically limit the current voltage during operation to prevent frequent overflow pressure trip.
- ◆ Simple PLC, multi-segment speed operation: up to 16 segments running through the built-in PLC or control terminals.
- ◆ Fast current limiting function: minimize the overcurrent fault and protect the normal operation of the frequency converter.
- ◆ Automatic Voltage Adjustment (AVR): When the power grid voltage changes, keep the output voltage constant
- ◆ Automatic energy saving operation: according to the load situation, automatically optimize the V / F curve to realize energy saving operation
- ◆ Torque limit and control: the "excavator" characteristic, to automatically limit the torque during the operation, to prevent frequent overcurrent trip; the vector control mode can realize the torque control.
- ◆ Virtual IO: five sets of virtual DIO, which can achieve simple logic control.
- ◆ Timing control: the timing control function shall set the time range of 0.0Min ~ 6500.0Min.
- ◆ Multi-motor switch: two sets of motor parameters, can realize two motor switch control.
- ◆ Constant pressure water supply control: connected with the water supply control board, it can realize the multi-pump constant pressure water supply control function
- ◆ Multi-threaded bus support: support for six fieldbuses: Modbus, Profibus-DP, CANlink, CANopen, Profinet, EtherCAT.
- ◆ Motor overheating protection: the IO extension card 1 is optional, and the analog input AI3 can accept the motor temperature sensor input (PT100, Pt1000).
- ◆ Multi-encoder support: support for differential, open-circuit collector, UVW, rotary transformer, etc
- ◆ Run command: operation panel given, control terminal given, serial communication port given. It can be switched in many ways
- ◆ Frequency instructions: 10 frequency instructions: digital given, analog voltage, analog current, pulse, serial port given. It can be switched in many ways
- ◆ Auxiliary frequency instructions: 10 auxiliary frequency instructions. It can flexibly realize the auxiliary frequency fine-tuning and frequency synthesis
- ◆ Parameter copy: Quick replication of parameters through the LCD operation panel option
- ◆ Instant overcurrent protection: stop at more than 250% of the rated output current
- ◆ Key lock: Part or all of the keys can lock, defining the scope of some keys to prevent misoperation

Protection function

- ◆ Lack of phase protection: input lack of phase protection, output lack of phase protection
- ◆ Overvoltage protection: stop when the main circuit DC voltage is above 820V
- ◆ Undervoltage protection: stop when the main circuit DC current is below 350V
- ◆ Overheat protection: protection is triggered when the inverter bridge overheat
- ◆ Overload protection: 150% rated current for 60s shutdown (MC9001-4T 04500G: 130% rated current running for 60s shutdown)
- ◆ Overcurrent protection: 2.5 times the rated current of the frequency converter
- ◆ Brake protection: Brake unit overload protection, brake resistance short-circuit protection
- ◆ Short circuit protection: output alternate with short circuit protection, output short circuit to ground protection

service environment

- ◆ Place of use: indoor, not from direct sunlight, no dust, corrosive gas, combustible gas, oil mist, water steam, Dripping water or salt, etc
- ◆ Elevation: use below 1000m, 1% for every 100m increase above 1000m
- ◆ Ambient temperature: -10°C ~ + 40°C, required when the temperature exceeds 40°C. By 1.5%, the maximum ambient temperature is 50°C
- ◆ Humidity: less than 95%RH, no condensation exposure
- ◆ Storage temperature: -20°C ~ + 60°C
- ◆ levels of protection: IP20 (in the selected status display unit or keyboard state)
- ◆ cooling-down method: Forced cold wind

way to install

Wall-mounted and in cabinet installation

Feature

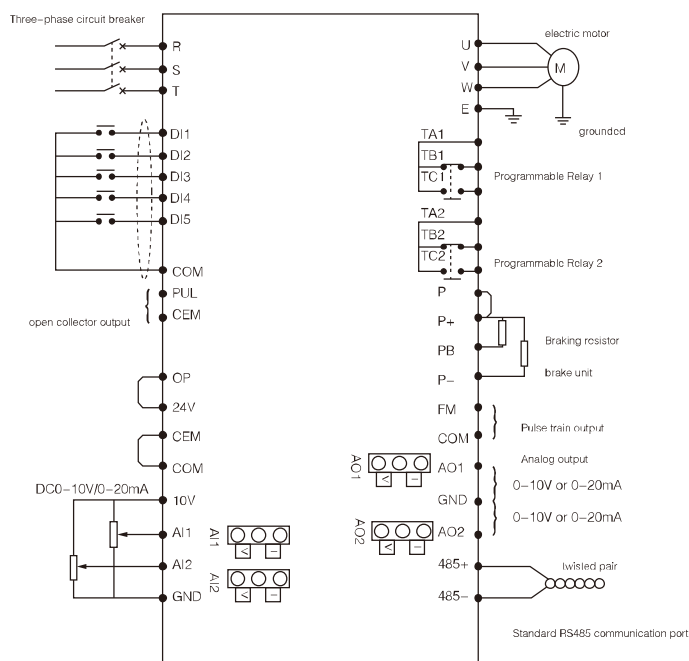
- └ high performance vector control (low speed and high torque output, good dynamic characteristics, super overload capability)
 - ◆ design uses a unique tree radiator, switch power supply and other technologies, make the machine performance More superior
 - ◆ circuit and technology using a variety of protection technology and new components, significantly improve the whole machine anti-interference ability
 - ◆ operates quickly with built-in PLC or control terminals
 - ◆ modulation mode: optimize the spatial voltage vector SVPWM modulation and FVPWM
 - ◆ automatic energy saving operation: according to the load situation, automatically optimize the V / F curve, to realize the energy saving operation
 - ◆ switch input channel: positive and reverse instructions; 8-road programmable switch quantity input, can be set respectively
- 52 Features
- ◆ super overload capacity: 150% rated current running for 60s shutdown
- ◆ communication function: supports six fieldbuses: Modbus, Profibus-DP, CANlink, CANopen, Profinet, and EtherCAT.

MC9001

FREQUENCY CONVERTER Series

ISO9001 CE epe

Basic operation wiring diagram



Operation display description

Upgrade the dual-display control panel to modify the functional parameters, operation shutdown control, and working state monitoring of the frequency converter. The shape and functional areas are shown in the figure below:



- A.Failure indication
- B.State instructions
- C.Reverse instructions
- D.Run the instructions
- E.Frequency indication
- F.Current indication
- G.Voltage indication
- H: Program key
- I: Increment key
- J: Confirm key
- K: Decrement key
- L: start button
- M: Multi-function key
- N: shift key
- O: Stop/Reset key

Outline and installation dimension(mm)

model	mounting hole(mm)		Outline size(mm)			Mounting Aperture(mm)
	A	B	(H)Length	(W)Width	(D)Height	
MC9001-4T0015G MC9001-4T0022G MC9001-4T0030G	79	154	164	89	125	Φ4
MC9001-4T0040G MC9001-4T0055G	86	173	184	97	145	Φ4
MC9001-4T0075G	101	204	220	126	182	Φ4
MC9001-4T0110G MC9001-4T0150G	131	245	257	146.5	185	Φ4
MC9001-4T0185G MC9001-4T0220G	151	303	320	170	205	Φ6
MC9001-4T0300G MC9001-4T0370G	120	385	400	200	220	Φ6
MC9001-4T0450G MC9001-4T0550G	200	493	510	260	252	Φ6
MC9001-4T0750G	200	493	530	260	252	Φ8
MC9001-4T0900G MC9001-4T1100G	200	630	660	320	300	Φ8
MC9001-4T1320G MC9001-4T1600G MC9001-4T1850G	250	755	780	400	345	Φ10
MC9001-4T2000G MC9001-4T2200G	300	872	900	460	355	Φ10
MC9001-4T2500G MC9001-4T2800G	360	922	950	500	355	Φ12
MC9001-4T3150G MC9001-4T3550G	500	1029	1050	650	365	Φ12
MC9001-4T4000G MC9001-4T4500G MC9001-4T5000G	500	1265	1300	650	385	Φ14
MC9001-4T5600G MC9001-4T6300G MC9001-4T7200G	600	1415	1450	850	435	Φ14
MC9001-4T8000G MC9001-4T10000G	1000	1415	1450	1100	465	Φ14

MCR8

SOFT
STARTER Series



MCR8 SOFT STARTER Series

ISO9001 CE

Soft starters (soft starter) is a set of motor soft start and soft stop, novel protection features in one of the motor control device. Its main component is connected to the power supply with three charged with motor reverse parallel thyristor and its electronic control circuit. It can use a variety of methods, control of opposite parallel thyristor conduction angle to make the controlled motor input voltage changes according to the different requirements and achieve different function. Soft starter and frequency converter are two completely different uses of products. Frequency converter is used for the areas in need of speed, the output will not only change the voltage and changing the frequency at the same time. Soft Starter is actually a voltage regulator for motor starting, frequency of output voltage does not change. Converter offers all the soft start function, but it's much more expensive than soft starter, the structure is more complex. Motor soft Starter use thread in between the power supply and the control motor soft Starter, control of thyristor conduction angle, the motor input voltage rises from zero to a preset function gradually, until the end of start up, giving motor voltage, which is the soft-start, during soft start, motor starting torque increase speed gradually increases.

PRODUCT INTRODUCTION

Soft starters are divided into three kinds: 1. An external bypass AC contactor(MCR8 series) 2. BYO bypass on-line equipment unit 3. Online soft starting Cabinet

ROUTINE MAINTENANCE

Notice to check the environmental condition of soft start, avoid the conditions exceeds its allowed to run. Please check whether there is a way around the object of ventilation, ensure that the soft-Starter has enough space around(over 150mm).

Regularly check that the power cable terminals loose, any overheating, discoloration, coke smell in components and other anomalies.

Clean the dust on a regular basis, so as not to affect the heat sink to prevent damage due to high temperature of thyristor, while also avoiding the leakage current and short circuit accident due to dust.

Please clean dust free by dry brush, can also be used in air-blow and vacuum. For large pieces of dirt, insulating rods removed. If there are conditions, available in compressed air blowing 0.6MPa.

Notice to observe the operation of fans, when fan speed is slow or abnormal, should be repaired in a timely manner (such as removing grease, dirt, grease, replace damaged or bad capacitors). Fan machines to replace for damage. If there is no wind, soft Starter is used, it will damage the thyristors.

If soft start using more moisture and condensation, you should always use infra-red lamp or hair dryer dries, remove moisture in order to avoid leakage or short circuit accident occurred.



LOAD POWER	MCR8	MCR1	ONLINESOFTSTARTING CABINET
15KW	√	√	√
18.5KW	√	√	√
22KW	√	√	√
30KW	√	√	√
37KW	√	√	√
45KW	√	√	√
55KW	√	√	√
75KW	√	√	√
90KW	√	√	√
110KW	√	√	√
132KW	√	√	√
160KW	√	√	√
185KW	√	√	√
200KW	√	√	√
220KW	√	√	√
250KW	√	√	√
280KW	√	√	√
320KW	√	√	√
350KW	√	√	√
400KW	√	√	√



MCS Series Hybrid Solar Inverter

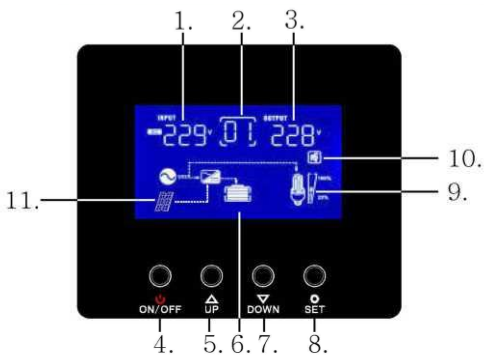


Feature:

- Pure sine wave output
- With PWM solar charge controller 10A-60A(Optional)
- With UPS automatic switching function, grid powercharging function
- It has perfect protection functions such as overload,high voltage,low voltage, short circuit, etc
- DSP Intelligent Chip Control, Excellent Performance
- Strong inverting capability, one-time soft start, triple output peak power,with all inductive loads
- Full personalized LCD display, inverters can displayvarious data information
- Grid power priority, energy saving mode and solar energy prioritycan be set freely to meet different occasions

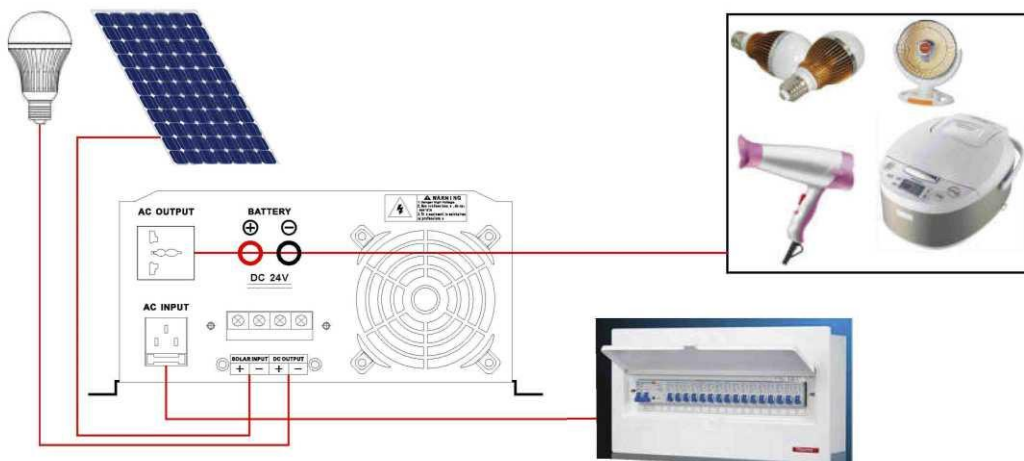
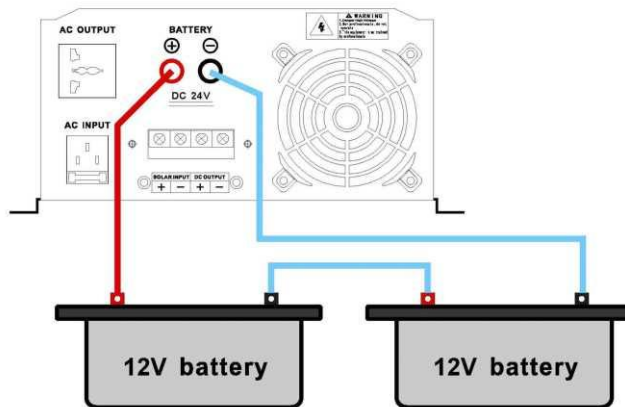
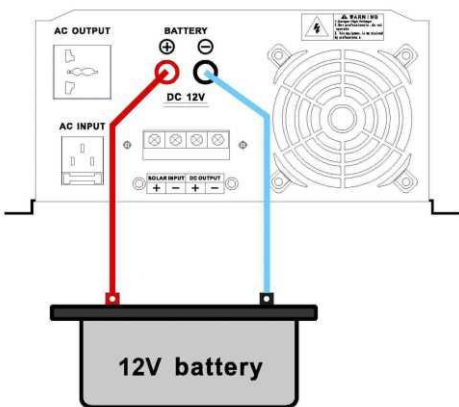


LCD Display Information:



1.	INPUT	AC Input
2.	(1)	Working mode code
3.	OUTPUT	AC Output
4.		ON/OFF button
5.		UP button
6.	BATT	battery capacity
7.		DOWN button
8.		SET button
9.	LOAD 25%--100%	Load output percentage
10.		Mute
11.		PV Input

Solar System Connection:



MCS Series

Hybrid Solar Inverter

ISO9001 CE

Model		300W	500W	700W	1000W	1200W	1500W
Default battery system voltage (VDC)		12VDC/24VDC	12VDC/24VDC	12VDC/24VDC	12VDC/24VDC	12VDC/24VDC	12VDC/24VDC
Inverter Output	Rated power	300W	500W	700W	1000W	1200W	1500W
	Surge rating (20ms)	600W	1000W	1400W	2000W	2400W	3000W
	Capable of starting electric Motor	100W	150W	200W	300W	400W	500W
	Wave form	Pure sine wave/ Same as input (AC mode)					
	Nominal output voltage RMS	110/120VAC 220/230/240VAC(±3RMS)					220/230/240VAC(±3RMS)
	Output frequency	50Hz/60Hz±0.3Hz					
	Inverter efficiency(Peak)	>85%					
	Line mode efficiency	>95%					
	Power factor	1.0					
	Typical transfer time	8ms(Max)					
AC Input	Voltage	110/120VAC 220/230/240VAC					220/230/240VAC
	Selectable voltage range	73-138VAC(AC:110V) 145-275VAC(AC:220)					
	Frequency range	50Hz:45-65Hz 60Hz:55-65Hz 50Hz/60Hz(Auto sensing)					
Battery	Low battery protection	10VDC±0.3V(12VDC), 20VDC±0.3V(24VDC)					
	Low battery cutoff	10.5VDC±0.3V(12VDC), 21VDC±0.3V(24VDC)					
	High Battery alarm	15VDC±0.3V(12VDC), 30VDC±0.3V(24VDC)					
	High Battery protection	16.5VDC±0.3V(12VDC), 33VDC±0.3V(24VDC)					
AC Charger	Maximum charge current	15A(Max)					
Protection	Over load protection	Rated power over 110%, shut down automatically					
	Temperature protection	Built-in temperature sensor real-time induction, , ≥28 alarm, ≥85 shut down the whole machine					
	Short circuit protection	Automatic Shutdown					
Solar Charge Controller	Max solar charging current	10A,20A,30A,40A,50A,60A					
	Voltage	12V,24V					
	Max PY input power	12V-10A:120W,12V-20A:240W,12V-30A:360W,12V-40A:480W,12V-50A:600W,12V-60A:720W 24V-20A:480W,24V-30A:720W,24V-40A:960W,24V-50A:1200W,24V-60A:1440W					
	PV array PWM voltage range	12V:9V-25V24V:18V-50V					
Other	Mounting	Wall mount					
	Display	LCD+LED					
	Cooling fan	Intelligent fan cooling system					
	Audible noise	<60dB					
	Communications	RS-232,SNMP,WI-FI,Dry Contact(Optional)					
	Operation temperature range	-10°C~50°C					
	Storage temperature	-10°C~60°C					
Appearance	Product size(L*W*H)	290*310*135					
	Packing size(L*W*H)	340*330*185(1PCS)370*370*450(2PCS)					
	Net weight (kg)	7	7.5	8.5	10.5	11	12
	Gross weight (kg)	14	15	17	21	22	24

* Product specifications are subject to change without further notice.

MCS Series Hybrid Solar Inverter

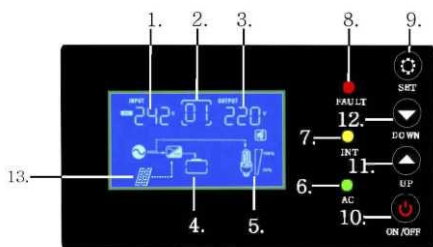


Feature:

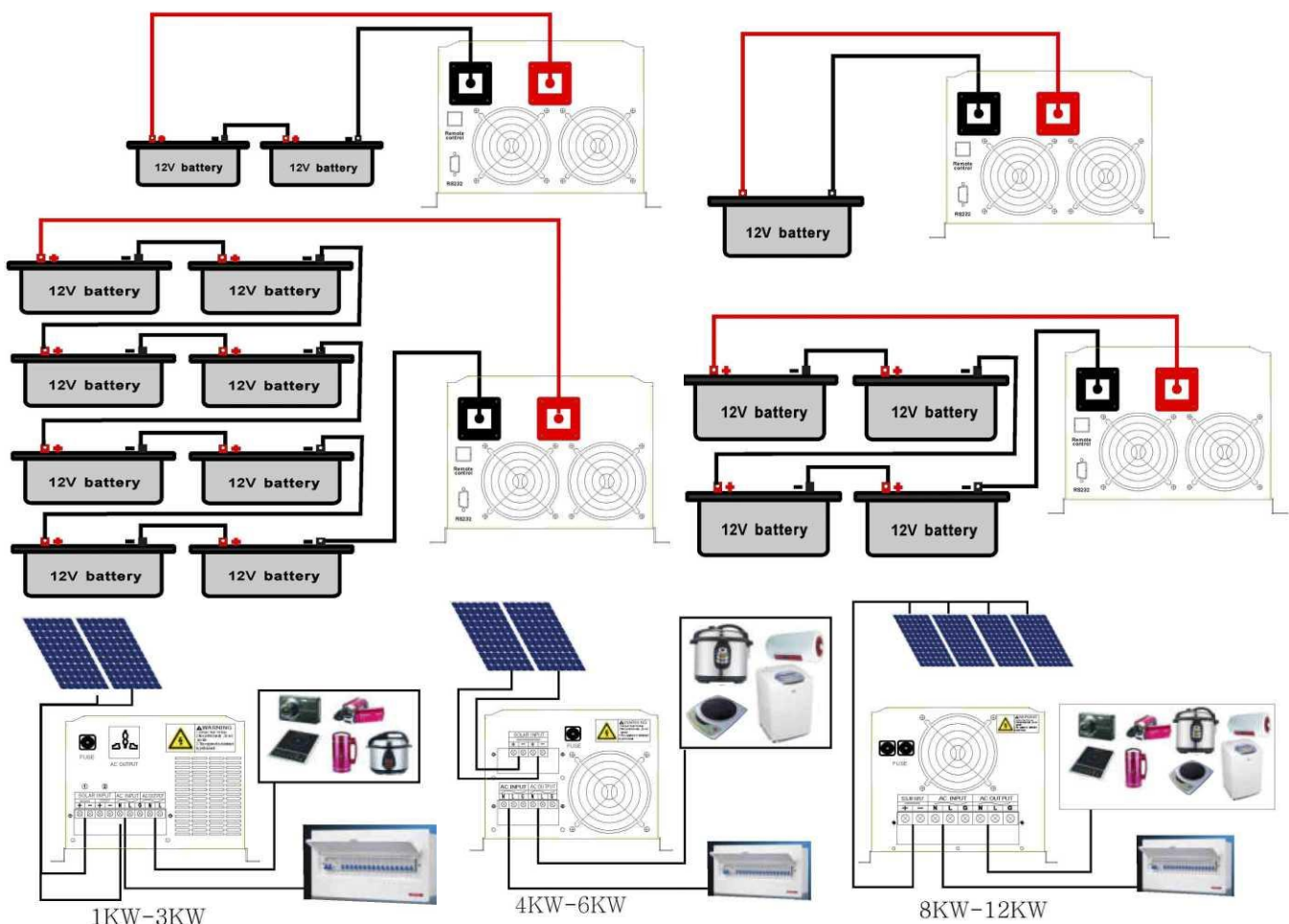
- Pure sine wave output
- With MPPT solar charge controller 30A-120A(Optional)
- With UPS automatic switching function, grid power charging function
- It has perfect protection functions such as overload, high voltage, low voltage, short circuit, etc
- DSP Intelligent Chip Control, Excellent Performance
- Strong inverting capability, one-time soft start, triple output peak power, with all inductive loads
- Full personalized LCD display, it can display various data information of inverter, solar charge controller
- Grid power priority, energy saving mode and solar energy priority can be set freely to meet different occasions
- Battery type, charging voltage grid power charging current(0-35A) can be set freely to meet the charging management of different types of batteries



LCD Display Information:



NO	LCD Display	Contents Descriptions
1.	INPUT	AC Input
2.	(01)	Working mode code
3.	OUTPUT	AC Output
4.	BATT	Battery capacity
5.	LOAD 25%--100%	Load output percentage
6.	AC	AC indicator
7.	INVERTER	Inverter indicator
8.	FAULT	Fault indicator
9.	SET	SET button
10.	ON/OFF	ON/OFF button
11.	UP	UP button
12.	DOWN	DOWN button
13.	PV Input	PV Input



MCS Series

Hybrid Solar Inverter

ISO9001 CE

Model		1000W	2000W	3000W	4000W	5000W	6000W	8000W	10000W	12000W
Default battery system voltage (VDC)		12VDC/24VDC/48VDC			24VDC/48VDC/96VDC			48VDC/96VDC		
Inverter Output	Rated power	1000W	2000W	3000W	4000W	5000W	6000W	8000W	10000W	12000W
	Surge rating (20ms)	3000W	6000W	9000W	12000W	15000W	18000W	24000W	30000W	36000W
	Capable of starting electric Motor	0.5HP	1HP	2HP	2HP	3HP	3HP	4HP	5HP	6HP
	Wave form	Pure sine wave/ Same as input (AC mode)								
	Nominal output voltage RMS	110/120VAC 220/230/240VAC(±10RMS)						220/230/240VAC(±10RMS)		
	Output frequency	50Hz/60Hz±0.3Hz								
	Inverter efficiency(Peak)	>85%								
	Line mode efficiency	>95%								
	Typical transfer time	8ms(Max)								
	-----	-----			-----			-----		
AC Input	Voltage	110/120VAC 220/230/240VAC						220/230/240VAC		
	Selectable voltage range	85-138VAC(AC:110V) 170-275VAC(AC:220)						180-260VAC(AC:220)		
	Frequency range	50Hz:45-65Hz 60Hz:55-65Hz 50Hz/60Hz(Auto sensing)								
Battery	Low battery protection	10VDC±0.3V(12VDC), 20VDC±0.3V(24VDC), 40VDC±0.3V(48VDC), 80VDC±0.3V(96VDC)								
	Low battery cutoff	10.5VDC±0.3V(12VDC), 21VDC±0.3V(24VDC), 42VDC±0.3V(48VDC), 84VDC±0.3V(96VDC)								
	High Battery alarm	15VDC±0.3V(12VDC), 30VDC±0.3V(24VDC), 60VDC±0.3V(48VDC), 120VDC±0.3V(96VDC)								
	High Battery protection	16.5VDC±0.3V(12VDC), 33VDC±0.3V(24VDC), 66VDC±0.3V(48VDC), 132VDC±0.3V(96VDC)								
AC Charger	Maximum charge current	0-35A(Set by yourself)								
Protection	Over load protection	Rated power over 110%,shut down automatically								
	Temperature protection	Built-in temperature sensor real-time induction, , ≥28 alarm, , ≥85 shut down the whole machine								
	Short circuit protection	Automatic Shutdown								
Solar Charge Controller	Max solar charging current	30A,40A,50A,60A,80A						80A,100A,120A		
	Voltage	12V,24V,48V,96V								
	Max PY input power	12V-30A:360W,12V-50A:600W,12V-60A:720W,12V-80A:960W,12V-100A:1200W,12V-120A:1440W								
		24V-30A:720W,24V-50A:1200W,24V-60A:1440W,24V-80A:1920W,24V-100A:2400W,24V-120A:2880W								
		48V-30A:1440W,48V-50A:2400W,48V-60A:2880W,48V-80A:3840W,48V-100A:4800W,48V-120A:5760W								
		96V-80A:7680W,96V-100A:9600W,96V-120A:11520W								
	PV array MPPT voltage range	12V:18V-130V,24V:36V-130V,48V:72V-160V,96V:144V-280V								
Peak conversion efficiency	>99%									
Other	Mounting	Wall mount								
	Display	LCD+LED								
	Cooling fan	Intelligent fan cooling system								
	Audible noise	<60dB								
	Coommunications	RS-232,SNMP,WI-FI,Dry Contact(Optional)								
	Operation temperature range	-10°C~50°C								
	Storage temperature	-10°C~60°C								
Appearance	Product size(L*W*H)	510*325*215			645*325*215			765*320*250		
	Packing size(L*W*H)	580*385*270			725*410*290			840*405*320		
	Net weight (kg)	16	19	22	31	33	35	55	61	67
	Gross weight (kg)	18	21	24	34	36	38	59	65	71

* Product specifications are subject to change without further notice.

OIL IMMERSION TRANSFORMER



Features of Products

- The three-phase oil-immersed distributing transformer applies new type insulating structure and makes short-circuit resistance strong. The iron core is made of high-quality cold-rolled silicon-steel plate. High-voltage winding group is made up of high-quality oxygen-free copper lines and it adopts multilayered drum type structure. All fasteners have been processed with special treatment to prevent them from loosening.
- As high-tech product that promoted by the country, the product has many advantages such as high efficiency, low loss. Its social benefits are remarkable that it will save much of electricity consumption and operating cost.



Reliable Structure

With the fundament of traditional frames and proved techniques, our company made a great improvement. for instance:

- We employ spiral loops with longitudinal oil path to produce a better interior cooling effect
- We improve the effectual support of the loop's terminal face to strengthen the anti-short circuit electricity capability;
- We employ new suspending structure and instrument-positioning frames to guarantee that the long distance transport and movement will be more reliable.
- In addition to those above, we have lots of novel and dependable frames that wait to serve you.
- We are sure that, when you choose more advanced transformers, you will enjoy greater technique intensity.

Excellent Materials

- Because we use oxygen-free copper lines of lower resistivity, which will become smoother and burr-free after series of additional surface treatment, so the load loss of our transformer is lower and the electric performance is better.
- We use high-quality silicon-steel plates which are of lower unit loss, and the no-load of the transformers is lower.
- We use high quality wooden laminating insulation pieces, which won't split or move even under the influence of short circuit.
- We use thoroughly filtrated transformer oil containing less water, gas and impurities, which makes our transformers work better
- We use high quality rubber sealing material, which can prevent the transformers from aging or leakage.
- All raw materials has passed the quality testing, and all the raw material factories has pass through the national standard ISO9000 inspection.



Good Technology And Economic Performance

- Compare with S7 series product, S9 series product reduces the no-load loss by 10%, load loss by 24% and no-load electric current by 46%; as a result, the operating cost will drop by 19%
- Improved from S9 series product, S11 series product reduces the no-load loss by 30%, no-load electric current by 70-65%; average temperature by 10K; noise level by 2-4 db; and double the products' service life. Even under 20% overloads, it can also work for a long period of time.

OIL IMMERSION TRANSFORMER

ISO9001 CE

Sealed Tank(M)

- The "M" in S11 (M) R- stands for omniseal structure that the oil tank employed. Compared with common oil-immersed transformer, omniseal oil-immersed transformer taking off oil storage cabinet adopts wing-like corrugation for replacing oil tube as component of heat dispersion. The corrugated oil tank which is made up of high-quality cool-rolled plates is produced on the special produce lines. The wing-like corrugation will expand and compress as that the volume of transformer dose, so that the transformer is separated from the atmosphere and can prevent or slow deterioration of oil and breathing of insulation. All these ensure the reliability of operation and without maintenance.
- After the treatment of deoiling, derusting and parkerizing, the surface of corrugated oil tank is coated with paint which can provide rain-proofing, damp-proofing and salt haze-proofing. It is suitable for the use in the environment, such as metallurgy, petrochemical industry and mining, etc.



Core-folled(R)

- The "R" in S11 (M) R- stands for ribbon-wound core. It applies low-loss cold-steel plate of high-quality. It has a high degree of mechanization and it is not necessary to shear and punch which eliminate horizontal and longitudinal power connection of traditional iron core. So it secures lower no-load current to make the level of transformer's reactive-power loss and noise lower which can conform to environmental requirements. With monolithic type iron core and compact coil, it has further short-circuit resistance.

Transformer Standards

GB 1094.1-1996	GB 1094.2-1996	JB/T 10088-2004
GB 1094.3-2003	GB 1094.5-2003	GB/T 10237-1988
GB/T 6451-2008	GB/T 7595-1987	JB/T 3837-2010

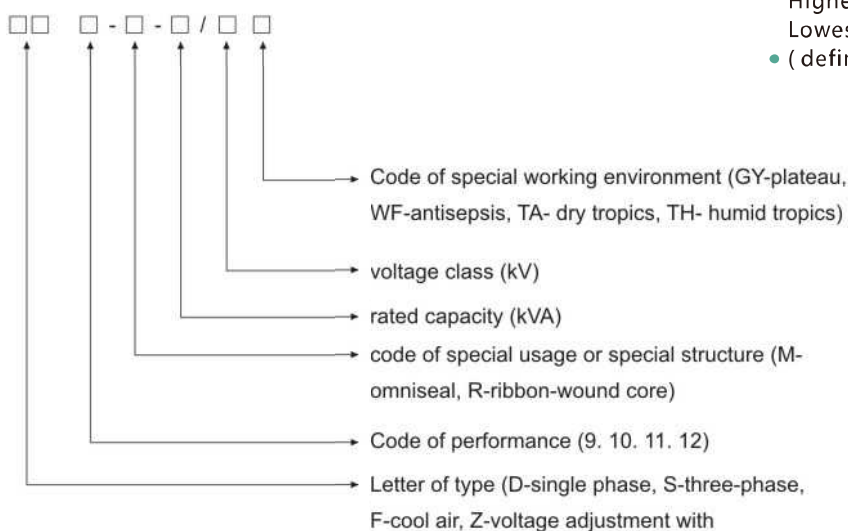
Transformer Service Condition

- The height above sea level is below 1000m;
- Ambient temperature:
 - Highest air temperature +40°C;
 - Highest daily average air temperature +30°C;
 - Highest annual average air temperature +20°C;
 - Lowest outdoor air temperature -25°C

Transformer Special Service Condition

- The height above sea level is above 1000m;
- Ambient temperature:
 - Highest air temperature +40°C
 - Lowest air temperature -45°C;
- (defines in detail when placing an order)

Transformer Type Meaning



DRY TYPE TRANSFORMER



Features of Products

- With the advanced technology brought in from overseas, we developed SC9, SCB9 series and SC10, SCB10 series padding thin-insulation dry-type distributing transformer whose winding is sealed up with epoxy. therefore there is no insulation dry-type transformer is flame-retardant, explosion-proof, free from maintenance and pollution, and it is compact and can go deep into load center. Besides, with scientific and reasonable design and coating craftwork it has advantages of low partial discharge capacity, low noise, good heat dispersion and it can run over a long time with 140% rated load in the circumstance of cold wind. It applies intelligent thermal controller and has the functions that it will alarm when there is fault or the temperature is exceeded and switch off as well as the function of "black box". It can be monitored and controlled by connecting it to the computer through its RS485 serial interface.
- Therefore, it is widely used in the places such as hotel, restaurant, airport, power plant, hospital, skyscraper, shopping center, and residential areas and other adverse environments like subways, smelt and power plant, ship, offshore drilling platform, etc.



Core

- The iron core adopts imported high-quality cold-rolled silicon-steel plate a three steps fully-inclined echelon joint form. The colligation of the core adopts the F grade non-attitude belt and its winding enveloped by epoxy resin cast. The non-load loss and non-load current, core noise are reduced. The outlook of the product is improved by special treatment of the surface of fasteners and clamp pieces.



High-voltage winding

- High-voltage winding applies vacuum pouring of padding epoxy resin which, at high level, reduces partial discharge capacity and elevates the electric strength of coils. The inside and outside of the winding is build up with glass fiber grid overlay which strengthens the mechanical robustness and improves the resistance of short-circuits and ensures the coils will never crack.



Low-voltage winding

- Low-voltage winding applies the structure that wound by copper foil which solves the problem that the axle would point to the helix angle when winds and make the ampereturn of winding distribute evenly. Meanwhile, the coils apply axial fan which improves the heat dispersion. Between the layers of winding, it applies DMD epoxy resin preliminary dip cloth and makes it whole solidification forming.

DRY TYPE TRANSFORMER

ISO9001 CE

Production technology

- The coil can be wound on the high-accuracy winding machine, the low-winding adoption the structure that the winding by cooper foil. Firstly, to cast grass fiber around the external and internal of the windings, there designed to be armed air passage for transformer of large capacity. Afterward, to vacuum dry it. The whole casting and solidifying process completely to carry on an operation according to the craft request. and see a circumstance to carry on adjustment. The precise process ensures free bubble and free hole of winding, make the transformer for making into attain superior quality circulate result.



Temperature control system

- It applies cross current top-blow cooling fan which has characteristics of low noise, high wind pressure and good looking, etc. the fan improves the overload capability of the transformer. The intelligent thermal controller improves the reliability of the operation of the transformer.

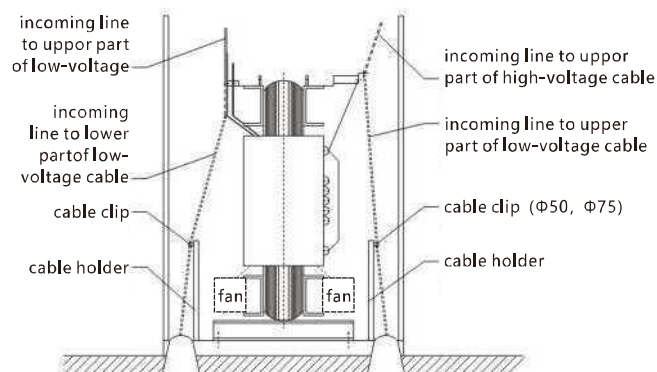
Protect Shield Cover

- The shell makes further protection for the transformer. For users option, the grade of protection has IP20, IP23, etc. And the material has sort of cold rolled steel plates and stainless steel plates, etc.
- The low-voltage outgoing line can adopt the method of standard bus bar group outgoing line, outgoing on the transverse side and upper part as well as the very method that designed by the users.



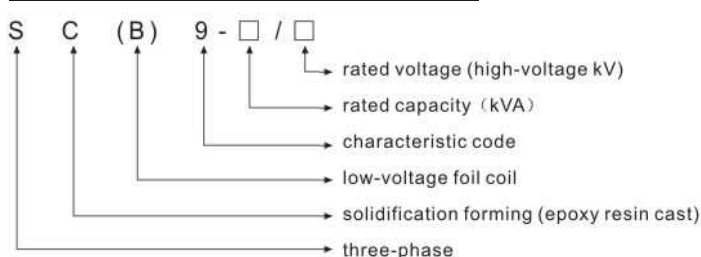
Lead type of transformer

- it can produce routine lead type, standard closed busbar lead type and standard side lead type, also special lead type according to the customers' demand.



sketch map of method of incoming and outgoing line

Type Meaning



TSJA^{THREE}

PHASE Series

oil immersed voltage stabilizer



TSJA series three-phase oil immersed voltage stabilizer compared with other types of voltage stabilizer power supply, has the characteristics of large capacity, anti pollution, no carbon brush contact, smooth voltage regulation, wide applicability, instantaneous overload, long-term continuous operation, combine with over voltage, under voltage, over current etc. protection, convenient installation and reliable operation.

The products are widely used in industrial, transportation, post and telecommunications, national defense, railway, scientific research and other fields of large-scale mechanical and electrical equipment, metal processing equipment, production line, elevator, medical equipment, embroidery and textile equipment, air conditioning, radio and television, household appliances and building lighting, which need stable voltage.



TSJA-200kVA



SPECIFICATIONS:

INPUT VOLTAGE	320V-460V
OUTPUT VOLTAGE	400±2%
FREQUENCY	50Hz-60Hz
DIELECTRIC STRENGTH	2000V/60S
INSULATION RESISTANCE	>20MΩ
EFFICIENCY	96%
THE RESPONSE TIME	<0.5S
WAVE FORM DISTORTION	<3%
ENVIRONMENT TEMPERATURE	-10°C ~ +50°C
NOISE	<60dB
PROTECTION FUNCTION	OVER/UNDER VOLTAGE, PHASE SEQUENCE, OVER CURRENT, OVERLOAD



TSJA-600kVA

OUTLINE & PACKING

MODEL	OUTPUT POWER	SIZE
TSJA-50kVA	50kVA	850*1300
TSJA-75kVA	75kVA	850*1300
TSJA-100kVA	100kVA	900*1350
TSJA-150kVA	150kVA	900*1350
TSJA-200kVA	200kVA	1100*1580
TSJA-250kVA	250kVA	1100*1580
TSJA-300kVA	300kVA	1100*1580
TSJA-400kVA	400kVA	1250*1950
TSJA-500kVA	500kVA	1250*1950
TSJA-630kVA	630kVA	1250*1950
TSJA-800kVA	800kVA	1450*1980
TSJA-1000kVA	1000kVA	1450*2150
TSJA-1600kVA	1600kVA	1560*2300
TSJA-2000kVA	2000kVA	1630*2580
TSJA-2500kVA	2500kVA	1920*1980



OVER VOLTAGE
PROTECTION



LOW VOLTAGE
PROTECTION



OVER LOAD
PROTECTION



OVER TEMP
PROTECTION



DELAY TIME

UPS MCEX Series

UPS POWER SUPPLY



- Compact size
- Excellent microprocessor control guarantees high reliability
- Boost and buck AVR for voltage stabilization
- Auto restart while AC is recovering
- Simulated sine wave
- Off-mode charging
- Cold start function
- Generator compatible

APEX LINE INTERACTIVE UPS SELECTION GUIDE

MODEL	MCEX 400	MCEX 600	MCEX 800
Capacity	400VA / 240W	600VA / 360W	800VA / 480W
Input			
Voltage	110/120 VAC or 220/230/240 VAC		
Voltage Range	81-145 VAC/162-280 VAC		
Frequency Range	60/50 Hz (auto sensing)		
Output			
Ac Voltage Regulation (batt. Mode)	±10%		
Frequency Range (batt. Mode)	60Hz or 50Hz ± 1Hz		
Transfer Time	Typical 2-6 ms		
Waveform (batt. Mode)	Simulated Sine Wave		
Battery			
Battery Type & Number	12V 4.5 Ah×1	12V/7 Ah×1	12V 9 Ah×1
Typical Recharge Time	4-6 hours up to 90% capacity		
Indicators			
Ac Mode	Green lighting		
Battery Mode	Green flashing		
Alarm			
Battery Mode	Sounding every 10 seconds		
Low Battery	Sounding every second		
Overload	Sounding every 0.5 second		
Fault	Continuously sounding		
Protection			
Full Protection	Overload, discharge, and overcharge protection		
Physical			
Dimension, D X W X H (mm)	279×101 ×142		
Net Weight (kgs)	3.55	4.25	4.9
Environment			
Humidity	0-90% RH@0- 40°C (non-condensing)		
Noise Level	Less than 40dB		

* Product specifications are subject to change without further notice

UPS MCTA Series

UPS POWER SUPPLY

ISO9001 CE



- Excellent microprocessor control guarantees high reliability
- Boost and buck AVR for voltage stabilization
- Auto restart while AC is recovering
- Simulated sine wave
- Off-mode charging
- Cold start function
- Optional USB/RS-232 communication port and RJ-11/RJ-45 phone protection

MCTA 1K/1.5K/2K LINE INTERACTIVE UPS SELECTION GUIDE

MODEL	MCTA 1K	MCTA 1.5K	MCTA 2K
Capacity	1000VA / 600W	1500VA / 900W	2000VA / 1200W
Input			
Voltage	110/120 VAC or 220/230/240 VAC		
Voltage Range	81-145 VAC / 162-290 VAC		
Frequency Range	60/50 Hz (auto sensing)		
Output			
Output Voltage	110/120 VAC or 220/230/240 VAC		
Ac Voltage Regulation (batt. Mode)	±10%		
Frequency Range (batt. Mode)	60 Hz or 50 Hz ±1 Hz		
Transfer Time	Typical 2-6 ms, 10ms max.		
Waveform (batt. Mode)	Simulated Sine Wave		
Battery			
Battery Type & Number	12V/7 AH×2	12V/9 AH×2	12V/9 AH×2
Typical Recharge Time	4-6 hours recover to 90% capacity		
Indicators			
Ac Mode	Green lighting	The right green LED lighting & the 2nd to 5th green LEDs gradually lighting indicating load level	
Battery Mode	Yellow flashing	The right green LED flashing & the 2nd to 5th green gradually lighting indicating battery capacity	
Fault	Red lighting	Red LED lighting	
Protection			
Full Protection	Overload, discharge, and overcharge protection		
Alarm			
Battery Mode	Sounding every 10 seconds		
Low Battery	Sounding every second		
Overload	Sounding every 0.5 second		
Battery Replacement Alarm	Sounding every 2 seconds		
Fault	Continuously sounding		
Physical			
Dimension, D X W X H (mm)	350×146×160	397×146×205	
Net Weight (kgs)	8.0	11.1	11.5
Operating Environment			
Humidity	0-90 % RH @ 0- 40°C (non-condensing)		
Noise Level	Less than 40dB		
Management			
Optional Usb/rs-232 Port	Supports Windows® 2000/2003/XP/Vista/2008/7, Linux, Unix, and MAC		

* Product specifications are subject to change without further notice



UPS Technical HIGH FREQUENCY series



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UPS Technical

HIGH FREQUENCY series

ISO9001 CE 

MODEL		MCC1K	MCC2K	MCC3K
CAPACITY		1000 VA / 800 W	2000 VA / 1600 W	3000 VA / 2400 W
INPUT				
Voltage Range		110 - 300 VAC (Auto sensing)		
Frequency Range		46Hz ~ 55 Hz or 56Hz ~ 64 Hz		
Phase		Single phase with ground		
PowerFactor (nominal output @ full load)		≥ 0.99		
OUTPUT				
Output Voltage		200/208/220/230/240 VAC		
AC Voltage Regulation (Static)		± 1%		
Frequency Range (Synchronized Range)		48 ~ 52 Hz or 58 ~ 62 Hz		
Frequency Range (Batt. Mode)		50 Hz ± 0.2 Hz or 60Hz ± 0.2 Hz		
Current Crest Ratio		3:1		
Harmonic Distortion		≤ 2 % THD (Linear Load), ≤ 6 % THD (Non-linear Load)		
Transfer Time	AC Mode to Batt. Mode	Zero		
	AC Mode to Bypass	4 ms (Typical)		
Waveform (Batt. Mode)		Pure sinewave		
EFFICIENCY(Peak)				
AC Mode (@100% RCD load)		88%	88%	88%
Battery Mode (@100% RCD load)		83%	83%	83%
BATTERY				
Standard Model	Battery Type	12V / 9Ah	12V / 9Ah	12V / 9Ah
	Battery Numbers	2	4	6
	Typical Recharge Time	5 hours recover to 90% capacity		
	Charging Current	1.0 A		
	Charging Voltage	27.4 VDC ± 1%	54.8 VDC ±1%	82.2 VDC ±1%
Long-run Model	Battery Type and Numbers	Depending on applications		
	Charging Current	4.0 A		
	Charging Voltage	41.1 VDC ± 1%	82.2 VDC ±1%	109.6 VDC ±1%
INDICATORS				
LED Panel		UPS status, Load level, Battery level, and Fault conditions		
ALARM				
Battery Mode		Sounding every 4 seconds		
Low Battery		Sounding every second		
Overload		Sounding twice every second		
Fault		Continuously sounding		
PHYSICAL				
Standard Model	D x W x H(mm)	360 call 145call227	400 call 190 call 327	400 call 190 call 327
	Net Weight (kg)	9	17.7	23.9
Long-run Model	D x W x H(mm)	360 call 145 call 227	400 call 190 call 327	400 call 190 call 327
	Net Weight (kg)	5.2	8.6	8.7
ENVIRONMENT				
Operation Humidity		0-95 % RH @ 0- 40。 C (non-condensing)		
Noise Level		Less than 50dBA @ 1 Meter		
MANAGEMENT				
Communication		RS232 Card/Optional USB Card,SNMP Card,or AS400 Card available		
		Supports Windows2 2000/2003/XP/Vista/2008,Windows27,Linux,Unix,and MAC		
Optional SNMP		Power management from SNMP manager and web browser		

UPS Technical

HIGH FREQUENCY series



MODEL		MCC6K		MCC10K	
PHASE		1 phase in / 1 phase out			
CAPACITY		6000 VA / 4800 W		10000 VA / 8000 W	
INPUT					
Voltage Range	Low Line Transfer	110 VAC $\pm$ 3% at 50% Load		176 VAC $\pm$ 3% at 100% Load	
	Low Line Comeback	120 VAC $\pm$ 3% at 50% Load		186 VAC $\pm$ 3% at 100% Load	
	High Line Loss	300 VAC $\pm$ 3%			
	High Line Comeback	290 VAC $\pm$ 3%			
Frequency Range		46Hz $\sim$ 54 Hz or 56Hz $\sim$ 64 Hz			
Power Factor		$\geq$ 0.99 @ 100% load			
OUTPUT					
Output Voltage		200/208/220/230/240VAC			
AC Voltage Regulation		$\pm$ 1%			
Frequency Range (Synchronized Range)		46Hz $\sim$ 54 Hz @ 50Hz system ; 56Hz $\sim$ 64 Hz @ 60Hz system			
Frequency Range (Batt. Mode)		50 Hz $\pm$ 0.1 Hz or 60 Hz $\pm$ 0.1 Hz			
Current Crest Ratio		3:1 (max.)			
Harmonic Distortion		$\leq$ 3 % THD (Linear Load), $\leq$ 6 % THD (Non-linear Load)			
Transfer Time	Bypass to Inverter (Line mode)	0ms			
	Inverter to Bypass (Line mode)	0ms			
Waveform (Batt. Mode)		Pure Sinewave			
EFFICIENCY					
Line Mode		90%			
Battery Mode		89%			
BATTERY					
Standard Model	Battery Type	12 V / 7 AH		12 V / 9 AH	
	Numbers	16 pcs		16 pcs	
	Typical Recharge Time	9 hours recover to 90% capacity			
	Charging Current	Default:1.0 A $\pm$ 10%, Max.:2.0A $\pm$ 10%			
	Float Charging Voltage	218.4 VDC $\pm$ 1%			
Long-run Model	Battery Type	Depending on applications			
	Numbers	16-20 pcs (adjustable)			
	Charging Current	Default:4.0 A $\pm$ 10			
	Float Charging Voltage	218.4 VDC $\pm$ 1% (based on 16 pcs batteries)			
INDICATORS					
LCD Panel		UPS status, Load level, Battery level, and Fault conditions			
ALARM					
Battery Mode		Sounding every 4 seconds			
Low Battery		Sounding every second			
Overload		Sounding twice every second			
Fault		Continuously sounding			
PHYSICAL					
Standard Model	Dimension, D x W x H(mm)	515 x 250 x 608		515 x 250 x 608	
	Net Weight (kgs)	68		68.5	
Long-run Model	Dimension, D x W x H(mm)	530 x 245 x 455		530 x 245 x 455	
	Net Weight (kgs)	18		21.5	
ENVIRONMENT					
Operation Humidity		0-95 % RH @ 0- 40。 C (non-condensing)			
Noise Level		Less than 55dBA @ 1 Meter		Less than 58dBA @ 1 Meter	
MANAGEMENT					
Smart RS-232		Supports Windows® 2000/2003/XP/Vista/2008, Windows® 7, Linux, Unix, and MAC			
Optional SNMP		Power management from SNMP manager and web browser			



UPS Technical

LOW FREQUENCY 3/1 series



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 **MINGCH**[®]

UPS Technical

LOW FREQUENCY 3/1 series



Model	MC6KL31	MC10KL31	MC15KL31	MC20KL31	MC30KL31
Capacity	6KVA/4.8KW	10KVA/8KW	15KVA/12KW	20KVA/16KW	30KVA/24KW
Host Machine Specification					
UPS Structure	Online Double Conversion				
Appearance	Low Frequency with Output Isolated Transformer				
Overall Efficiency (AC-AC)	> 85%				
Noise (In 2 meters)	< 50dB				
Working Temp	-10-40℃				
Storage Temp	-25~ 60℃ (Without Batteries)				
Humidity	<95%Non-Condensing				
Safety Standard	IEC62040				
Parallel Redundancy	Available				
Protections	Overload, Short-Circuit, Over Temp., Utility Power Voltage High/low, BAT Voltage High/low				
DC Start	Available				
Generator Compatibility	Available				
Display	LCD Display: Multi-L anguage with all kinds of messages, Input Output Status, ECO Mode Settings,INV Temp. TX Status Calendar, Time, Serial Number, Model, Structure, History Logs, Battery Test.LED Indicators: UPS States Indicator"				
Mute	Auto				
Cabinet Standard	IP20				
Cooling System	Intelligent Speed Control Cooling Fan				
Elevation	< 1000M, Without Derated				
Rectifier Specification					
Input Voltage	380Vac, ±25%,3Phase				
Input Voltage Range	286-475Vac				
Input Frequency Range	50Hz±5%				
Soft-Start	>20 Seconds				
Output Specification					
Output Voltage	220/200/230/240Vac				
Output PF	0.8				
Output Voltage Regulation	220Vac±1%（ Static Load ）, 220Vac±2%（50~0% Sudden Change）				
Output Freq	50Hz±0.1%（BAT Mode）				
Distortion	< 1%（Linear Full Load）, < 3%（Non-Linear Full Load）				
Frequency Tracking Range	46-54Hz				
Output Waveform	Pure Sine Wave				
Overload	> 125%: More than 1 Min; > 150%: More than 300ms				
Noise Suppression	EMI/RFI Wave Filter				
Crest Ratio	3：1				
Short-Circuit	Circuit Auto Protection, Output Voltage/Current to 0				
Output Abnormal	INV Output Auto-Locked Protection				
Bypass Specification					
Static Bypass Transfer Time	0ms				
Static Bypass Range	220Vac（-15~+15%）				
Frequency Range	±1Hz, ±2Hz, ±3Hz Selectable				
Bypass -> INV Transfer Time	2ms				
Frequency Tracking Speed	0.5-2hz/s				
Manual Maintenance Bypass	None				
Alarm Specification					
Alarm	Utility Power Fault, BAT Voltage Low, Overload,UPS Fault				
Mute	Auto				
Battery Specification					
Type	Sealed Lead Acid Maintenance Free				
Model Rated Volts/Units	348-384Vdc / 29-32 Units adjustable				
Ext. Model Charging Current	Std. 5A-10A Opt.				
BAT Low	Shutdown Protection				
Communication Specification					
Communication Port	Rs232 (Std.); /SNMP/RS485/ Dry Contact（Optional Accessory）				
Remote Software	Multi-functional Monitoring System, Online and BAT Mode Status, BAT Fault, Remote Control				
Physical Parameters					
Ext. Size mm(W×D×H)	310×655×790				
Ext. Net Weight (Kg)	105	110	120	125	130



UPS Technical

LOW FREQUENCY 3/3 series



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LOW FREQUENCY 3/3 series



Table1: Mains input

Model	10K	15K	20K	30K	40K	60K	80K	100K	120K	160K	200K	250K	300K	400K	500K	600K	700K	800K
Capacity	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA	120KVA	160KVA	200KVA	250KVA	300KVA	400KVA	500KVA	600KVA	700KVA	800KVA
	8KW	12KW	16KW	24KW	32KW	48KW	64KW	80KW	96KW	128KW	160KW	200KW	240KW	320KW	400KW	480KW	560KW	640KW
Voltage	3 x 380/400V (3Ph + N)																	
Frequency	50Hz/60Hz																	
Voltage range	165V~280V (Ph-N) / 285V~485V (Ph-Ph)																	
Frequency range	46Hz~54Hz @50Hz; 56Hz~64Hz @60Hz																	

Table 2: Battery data

Model	10K	15K	20K	30K	40K	60K	80K	100K	120K	160K	200K	250K	300K	400K	500K	600K	700K	800K
Quantity of battery	29/30/31/32 PCS (12V in series)																	
Voltage	384VDC																	
Current of charging	default 10A; Max=capacity (KW) /total battery voltage (real-time voltage) , the max current less than 40A			default 10A; max 40A; max current of full load 5A														
Float charging voltage	13.5VDC /each (12V)																	
Over voltage protection	14.5VDC / each (12V)																	

Table 3: Inverter output

Model	10K	15K	20K	30K	40K	60K	80K	100K	120K	160K	200K	250K	300K	400K	500K	600K	700K	800K
Output waveform	Pure sine wave																	
voltage	3 x 380/400V (3Ph + N)																	
Accuracy	±1% (balanced load)																	
Frequency	50/60 Hz ±1 %																	
Voltage harmonic	Linear load<3%; PF 0.8 Nonlinear load<6%																	
Overload	110%~150% 10min~60s; >160% 200ms																	
Efficiency	>90%																	

Table 4: Static bypass

Model	10K	15K	20K	30K	40K	60K	80K	100K	120K	160K	200K	250K	300K	400K	500K	600K	700K	800K
Voltage	3 x 380/400V (3Ph + N)																	
Frequency	50Hz/60Hz																	
Voltage range	176V~264V (Ph-N) / 304V~456V (Ph-Ph)																	
Frequency range	46Hz~54Hz @50Hz; 56Hz~64Hz @60Hz																	
Conversion time	Synchronous switching: 0ms																	
Overload	150% ~ 180% 1h~30s; 180% ~ >200% 30s~200ms																	

UPS Technical

LOW FREQUENCY 3/3 series



Table 5: Power saving mode (off by default)

Model	10K	15K	20K	30K	40K	60K	80K	100K	120K	160K	200K	250K	300K	400K	500K	600K	700K	800K
Voltage	3 x 380/400V (3Ph + N)																	
Frequency	50Hz/60Hz																	
Voltage range	176V~264V (Ph-N) / 304V~456V (Ph-Ph)																	
Frequency range	46Hz~54Hz @50Hz; 56Hz~64Hz @60Hz																	
Conversion time	<10ms																	

Table 6: Environmental parameters

Model	10K	15K	20K	30K	40K	60K	80K	100K	120K	160K	200K	250K	300K	400K	500K	600K	700K	800K
Working temperature	0° C ~ 55° C																	
Storage temperature range	-15°C ~ 60°C																	
Altitude	0 ~ 1000m																	
Humidity	5% ~ 95% No condensation																	
IP	IP21																	
Cooling type	Fan cooling																	
Communication mode	RS232, USB, RS485, intelligent slot																	
Altitude (m)	1000	1500	2000	2500	3000	3500	4000	4500	5000									
Derating factor	100%	95%	91%	86%	82%	78%	74%	70%	67%									

Table 7: Dimension

Model	10K	15K	20K	30K	40K	60K	80K	100K	120K	160K	200K	250K	300K	400K	500K	600K	700K	800K
Size (mm)	D	656	656	656	656	821	821	975	975	975	1051	1051	1000	1000	2100	2100	2100	2100
	W	405	405	405	405	432	432	554	554	554	705	705	800	800	1100	1100	1100	1100
	H	817	817	817	941	1159	1159	1286	1286	1286	1646	1646	1800	1800	2000	2000	2000	2000
Packing (mm)	D	785	785	785	785	950	950	1125	1125	1125	1205	1205	1150	2250	2250	2250	2250	2250
	W	535	535	535	535	560	560	705	705	705	855	855	950	1250	1250	1250	1250	1250
	H	985	985	985	1110	1333	1333	1465	1465	1465	1855	1855	2010	2210	2210	2210	2210	2210
Netweight (Kg)		118	157	159	272	280	303	458	498	599	720	760	1280	1624	2620	3075	3530	4830
Gross weight (Kg)		135	160	162	279	285	314	468	512.5	617	760	800	1345	1689	2750	3205	3660	5025

FITTING SERIES

POWER SOCKET & PLUG SERIES



MC01



MC02



MC03



MC04



MC05



MC06



MC07



MC08



MC09



MC10



MC11



MC12



MC13



MC14



MC15



MC16



MC17



MC18



MC19



MC20



MC21



MC22



MC23



MC24



MC25



MC26



MC27



MC28



MC29



MC30



MC31



MC32



MC33



MC34



MC35