



Think Different

YOUR EXPERT IN
DRIVETRAIN
TECHNOLOGY

UNITEK
— 2021 —

Drive System



Hub Motor Drive System ————— PAGE 1-2

Components



MOTOR ————— PAGE 3-5



CONTROLLER ————— PAGE 6



DISPLAY ————— PAGE 7



SENSOR ————— PAGE 8



BATTERY ————— PAGE 9



 Diversified Combination

 High Performance

 Silent & Dynamic

 Energy Efficient

Rear Motor

G250R (Optional)

Front Motor

G250 (Optional)

Controller

CT.P250.01 (Optional)

Display

DP.M5 (Optional)





Sensor

TS.BB.01 (Optional)

Battery

-- (Optional)



-  Compact Drive Unit
-  Smooth Riding
-  Easy Assembly
-  Easy Service

Rear Motor

G250RY

Sensor

Integrated In Motor

Controller

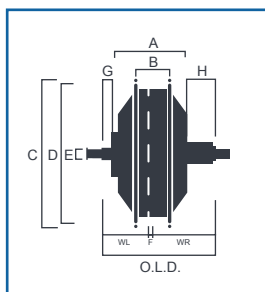
Integrated In Motor

Display

DP.SW102 (Optional)

Battery

-- (Optional)


G350

G250R-S

G250R-CA

G350R-CA


Dimension

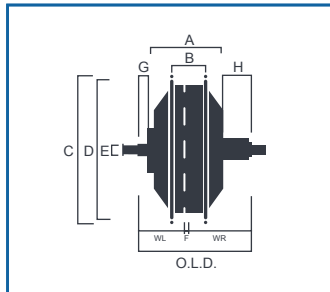
A	79mm	79mm	74.7mm	83.2mm
B	42mm	42mm	42mm	47mm
C	120mm	120mm	120mm	120mm
D	109mm	109mm	109mm	109mm
E	M12*1.25	M12*1.25	M12*1.25	M12*1.25
F	3.5mm	2.33mm	7.8mm	9.75mm
G	10.5mm	15.5mm	15.5mm	15.5mm
H	8.3mm	23.8mm	44.8mm	45.3mm
WL	50mm	57.67mm	59.7mm	33.25mm
WR	46.5mm	59.5mm	67.5mm	13.75mm

Technical Data

Mounting Position	Front	Rear	Rear	Rear
Wheel Size	16-28	16-28	20-28	20-28
Construction	Gear Drive	Gear Drive	Gear Drive	Gear Drive
Rated Voltage	36/48	36/48	36/48	36/48
Rated Power	250/350	250/350	250	250/350
Max Torque	45	45	40	45
Efficiency	≥80%	≥80%	≥80%	≥80%
Reduction Ratio	1:12.5	1:12.5	1:12.5	1:12.5
Speed Signals	1/6	1/6	1/6	1/6
Pole-pairs	8	8	8	8
Color	Black/Silver	Black/Silver	Black/Silver	Black/Silver
Weight	2.0	2.0	1.7	2.2
Noise Grade	<55	<55	<55	<55
Work Temperature	-20-45°C	-20-45°C	-20-45°C	-20-45°C

Mounting & Certification

Brake	V-/Disk	V-/Disk	V-/Disk	V-/Disk
O.L.D	100mm	120mm	135mm	142mm
Cabling Route	Shaft Side(L)	Shaft Side(L)	Shaft Side(L)	Shaft Side(L)
Spoke Spec.	36 Holes	36 Holes	36 Holes	36 Holes
Waterproof	IP65	IP65	Ip65	Ip65
Certification	RoHS/CE	RoHS/CE	RoHS/CE	RoHS/CE



H250R



H500R



H750R



Dimension

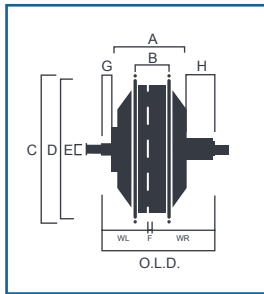
A	82.5mm	79.5mm	96mm
B	43mm	46.85mm	71.23mm
C	136mm	158mm	158mm
D	120mm	144mm	144mm
E	M12*1.25	M12*1.25	M12*1.25
F	4.5mm	9.5mm	2.5mm
G	14.5mm	15.5mm	15.5mm
H	38mm	48mm	44mm
WL	24mm	32.68mm	38.61mm
WR	15mm	14.17mm	32.62mm

Technical Data

Mounting Position	Rear	Rear	Rear
Wheel Size	20-28	20-28	20/26
Construction	Gear Drive	Gear Drive	Gear Drive
Rated Voltage	36/48	36/48	36/48
Rated Power	250/350	350/500	500/750
Max Torque	40	55	90
Efficiency	≥80%	≥80%	≥80%
Reduction Ratio	1:4.4	1:5	1:5
Speed Signals	1/6	1/6	1/6
Pole-pairs	10	10	10
Color	Black/Silver	Black/Silver	Black/Silver
Weight	2.8	3.5	5.0
Noise Grade	<55	<55	<55
Operating Temperature	-20-45°C	-20-45°C	-20-45°C

Mounting & Certification

Brake	V-/Disk	V-/Disk	V-/Disk
O.L.D	135mm	138mm	175/195mm
Cable Routing	Through Shaft(R)	Through Shaft(R)	Through Shaft(R)
Spoke Spec.	36 Holes	36 Holes	36 Holes
IP Grade	IP65	IP65	IP65
Certification	RoHS/CE	RoHS/CE	RoHS/CE


G200

G250RY

G250W

K250

Characteristic

75mm O.L.D.

Controller Built-in

Wheel Integrated

For Kickboard

Dimension

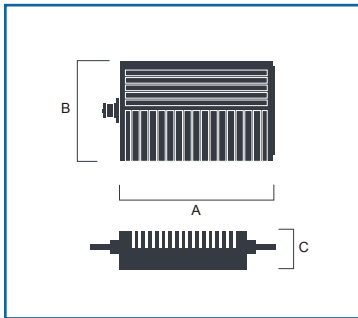
A	61.5mm	80.2mm	-	-
B	38mm	47mm	-	-
C	120.5mm	120.5mm	-	-
D	109mm	109mm	-	-
E	M10*1.25	M10*1.25	-	-
F	0mm	6.3mm	-	-
G	6.75mm	6.75mm	-	-
H	6.75mm	45.8mm	-	-
WL	19mm	66.2mm	-	-
WR	19mm	72.5mm	-	-

Technical Data

Mounting Position	Front	Rear	Rear	Front/Rear
Wheel Size	16-28	16-28	5-12	6.5-10
Construction	Gear Drive	Gear Drive	Gear Drive	Direct Drive
Rated Voltage	24/36	24/36/48	36/48	36/48
Rated Power	250	250	250/350	250
Max Torque	30	30	30	30
Efficiency	≥80%	≥80%	≥80%	≥80%
Reduction Ratio	1:12.6	1:12.5	1:6.3	1:1
Speed Signals	1/6	6	1	6
Pole-pairs	8	8	8	15
Color	Black/Silver	Black/Silver	Black/Silver	Black
Weight	1.6	2.0	3.5	2.9/3.4
Noise Grade	<55	<55	<55	<55
Work Temperature	-20-45°C	-20-45°C	-20-45°C	-20-45°C

Mounting & Certification

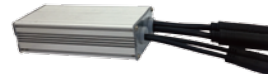
Brake	V-	V-/Disk	V-/Disk	V-/Disk
O.L.D	75mm	145mm	135mm	68-100mm
Cabling Route	Shaft Side(L)	Shaft Side(L)	Through Shaft(L)	Through Shaft(L)
Spoke Spec.	36 Holes	36 Holes	—	—
Waterproof	IP65	IP65	IP65	IP65
Certification	RoHS/CE	RoHS/CE	RoHS/CE	RoHS/CE



CT.P350.01

CT.P750.01

Irregular Shapes



Dimension

	CT.P350.01	CT.P750.01
A	83mm	115mm
B	53mm	53mm
C	32mm	32mm

Core Data

	CT.P350.01	CT.P750.01	Irregular Shapes
Rated Voltage(DCV)	36/48	36/48	36/48
Low Voltage Protection(DCV)	32/42	32/42	32/42
Current Limit(A)	15/12	22/18	15/12
Rated Current(A)	7/5	14/10	7/5
Rated Power(W)	250	500	250
Weight(g)	200	220	Built in
Operating Temperature	-20-45°C	-20-45°C	-20-45°C

Further Information

	CT.P350.01	CT.P750.01	Irregular Shapes
PAS Mode	Speed/Torque	Speed/Torque	Speed/Torque
Throttle Voltage Input(DCV)	1.1-3.9	1.1-3.9	1.1-3.9
Control Type	Sine Wave	Sine Wave	Sine Wave
Support Mode	0-9	0-9	0-9
Speed Limit(km/h)	25	25	25
Walk Assistance(km/h)	6	6	6

Tests & Certifications

IP Grade: IP65 Certifications: CE / EN15194 / RoHS



Dimension

	DP.SW900	DP.DM02A	DP.M5	DP.SW102
A	61.3mm	68mm	56.4mm	23mm
B	109.7mm	45mm	93.4mm	63mm
C	73mm	46mm	71.1mm	40mm
D	22.2/25.4/31.5	22.2/25.4/31.8	22.2/25.4/31.5	22.2

Core Data

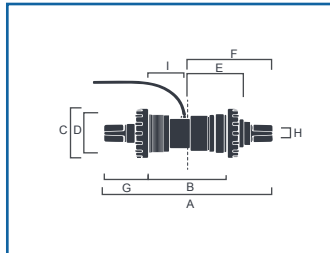
	DP.SW900	DP.DM02A	DP.M5	DP.SW102
Display	LCD	LCD	LCD	OLED
Rated Voltage(V)	36/48	24/36/48	36/48	24/36/48
Support Modes	0-9	0-9	0-9	0-4
Com. Protocol	UART	UART/CAN	UART	UART
Current Speed(Km/h)	√	√	√	√
Maximum Speed(Km/h)	√	√	√	√
Average Speed(Km/h)	√	√	√	√
Single Trip Distance	√	√	√	√
Total Distance	√	√	√	√
Capacity	√	√	√	√
Error Code	√	√	√	√
Walk Assistance	√	√	√	√
Backlight	√	√	√	√

Futher Specifications

USB Charge	5V 500mA	—	—	—
IP Grade	IP65	IP65	IP65	IP65

Tests & Certifications

Certifications: CE / EN15194 / REACH / RoHS



TS.BB.01



Dimension

A	155mm
B	68/73mm
C	Ø44mm
D	2-BC1.37-24T
E	52.5mm
F	77.5mm
G	41mm
H	2-M8*P1*25mm
I	36.5mm

Core Data

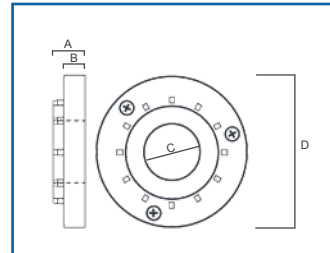
Type	Torque&Speed
Signals(Pulses/Cycle)	36
Input Voltage(DCV)	4.5-5.5
Output Voltage(DCV)	0.75-3.4
Resolution(mv/N.m)	35
Operation Temperature	-20 - 85 °C
Torque Measurement(N.m)	0.5-80
Weight(g)	610

Mounting Parameters

BB Width	68/73mm
Mounting Position	Bottom Bracket

Tests & Certifications

IP Grade: IP 65 Certifications: EN15194 / RoHS



RS.DS.01

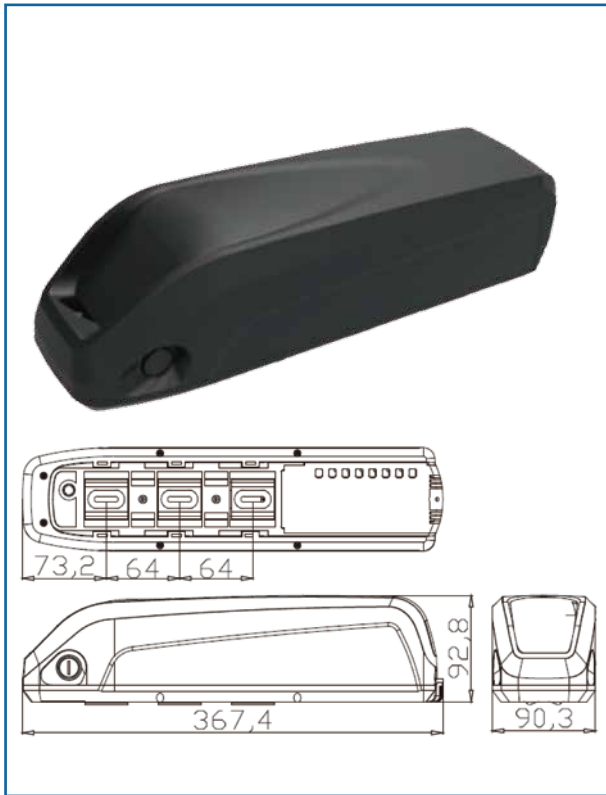


Dimension

A	9.5mm
B	6.5mm
C	Ø16mm
D	Ø44mm

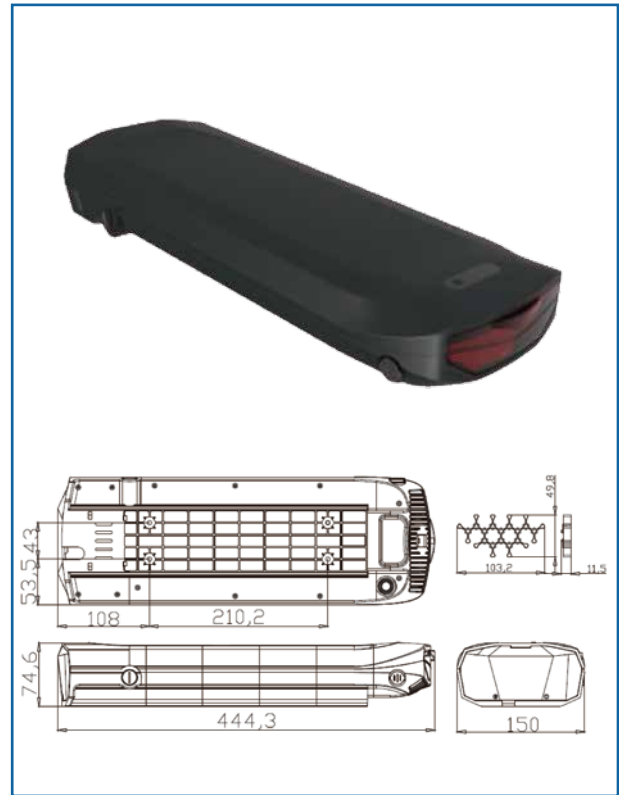
Parameters

Supply Voltage(V)	4.0-5.5
Output High Voltage(V)	Vcc-0.7-Vcc
Output Low Voltage(V)	0-0.6
Supply Current(mA)	1-6
Signals Per Circle	12/24/32/48
Operating Temperature	-40-85°C







Parameters

Model	Voltage	Capacity	Weight
HL-A	36V	13Ah	3.2KG
HL-B	36V	10.4Ah	2.8KG
HL-C	36V	11.6Ah	2.85KG
HL-D	36V	14.5Ah	3.3KG



Parameters

Model	Voltage	Capacity	Weight
PA-A	36V	10.4Ah	3.4KG
PA-C	36V	11.6Ah	3.5KG
PA-E	36V	13Ah	3.6KG
PA-F	36V	14.5Ah	3.7KG
PA-G	36V	17.5Ah	3.8KG

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