









# Delta RPI-Commercial Series

## Technical data RPI-M50A

INPUT (DC)	RPI-M50A
Recommended Max. DC Power	63kWp
Max. Input Voltage	1000 V
DC Voltage Range	200 - 1000 V
Start-up Voltage	>250 V
Start-up Power	40W
MPPT Voltage Range	200 - 1000 V
MPP Voltage Range, Full Power	520 - 800 V
Nominal DC Voltage	600 V
Max. Input Current per MPPT	50 A
Total Input Current	100 A
Maximum Short Circuit Current	60A / 60A
No. of Independent MPP Trackers	2
Unbalanced Input (%)	33 / 67
Input Connection Type	12 pair MC4
DC Disconnection Switch	Yes (Inbuilt)

OUTPUT (AC)	
Rated Output Power	50 kVA
Maximum Output Power	55 kVA
Rated Output Current	76 A
Max. Output Current	80 A
Inrush Current	200A / 100µs
Nominal AC Voltage	3 Ph, 415 V
AC Voltage Range	320~480 V
Nominal Frequency	50 Hz
Frequency Range	45 Hz - 55 Hz
Power Factor at Rated Power	Unity
Reactive Power (Adjustable)	0.8 Lagging ~ 0.8 Leading
Harmonics	<3% at Rated Power
DC Injection	<0.5% at Rated Output Current
No. of Conductors (user settable)	4/5 Wire (L1, L2, L3, N, PE)

EFFICIENCY	
Maximum Efficiency	98.60%
Euro Efficiency	98.40%

PROTECTION	
Input-side Disconnection Device	Yes
Ground fault monitoring / Grid monitoring	Yes
DC reverse polarity protection	Yes
DC Over Voltage / Current Limitation Protection	Yes
DC Short Circuit Protection	Yes, PV Fuse - 1000V, 15A
AC Short Circuit Protection	Yes
AC Over Voltage / Current Limitation Protection	Yes
DC / AC Side Surge Protection - Inbuilt	Yes, SPD - Type 2

GENERAL DATA	RPI-M50A
Dimension (H/W/D)	740 x 612 x 278 mm
Weight (kg)	74kg
Operating Temperature Range	-25°C ~ +60°C (Full Power -20°C ~ +50°C)
Relative Humidity	0~100%, Non-condensing
Operating Elevation	< 2000 m
Degree of Protection	IP65
Noise Level (Typical)	<65 dB (1m Front Panel)
Self Consumption at Night	< 2 Watts

SAFETY/STANDARDS	
Anti-islanding Protection / Grid Regulation	VDE-AR-N 4105; VDE 0126-1-1; VDE V 0124; IEC 61727; IEC 62116
EMC	EN 61000-6-2; EN 61000-6-4
Safety	IEC 62109-1/-2
Efficiency	IEC 61683:1999; EN 50530 (As Per MNRE and SECI Requirement)
Environmental Testing	IEC 60068-2 (1,2,14,30) & (6,21,27,75,78)
Ingress Protection	IEC 60529

COMMUNICATION	
Communication Interface	MODBUS RTU over RS 485 Physical Layer
Display	20 x 4 LCD
Built-in Energy Data Logger	Yes
Emergency Power Off (EPO)	Yes, External Switch to be Connected

WARRANTY	
Standard Warranty	5 Years
Dry Contact Relay (2 Nos.)	Yes

### Notes

1. If PV Module is grounded (Negative / Positive Grounding), separate Isolation Transformer is required at the Grid interface of Inverter
2. Parallel Operation of Inverters is possible for large Power Plants
3. For Cos phi = 1 (VA=W); 55 kVa is Possible with: DC Input Voltage 600V; Symmetrical Loading; Ambient Temperature <34° C
4. Refer to Delta's Standard Warranty Terms and Conditions for more details.

**For Any Sales / Application Engineering Support, Please Contact :**

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