




PRODUCT
CATALOGUE



We Help
You
Generate
Renewable
Energy
in A
Better Way



INTRODUCTION RIM Projects was Established in 2016 with an aim to provide quality product and services which can ensure efficiency, safety and reliability. While designing products and systems, we follow the policy of putting every resources to the optimum use. Through evacuation of the key resources- man power, energy, material- helps us achieve more

We want our customers to be comfortable with the products supplied by us. Furnishing the appropriate products, services and timely support, helps us to retain more than 95% of our Clients, who remain well satisfied with these systems. This we reckon as our greatest achievement.

The stakeholders have a decade of experience in Renewable energy as an EPC contractor entity supplying Solar Wind Hybrid Power plants to tech-giants like British Gas, ONGC, ESSAR Offshore, L & T etc. RIM Projects was started to transfer the experience that they gained from these projects to domestic and Industrial Customers. The group has a business track record dating back to the 1960s and has always maintained high standards in terms of quality of goods and services.

VISION We work primarily in the field of Renewable Energy. We strive to have a sustainable and harmonious relationship with the nature where no material is wasted. We believe energy saved is energy generated.

MISSION Our company routinely researches and tests on the products available in the market before they are entered in our inventory. Only after thorough product analysis and market study of these products synchronizing well with all other parts of the systems are selected. Even today the policy of evaluating new products before putting into business is followed in the company. Our every employee begins his career from the lowest level to higher ranks so that he understands the organization and products thoroughly. Especially the sales team, thus enabling them to prescribe the right product to our customers.



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Table of Contents

SURGE PROTECTION DEVICES	10
DC Surge Protection device	10
MAKE : CITEL	
DS50PV-500 Type 2 Surge Protection device	10
DS50PV-1000 Type 2 Surge Protection device	10
DS50PV-1000 Type 1+2 Surge Protection device	10
MAKE : MERSEN	
DC SPD STPT2-40K600V-UPV	10
DC SPD STPT2-40K1000V-YPV	11
MAKE: ABB	
OVR PV T2 40 1000PQS	11
MAKE: FINDER	
Type 2 DC SPD (6P.23.9.000.1020)	11
AC Surge Protection device	11
MAKE : CITEL	
Single phase Type 2 Surge protection device DS240/280	11
Three phase Type 2 Surge protection device DS440/280	12
Single phase Type 1+2 Surge protection device(DS132R-280/G)	12
Three phase Type 1+2 Surge protection device(DS134R-280/G)	12
MAKE : MERSEN	
AC SPD STPT2-40K320V 2P	12
AC SPD STPT2-40K320V 4P	13
MAKE: ABB	
SPD-OVRT2 1N40-275PQS	13
SPD FP-OVRT2 3N40-275PQS	13
SPD OVRTI-T2 3N 12.5-275S PQS	14
MAKE : FINDER	
3 Phase Type 2 AC SPD (6P.24.8.230.1020)	14
DATA SURGE PROTECTORS	14
MAKE : CITEL	
MJ8-POE	14
RJ11 TELECOM SURGE PROTECTORS	15
MAKE : CITEL	
MJ6-TT	15
19" PATCH PANEL PROTECTOR FOR HIGH SPEED NETWORK STP	15
MAKE : CITEL	
PL24-CAT6	15
MINIATURE CIRCUIT BREAKER	16
DC MCB	16
MAKE : ABB	
16A DP DC MCB (S202M-C16/20/25/32/40/63DC)	16

100A DP DC MCB (S204M-C100)	16
125 A FP MCB S804B-C125	16
MAKE : EATON	
32A DC MCB 500VDC	16
AC MCB	17
MAKE : ABB	
16A SP AC MCB (SH201M-C16/25/32)	17
16A DP AC MCB (SH202M-C16/32/63)	17
16A FP AC MCB (SH204M-C16/32/63)	17
MCCB	17
MAKE : ABB	
SACE TID/PVI60	17
SWITCH DISCONNECTORS	18
MAKE : ABB	
Switch Disconnecter OTDC 32F3	18
100 DC OTDC 100/200/250E 11K	18
CHANGEOVER SWITCHES	18
AC CHANGEOVER SWITCHES	18
MAKE : ABB	
100A FP OT1004FC Change Over Switches	18
DC CHANGE OVER SWITCHES	18
MAKE : SALZER	
32A DC CHANGE OVER SWITCH	19
OFFLOAD CHANGEOVER SWITCHES	19
MAKE : C&S	
CSCSOF32CO4/ CSCSOF63CO4	19
DIN RAIL TERMINAL BLOCKS	19
MAKE : CONNECTWELL	
CTS Series Screw Clamp Terminal blocks	19
Standard Feed Through	19
DISTRIBUTION BLOCK	20
MAKE : TE CONNECTIVITY	
DISTRIBUTION BLOCK 80A-DBL 80	20
DISTRIBUTION BLOCK 125A-DBL 125	20
DISTRIBUTION BLOCK 160A-DBL 160	20
DISTRIBUTION BLOCK 400A-DBL 400	20
ENCLOSED SWITCHES	20
MAKE : ABB	
ENCLOSED SWITCH ONE20M2W/4W	20
DC LOAD BREAK SWITCHES	21

MAKE : SALZER _____ 21

FUSE AND FUSE HOLDERS _____ 21

MAKE : MERSEN

USMI HEL Fuse holder _____ 21

HP 10M15 /HP 10M20/HP 10M30 Fuse link _____ 21

MAKE : EATON Bussmann

CHI4DU Bussmann Series Modular Fuse holder _____ 21

FWP-40A 14F/50A 14F Bussmann Fuse link _____ 22

MAKE : EATON Bussmann

CHPV Fuse holder 30A _____ 22

PV-10/15/20A 10F Fuse link _____ 22

HRC FUSE LINK, FUSE BASE AND FUSE HOLDER _____ 22

MAKE : C&S

CTIA25-25A HRC Fuse link _____ 22

CTCP 80/100 HRC Fuse link _____ 22

CTIS 50A HRC Fuse link _____ 22

CNS 20/32A HRC Fuse link _____ 22

CNS32H HRC Fuse holder _____ 23

MAKE : EATON Bussmann

PV-100ANH1-FUSE 80/100/175A 1000V DC _____ 23

MAKE : EATON Bussmann

SD1-D-PV 250A 690VAC/1500VDC IEC 1000VDC UL FUSE BASE _____ 23

ENCLOSED SWITCH DISCONNECTOR FUSE _____ 23

MAKE : C&S

ECS SDF 32/63/100/125 B4FN- 32/63/100/125 4P SFU _____ 23

SWITCH FUSE UNIT _____ 23

MAKE : C&S

32A Double Pole Rewirable Switch Fuse Unit _____ 23

MC4 CONNECTORS _____ 24

■ MC4 SOLAR POWER CONNECTORS _____ 24

■ JUNCTION BOX PANEL CONNECTORS _____ 24

■ T BRANCH MC4 CONNECTORS _____ 24

■ MC4 Y SOLAR POWER CONNECTOR _____ 24

■ MC4 1 to 3 Y SOLAR POWER CONNECTOR _____ 25

HAND TOOLS _____ 25

MAKE : STRIDER

MC4 Crimping Tool Large _____ 25

MC4 Crimping Tool Small _____ 25

CABLE STRIPING TOOL _____ 26

SOLAR WRENCH _____ 26

CABLE GLANDS	_____	26
■ POLYAMIDE GLANDS	_____	26
■ NYLON CABLE GLANDS	_____	27
DIN RAILS	_____	27
MAKE : TRINITY TOUCH	_____	27
PVC WIRING DUCTS	_____	27
MAKE : TRINITY TOUCH	_____	27
MAKE : SALZER	_____	28
FLEXIBLE CONDUITS FPYL20B PG16	_____	28
MAKE : TRINITY TOUCH	_____	28
24V DC 8 RELAY MODULE	_____	28
MAKE : TRINITY TOUCH	_____	28
WEATHER RESISTANT CABLE TIES	_____	29
MAKE : GIANTLOK	_____	29
EARTHING MATERIALS	_____	29
MAKE : EXCEL EARTHINGS	_____	
COPPER BONDED ROD WITH NUT AND BOLTS	_____	29
COPPER BONDED ROD WITH TINNED TERMINALS	_____	30
COPPER BONDED STRIPS	_____	30
LIGHTNING ARRESTER	_____	30
EARTH PIT CHAMBER	_____	30
TINNED COPPER BONDED TERMINAL STRIPS	_____	31
COPPER BONDED PLATE	_____	31
ALUMINIUM 8MM DOWN CONDUCTOR WITH INSULATION	_____	31
EARTHING COMPOUND	_____	31
ELECTRA-FILL(CARBON BASED COMPOUND)	_____	31
EARTHING ROD	_____	32
MAKE : ABB	_____	32
READY TO FIT EARTH KIT	_____	32
MAKE : OBO	_____	32
ENERGY METERS	_____	32
■ Single phase Energy meters	_____	32
■ Three phase Energy meters	_____	32
NET METERS	_____	33
■ Single phase Energy meters	_____	33
■ Three phase Energy meters	_____	33
WALKWAY	_____	33
MAKE : STRIDER	_____	33

4 PANEL HOT DIPPED GALVANISED SOLAR MOUNTING STRUCTURE	33
8 PANEL HOT DIPPED GALVANISED SOLAR MOUNTING STRUCTURE	34
AC CABLES	36
MAKE : BONTON	
HOME PROTECTION SERIES AC CABLES	36
INDUSTRIAL APPLICATION AC CABLES	36
3 AND 4 CORE AC CABLES	36
SOLAR DC CABLES	37
MAKE : LAPP	37
MAKE : SIECHEM	37
MAKE : LEONI	37
ARMOURED ALUMINIUM UG CABLE	38
MAKE : FINOLEX	38
ENCLOSURES	38
MAKE : HENSEL	38
MAKE : RITTAL	38
MAKE : TRINITY TOUCH	39
MAKE : SUBOX	39
SOLAR MPPT CHARGE CONTROLLER	39
MAKE : PHOCOS	
ECO MPPT CHARGE CONTROLLER 12/24V 10A/20A	39
SOLAR PRIORITY CHARGE CONTROLLER WITHOUT CC	39
SOLAR PRIORITY CHARGE CONTROLLER 40A	40
MAKE : VICTRON	
BLUESOLAR MPPT	40
MAKE : STRIDER	
SOLAR MPPT	41
MAKE : SCHNEIDER	
XW MPPT 60-150	41
SOLAR OFFGRID INVERTERS	41
MAKE : PHOCOS	
POWER CONDITIONING UNIT 800VA/2000VA	41
MAKE : STRIDER	42
MAKE : VICTRON	
MULTIPLUS	42
QUATTRO	42
SOLAR HYBRID INVERTER	43
MAKE : VICTRON	
EASYSOLAR	43

VICTRON ACCESSORIES**MAKE : VICTRON** _____ 44**LI-ION BATTERY****MAKE : PANASONIC** _____ 45**SOLAR PV MODULES** _____ 45**MAKE : ANCHOR PANASONIC**

PERC-MONOCRYSTALLINE _____ 45

POLYCRYSTALLINE PANELS _____ 46

MONOCRYSTALLINE PERC HALF CUT CELLS _____ 46

MAKE : PANASONIC HIT

MONOCRYSTALLINE _____ 46

MAKE : GOLDI SOLAR

PERC-MONOCRYSTALLINE _____ 47

POLYCRYSTALLINE PANELS _____ 47

MAKE : ORB

MONO PERC _____ 48

MAKE : CANADIAN SOLAR

POLYCRYSTALLINE PERC _____ 48

POLYCRYSTALLINE _____ 49

MAKE : RENEWSYS

MONO PERC _____ 49

POLYCRYSTALLINE _____ 50

MAKE : MICROSUN

POLYCRYSTALLINE _____ 50

MAKE : TRINASOLAR

MONOCRYSTALLINE PERC HALFCUT CELLS _____ 50

MAKE : AXITEC

144 HALFCELL FULL-SQUARE MONOCRYSTALLINE _____ 51

FLEXIBLE BUSBARS**MAKE: SALZER** _____ 51**GRID TIED INVERTERS** _____ 52**MAKE : ABB** _____ 52**MAKE : DELTA** _____ 53**MAKE : FRONIUS** _____ 54**MAKE : POLYCAB** _____ 55**MAKE : GOODWEE**

Single-MPPT, Single phase _____ 56

Dual MPPT Three phase _____ 57

Dual MPPT, Single phase _____ 58

4 MPPT 3 Phase _____ 58

MAKE : GROWATT _____ 59

MAKE : SOLAR EDGE

Three phase inverters	60
Single phase inverters	61

AC COMBINER BOX WITH BYPASS SWITCH	61
UTILITY COMBINER BOX WITH RELAY CIRCUIT	62
CHANGEOVER PANEL WITH COMMUNICATION	62
AC DISTRIBUTION BOXES	62
STRING COMBINER BOXES	63

SURGE PROTECTION DEVICES

DC Surge Protection device

Make: CITEL

DS50PV-500 Type 2 Surge Protection device

Max. PV Voltage	500VDC
Max. operating voltage	530V
Protection modes	MC
Nominal discharge current(In)	20kA
Max. discharge current(I _{max})	40kA
Protection level(U _p)	1,8kV



Make: CITEL

DS50PV-1000 Type 2 Surge Protection device

Max. PV Voltage	1000VDC
Max. operating voltage	1060V
Protection modes	MC
Nominal discharge current(In)	20kA
Max. discharge current(I _{max})	40kA
Protection level(U _p)	3,6kV



Make: CITEL

DS50PV-1000 Type 1+2 Surge Protection device

Max. PV Voltage	1000VDC
Max. operating voltage	1200Vdc
Current withstand short circuit PV	15000A
Protection modes	CM/DM
Nominal discharge current(In)	15kA
Max. discharge current(I _{max})	40kA
Protection level(U _p)	3,6kV



Make: MERSEN

DC SPD STPT2-40K600V-UPV

Max. PV Voltage	660VDC
Current withstand short circuit PV	10000A
Nominal discharge current(In)	20kA
Max. discharge current(I _{max})	40kA
Protection level(U _p)	<=2.6kV



Make: MERSEN

DC SPD STPT2-40K1000V-YPV	
Max. PV Voltage	1060VDC
Current withstand short circuit PV	10000A
Nominal discharge current(In)	20kA
Max. discharge current(I _{max})	40kA
Protection level(U _p)	<=1.4kV



Make: ABB

OVR PV T2 40 1000PQS	
Max. PV Voltage	1100VDC
Number of protected lines	2
Nominal discharge current(In)	20kA
Max. discharge current(I _{max})	40kA
Voltage protection level(U _p)	3,8kV
Short circuit current	10kA
Standards	EN 50539-11



Make: FINDER

Type 2 DC SPD (6P.23.9.000.1020)	
Max. operating voltage	1020V
Max. operating voltage per module	500V
Nominal discharge current per module (I _n)	20kA
Max. discharge current per module (I _{max})	40kA
Voltage Protection level	<3.2 kV
Short circuit current withstand	125A



AC Surge Protection device

Make: CITEL

Single phase Type 2 Surge protection device DS240/280

SPD Type	2
Network	230V Single phase
Nominal line voltage	230 Vac
Max. AC Operating voltage	280Vac
Max load current	20A
Current withstand short circuit PV	10000A
Nominal discharge current(In)	20kA



Make: CITEL

Three phase Type 2 Surge protection device DS440/280

SPD Type	2
Network	230/400V 3- PHASE
Nominal line voltage	230Vac
Max. AC Operating voltage	280Vac
Current withstand short circuit PV	10000A
Nominal discharge current(In)	20kA
Max. discharge current(I _{max})	40kA



Make: CITEL

Single phase Type 1+2 Surge protection device(DS132R-280/G)

SPD Type	Type 1+2
Network	230V Single phase
Nominal line voltage	208Vac
Max. AC Operating voltage	280Vac
Admissible short-circuit current	25000A
Nominal discharge current(In)	20kA
Max. discharge current(I _{max})	50kA



Make: CITEL

Three phase Type 1+2 Surge protection device(DS134R-280/G)

SPD Type	Type 1+2
Network	230/400V 3- phase+N
Nominal line voltage	230Vac
Max. AC Operating voltage	280Vac
Current withstand short circuit PV	25000A
Nominal discharge current(In)	20kA
Max. discharge current(I _{max})	50kA



Make: MERSEN

AC SPD STPT2-40K320V 2P

Max. PV Voltage	320VAC
Number of poles	2
Current withstand short circuit PV	10000A
Nominal discharge current(In)	20kA
Max. discharge current(I _{max})	40kA
Protection level(U _p)	<=1.4V



Make: MERSEN

AC SPD STPT2-40K320V 4P

Max. PV Voltage	320VAC
Number of poles	4
Current withstand short circuit PV	10000A
Nominal discharge current(In)	20kA
Max. discharge current(Imax)	40kA
Protection level(U _p)	<=1.4V



Make: ABB

SPD-OVRT2 1N40-275PQS

Nominal AC Voltage of the system	230/400V
Number of poles	2
Current withstand short circuit PV	100kA
Nominal discharge current(In)	20kA
Max. discharge current(Imax)	40kA
Short Circuit Protection devices	Curve B Breakers ≤ 125A Curve C Breakers ≤ 125A gL Type Fuses ≤ 125A gG Type Fuses ≤ 125A
Standards	IEC 61643-11/EN 61643-11
Suitable for	To protect the systems against the transient overvoltage(lightning)
Voltage Protection Level(U _p)	(L-N) 1.25kV (N-PE) 1.4kV (L-PE) - kV
Voltage Rating DC	350V



Make: ABB

SPD FP-OVRT2 3N40-275PQS

Nominal AC Voltage of the system	230/400V
Number of poles	4
Current withstand short circuit PV	10000A
Nominal discharge current(In)	20kA
Max. discharge current(Imax)	40kA
Short Circuit Protection devices	Curve B Breakers ≤ 125A Curve C Breakers ≤ 125A gL Type Fuses ≤ 125A gG Type Fuses ≤ 125A
Standards	IEC 61643-11/EN 61643-11
Suitable for	To protect the systems against the transient overvoltage(lightning)
Voltage Protection Level(U _p)	(L-N) 1.25kV (N-PE) 1.4kV (L-PE) - kV
Voltage Rating DC	350V



Make: ABB

SPD OVRT-T2 3N 12.5-275S PQS

Nominal AC Voltage of the system	230/400V
Number of poles	4
Current withstand short circuit PV	10000A
Nominal discharge current(In)	20kA
Max. discharge current(Imax)	80kA
Short Circuit Protection devices	Curve B Breakers ≤ 125A Curve C Breakers ≤ 125A gL Type Fuses ≤ 160A gG Type Fuses ≤ 160A
Standards	IEC 61643-11/EN 61643-11
Suitable for	To protect the systems against the transient overvoltage(lightning)
Voltage Protection Level(U _p)	(L-N) 1.2kV (N-PE) 1.1kV (L-PE) – 1.35kV
Voltage Rating DC	350V



Make: FINDER

3 Phase Type 2 AC SPD (6P.24.8.230.1020)

Max. operating voltage	275VAC
Nominal discharge current per module (In)	20kA
Max. discharge current per module (Imax)	40kA
Voltage Protection level	1.5kV



DATA SURGE PROTECTORS

Make: CITEL

MJ8-POE

Description	RJ45 surge protector for POE-A
Network	POE and Gigabit Ethernet, High POE
Max. data rate	1000Mbps
SPD Configuration	4 pairs + shielded
Pin outs	(1-2)(3-6)(4-5)(7-8)
Nominal line voltage	48Vdc
Max. DC operating voltage	60Vdc
Max. Load current	1200 mA
Max. frequency	> 100 MHz
Insertion loss	< 1 dB
Line/Ground Nominal discharge current	2000 A
Nominal discharge current Line/Line	500 A
Impulse current	500A
Protection level	70 V
Protection rating	IP20
Standards compliance	< 1 dB



RJ11 TELECOM SURGE PROTECTORS

Make: CITELE

MJ6-IT	
Description	RJ11 surge protector for 1 telephone line
Network	RTC, ADSL2, SDSL, 1 pair
Max. data rate	30Mbps
SPD Configuration	1 pair + shielded
Pin outs	1-pair (3-4)
Nominal line voltage	150 V
Max. DC operating voltage	170Vdc
Max. Load current	300 mA
Max. frequency	> 10 MHz
Insertion loss	< 1 dB
Line/Ground Nominal discharge current	2500 A
Nominal discharge current Line/Line	2500 A
Impulse current	500A
Protection level	220 V
Protection rating	IP20
Standards compliance	IEC 61643-21 / EN 61643-21 / UL497A



19" PATCH PANEL PROTECTOR FOR HIGH SPEED NETWORK STP

Make: CITELE

PL24-CAT6	
Description	Surge protector for CAT6
Network	10 Gigabit Ethernet, Cat.6 cabling
Max. data rate	1000Mbps
Insertion loss	< 1 dB
Nominal line voltage	5 Vdc
Max. DC operating voltage	8 Vdc
Max. Load current	1000 mA
Max. frequency	250MHz
Line/Line Nominal discharge current	500 A
Line/Ground Nominal discharge current	2000 A
Impulse current	500A
SPD configuration	24 ports
Protection rating	IP20
Standards compliance	IEC 61643-21 / EN 61643-21 / UL497B



MINIATURE CIRCUIT BREAKER

DC MCB

Make: ABB

16A DP DC MCB (S202M-C16/20/25/32/40/63DC)

Number of poles	2
Tripping Characteristics	C
Rated Current	16/20/25/32/40/63A
Rated voltage	440VDC
Rated short circuit breaking capacity	10kA
Standards	IEC / EN 60947-2



Make: ABB

100A FP DC MCB (S204M-C100DC)

Number of poles	4
Tripping Characteristics	C
Rated Current	100A
Rated Operational voltage	440VDC
Rated frequency	50/60Hz
Rated insulation voltage	500V
Rated short circuit capacity	10kA



Make: ABB

125 A FP MCB S804B-C125

Number of poles	4
Tripping Characteristics	C
Rated Current	125A
Rated insulation voltage	500V
Rated short circuit capacity	16kA
Rated frequency	50/60Hz
Rated operational voltage	230/400VAC



Make: EATON

32A DC MCB 500VDC

Number of poles	2
Tripping Characteristics	C
Rated Current	32A
Rated switching capacity acc. to IEC/EN 60947-2	6kA
Rated voltage	220V
Rated insulation voltage	440V
Rated short circuit breaking capacity	10kA



AC MCB

Make: ABB

16A SP AC MCB (SH201M-C16/25/32)

Number of poles	1
Tripping Characteristics	C
Rated Current	16/25/32A
Rated insulation voltage U_i acc. to IEC/EN 60664-1	250 V AC (phase to ground), 440 V AC (phase to phase)
Rated Operation voltage	230/400VAC
Rated short circuit capacity	10kA
Rated frequency	50/60Hz



Make: ABB

16A DP AC MCB (SH202M-C16/32/63)

Number of poles	2
Tripping Characteristics	C
Rated Current	16/32/63A
Rated insulation voltage U_i acc. to IEC/EN 60664-1	250 V AC (phase to ground), 440 V AC (phase to phase)
Rated Operation voltage	400VAC
Rated short circuit capacity	10kA
Rated frequency	50/60Hz



Make: ABB

16A FP AC MCB (SH204M-C16/32/63)

Number of poles	4
Tripping Characteristics	C
Rated Current	16/32/63A
Rated insulation voltage U_i acc. to IEC/EN 60664-1	250 V AC (phase to ground), 440 V AC (phase to phase)
Rated Operation voltage	400VAC
Rated short circuit capacity	10kA
Rated frequency	50/60Hz



MCCB

Make: EATON

SACE TID/PV160

Number of poles	4
Rated Current	160A
Rated voltage	1100VDC



Rated Impulse Withstand Voltage	8kV
Cat	DC-22B
Standards	IEC 60947-3

SWITCH DISCONNECTORS

Make: ABB

Switch Disconnecter OTDC 32F3

Rated Operational Current	32A
Rated insulation voltage	1000V
Rated Operation voltage	1000V
Rated short circuit capacity	0.8kA
Rated Impulse Withstand Voltage	8kV



Make: ABB

100 DC OTDC 100/200/250E 11K

Rated Operational Current	100/200/250A
Number of poles	2
Rated Operation voltage	1000V
Other features	Direct mount handle Single circuit



CHANGE OVER SWITCHES

AC Change Over Switches

Make: ABB

100A FP OT1004FC Change Over Switches

Rated Impulse Withstand Voltage	8kV
Number of poles	4
Rated insulation voltage	750V
Rated Operation Current AC -21A(Ie)	(380 ... 415 V) 100 A (500 V) 100 A (690 V) 100 A
Rated Operation Current AC -22A(Ie)	(380 ... 415 V) 100 A (500 V) 100 A (690 V) 100 A
Rated Operational Current AC-23A (Ie)	(380 ... 415 V) 80 A (500 V) 60 A (690 V) 40 A
Rated Operational Power AC-23A (Pe)	(220 ... 240 V) 37 kW (500 V) 37 kW (690 V) 37 kW
Rated Operational Voltage	750V
Rated Short-time Withstand Current (ICW)	for 1 s 2.5 kiloampere rms



DC Change Over Switches

Make: Salzer

32A DC CHANGEOVER SWITCH

Rated Current	32A
Number of poles	4
Rated insulation voltage	1500V
Rated Operation voltage	1500V
Rated short circuit capacity	5kA
Rated Impulse Withstand Voltage	8kV

**Offload Change Over Switches**

Make: C&S

CSCSOF32CO4/ CSCSOF63CO4

Rated Current	32/63A
Number of poles	4
Rated voltage	415
Utilization category	AC22A
Standards	IEC 60947/IS 13947-1&3

**DIN RAIL TERMINAL BLOCKS**

Make: Connectwell

CTS Series Screw Clamp Terminal blocks

Model	CTS4UN	CTS6U	CTS10U	CTS16U	CTS25UN	CTS35UN	CTS50/70N
Width(Thickness) xLength	6x43 mm	8X43mm	10X43mm	12X43mm	12X48mm	16x50.5mm	20.5x77mm
Rated Voltage	1000V	1000V	1000V	1000V	1000V	1000V	1000V
Rated current	32A	41A	57A	76A	101A	125A	192A
Material	Polyamide	Polyamide	Polyamide	Polyamide	Polyamide	Polyamide	Polyamide
Rated impulse voltage/Pollution degree	8KV/3	8KV/3	8KV/3	8KV/3	8KV/3	8KV/3	8KV/3
Mounting Possibility	DIN 32/DIN 35/DIN 35-15 Rail						
Colour	Grey,Red, Yellow,Black, Blue	Grey,Red, Yellow,Black, Blue	Grey,Red, Yellow,Black, Blue	Grey,Red, Yellow,Black, Blue	Grey	Grey	Grey
End clamp	CA702/CA802	CA702/CA802	CA702/CA802	CA702/CA802	CA702/CA802	CA702/CA802	CA202/CA102
End plate	End plate in grey EP2.5/4UN	End plate in grey EP6/10U	End plate in grey EP6/10U	Seperater plate in Grey (SP6/10U)	Partition plate in grey (PP25UN)	Partition plate in grey (PP35UN)	



Note: CA702,CA102- End clamp in Polyamide 66 suitable for Din 32/Din 35/Din 35-15 Rails
CA802,CA202- End clamp in Polyamide suitable for Din 35/Din 35-15 Rails

DISTRIBUTION BLOCK

Make: TE CONNECTIVITY

DISTRIBUTION BLOCK 80A-DBL 80	
Maximum Current	80A
Rated voltage	1000V AC/1500 VDC
Short time withstand current (I _{cw} 1s)	1920A
Rated peak withstand current (I _{pk})	27kA
Protection	IP20



DISTRIBUTION BLOCK 125A-DBL 125	
Maximum Current	125A
Rated voltage	1000V AC/1500VDC
Short time withstand current (I _{cw} 1s)	4200A
Rated peak withstand current (I _{pk})	30kA
Protection	IP20



DISTRIBUTION BLOCK 160A-DBL 160	
Maximum Current	160A
Rated voltage	1000V AC/1500VDC
Short time withstand current (I _{cw} 1s)	6000A
Rated peak withstand current (I _{pk})	30kA
Protection	IP20



DISTRIBUTION BLOCK 400A-DBL 400	
Maximum Current	400A
Rated voltage	1000V AC/1500VDC
Short time withstand current (I _{cw} 1s)	18000A
Rated peak withstand current (I _{pk})	51kA
Protection	IP10



ENCLOSED SWITCHES

Make: ABB

ENCLOSED SWITCH ONE20M2W/4W	
Rated current	20A
Rated voltage	240/415V
Number of poles	2/4
Rated operational short circuit current I _p (rms)	1kA
Protection	IP67
Suitable cable size	0.5-4sqmm
Suitable compression gland size	7-12mm diameter



DC LOAD BREAK SWITCHES

Make: SALZER

Type	Rated current	Number of poles	Degree of protection
DL216 30409 B23FLGB	16A	4 pole	IP 30
DL363 30209 B23FLGB	63A	4 pole	IP 30

- Compact and reliable
- Finger Protection
- Easy Installation
- Wiping Contacts
- Excellent switching and high short circuit capacity
- Optional Extended Terminals
- DIN rail mounting – Suitable for DB boards
- Various Panel mounting Options – Front mounting, Rear mounting
- Enclosure mounting

Type	Rated current	Number of poles	Degree of protection
DL232 30409 B23FLGB	32A	4 pole	IP 30
DCLB 216 30409 B23DB PLGB (with padlock)	16A	4 pole	IP 30
DCLB 232 30409 B23DB PLGB(with padlock)	32A	4 pole	IP 30



FUSE AND FUSE HOLDERS

Make: MERSEN

USM1 HEL Fuse Holder	
Maximum DC Voltage	1000VDC
Rated Current	30A

HP 10M15 /HP 10M20/HP 10M30 Fuse link	
Rated voltage	1000VDC
Rated Current	15/20/30A
Maximum Breaking capacity	10kA



Make: EATON Bussmann

CHI4DU Bussmann Series Modular Fuse Holder	
Rated voltage (IEC)	690Vac/750dc
Rated Current(IEC)	50A ac & dc
Suitable Bussmann series Fuse links	FWP-40A14F, FWP-50A14F



FWP-40A 14F/50A 14F Bussmann Fuse link

Rated voltage	690Vac
Rated Current	40/50A
Maximum Breaking capacity	120kA

Make: EATON Bussmann

CHPV Fuse Holder 30A

Rated voltage	1000Vdc
Rated Current	30A
Maximum Breaking capacity	

PV-10/15/20A 10F Fuselink

Rated voltage	1000Vdc
Rated Current	10/15/20A

**HRC FUSE LINK, FUSE BASE AND FUSE HOLDER**

Make: C&S

CTIA25-25A HRC Fuse link

Rated voltage	415VAC
Rated Current	25A
Breaking capacity	80kA



Make: C&S

CTCP 80/100 HRC Fuse link

Rated voltage	415VAC
Rated Current	80/100A
Breaking capacity	80kA



Make: C&S

CTIS 50A HRC Fuse link

Rated voltage	415VAC
Rated Current	50A
Breaking capacity	80kA



Make: C&S

CNS 20/32A HRC Fuse link

Rated voltage	415VAC
Rated Current	20/32A
Breaking capacity	80kA



Make: C&S

CNS32H HRC Fuse holder

Rated voltage	415V
Rated Current	32A



Make: EATON Bussmann

PV-100ANHI-FUSE 80/100/175A 1000V DC

Rated voltage	1000VDC
Rated Current	80/100/175A
Breaking capacity	50kA



Make: EATON Bussmann

SD1-D-PV 250A 690VAC/1500VDC IEC 1000VDC UL FUSE BASE

Rated voltage	1000VDC
Rated Current	80/100/175A
Breaking capacity	250A



ENCLOSED SWITCH DISCONNECTOR FUSE

Make: C&S

ECS SDF 32/63/100/125 B4FN- 32/63/100/125 4P SFU

Number of poles	4
Rated Current	32/63/100/125A



SWITCH FUSE UNIT

Make: C&S

32A Double Pole Rewirable Switch Fuse Unit

Number of poles	4
Rated Current	32A
Rated Voltage	240V

MC4 CONNECTORS

MC4 SOLAR POWER CONNECTORS

Insulation material	Polycarbonate (PC)
Contact material	Copper, Tin plated
Rated current	30A
Rated voltage	1500V
Test voltage	6000V
Contact resistance	Less than 3mΩ
Degree of protection	IP67
Pin Dimensions	2.5mm ² -6mm ² /AWG14-10
Suitable diameter of solar cable outer	5.5-7.2mm



JUNCTION BOX PANEL CONNECTORS

Insulation material	Polycarbonate (PC)
Contact material	Copper, Tin plated
Rated current	30A
Rated voltage	1500V
Test voltage	6000V
Contact resistance	Less than 3mΩ
Degree of protection	IP67
Pin Dimensions	2.5mm ² -6mm ² /AWG14-10
Suitable diameter of solar cable outer	5.5-7.2mm



T BRANCH MC4 CONNECTORS

Insulation material	PPO
Contact material	Copper, Tin plated
Rated current	25A
Rated voltage	1500V
Test voltage	6000V
Contact resistance	Less than 3mΩ
Degree of protection	IP67



MC4 Y SOLAR POWER CONNECTOR

Insulation material	Polycarbonate(PC)
Contact material	Copper, Tin plated
Rated current	25A

Rated voltage	1500V
Test voltage	6000V
Contact resistance	Less than 3mΩ
Degree of protection	IP67



MC4 1 to 3 Y SOLAR POWER CONNECTOR

Insulation material	Polycarbonate(PC)
Contact material	Copper, Tin plated
Rated current	25A
Rated voltage	1500V
Test voltage	6000V
Contact resistance	Less than 3mΩ
Degree of protection	IP67



HAND TOOLS

Make: STRIDER

MC4 Crimping Tool Large

- High crimping quality. • Suitable for 2.5,4,6 SQ MM SOLAR CABLE.
- High transmission of force to reduce the working fatigue according to lever control.
- Portable style with perfect handle gripping position,light weight, logical structure.
- Perfect handle shape design matching human being engineering principle.
- Guarantees perfect crimping effect.
- It's easy to operate while using pliers,just insert the top into its position and press it.
- Self locking and releasing mechanic unit.



MC4 Crimping Tool Small

- High crimping quality. • Suitable for 2.5,4,6 SQ MM SOLAR CABLE.
- High transmission of force to reduce the working fatigue according to lever control.
- Portable style with perfect handle gripping position,light weight, logical structure.
- Perfect handle shape design matching human being engineering principle.



- Guarantees perfect crimping effect.
- It's easy to operate while using pliers, just insert the top into its position and press it.
- Self locking and releasing mechanic unit.

CABLE STRIPING TOOL

- Suitable for stripping 2.5, 4, 6 sqmm cable.
- Automatic clamping action and length gauge facility to ensure stripped ends are uniform.



SOLAR WRENCH

- This spanner is suitable for assembling and disassembling of MC4 male/female plug.
- Light weight, portable and easy to use
- Double wrenches quick screw down
- Very light and very strong and smooth
- Saves time and manpower for installation
- Open End Wrench
- Size of Approx. 12.5cm x 4cm x 1.8cm(L x W x H)
- Color: Blue
- Includes 2 x Solar Connector Wrench



CABLE GLANDS

POLYAMIDE GLANDS

- Reliable and safe
- Good durability
- Wide clamping range
- Liquid tight



Model	Cable Dia	Hole dia
M 16	5-10mm	16mm
M 20	8-13mm	20mm
M 25	11-17mm	25mm
M 32	15-21mm	32mm
M 40	19-28mm	40mm
M50	25-35mm	50mm
M 63	35-45mm	63mm

NYLON CABLE GLANDS

- Ideally suited for use where a number of wires are to be passed through a single panel port or machine part
- Crack resistant
- Specially designed teeth for effective gripping
- High quality
- Durable
- Efficient



Model	Cable Dia	Hole dia
PG7	3-6.5mm	12.5mm
PG9	4-8mm	15.2mm

DIN RAILS

Make: TRINITY TOUCH

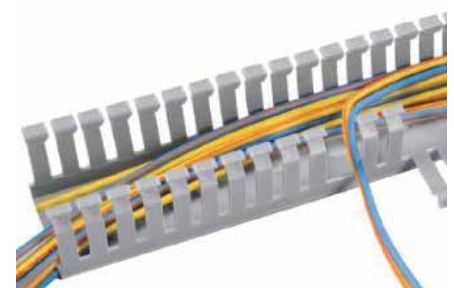
Type	TBLS-35/7.5
Length	1 meter
Box size (LXWXH mm)	1020x40x87
Meters/Box	20
Zinc layer thickness	3-5µm
Description	<p>Designed in accordance/similar to EN 60715</p> <p>Base Metal – cold rolled low carbon steel according to DIN EN 10 130</p> <p>Electroplated coating of zinc according to DIN EN 12 329</p> <p>Passivation according to DIN EN 12329</p> <p>Complies with European standard EN 60715</p> <p>Electroplated coating Fe/Zn8/B</p>



PVC WIRING DUCTS

Make: TRINITY TOUCH

Type	Description	Duct Size WXH (mm)	Meter/Box
TBWDN 25X25	Wiring Duct Narrow slot, Light Grey, 2 meter	25x25	120
TBWDN 25X45	Wiring Duct Narrow slot, Light Grey, 2 meter	25x45	96



TBWDN 45X45	Wiring Duct Narrow slot, Light Grey, 2 meter	45x45	64
TBWDN 60X60	Wiring Duct Narrow slot, Light Grey, 2 meter	60x60	36
TBWDN 80X80	Wiring Duct Narrow slot, Light Grey, 2 meter	80x80	16

Make: SALZER

- Unslotted B type
- Duct with cover width x Height (mm) of 45x 45
- Length of 1 mtr
- Black coloured
- Nonflammable, warp proof and non-brittle



FLEXIBLE CONDUITS FPYL20B PG16

Make: TRINITY TOUCH

- Highly flexible and high fatigue life.
- High impact strength and recovers if crushed
- Temperature range -40°C to +120°C
- Highly resistant to solvents and oils
- Halogen, Sulphur and phosphorus free
- Nylon (PA6) Corrugated flexible conduit
- Colour black
- Real Length 100 m
- Outside diameter of 21.2 mm
- Inside diameter of 17.1 mm
- Min inside bend radius of 40 mm



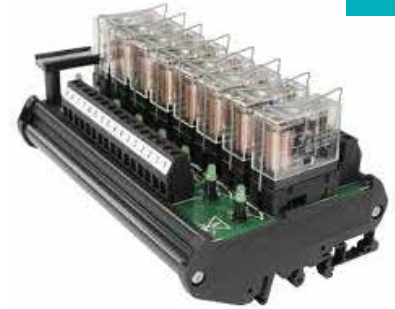
24V DC 8 RELAY MODULE

Make: TRINITY TOUCH

- Relay Module With 4/8/16 Miniature Relays
- With Base (Relay-Pluggable)
- 1 Change Over
- Freewheeling Diode Across Relay Coil For Protection
- Fuse Are Provided In Contact Path
- Jumpers Are Provided For Selection Between Positive Looping / Negative Looping

Type of relay	Electromechanical type
Rated voltage	250V
Coil Voltage	24V DC
Operating temperature	0°C to 50°C
Coil resistance	1100 ohm
Protection	Green LED for input status
Looping on coil side	Common, remove all jumpers to make relay independent

Relative humidity	5-95% RH
Contact resistance	30mΩ max
Resistive load	10A, 250VAC/30VDC
Inductive load	5A 30VDC/7.5A, 250V AC
No of contacts	1PDT



WEATHER RESISTANT CABLE TIES

Make: GIANTLOK

Material	Polyamide
Colour	Black
Application	Ultraviolet weather resistant tie for outdoor application

Part no	Length (mm) inch	Width (mm) inch	Max.Bundle Dia. Mm(inch)	Min loop tensile strength kg(lbs)
GT-80M-UV	80(3.15)	2.4 (0.09)	15 (0.59)	8.0 (17.68)
GT-100M-UV	100(3.94)	2.5 (0.10)	22 (0.87)	8.1 (18)
GT-160M-UV	160(6.30)	2.5 (0.10)	40 (1.57)	8.1 (18)
GT-150I-UV	150(5.91)	3.6 (0.14)	35 (1.38)	18.2 (40)
GT-200I-UV	200(7.87)	3.6 (0.14)	53 (2.09)	18.2 (40)
GT-250ST-UV	250(9.84)	4.8 (0.19)	60 (2.36)	22.2 (50)
GT-300ST-UV	300(11.81)	4.8 (0.19)	76 (2.99)	22.2 (50)
GT-370ST-UV	370(14.57)	4.8 (0.19)	102 (4.02)	22.2 (50)
GT-450ST-UV	450(17.72)	4.8 (0.19)	116 (4.57)	22.2 (50)
GT-300HD-UV	300(11.81)	7.6 (0.30)	76 (2.99)	54.4 (120)
GT-370HD-UV	370 (14.57)	7.6 (0.30)	102 (4.02)	54.4 (120)
GT-430HD-UV	430(16.93)	9.0 (0.35)	110 (4.33)	79.4 (175)
GT-530HD-UV	526 (20.71)	9.0 (0.35)	140 (5.51)	79.4 (175)



EARTHING MATERIALS

Make: EXCEL EARTHINGS

COPPER BONDED ROD WITH NUT AND BOLTS

Length	Diameter
1200mm	14.2mm

- Copper bonded rods with nut and bolt terminal joints provide a firm area of contact for connecting earth strips
- Stainless steel nut and bolt provided with the copper bonded rods of 100 microns will help achieve a good contact
- Provides resistance against galvanic/bi-metallic corrosion associated with it.



Make: EXCEL EARTHINGS

COPPER BONDED ROD WITH TINNED TERMINALS

Length	Diameter
1200mm	14.2mm
2000mm	14.2mm
3000mm	17.2mm

- 99.9% pure electrolytic copper is molecularly bonded with steel rod which is nickel sealed again coated with tin to give an extra layer of coating of 12 microns (as per IEC 62439) over the 250 microns' copper bonding.
- Ensures total protection from galvanic corrosion.
- Ideal for sea shore areas and in areas with low soil resistivity.



Make: EXCEL EARTHINGS

COPPER BONDED STRIPS

Width	Thickness(mm)
25	6
32	6
40	6
50	6
50	10
75	6

- Copper is molecularly bonded with nickel coated steel strip with a minimum 100-250 microns as copper coating thickness.
- Economically viable than virgin copper strips.
- Used for lightning protection system as conductors in air termination system, down conductors equipotential bonding system and to interconnect the earth rods in ring earthing.



LIGHTNING ARRESTER

Dimension (mm)	Number of spikes	Lghtning protection material	Spikes material	Insulation medium
16x850	Single	Copper clad steel	Stainless steel	Nylon 66
16x1000	Single	Copper clad steel	Stainless steel	Nylon 66
20x1000	Multi spike	Copper clad steel	Stainless steel	Nylon 66
20x2000	Multi spike	Copper clad steel	Stainless steel	Nylon 66



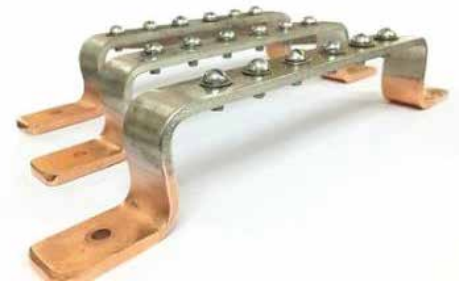
EARTH PIT CHAMBER

Type	Top diameter(mm)	Base diameter(mm)	Height (mm)	Lid cover
EPC 18X18	180	240	210	Green or maroon
EPC 24X24	240	310	230	Green or maroon
EPC 30X30	300	400	280	Green or maroon



TINNED COPPER BONDED TERMINAL STRIPS

- Material Tin and copper
- Panel mounting
- Screw size of 5 x 15mm
- Copper thickness of 100 microns
- 25mm Width
- 3-4mm thickness
- 6 Connecting terminals
- Good resistance to corrosion.



COPPER BONDED PLATE

- Material Carbon steel, Copper and Nickel
- Finish Copper plated
- Plate thickness of 3mm
- 2x2 Feet Size
- Minimum of 100 microns of copper coating



ALUMINIUM 8MM DOWNCONDUCTOR WITH INSULATION

- Material Aluminium
- 50 sqmm cross sectional area
- Voltage capacity of 15kV • IEC/IS 62305-3/2010 standards
- Insulated and bare conductors



EARTHING COMPOUND

- Earthing Compound has good conductivity
- Good moisture absorption
- Retains capacity for long period
- Continuous resistance against corrosion
- Provides a superior quality solution to the toughest grounding problems
- In areas of poor conductivity such as rocky areas, compound will be a perfect choice
- Certified for the product performance on the basis of IEC – 62561-7 and 2011/65/EU (Rohs-2), eco-friendly certification



ELECTRA-FILL(CARBON BASED COMPOUND)

- Suitable in areas where the soil resistivity is considerably higher.
- electronically conductive so that it provides a normalized soil conductivity.
- Doesn't contain any hazardous chemicals which harm the environment.
- Provides a quality earthing solution, minimizing seasonal variations.
- Certified for the product performance on the basis of IEC – 62561-7 and 2011/65/EU (Rohs-2), eco-friendly certification.



EARTHING ROD

Make: ABB

- 3/4 (NOM)X1800MM EXTENSIBLE CU-BOND
- Threaded Copperbond Earth Rod
- Nominal Diameter of 3/4-Inch
- Length of 1800mm
- Thread UNC of 3/4-Inch
- Shank of 17.2mm



READY TO FIT EARTH KIT

Make: OBO

Includes following items

- 1x14.2 mm dia 1250mm length Copper coated steel rod with 250 micron on electrolytic copper coating
- 5 Kg of Earth enhancing compound (tested as per IEC 62561-7)
- Connection clamp
- "Earth- Do not Disconnect" Signage board with connecting screws
- Installation instruction sticker

Note: Earth Inspection chamber should be ordered extra



ENERGY METERS

Single phase Energy meters

Make	L&T	Genus
System of supply	Single phase	
Rated Voltage	240V	
Basic current	5A	
Maximum current	30A	
Frequency	50Hz	



Three phase Energy meters

Make	L&T	Genus
System of supply	Three phase	
Rated Voltage	3X240V	
Basic current	10A	
Maximum current	60A	
Frequency	50Hz	



NET METERS

Single phase Net meters

Make	L&T	Genus
System of supply	Single phase	
Rated Voltage	240V	
Basic current	5A	
Maximum current	30A	
Frequency	50Hz	



Three phase Net meters

Make	L&T	Genus
System of supply	Three phase	
Rated Voltage	3X240V	
Basic current	10A	
Maximum current	60A	
Frequency	50Hz	



WALKWAY

Make: STRIDER

- No corrosion
- High-strength
- Anti-Skid
- UV-Protection
- Long Life
- Easy Installations
- Inclination can be adjusted to make it flat walkway
- Horizontal and vertical Orientations
- Following are the Dimensions
 - a) 400mm(Width)x2000mm(Length)
 - b) 400mm(Width) x 2000mm(Length) x 25mm(Height)
 - c) 350mm(Width) x 2000mm(Length) x 25mm(Height)

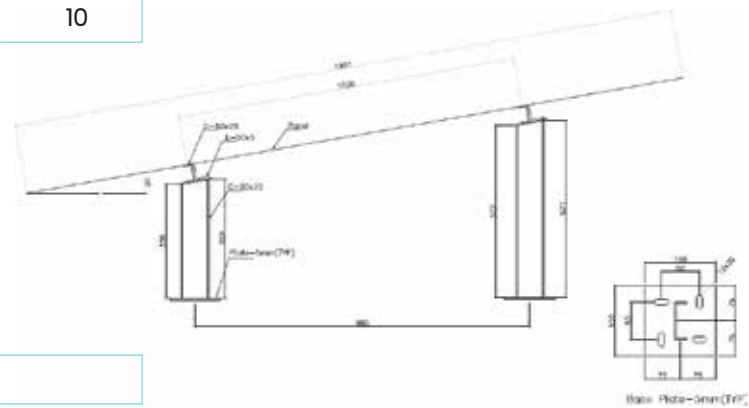


4 PANEL HOT DIPPED GALVANISED SOLAR MOUNTING STRUCTURE

MATERIALS	APPROX. WEIGHT	QTY
PURLINS	10.1	2
LONG LEG	3.2	2
SHORT LEG	2.65	2

HARDWARE FOR STRUCTURE MOUNTING	SIZE	QTY
SS BOLT	M10 X 25MM	8
SS PLATE WASHER	M10	16
SS SPRING WASHER	M10	8
SS NUT	M10	8

HARDWARE FOR PV MOUNTING	SIZE	QTY
ALUMINIUM MID CLAMP	35mm	6
ALUMINIUM END CLAMP	35/40/42	4
SS ALLEN BOLT	M8 X 25mm	10
SS SPRING WASHER	M8	10
SS NUT	M8	10
SS WASHER	M8	10



ITEM	PROPERTY
THICKNESS OF PURLINS AND LEG	2mm
THICKNESS OF PLATES	5mm
THICKNESS OF ANGLE SECTION FOR MOUNTING PURLINS	7mm
AVERAGE GALVANIZATION THICKNESS	Approx. 80 Micron
LENGTH OF PURLIN	4120mm
LONG LEG- HEIGHT	579 mm
SHORT LEG- HEIGHT	394 mm

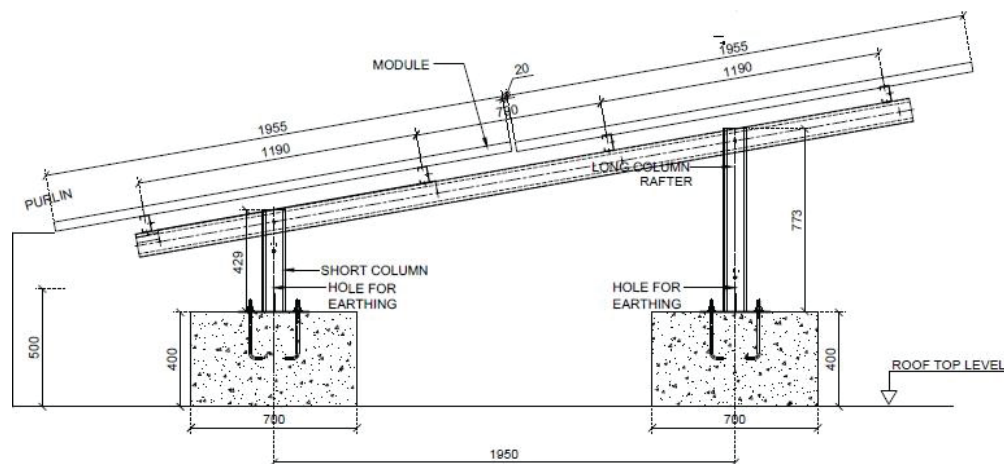
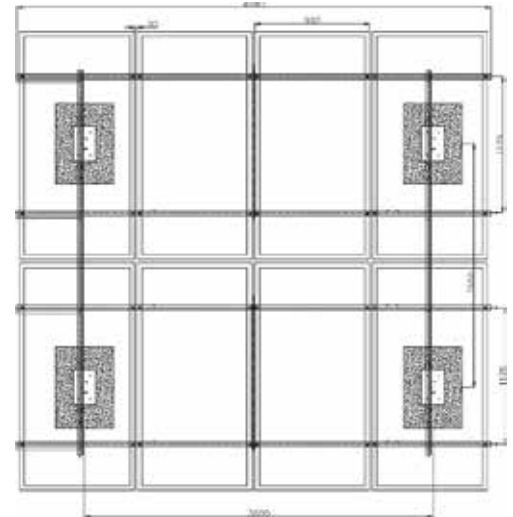
8 PANEL HOT DIPPED GALVANISED SOLAR MOUNTING STRUCTURE

MATERIALS	APPROX. WEIGHT	QTY
PURLINS	10.1 Kg	4
LONG LEG	5.15 Kg	2
SHORT LEG	3.95 Kg	2
RAFTER	8.25 Kg	2
BEND	.2Kg	8

HARDWARE FOR STRUCTURE MOUNTING	SIZE	QTY
SS BOLT	M10 X 25MM	20
SS PLATE WASHER	M10	40
SS SPRING WASHER	M10	20
SS NUT	M10	20

HARDWARE FOR PV MOUNTING	SIZE	QTY
ALUMINIUM MID CLAMP	35mm	12
ALUMINIUM END CLAMP	35/40/42	8
SS ALLEN BOLT	M8 X 25mm	36
SS SPRING WASHER	M8	36
SS NUT	M8	36
SS WASHER	M8	36

ITEM	PROPERTY
THICKNESS OF PURLINS AND LEG	2mm
THICKNESS OF PLATES	5mm
THICKNESS OF ANGLE SECTION FOR MOUNTING PURLINS	7mm
AVERAGE GALVANIZATION THICKNESS	Approx. 80 Micron
LENGTH OF PURLLIN	4120mm
LONG LEG- HEIGHT	773 mm
SHORT LEG- HEIGHT	429 mm
LENGTH OF THE RAFTER	2500 mm



Note: Dimensions and Weight are indicative and are subjected to change based on availability and revisions.

AC CABLES

Make: BONTON

HOME PROTECTION SERIES AC CABLES

- 105° Heat Resistant Flame Retardant
- Single core PVC insulated Copper conductor
- Available in Red/Black/Blue/Yellow/Green



Nominal Cross sectional area of conductor (Sqmm)	Number/Nom Dia of cond.strands (mm)	Thickness of Insulation(Nom) (mm)	Approx. Overall Diameter (mm)	Current carrying capacity 2 cables Single phase		Max Conductor resistance per KM at 20 C (Ohms)
				Conduit Trunking Amps	Unenclosed clipped directly to a surface Amps	
1	14/0.3	0.7	2.8	13	14	18.10
1.5	22/0.3	0.7	3.1	16	19	12.10
2.5	36/0.3	0.8	3.8	22	26	7.41
6	84/0.3	0.8	5.0	37	44	3.30

INDUSTRIAL APPLICATION AC CABLES

- 105° Heat Resistant Flame Retardant
- Single core PVC insulated Copper conductor
- Available in Red/Black/Blue/Yellow/Green

Nominal Cross sectional area of conductor (Sqmm)	Number/Nom Dia of cond.strands (mm)	Thickness of Insulation(Nom) (mm)	Approx. Overall Diameter (mm)	Current carrying capacity 2 cables Single phase		Max Conductor resistance per KM at 20 C (Ohms)
				Unenclosed clipped directly to a surface or on cable trays Amps		
10	80/0.4	1.0	6.6	61		1.91
16	126/0.4	1.0	7.8	82		1.21
25	196/0.4	1.2	9.7	103		0.780
35	276/0.4	1.2	10.9	132		0.554
50	396/0.4	1.4	13.2	174		0.386
70	360/0.5	1.8	16.15	256		0.272

3 AND 4 CORE AC CABLES

- 105° Heat Resistant Flame Retardant
- Multi core PVC insulated Copper conductor
- Available in Red/Black/Blue/Yellow/Green

Nominal Cross sectional area of conductor	Number/Nom Dia of cond.strands	Thickness of Insulation (Nom)	Normal thickness of sheet		Approx. Overall Diameter		Current rating AC	Voltage Drop/Amp Meter	Max Conductor resistance per KM at 20 C	
			Three Core	Three Core	Three Core	Four Core				
(Sqmm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(Amps)	(mV)	(mV)	(Ohms)
2.5	50/0.25	0.7	1.0	1.0	9.6	10.5	24	18	16	7.98
4.0	56/0.3	0.8	1.0	1.0	10.9	12.3	31	11	9.6	4.95

SOLAR DC CABLES

Make: LAPP

- Robust against mechanical impacts
- Extruded colour stripe serves as reverse polarity protection during installation.
- 4 sqmm Black , 4 sqmm Red, 6 sqmm black available
- High German Quality
- In compliance with Global standards
- Low Maintenance
- Long Service Life
- Durable and reliable



Make: SIECHEM

- Sizes of 4/6/10/16 sqmm Cables
- Red and black colour cables
- Resistance against UV, Water, Ozone, Fluids, Oil, Salt & General Weathering
- Electron Beam Cross Linked
- Halogen Free, Flame Retardant, Low Smoke Emission
- Fire retardant to meet IEC 607541-1/EN 50268-2
- RoHS compliant as per EU norms
- Max.Temp. at Conductor: 120 deg C
- Voltage Resistance Test:EN 50395
- Rated Voltag: 600/1000 V AC, 1800 V DC, 1.5 kV DC
- Short Circuit Tem: +280°C
- Tested voltage: 6500V AC for 5 minutes



Make: LEONI

- Solar Connector black 4 sqmm black and red coloured available
- Double insulated, electron-beam cross-linked cables for photovoltaic power applications
- UV, ozone and hydrolysis resistant
- High temperature resistance, the materials do not melt or flow
- Very long service life > 25 years at 90 deg C
- Compatible to all popular connectors
- Flexible and space-saving installation



ARMOURED ALUMINIUM UG CABLE

Make: FINOLEX

Number of core	3 and 4 core
Nominal cross section area of conductor	16 Sqmm 3 core 35 Sqmm 4 core
Voltage rating	1100V
Insulation material	PVC



ENCLOSURES

Make: HENSEL

Dimensions	Impact strength	Static load	Rated insulation voltage	Material	Degree of protection
217x253x115mm	IK 08 (5 Joule)	Mounting plate or DIN rail = 1.6kg lid = 1.6kg	Ui = 690 V a.c./1000V dc	Polycarbonate	IP 66
300x300x170mm	IK 08 (5 Joule)	Mounting plate or DIN rail = 6.5 kg lid = 1.6kg	Ui = 690 V a.c./1000V dc	Polycarbonate	IP 66
217x253x115mm	IK 08 (5 Joule)	Mounting plate or DIN rail = 9.2kg lid = 3.2kg	Ui = 690 V a.c./1000V dc	Polycarbonate	IP 66
300x600x170mm	IK 08 (5 Joule)	Mounting plate or DIN rail = 9.2kg lid = 3.2kg	Ui = 690 V a.c./1000V dc	Polycarbonate	IP 66



Make: RITTAL

Dimensions mm	Enclosure/Door material	Material thickness			Mounting plate		Degree of protection
		Enclosure mm	Door mm	Mounting plate mm	Width mm	Height mm	
300X300X210	Sheet steel/ Sheet steel, all-round foamed in PU seal	1.38	1.5	2	254	275	IP 66
300x400x210	Sheet steel/ Sheet steel, all-round foamed in PU seal	1.38	1.5	2	254	375	IP 66
400X500X210	Sheet steel/ Sheet steel, all-round foamed in PU seal	1.38	1.5	2	354	475	IP 66
500x500x210	Sheet steel/ Sheet steel, all-round foamed in PU seal	1.38	1.75	2.5	449	470	IP 66
500x700x250	Sheet steel/ Sheet steel, all-round foamed in PU seal	1.5	2	2.5	449	670	IP 66
500x500x210	Sheet steel/ Sheet steel, all-round foamed in PU seal	1.38	1.75	2.5	549	570	IP 66



Make: TRINITY TOUCH

Dimensions	Enclosure material	Impact strength	Degree of protection	Cover colour
130x80x60	ABS/PC	IK07/08	IP66/67	Transparent
180x130x100	ABS/PC	IK07/08	IP66/67	Transparent
180x180x100	ABS/PC	IK07/08	IP66/67	Transparent
280x190x130	ABS/PC	IK07/08	IP66/67	Transparent
280x190x170	ABS/PC	IK07/08	IP66/67	Transparent
280x280x130	ABS/PC	IK07/08	IP66/67	Transparent
380x190x130	ABS/PC	IK07/08	IP66/67	Transparent
380x280x130	ABS/PC	IK07/08	IP66/67	Transparent
380x280x180	ABS/PC	IK07/08	IP66/67	Transparent
560x380x180	ABS/PC	IK07/08	IP66/67	Transparent



Make: SUBOX

Model	Dimensions	Enclosure material	Impact strength	Degree of protection
G3G305214	300x250x140mm	Glassfiber reinforced polyester	IK08t	IP65
G3G403020	400x300x200mm	Glassfiber reinforced polyester	IK08t	IP65
G3G504023	500x400x230mm	Glassfiber reinforced polyester	IK08t	IP65
G2G444416	443X443X155mm	Glassfiber reinforced polyester	IK08t	IP65



SOLAR MPPT CHARGE CONTROLLER

Make: PHOCOS

ECO MPPT CHARGE CONTROLLER 12/24V 10A/20A

Type	ECO MPPT 10A	ECO MPPT 2c0A
System voltage	12V/24V Automatic Recognition	
Max. charge/load current	10A	20A
Max. Panel voltage	30V(12V system); 50V(24V system)	
Max. Panel power	96W(12V System); 500W (24V System)	
Battery type	Lead acid(GEL, AGM, Flooded), Li-ion	
Type of protection	IP68	



Make: PHOCOS

SOLAR PRIORITY CHARGE CONTROLLER WITHOUT CC

System voltage	12V/24V Automatic Recognition
Low Battery cut off	11.6/23.2/34.8/46.4V
Full Battery cut off	13.4/26.8/40.2/53.6V



Maximum battery voltage	60V	
Inverter Rating	Upto 4kVA	
Full Battery cut off	13.4/26.8/40.2/53.6V	
LCD Indication	System Recognition	GRID ON/OFF
	Battery voltage	PV ON/OFF
	Solar Priority	Solar/Grid/ Solar+Grid/None
Operating Condition	-20°C to +50°C	
Battery type	Lead Acid/Sealed Lead Acid/Gel/VRLA	
Type of protection	IP21	

SOLAR PRIORITY CHARGE CONTROLLER 40A

Charge Controller rating	40A	
Battery voltage	12/24V	
Low Battery cut off	11.6/23.2V	
Full Battery cut off	13.4/26.8V	
Maximum battery voltage	60V	
Inverter Rating	Upto 4kVA	
LCD Indication	System Recognition	GRID ON/OFF
	Battery voltage	PV ON/OFF
	Solar Priority	Solar/Grid/ Solar+Grid/None
Operating Condition	-20°C to +50°C	
Battery type	Lead Acid/Sealed Lead Acid/Gel/VRLA	
Type of protection	IP21	



MPPT 100/40

Nominal charge current	40A	
System voltage	12/24V	
Maximum battery voltage	32V	
Maximum PV voltage	95V	
Minimum PV voltage	17/34V	
Maximum PV input power	600W@12V, 1200W@24V	
Operating Condition	-40°C to +45°C	
Battery type	Lead Acid(Gel,AGM,flooded)	
Type of protection	IP20	



Make: VICTRON

BLUESOLAR MPPT

Blue Solar Charge Controller	150/60	150/60
Battery voltage	12/24/48V Autoselect	
Rated charge current	60A	70A
Maximum PV power, 12V	860W	1000W

Maximum PV power, 24V	1720W	2000W
Maximum PV power 48V	3440W	4000Wt
Maximum Pv Short Circuit Current	50A	50A
Maximum PV power, 12V	150V absolute maximum coldest conditions 145V start-up and operating maximum	
Maximum efficiency	98%	
Type of protection	IP43(electronic components), IP22(connection area)	



Make: STRIDER

SOLAR MPPT	
Battery Voltage	150/60
Solar Charge Controller Type/Capacity	MPPT/35A
Maximum PV input power	420W(12V), 840W(24V), 1260W(36V), 1680W(48V)
Battery Configuration (C10 Rated –Lead Acid Tubular 100Ah to 200Ah)	12 x 1 (12V), 12 x 2(24V), 12 x 3(36V) , 12 x 4 (48V)
Switching By	MOSFET



Make: SCHNEIDER

XW MPPT 60-150	
Nominal battery voltage	12/24/36/48/60V
PV array operating voltage	140V
Maximum PV array open circuit voltage	150V
Maximum array short-circuit current	60A(48A @ STC)
Max. charge current	60A (for all battery voltages except 60V)
Maximum output power	3500Wt
Maximum power conversion efficiency	93%(nominal 12V), 96%(nominal 24V), 97%(nominal 36V), 98%(nominal 48V), 99%(nominal 60V)
Operating Condition	-40°C to +45°C
Battery type	Flooded, GEL,AGM,Custom
Type of protection	IP20



SOLAR OFFGRID INVERTERS

Make: PHOCOS

POWER CONDITIONING UNIT 800VA/2000VA		
Nominal output power	800VA/650W	2000VA/1600W
Battery voltage	12VDC	24VDCt

Input voltage range	110VAC to 275VAC 5VAC
Output waveform	Pure Sine Wave with less than 3% THD
Maximum Pv Short Circuit Current	50A
Power factor	0.8
System Output Condition	When the battery is fully charged, System output will be automatically change over to UPS / INVERTER mode, and resume back only by $11.5V \pm 0.2V$ / $23 \pm 0.2V / 46 \pm 0.2V$ when PV is available.
Power factor	Battery is always charged through Solar as priority
Type of protection	IP20



Make: STRIDER

Nominal output power	850VA	1250VA	2500VA	6000VA
Battery voltage	12VDC	24VDC	24VDC	72VDC
Charging current	40A	40A	60A	60A
Max Solar power input	500W	1000Wp	1500Wp	4500Wp
Battery Configuration	12	12x2	12x2	12x6
Switching by	MOSFET			
Nominal output voltage	220-240VAC			
Frequency range	47-53Hz			



Make: VICTRON MULTIPLUS

Type	24/800/ 16-16	C24/1600/ 40-16	48/5000/ 70-100	Multiplus II 48/3000/35-32
Transfer Switch	16A	16A	100A	32A
Nominal output power	800VA	1600VA	5000VA	3000VA
Input voltage range (INVERTER)	9,5-17V 19-33V 38-66V			38-66V
Maximum Efficiency	94%	94%	95%	95%
AC input (CHARGER)	Input voltage range:187-265VAC			



QUATTRO

Type	48/5000/ 70-100/100	48/8000/ 110-100/100	48/10000/ 140-100/100	48/15000/ 200-100/100
Integrated Transfer switch	Yes			
Nominal output power	5000VA	8000VA	10000VA	15000VA

Input voltage range (INVERTER)	9,5-17V 19-33V 38-66V			
Maximum Efficiency	95%	96%	96%	96%
AC input (CHARGER)	Input voltage range: 90-140VAC	Input voltage range :187-265VAC		
Input frequency	45-65Hz			
Battery charging current	70A	110A	140A	200A



SOLAR HYBRID INVERTER

Make: PHOCOS

EASYSOLAR			
EasySolar	24/1600/40	24/3000/70-50	48/5000/70-100
SOLAR CHARGE CONTROLLER			
Maximum Output current	50A	70A	100A
Maximum Pv Power	1400W	2000W	5800W
Maximum PV Open circuit voltage	100V	150V	
Maximum Efficiency	98%		
INVERTER/CHARGER			
Transfer Switch	16A	50A	50A
INVERTER			
Input voltage range	19-33V	19-33V	38-66V
Cont. o/p power at 25 C	1600VA/1300W	3000VA/2400W	5000VA/4000
Peak power	3000W	6000W	10000W
CHARGER			
Battery Charging current	40A	70A	70A
Charge voltage absorption	28,8V	28,8V	57,6V
Charge voltage float	27,6V	55,2V	55,2V
COMMON CHARACTERISTICS			
Protection category	IP21		
PV CONNECTION	Three sets of MC4	Two sets of MC4	Three sets of MC4



VICTRON ACCESSORIES

Make: VICTRON

COLOR CONTROL GX

The Color Control (CCGX) provides intuitive control and monitoring for all Victron power systems. The list of Victron products that can be connected is endless: Inverters, Multis, Quattros, MPPT solar chargers, BMV battery monitors, Lynx Ion + Shunt and more.

Internet connection

The CCGX can be connected to internet with an Ethernet cable and via Wi-Fi. To connect via Wi-Fi, a Wi-Fi USB accessory is required. The CCGX has no internal cellular modem: there is no slot for a sim card. Use an off-the-shelf GPRS or 3G router instead.



VENUS GX

The Venus GX provides intuitive control and monitoring for all Victron power systems. The list of Victron products that can be connected is endless: Inverters, Multis, Quattros, MPPT solar chargers, BMV battery monitors, Lynx Ion + Shunt and more.

Internet connection

The Venus GX can be connected to internet with an Ethernet cable and via Wi-Fi. The Venus GX has no internal cellular modem: there is no slot for a sim-card. Use an off-the-shelf GPRS or 3G router instead.



BATTERY MONITOR BMV-700

Standard features

- Battery voltage, current, power, ampere-hours consumed and state of charge
- Remaining time at the current rate of discharge
- Programmable visual and audible alarm
- Programmable relay, to turn off non critical loads or to run a generator when needed

- 500 Amp quick connect shunt and connection kit
- Shunt selection capability up to 10.000 Amps
- VE. Direct communication port
- Stores a wide range of historical events, which can be used to evaluate usage patterns and battery health
- Wide input voltage range: 6,5 - 95V
- High current measurement resolution: 10 mA (0,01A)
- Low current consumption: 2, 9Ah per month (4mA) @12V and 2,2Ah per month (3mA) @ 24V



LI-ION BATTERY

Make: PANASONIC

Nominal voltage	46.8V
Capacity(Min.)	56.28Ah (CC-CV charging)
Input Charge voltage	52V
Charge current	Upto 25A
Discharge current	Upto 25A
Charge Temp	Range 5°C to 55 C
Discharge Temp	Range -10°C to 55°C
Humidity	10% to 85% (no condensation)
Size	440mmx450mmx84mm
Weight	25kg(approx.)
Warranty	3 years from the date of shipment



SOLAR PV MODULES

Make: ANCHOR PANASONIC

PERC-MONOCRYSTALLINE	
Maximum power at STC (Pmax)	305W
Optimum operating voltage(Vmp)	32.8V
Optimum operating current(Imp)	9.30A
Open circuit voltage(Voc)	39.8V ±5%
Short Circuit current(Isc)	9.80A ±5%
Module efficiency	18.6%
Operating module temperature	-40°C to 85°C
Maximum System voltage	1000VDC
No of cells	60(6X10)
Dimensions	1650X992X35mm
Frame	Anodized Aluminium alloy
Weight	18.3kgs
Warranty	12 year product warranty, 25 year linear performance warranty



Make: ANCHOR PANASONIC

POLYCRYSTALLINE PANELS

Maximum power at STC (Pmax)	330W
Optimum operating voltage(Vmp)	37.5V
Optimum operating current(Imp)	8.81A
Open circuit voltage(Voc)	46.2V
Short Circuit current(Isc)	9.38A
Module efficiency	17%
Operating module temperature	-40°C to 85°C
Maximum System voltage	1000VDC
No of cells	72(6X12)
Dimensions	1960X992X40mm
Frame	Anodized Aluminium alloy
Weight	18.3kgs
Warranty	12 year product warranty, 25 year linear performance warranty



MONOCRYSTALLINE PERC HALF CUT CELLS

Maximum power at STC (Pmax)	385W
Optimum operating voltage(Vmp)	40.3V
Optimum operating current(Imp)	9.56A
Open circuit voltage(Voc)	48.1V ± 5%
Short Circuit current(Isc)	10.07A ± 5%
Module efficiency	19.5%
Operating module temperature	-40°C to 85°C
Maximum System voltage	1500VDC
No of cells	144(6X24)
Dimensions	1988X992X40mm
Frame	Anodized Aluminium alloy
Weight	22.3kgs
Warranty	12 year product warranty, 25 year linear performance warranty



Make: PANASONIC HIT

MONOCRYSTALLINE

Maximum power at STC (Pmax)	325W
Rated voltage(Vmp)	57.6V
Rated current(Imp)	5.65A
Open circuit voltage(Voc)	69.6V
Short Circuit current(Isc)	6.03A
Module efficiency	19.4%

Operating module temperature	44°C
Maximum System voltage	600VDC
No of cells	(8X12)
Dimensions	1590X1053X35mm
Weight	18.5kgs
Warranty	25 Years Workmanship and power output (linear)

Note: Installation need to be registered through our website www.panasonicusahitwarranty.com within 60 days in order to receive twenty-five (25) year Product workmanship. Otherwise, Product Workmanship will be only fifteen (15) years.



Make: GOLDI SOLAR

PERC-MONOCRYSTALLINE

Maximum power at STC (Pmax)	375W
Rated voltage(Vmp)	39.52V
Rated current(Imp)	9.49A
Open circuit voltage(Voc)	48.4V
Short Circuit current(Isc)	9.84A
Module efficiency	19.38%
Operating module temperature	-40°C to 85°C
Maximum System voltage	1500/1000VDC
No of cells	72(6X12)
Dimensions	1955X990X35mm
Frame	Silver Anodized Aluminium alloy
Weight	21.5kgs
Product Warranty	10 years
Performance Warranty	Limited warranty for power output:- 90% for 10 years and 80% for 25 years

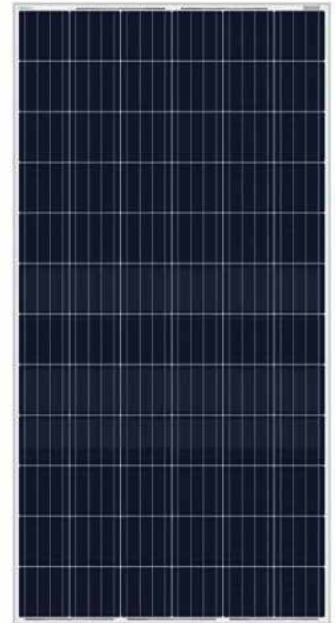


Make: GOLDI SOLAR

POLYCRYSTALLINE PANELS

Maximum power at STC (Pmax)	325W	335Wt
Rated voltage(Vmp)	37.2V	37.4V
Rated current(Imp)	8.74A	8.96A
Open circuit voltage(Voc)	46.5V	47.4V
Short Circuit current(Isc)	9.05A	9.17A
Module efficiency	16.79%	16.79%

Nominal Operating Cell temperature	46°C to 2°C
Maximum System voltage	1000VDC
No of cells	72(6X12)
Dimensions	1955X990X42mm
Weight	22kgs
Product Warranty	10 years
Performance Warranty	Limited warranty for power output:- 90% for 10 years and 80% for 25 years



Make: ORB

MONO PERC	
Maximum power at STC (Pmax)	385W
Maximum Power voltage(Vmp)	40.75V
Maximum power current(Imp)	9.45A
Open circuit voltage(Voc)	49.7V
Short Circuit current(Isc)	10.06A
Module efficiency	19.74%
Operating temperature range	46°C to 85°C
Maximum System voltage	1000V/1500V
No of cells	72(6X12)
Dimensions	1970X990X35mm
Weight	21kgs
Product Warranty	10 years
Frame	Anodized Aluminium Alloy Silver
Frame	Limited warranty for power output:- 90% for 10 years and 80% for 25 years



Make: CANADIAN SOLAR

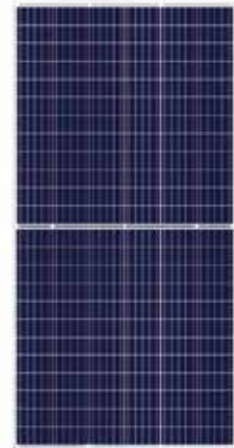
POLYCRYSTALLINE PERC	
Maximum power at STC (Pmax)	410W
Maximum Power voltage(Vmp)	39.1V
Maximum power current(Imp)	10.49A
Open circuit voltage(Voc)	47.6V
Short Circuit current(Isc)	11.06A
Module efficiency	Module efficiency
Operating module temperature	46°C to 85°C

Maximum System voltage	1000V/1500V
No of cells	144[2x(12x6)]
Dimensions	2108X1048X40mm
Frame	Anodized Aluminium Alloy
Weight	24.9kgs
Product Warranty	10 years
Performance Warranty	Limited warranty for power output:- 90% for 10 years and 80% for 25 years



Make: CANADIAN SOLAR

POLYCRYSTALLINE	
Maximum power at STC (Pmax)	355W
Maximum Power voltage(Vmp)	39.4V
Maximum power current(Imp)	9.02A
Open circuit voltage(Voc)	46.8V
Short Circuit current(Isc)	9.59A
Module efficiency	17.89%
Operating module temperature	-40°C~85°C
Maximum System voltage	1000V/1500V
No of cells	144[2x(12x6)]
Dimensions	144[2x(12x6)]
Frame	Anodized Aluminium Alloy
Weight	22.5kgs
Product Warranty	10 years
Performance Warranty	Limited warranty for power output:- 90% for 10 years and 80% for 25 years



Make: RENEWSYS

MONO PERC	
Maximum power at STC (Pmax)	370W
Maximum Power voltage(Vmp)	39.94V
Maximum power current(Imp)	9.28A
Open circuit voltage(Voc)	49.12V
Short Circuit current(Isc)	9.80A
Module efficiency	19.14%
Ambient temperature	-40°C to +85°C
Maximum System voltage	1000V/1500V
No of cells	72
Dimensions	1958X987(2)mm



Frame	Anodized Aluminium Alloy
Weight	21.5kgs
Product Warranty	10 years
Performance Warranty	Limited power output warranty for 25 years

Make: RENEWSYS

POLYCRYSTALLINE		
Maximum power at STC (Pmax)	315W	330W
Rated voltage(Vmp)	36.92V	37.62V
Rated current(Imp)	8.55A	8.78
Open circuit voltage(Voc)	46.15V	46.24V
Short Circuit current(Isc)	8.91A	9.30A
Module efficiency	16.30%	17.08%
Ambient temperature	-40°C to 85°C	
Maximum System voltage	1000VDC	
No of cells	72(6X12)	
Product Warranty	10 years	
Performance Warranty	Limited power output warranty for 25 years	



Make: MICROSUN

POLLYCRYSTALLINE		
Maximum power at STC (Pmax)	100W	150W
Rated voltage(Vmp)	18.1V	18.5V
Rated current(Imp)	5.53A	8.12A
Open circuit voltage(Voc)	22.32.V	22.32
Short Circuit current(Isc)	5.9A	8.8A
Module efficiency	14.5%	
Operating temperature	-20°C to 90°C	
Maximum System voltage	1000VDC	
No of cells	36	
Dimensions	1475X655x35mm	
Weight	7.5kgs	
Product Warranty	10 years	
Performance Warranty	Limited power output warranty for 25 years	



Make: TRINA SOLAR

MONOCRYSTALLINE PERC HALFCUT CELLS	
Max. Power	100W
Maximum Power Voltage-VMPP (V)	40.7
Maximum Power Current-IMPP (A)	10.82

Open circuit voltage(Voc)	49.2
Short Circuit Current-ISC (A)	11.39
Module efficiency	20.1%
Cell orientation	144 cells(6x24)
Module dimension	2102x1040x35 mm
Frame	35 mm (1.38 inches) Anodized Aluminum Alloy
Dimensions	1475X655x35mm
Weight	24.0 kg



Make: AXITEC

144 halfcell full-square monocrystalline

Max. Power	400W
Maximum Power Voltage-VMPP (V)	41.70 V
Maximum Power Current-IMPP (A)	9.60 A
Open circuit voltage(Voc)	49.80 V
Short Circuit Current-ISC (A)	10.36 A
Module efficiency	19.88 %
Cell orientation	144 monocrystalline high efficiency cells
Frame	40 mm silver aluminium frame
Dimensions	2008 x 1002 x 40 mm
Weight	22,5 kg with frame



FLEXIBLE BUSBARS

Make: SALZER

Conductor Material	E-Cu 99.9 (standard)/ E-Cu tinned
Strip thickness	1 mm
Hardness	65 VPN
Insulation Material	Special high flexible PVC



GRID TIED INVERTERS

Make: ABB

Grid Tied Inverters	UNO DM 3.3	UNO DM 5	PVI 10.0	PVI 12.5
Rated DC input voltage	18.1V	18.5V	18.1V	18.5V
Rated DC input power	3500W	5150W	10300W	12800W
Number of independent MPPT	2	2	2	2
Maximum DC input power for each MPPT	2000W	3500W	6500W	8000W
DC input voltage range with parallel configuration of MPPT at P_{acr}	170...530V	145...530V	300...750V	360...750V
Maximum DC input current (I_{dcmax}) / for each MPPT ($I_{MPPTmax}$)	20.0/10.0A	38.0/19.0A	34.0A/17.0A	36.0A/18.0A
Maximum input short circuit current for each MPPT	12.5/25.0A	22.0/44.0A		22.0A
Number of DC input pairs for each MPPT	1	1	2 (-S version)	3 (Standard or -FS version)
AC grid connection type	Single phase		Three-phase 3W+PE or 4W+PE	
Rated AC power	3300W	5000W	10000W	12500W
Maximum AC output power	3300W	5000W	11000W	13800W
Rated AC grid voltage	230V	230V	400V	
Maximum AC output current (I_{acmax})	14.5A	22.0A	16.6A	20.0A
Maximum efficiency	97%	97.4%	97.8%	



Grid Tied Inverters	TRIO 20KW	TRIO 27.6KW	PVS 50	PVS 100
Rated DC input voltage	620V	620V	610V	620V
Rated DC input power	20750W	28600W	52000W	102000W
Number of independent MPPT	2	2	3 (version SX and SX2) / 1 (version standard e S)	6
Maximum DC input power for each MPPT	12000W	16000W	19300W@ 30°C/17500 W@45°C	17500 W [480V≤ VMPPT≤850V
DC input voltage range with parallel configuration of MPPT at P_{acr}	440...800V	500...800V	480...800V	480...850V



Maximum DC input current (I_{dcmax}) / for each MPPT ($I_{MPPTmax}$)	50.0A/25.0A	64.0A/32.0A	36A	36A
Maximum input short circuit current for each MPPT	12.5/25.0A	22.0/44.0A	55A(165A in case of parallel MPPT)	50A
Number of DC input pairs for each MPPT	1 (4 in -S2X, -S2F, -S1J, -S2J versions)	1 (5 in -S2X and -S2F versions, 4 in -S1J and -S2J)	5	4
AC grid connection type	Three-phase 3W+PE or 4W+PE		Three-phase (3W+PE or 4W+PE), grounded WYE system only	Three phase 3W+PE or 4W+PE
Rated AC power	20000W	27600W	50000W	100000W
Maximum AC output power	22000W	30000W	55000W up to 30°C	100000W
Rated AC grid voltage	400V	400V	400V	400V
Maximum AC output current (I_{acmax})	33.0A	45.0A	80A	145A
Maximum efficiency	98.2%	98.2%	98.3%	98.4%



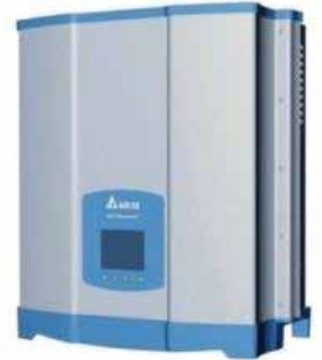
Make: DELTA

Grid Tied Inverters	RPI-M6A	RPI-M10A	RPI-M15A	RPI-M20A
Max. DC Power	7.5kWp	12.5kWp	19kWp	25kWp
Max.Input Voltage	1000V	1000V	1000V	1000V
DC Voltage Range	200-1000V	200-1000V	200-1000V	200-1000V
MPPT Voltage Range	200-1000V	200-1000V	200-1000V	200-1000V
Nominal DC Voltage	600V	600V	635V	635V
Maximum Input Current per MPPT	10A	15A/10A	22A	22A
Total input current	20A	25A	44A	44A
Number of Independent MPPT	2	2	2	2
Input Connection type	2 pair MC4	3 pair MC4	4 pair MC4	4 pair MC4
DC Disconnect Switch	Yes(inbuilt)	Yes(inbuilt)	Yes(inbuilt)	Yes(inbuilt)
Rated Output power	6kVA	10kVA	15kVA	20kVA
Maximum output power	6.3kVA	10.5kVA	15.75kVA	21kVA
Rated output current	8.7A	14.5A	22A	29A
Maximum output current	9.7A	16A	24A	32A
Nominal AC Voltage	3 Ph, 400V	3 Ph,400V	3 Ph, 400V	3 Ph, 400V
Maximum efficiency	98.3%	98.3%	98.3%	98.4%
Standard Warranty	5 years			



Make: DELTA

Grid Tied Inverters	RPI-M30A	RPI-M50A	RPI-H3	RPI-H5
Max. DC Power	37.5kWp	62.5kWp	3.75kWp	6.25kWp
Max.Input Voltage	1000V	1000V	550V	1000V
DC Voltage Range	200-1000V	200-1000V	125-550V	200-1000V
MPPT Voltage Range	200-1000V	200-1000V	320-500V	200-1000V
Nominal DC Voltage	600V	600V	355V	650V
Maximum Input Current per MPPT	30A	50A		
Total input current	60A	100A	10A	17.5A
Number of Independent MPPT	2	2	1	1
Input Connection type	6 pair MC4	12 pair MC4	2pair MC4	2 pair MC4
DC Disconnect Switch	Yes(inbuilt)	Yes(inbuilt)	Yes(inbuilt)	Yes(inbuilt)
Rated Output power	30kVA	50kVA	3kVA	5kVA
Maximum output power	33kVA	55kVA	3kVA	5kVA
Rated output current	45.5A	76A	13A	21.7A
Maximum output current	50A	80A	14.3A	24.5A
Nominal AC Voltage	3 Ph, 400V	3 Ph,400V	1 Ph, 230V	1 Ph,230V
Maximum efficiency	98.5%	98.6%	97%	97.5%
Standard Warranty	5 years			



Make: FRONIUS

Grid Tied Inverters	SYMO 5.0	SYMO 6.0	SYMO 8.2	PRIMO 5	PRIMO 8.2
Max. input current		16.0A		6.25kWp	6.25kWp
Max. array short circuit current(MPP ₁ /MPP ₂)		24.0A/24.0A		18.0A/18.0A	27.0A/27.0A
Min.Input Voltage		150V			80V
MPPT Voltage Range	163-800V	195-800V	267-800V	240-800V	270-800V
Nominal input Voltage		595V			700V
Nominal input Voltage			1000V		
Number of Independent MPPT			2		
Number of DC connections			2+2		
MPPT Voltage Range	5000W	6000W	8200W	5000W	8200W
AC output current	7.2A	8.7A	11.8A	21.7A	35.7A
Grid coonection	3-NPE 400 V / 230 V or 3-NPE 380 V / 220 V (+20 % / -30 %)			1 ~ NPE 220 V / 230 V (180 V - 270 V)	
Frequency	50Hz/60Hz				

Total Harmonic distortion	<3%	<5%
Power factor	0.85-1 ind./cap	
Degree of protection	IP65	



Make: POLYCAB

Grid Tied Inverters	2KW	3KW	4KW	5KW	6KW	10KW
Max. input power	2.4KW	3.6KW	3.6KW	6KW	7.2KW	12KW
Max. Input voltage	500V	600V	600V			1000V
Startup Input Voltage	60V	120V	120V	120V		330V
Maximum Input DC Voltage Range	50-400V	100-500V	100-500V	100-500V		200-800
Maximum input current (A)	10	10+10		15+15	15+15	18+18
MPPT Number/No of strings per MPPT	1,1	2,1	2,1	2,1	2,1	2,2
Rated output power (kW)	2	3	4	5	6	10
Rated AC Grid Voltage(v)			220/230/240			400
AC Grid voltage range(v)			180-270			313-470
Operating phases			Single phase			Three phase
Nominal AC Output current (A)	8.7	13	17.4	21.7	8.7	14.5
Operating Frequency range (Hz)			47-52			
Total Harmonic distortion			<3%			
Output Power factor		>0.99			0.8 leading...0.8 lagging	
Degree of protection			IP65			

Make: POLYCAB

Grid Tied Inverters	15KW	20KW	25KW	30KW	36KW	40KW	50KW	60KW
Max. input power(KW)	18	24	30	36	43	48	60	72
Max. Input voltage(v)				1000V			1100V	
Startup Input Voltage	330V			350V			200V	

Maximum Input DC Voltage Range	200-800V			200-850V			200-1000V	
Maximum input current (A)	18+18			18+18+18+18			28.5A+28.5A+28.5A+28.5A	
MPPT Number/No of strings per MPPT	2,2			4,2			4/3	
Rated output power (kW)	15	20	25	30	36	40	50	60
Rated AC Grid Voltage(V)	220/230/240			400			400	500
AC Grid voltage range(V)	313-470		304-460		384-476		304-460	384-576
Operating phases				Three phase				
Nominal AC Output current (A)	21.7	28.7	36.1	43.3	43.3	48.1	72.2	72.2
Operating Frequency range (Hz)				47-52				
Total Harmonic distortion				<3%				
Output Power factor	>0.99			0.8 leading...0.8lagging				
Total Harmonic distortion	97.5%			98.3%			98.8%	99%
Degree of protection				IP65				

Make: GOODWEE
Single-MPPT, Single phase

Grid Tied Inverters	GW1000-NS	GW1500-NS	GW2000-NS	GW2500-NS	GW3000-NS
Max. input power(kW)	1300	1950	2600	3250	3900
Max. Input voltage(v)	500V	500V	500V	500V	500V
Startup Input Voltage	80V	80V	80V	80V	80V
MPPT Range for full Load(V)	120~450V	180-450V	230-450V	180-450V	215-450
Maximum input current (A)	10	10	10	18	18
Nominal DC input voltage (V)	360	360	360	360	360
Max. Short current(A)	1	1	1	1	1
Number of input strings per tracker	1	1	1	1	1
Nominal output power(W)	1000	1500	2000	2500	3000
Nominal output voltage	220/230	220/230	220/230	220/230	220/230
Nominal output frequency(Hz)	50/60	50/60	50/60	50/60	50/60
Operating phases	Single phase				



Max. Output current (A)	5	7.5	10	12.5	13.5		
Total Harmonic distortion	<3%						
Output Power factor	~1(Adjustable from 0.8 leading...0.8 lagging)						
Maximum Efficiency	96.5%	97.0%	97.0%	97.5%	97.5%		
Degree of protection	IP65						

Dual MPPT Three phase

Grid Tied Inverters	GW4000-DT	GW5000-DT	GW6000-DT	GW8000-DT	GW10KN-DT	GW12KN-DT	GW15KN-DT
Max. input power(KW)	5200	6500	7800	9600	12000	16800	19500
Max. Input voltage(V)	1000	1000t	1000	1000	1000	1000	1000
Startup Input Voltage	180V	180V	180V	180V	180V	180V	180V
MPPT Range for full Load(V)	195~800	240~800V	285~800V	380~850V	480~850	380~850	480~850
Maximum input current (A)	11/11	11/11	11/11	11/11	11/11	22/11	22/11
Nominal DC input voltage (V)	620	620	620	620	620	620	620
Max. Short current(A)	13.8	13.8	13.8	13.8	13.8	27.6/13.8	27.6/13.8
Number of MPPT	2	2	2	2	2	2	2
Number of input strings per tracker	1/1	1/1	1/1	1/1	1/1	2/1	2/1
Nominal output power(W)	4000	5000	6000	8000	10000	12000	15000
Nominal output voltage	400, 3L/N/PE	400, 3L/N/PE	400, 3L/N/PE	400, 3L/N/PE	400, 3L/N/PE	400, 3L/N/PE	400, 3L/N/PE
Operating phases	Three phase						
Max. Output current (A)	8.5	8.5	10	12.1	15.2	21.5	24
Total Harmonic distortion	<2%						
Output Power factor	~1(Adjustable from 0.8 leading...0.8 lagging)						
Maximum Efficiency	98%	98%	98%	98.3%	98.3%	98.3%	98.3%
Degree of protection	IP65						



Dual MPPT, Single phase

Grid Tied Inverters	GW3000D-NS	GW3600D-NS	GW4200D-NS	GW5000D-NS	GW6000D-NS
Max. input power(KW)	3900	4680	5460	6500	7200
Max. Input voltage(V)	600V	600V	600V	600V	600V
Startup Input Voltage	120V	120V	120V	120V	120V
MPPT Range(V)	80~550V	80~550V	80~550V	80~550V	80~550V
Maximum input current (A)	11/11	11/11	11/11	11/11	11/11
Nominal DC input voltage (V)	360	360	360	360	360
Max. Short current(A)	13.8/13.8	13.8/13.8	13.8/13.8	13.8/13.8	13.8/13.8
Number of MPPT	2	2	2	2	2
Number of input strings per tracker	1	1	1	1	1
Nominal output power(W)	3000	3680	4200	5000	6000
Nominal output voltage	220/230	220/230	220/230	220/230	220/230
Nominal output frequency(Hz)	50/60	50/60	50/60	50/60	50/60
Operating phases	Single phase				
Max. Output current (A)	13.6	16	19	22.8	27.3
Total Harmonic distortion	<3%				
Output Power factor	~1(Adjustable from 0.8 leading...0.8 lagging)				
Maximum Efficiency	97.8%	97.8%	97.8%	97.8%	97.8%
Degree of protection	IP65				



4 MPPT 3 Phase

Grid Tied Inverters	GW50K-MT	GW60K-MT	GW70KHV-MT
Max. input power(KW)	65000	80000	87500
Max. Input voltage(V)	1000V	1000V	1000V
Startup Input Voltage	200V	200V	200V
MPPT Range(V)	200~850V	200~850V	200~1000V
Maximum input current (A)	30/30/20/20	30/30/30/30	33/33/33/33
Nominal DC input voltage (V)	620	620	620
Max. Short current(A)	38/38/25/25	38/38/38/38	41.5/41.5/41.5
Number of MPPT	4	4	4
Number of input strings per tracker	3/3/2/2	3/3/3/3	3/3/3/3
Nominal output power(W)	50000	60000	70000



Nominal output voltage	400	400	400
Nominal output frequency(Hz)	50/60	50/60	50/60
Operating phases	Three phases		
Max. Output current (A)	80	96	89
Total Harmonic distortion	<3%		
Output Power factor	~1(Adjustable from 0.8 leading...0.8 lagging)		
Maximum Efficiency	98.7%	98.8%	99.0%
Degree of protection	IP65		

Make : GROWATT

Grid Tied Inverters	3000TL3-S	4000TL3-S	5000TL3-S	6000TL3-S
Max. recommended PV power	3600W	4800W	6000W	7200W
Max. DC voltage	1000V	1000V	1000V	1000V
Startup Input Voltage	140V	140V	140V	140V
MPPT Range at full power	160-800V	200-800V	250-800V	290-800V
Maximum input current (A)	11A/11A	11A/11A	11A/11A	11A/11A
Nominal voltage (V)	620V	620V	620V	620V
Number of MPPT/ strings per MPPT	2/1	2/1	2/1	2/1
Rated AC output power	3000W	4000W	5000W	6000W
Nominal output voltage	230V/400V	230V/400V	230V/400V	230V/400V
Nominal output frequency(Hz)	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Operating phases	Three phase			
Max. Output current (A)	5.1A	6.8A	8.5A	10.2A
Total Harmonic distortion	<3%			
Output Power factor	0.8 leading...0.8 lagging)			
Maximum Efficiency	97.5%	97.8%	98.0%	98.0%
Degree of protection	IP65			



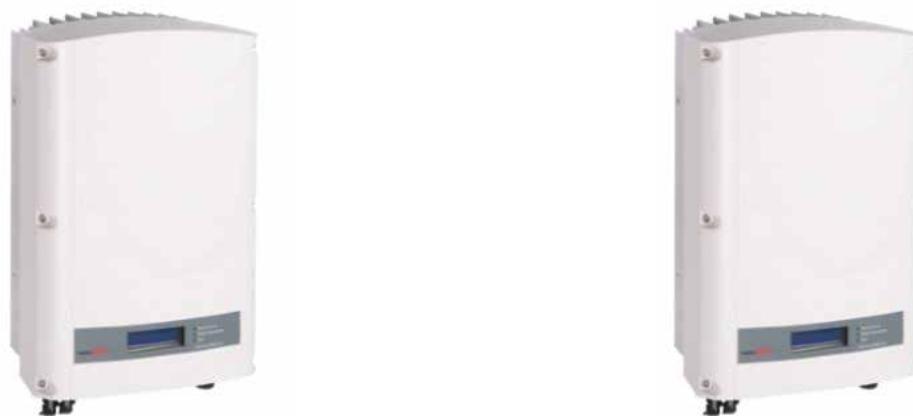
Grid Tied Inverters	7000TL3-S	8000TL3-S	9000TL3-S	10000TL3-S	11000TL3-S
Max. recommended PV power	8400W	9600W	10800W	12000W	13200W
Max. DC voltage	1000V	1000V	1000V	1000V	1000V
Startup Input Voltage	160V	160V	160V	160V	160V

MPPT Range at full power	320-850V	360-850V	400-850V	450-850V	450-850
Maximum input current (A)	11.5A/11.5A	11.5A/11.5A	11.5A/11.5A	13A/13A	13A/13A
Nominal voltage (V)	600V	600V	600V	600V	600V
Number of MPPT/ strings per MPPT	2/1	2/1	2/1	2/1	2/1
Rated AC output power	7KW	8KW	9KW	10KW	11KW
Nominal output voltage	230V/400V	230V/400V	230V/400V	230V/400V	230V/400V
Nominal output voltage	220/230	220/230	220/230	220/230	220/230
Nominal output frequency(Hz)	50/60	50/60	50/60	50/60	50/60
Operating phases	Three phase				
Max. Output current (A)	11.7A	13.3A	15A	16.7A	18.3A
Total Harmonic distortion	<3%				
Output Power factor	0.8 leading...0.8 lagging)				
Maximum Efficiency	98.3%	98.3%	98.4%	98.4%	98.4%
Degree of protection	IP65				

MAKE:SOLAR EDGE Three phase inverters

Specifically designed to work with power optimizers

Grid Tied Inverters	SE3K	SE4K	SE5K	SE6K	SE7K	SE8K	SE9K	SE10K
Max. DC Power	4050W	5400W	6750W	8100W	9450W	10800	12150	13500
Max. Input voltage	900V							
Nominal DC input voltage	750Vdc							
Maximum input current (A)	5A	7A	8.5A	10A	12A	13.5A	15A	16A
Rated AC output power	3000W	4000W	5000W	6000W	7000W	8000W	9000W	10000
Nominal output frequency	50/60Hz 5							
Operating phases	Three phase							
AC output voltage-Line to Neutral range	184-264.5Vac							
Max. Output current	5A	6.5A	8A	10A	11.5A	13A	14.5A	16A
Maximum Efficiency	98%							
Degree of protection	IP65							



Single phase inverters

Grid Tied Inverters	SE2200	SE3000	SE3500	SE4000	SE4600	SE5000	SE6000	SE7300
Max. DC Power	2950W	5400W	5400W	6750W	8100W	9450W	10800	13500
Max. Input voltage	500V							
Nominal DC input voltage	350Vdc							
Maximum input current (A)	8.5A	10A	11.5	13.5A	15.5A	17.5A	19.5A	25A
Rated AC output power	2200W	2500W	3000W	3500W	4000W	4600W	4985W	7300W
Nominal output frequency	50/60Hz±5							
Operating phases	Single phase							
AC output voltage-Line to Neutral range	184-264.5Vac							
Max. Output current	12A	14A	16.5A	19.5A	22A	25A	27A	32A
Maximum Efficiency	97.6%							
Degree of protection	IP65							

AC COMBINER BOX WITH BYPASS SWITCH



Changeover Panel for Power Switching between Utilities

UTILITY COMBINER BOX WITH RELAY CIRCUIT



Distribution Board consists of Molded Case Circuit Breaker for Isolation, Core Balance Current Transformer and Relay Circuit for Residual Current Protection

CHANGEOVER PANEL WITH COMMUNICATION



Changeover mechanism between DG Machines with Auxiliary circuitry for Interlocking

AC DISTRIBUTION BOXES



Single Phase Distribution box with Surge protection devices and Circuit Breaker



Three Phase Distribution box with Surge protection device and circuit breaker



Single Phase Changeover box with Solar Production Meter, Surge protection devices and Circuit Breakers



Three Phase Combiner box with Solar Production meter, Surge protection device and Circuit Breakers



Three Phase Combiner box with Surge protection device, Circuit Breakers with RYB indication



Three Phase AC Combiner box with Surge protection device, Molded Case Circuit Breaker with rating of 100A and RYB indication



Three Phase Panel DB for Load Sharing with Solar meter, Circuit breakers for Solar Side, Grid Side and for Load side



Three Phase Distribution box for combining four Inverters, includes Circuit breakers for each inverter, Molded case circuit breaker and Surge protection in output side.

STRING COMBINER BOXES



Single String Combiner box with Circuit breaker, Surge protection and String Fusest



Three Phase Panel DB for Load Sharing with Solar Dual String Combiner box with Circuit breaker, Surge protection and String Fuses for each string



Single String Combiner box with 1000V DC Isolator, Surge protection and String Fuses for each string



Dual String Combiner box with 1000V DC Isolator, Surge protection, String Fuses, Terminal connectors for input and output



Dual String Combiner box with String Fuses for each string, Single Isolator & Surge protection, Terminal connectors for input and output



String Combiner box with Three inputs with fuses on each string and Three outputs with one isolator and one surge protection device.



String Combiner box with Five inputs with String fuses and Three outputs with three isolators and three surge protection devices



String Combiner box with Six inputs with String fuses and Six outputs with three isolators and three surge protection devices



String Combiner box with Six inputs with String fuses and Six outputs with two isolators and two surge protection devices, output connections through panel connectors



String Combiner box with Eight inputs with String fuses and Eight outputs with Four isolators and Four Surge protection devices



String Combiner box with Four inputs with String fuses and Two outputs with two isolators and two Surge protection devices