



SUMMARY INFORMATION SHEET

September 2011
FSEC # 00536N

MANUFACTURER

Company Ezinc Metal Sanayi ve Ticaret A.S.
Address Organize Sanayi Bolgesi 23.Cad No: 31 Kayseri, TR-38070 Turkey

Collector Model
Superline 3XL USB

This solar collector was evaluated by the Florida Solar Energy Center (FSEC) in accordance with prescribed methods and was found to meet the minimum standards established by FSEC. This evaluation was based on solar collector tests performed by an FSEC approved laboratory. The purpose of the tests is to verify initial performance conditions and quality of construction only. The resulting certification is not a guarantee of long term performance or durability.

DESCRIPTION

Gross Length	2.95 meters	9.68 feet
Gross Width	1.205 meters	3.95 feet
Gross Depth	.099 meters	.325 feet
Gross Area	3.554 square meters	38.25 square feet
Transparent Frontal Area	3.484 square meters	37.5 square feet
Volumetric Capacity	4 liters	1.1 gallons
Weight (empty)	63 kilograms	139 pounds
Test Pressure	1350 kPa	195.8 Psig
Number of Cover Plate	1	

MATERIALS

Enclosure	Aluminum
Glazing	Tempered Glass
Absorber	Copper with Copper
Absorber Coating	Selective coating
Insulation	foam, fiberglass

THERMAL PERFORMANCE

Test flow Rate 59 ml/s .94 gpm

Incident Angle Modifier [(S)=1/cosθ - 1, 0°<θ<=60°] Kτα = 1 -0.383 (S) 0.040 (S)²

Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Ta]	Y INTERCEPT	SLOPE
SI UNITS: η = 0.735 -3.58930 (P)/I -0.01013 (P) ² /I	0.740	-4.20 W/m ² .°C
IP UNITS: η = 0.735 -0.63230 (P)/I -0.00100 (P) ² /I	0.740	-0.70 Btu/hr.ft ² .°F

RATING

This collector has been rated for energy output on measured performance and an assumed standard day. Total solar energy available for the standard day is 5045 Watt-hour/m² (1600 Btu/ft²) distributed over a 10 hour period.

Output energy ratings for this collector based on the second-order efficiency curve are:

Collector Temperature	ENERGY OUTPUT			
Low 35 °C (95 °F)	12.45 kWh/day	42500 Btu/day		
Intermediate 50 °C (122 °F)	10.43 kWh/day	35600 Btu/day		
High 100 °C (212 °F)	4.48 kWh/day	15300 Btu/day		

