

Project Name : RedNord 535 -286 part 2  
Project No. : 01/23

Location : Europe/Moldova/Balti  
Grid Voltage : 380V(220V/380V)

### System Overview

143 × Trina solar TSM-DEG19C.20 535(PV roof 1)  
Azimuth : 55°, Tilt : 10°, Peak Power : 76.5kWp  
143 × Trina solar TSM-DEG19C.20 535(PV roof 2)  
Azimuth : -125°, Tilt : 10°, Peak Power : 76.5kWp

1 × SUN2000-50KTL-M0

1 × SUN2000-50KTL-M0

1 × SUN2000-50KTL-M0

### Technical Specifications

Total Number of PV Modules:	286	Annual Energy Yield (Approx.):	174.79MWh
Peak Power:	153.01kWp	Number of Inverters:	3
Performance Ratio (Approx.):	87.38%	Rated AC Power:	150.0kW
Specific Energy( Approx.):	1142.36kWh/kWp/year	DC/AC:	0.77

## Design evaluation

### Roof 1,1

#### 1XSUN2000-50KTL-M0

Peak Power:	51.36kWp
Total Number of PV Modules:	96
Number of Inverters:	1
Max. AC active power( $\cos\phi=1$ ):	55.0kW
Grid Voltage:	380V(220V/380V)
DC/AC:	0.78



SUN2000-50KTL-M0

Input MPPT A : PV roof 1

16 × Trina solar TSM-DEG19C.20 535, Azimuth : 55°, Tilt : 10°

Input MPPT B : PV roof 1

16 × Trina solar TSM-DEG19C.20 535, Azimuth : 55°, Tilt : 10°

Input MPPT C : PV roof 1

16 × Trina solar TSM-DEG19C.20 535, Azimuth : 55°, Tilt : 10°

Input MPPT D : PV roof 1

16 × Trina solar TSM-DEG19C.20 535, Azimuth : 55°, Tilt : 10°

Input MPPT E : PV roof 1

16 × Trina solar TSM-DEG19C.20 535, Azimuth : 55°, Tilt : 10°

Input MPPT F : PV roof 1

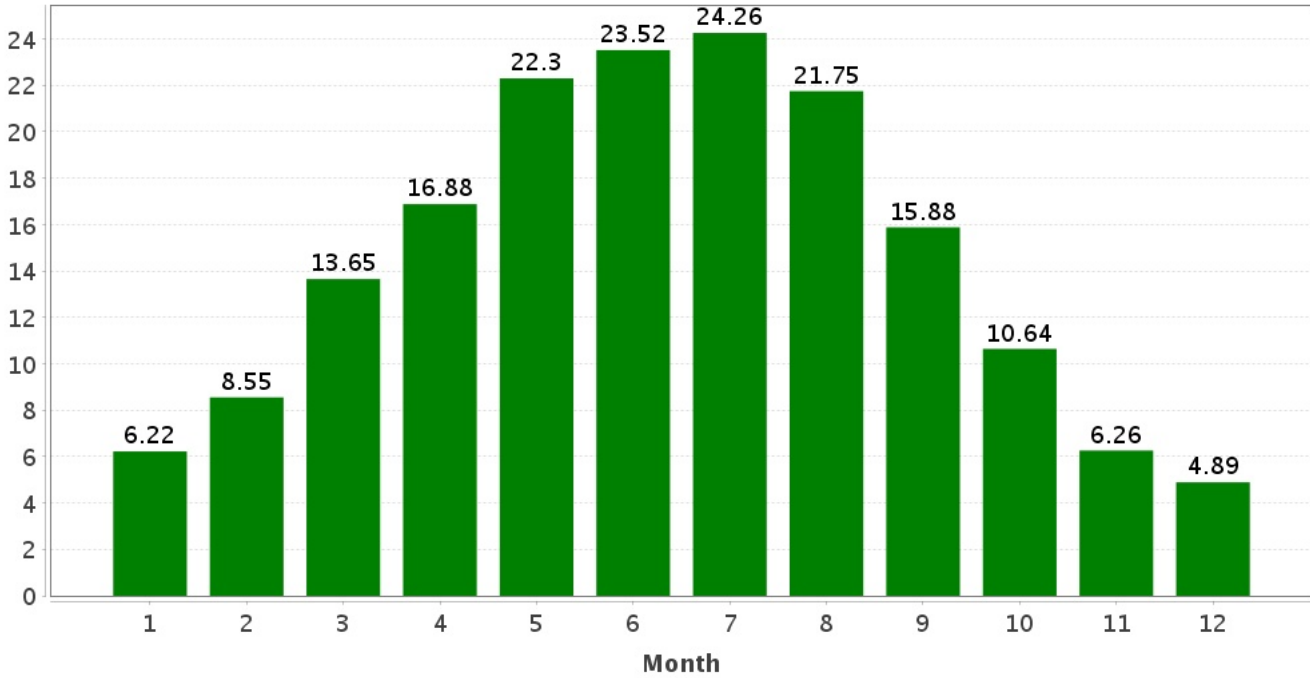
16 × Trina solar TSM-DEG19C.20 535, Azimuth : 55°, Tilt : 10°







Monthly Energy Yield (MWh)



	Number of PV Inverters	PV Inverter Rated AC Power	Total Number of PV Modules	Peak Power
RedNord 535 -286 part 2	3	150.0 kW	286	153.01 kWp
Power Generation Unit	3	150.0 kW	286	153.01 kWp
Roof 1,1	1	50.0 kW	96	51.36 kWp
roof1,2	1	50.0 kW	95	50.83 kWp
Roof 1,3	1	50.0 kW	95	50.83 kWp

	✔ DC Power Cable	✔ AC Power Cable	Total
Power Loss under Rated Conditions	1190.38W	388.07W	1578.45W
Relative Power Loss at Rated Voltage	0.78 %	0.22 %	1.0 %
Cable Cross-sectional Area/Length	6mm <sup>2</sup> /693.0 m	120mm <sup>2</sup> /66.0 m	

Signature: \_\_\_\_\_

\*Note: The displayed energy yield is an estimated value, and is calculated through a formula. SmartDesign is not liable for any difference between the actual energy yield and the displayed value. The difference depends on various conditions, such as the PV module stains or efficiency fluctuation.