



FLEX_{max} - 80 - FM80-150VDC

FLEX_{max} - 60 - FM60-150VDC

Nominal Battery Voltages	12, 24, 36, 48, or 60 VDC (Single model - selectable via field programming at start-up)	12, 24, 36, 48, or 60 VDC (Single model - selectable via field programming at start-up)
Maximum Output Current	80 amps @ 104° F (40°C) with adjustable current limit	60 amps @ 104° F (40°C) with adjustable current limit
Maximum Solar Array STC Nameplate	12 VDC systems 1250 Watts / 24 VDC systems 2500 Watts / 48 VDC systems 5000 Watts / 60 VDC Systems 6250 Watts	12 VDC systems 900 Watts / 24 VDC systems 1800 Watts / 48 VDC systems 3600 Watts / 60 VDC Systems 4500 Watts
NEC Recommended Solar Array STC Nameplate	12 VDC systems 1000 Watts / 24 VDC systems 2000 Watts / 48 VDC systems 4000 Watts / 60 VDC Systems 5000 Watts	12 VDC systems 750 Watts / 24 VDC systems 1500 Watts / 48 VDC systems 3000 Watts / 60 VDC Systems 3750 Watts
PV Open Circuit Voltage (VOC)	150 VDC absolute maximum coldest conditions / 145 VDC start-up and operating maximum	150 VDC absolute maximum coldest conditions / 145 VDC start-up and operating maximum
Standby Power Consumption	Less than 1 Watt typical	Less than 1 Watt typical
Power Conversion Efficiency	97.5% @ 80 Amps in a 48 VDC System - Typical	98.1% @ 60 Amps in at 48 VDC System voltage - Typical
Charging Regulation	Five Stages: Bulk, Absorption, Float, Silent and Equalization	Five Stages: Bulk, Absorption, Float, Silent and Equalization
Voltage Regulation Set points	10 to 60 VDC user adjustable with password protection	10 to 60 VDC user adjustable with password protection
Equalization Charging	Programmable Voltage Setpoint and Duration - Automatic Termination when completed	Programmable Voltage Setpoint and Duration - Automatic Termination when completed
Battery Temperature Compensation	Automatic with optional RTS installed / 5.0 mV per °C per 2V battery cell	Automatic with optional RTS installed / 5.0 mV per °C per 2V battery cell
Voltage Step-Down Capability	Can charge a lower voltage battery from a higher voltage PV array - Max 150 VDC input	Can charge a lower voltage battery from a higher voltage PV array - Max 150 VDC input
Programmable Auxiliary Control Output	12 VDC output signal which can be programmed for different control applications (Maximum of 0.2 amps DC)	12 VDC output signal which can be programmed for different control applications (Maximum of 0.2 amps DC)
Status Display	3.1" (8 cm) backlit LCD screen - 4 lines with 80 alphanumeric characters total	3.1" (8 cm) backlit LCD screen - 4 lines with 80 alphanumeric characters total
Remote Display and Controller	Optional Mate or Mate2 with RS232 Serial Communications Port	Optional Mate or Mate2 with RS232 Serial Communications Port
Network Cabeling	Proprietary network system using RJ 45 Modular Connectors with CAT 5e Cable (8 wires)	Proprietary network system using RJ 45 Modular Connectors with CAT 5e Cable (8 wires)
Data Logging	Last 128 days of Operation - Amp Hours, Watt Hours, Time in Float , Peak Watts, Amps, Solar Array Voltage, Max Battery Voltage Min Battery Voltage and Absorb for each day along with total Accumulated Amp Hours, and kW Hours of production	Last 128 days of Operation - Amp Hours, Watt Hours, Time in Float , Peak Watts, Amps, Solar Array Voltage, Max Battery Voltage Min Battery Voltage and Absorb for each day along with total Accumulated Amp Hours, and kW Hours of production
Hydro Turbine Applications	Consult factory for approved Turbines	Consult factory for approved Turbines
Positive Ground Applications	Requires two Pole Breakers for switching both positive and Negative Conductors on both Solar Array and Battery Connections (HUB 4 and HUB 10 can not be used in positive ground applications)	Requires two Pole Breakers for switching both positive and Negative Conductors on both Solar Array and Battery Connections (HUB 4 and HUB 10 can not be used in positive ground applications)
Operating Temperature Range	Minimum -40° to maximum 60° C (Power capacity of the controller is automatically derated when operated above 40° C)	Minimum -40° to maximum 60° C (Power capacity of the controller is automatically derated when operated above 40° C)
Environmental Rating	Indoor Type 1	Indoor Type 1
Conduit Knockouts	One 1" (35mm) on the back; One 1" (35mm) on the left side; Two 1" (35mm) on the bottom	One 1" (35mm) on the back; One 1" (35mm) on the left side; Two 1" (35mm) on the bottom
Warranty	Standard 5 year / Available 10 Year	Standard 5 year / Available 10 Year
Weight	Unit	12.20 lbs (5.56 kg)
	Shipping	15.50 lbs (7.03 kg)
Dimensions (H x W x D)	Unit	16.25" x 5.75" x 4.5" (41.3 x 14 x 10 cm)
	Shipping	21" x 10.5" x 10.5" (53 x 27 x 27 cm)
Options	Remote Temperature Sensor (RTS), HUB 4, HUB 10, MATE, MATE 2	Remote Temperature Sensor (RTS), HUB 4, HUB 10, MATE, MATE 2
Menu Languages	English & Spanish	English & Spanish
Certifications	ETL Listed to UL1741, CSA C22.2 No. 107.1	ETL Listed to UL1741, CSA C22.2 No. 107.1