

TECHNICAL SPECIFICATION				
EDR SMART DC ENERGY METER MODEL				
ORIGIN	MADE IN INDIA			
MODEL	DCM 9603			
EDR-DCM9603	Model	M1	M2	
Voltage Measurement	DC Voltage Range (Programmable)	0-99.9V / 400V/ 800V	0-500V / 0-1000V / 0-1500V	
	Voltage Signal Input	Direct	4-20 mA DC	
	Voltage Sensor type	Not Required	External Voltage Sensor / Transducer Accuracy: 0.8 to 1%, Bandwidth: 14 kHz	
	Resolution	0.1V / 1 V	1 V	
Current Measurement	DC Current Range (Field Programmable)	upto 50A/ 100A/ 200A/ 300A/ 400A/ 500A/ 1000A / 1300A/ 2000A/ 2500A	upto 50A/ 100A/ 200A/ 300A/ 400A/ 500A/ 1000A / 1300A/ 2000A/ 2500A/ 4000A/ 6000A/ 10000A/ 15000A	
	Current signal Input-1 (Uni-directional) Standard	0-50 mA / 0-100 mA / 0-4VDC (anyone)	4-20 mA	
	Current signal Input-2 (Bi-directional) User Request	0-50 mA / 0-100 mA / 0-4VDC (anyone)	4-20 mA	
	Current Sensor type	Hall Effect CT Sensor Accuracy: 0.3% to 1% Bandwidth: DC-25 /100 /200 kHz	External Transducer Hall Effect CT Sensor (upto 2500A) Accuracy: 0.3% to 1% Bandwidth: DC-25 /100 /200 kHz	
			External Transducer Shunt Resistor (4000A -15000A) Accuracy: 0.5 to 1%	
	Resolution	0.1A / 1A	0.1A / 1A	
	Accuracy	± 0.5% on reading + 2 LSD	± 0.5% on reading + 2 LSD	
Power	Resolution	0.001/ 0.01 kW / 0.1 kW	0.1 kW / 1kW	
	Accuracy	± 0.5% on reading + 2 LSD	± 0.5% on reading + 2 LSD	
Energy	Range	999999.99 kWh/ 9999999.9 kWh	9999999.9 kWh / 99999999 kWh	
	Accuracy	± 0.5% on reading	± 0.5% on reading	
	MWh Conversion	MWh (Auto Conversion)		

Run hour	Range	99999.59 hrs	99999.59 hrs / 999999 hrs
	Accuracy	± 3 seconds/day	± 3 seconds/day
Directional	Import (Uni-directional)	Import Power +kW & Energy +kWh with Separate register <i>(Standard)</i>	
	Export (Bi-directional)	Export Power +kW & Energy - kWh with Separate register <i>(User Request)</i>	
Type	Type of Design	Microcontroller based design with high-precision ADC	
	Memory	Energy & Run hour storage in EEPROM with backup retention	
	Response time	< 500 ms	
	CPU Speed	25 MHz High Processing Speed	
Display	Type	LCD Display 16 Character x 2 Row Alphanumeric with Backlit	
	Viewing size	64.5(W)x16.4(H) in mm	
Display Parameter	Run mode Display	DC Voltage, DC Current, Power, Energy, Run hour	
	Program mode Display	Password, Voltage range, Current range, Communication id, power save, Energy Reset	
	Optional Display <i>(Request by user)</i>	Maximum Power kW track record per day, internally stored & displayed with date & time for 30 days	
Function	Display Scroll/hold	Available	
	LCD Power save mode	When No key is pressed for 3 minutes, the LCD Backlit is switch off to save power and enhance the life of LCD. Again LCD backlit is switch ON when any key pressed	
User Interface	Front key	4 key for setting program mode , Up/down selecting next page parameter shown Scroll/hold display mode selection	
Status	LED Status Indication	Two separate LED Indicator Green: TxD for Data transmission mode, Red: RxD for Data receiving mode	
Security & Calibration	Security	Password protected for Program mode	
	Calibration	Digital Calibration	
Communication	RS485 (Standard)	MODBUS RTU Isolated RS485, 2-wire Baud rate: 9600 Bps Data Pattern: 8 bit, 1 Stop, Parity None	
	Wireless (Optional)	Modbus TCP, External add-on module	
	GPRS Module (Optional)	4G LTE, Sim card externally arrangement	

Auxiliary Supply	Operating Range	24-60V DC
	Burden	< 2VA at 48V DC
Mechanical	Enclosure	ABS Plastic
	Dimension	96x96x85 (HxWxD) in mm
	Panel-cut-out	92x92 (HxW) in mm
	Mounting	Flush Panel Mounting
Environmental	Operating Temperature	: -10°C to 55°C
	Storage Temperature	: -25°C to 75°C
	Relative humidity	: 5% to 95% Non-Condensing
Standard Applicable	Measurement Standard	IEC 62053-41 :Electricity metering equipment - Particular requirements - Part 41: Static meters for DC energy (classes 0,5 and 1)
	EMI/EMS Standard	EMI /EMC: IEC61000-4/-2-3-4-5-6-11, CISPR22
	Safety Standard	IEC 61010-1
	Flammability	UL 94
	Environmental Standard	IEC 60068-1
	Outlines Standard	DIN 43700
Testing	Testing in NABL Lab as per IEC170245: 2017	

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