

# **OPTIMA**<sup>TM</sup>

## **BATTERIES**

**THE ULTIMATE POWER SOURCE<sup>TM</sup>**



**AGRICULTURE · CONSTRUCTION  
EQUIPMENT · GENERATORS ·  
EMERGENCY VEHICLES ·  
CLEANING**

# **OPTIMA<sup>®</sup> YELLOWTOP<sup>®</sup>**

**DUAL PURPOSE BATTERY (STARTING & SEMI TRACTION)**



**UP TO 3 TIMES  
QUICKER RECHARGING**



**OVER 15 TIMES MORE  
VIBRATION RESISTANCE**

OPTIMA YELLOWTOP is made to install and forget. No matter the conditions, be it dampness, heat, dirt or exposure to extremes in vibration or regular discharge, it is guaranteed to deliver uninterrupted power throughout the entire discharge cycle. The ability to hold a higher voltage during the discharge cycle makes it possible to utilize more of the stored power in the OPTIMA, compared to ordinary batteries. All of these benefits are due to OPTIMA's SPIRALCELL TECHNOLOGY<sup>®</sup>, which combines the advantages of a starting battery with those of a deep cycle battery. The YELLOWTOP handles many discharges as well as re-charges without losing significant capacity and is also ideal for seasonal use because of its very low self-discharge rate.

# OPTIMA<sup>®</sup> REDTOP<sup>®</sup>

## STARTER BATTERY\*



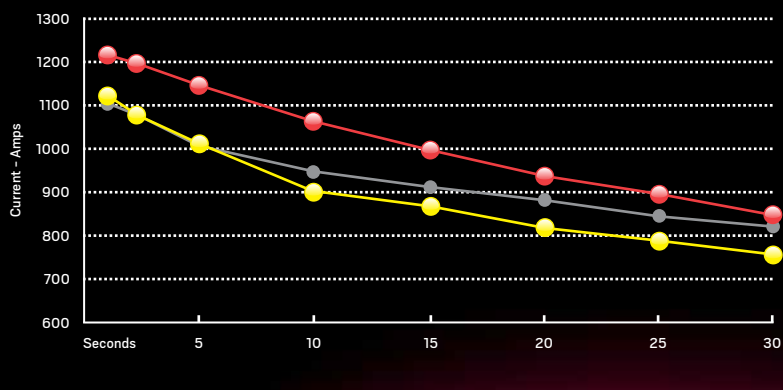
**100 % SPILL-PROOF AND  
MAINTENANCE FREE**



**STARTING POWER EQUIVALENT TO BATTERIES  
2 – 3 TIMES OPTIMA'S SIZE AND WEIGHT**

For agricultural use, where machinery is used seasonally, the OPTIMA REDTOP shows its outstanding starting capacity. Even if the battery has been left out in the tractor or harvester over the winter, the REDTOP will provide starting power the first time.\* The key to the REDTOP's remarkable starting power is OPTIMA's SPIRALCELL TECHNOLOGY<sup>®</sup>. This makes it possible to start heavy diesel engines with a battery, as compact as an ordinary automobile battery, which can be mounted in areas with very little space. This powerful package also shows unparalleled resistance to vibration, knocks and bumps. The REDTOP's robust, leak free construction stands up to the toughest conditions, without power interruption.

\*The battery should be disconnected during extended periods of non-use.



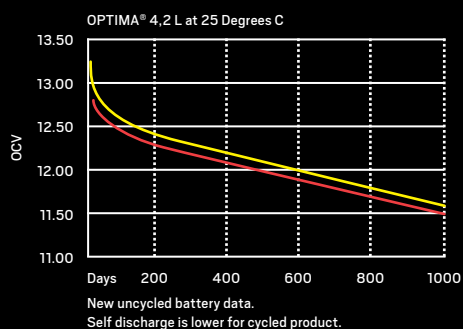
## MORE STARTING POWER

OPTIMA® batteries deliver a higher level of power to the starter in the critical first 10 seconds of the vehicle starting cycle.

- OPTIMA® REDTOP®
- OPTIMA® YELLOWTOP®
- Traditional battery

## SHAKE IT UP!

Damage from vibration is a leading cause of battery failure. OPTIMA batteries have over 15 times more vibration resistance than traditional batteries due to patented SPIRALCELL TECHNOLOGY®.

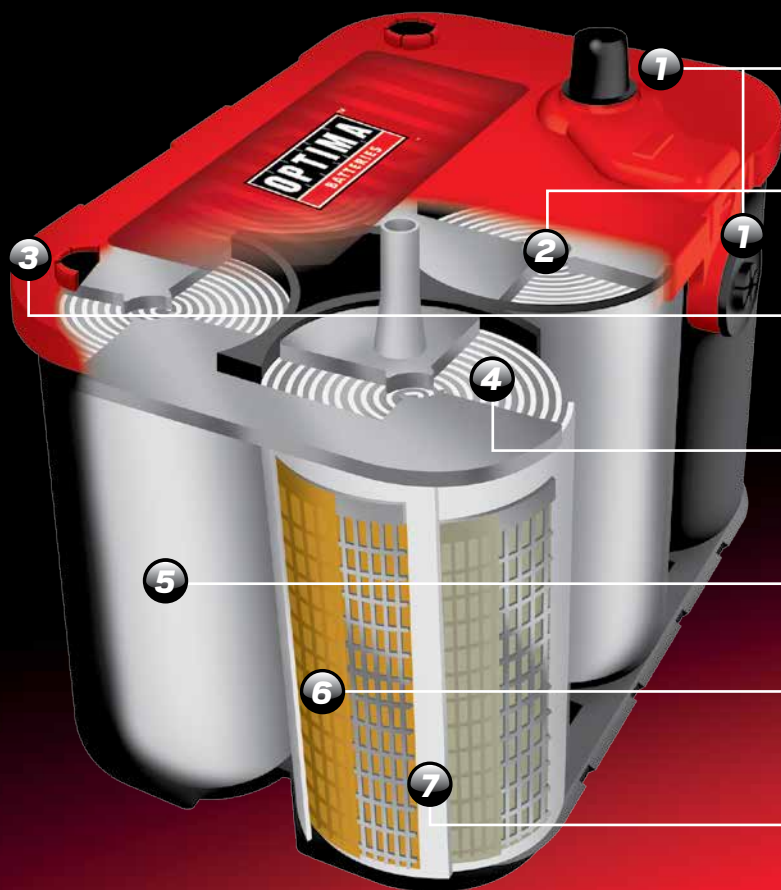


## LONG SHELF LIFE

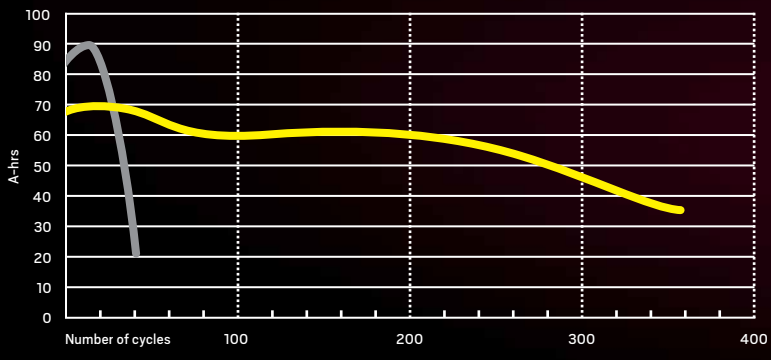
OPTIMA batteries are ideal for vehicles that are used seasonally because of their low self-discharge rate. All batteries that sit unused for extended periods of time will begin to lose charge. But OPTIMA batteries retain a significantly greater amount of power, enough to start large vehicles like tractors, harvesters and recreational vehicles even after a long winter of no use.

- OPTIMA® REDTOP® 4,2
- OPTIMA® YELLOWTOP® 4,2

# THE SPIRALCELL TECHNOLOGY®



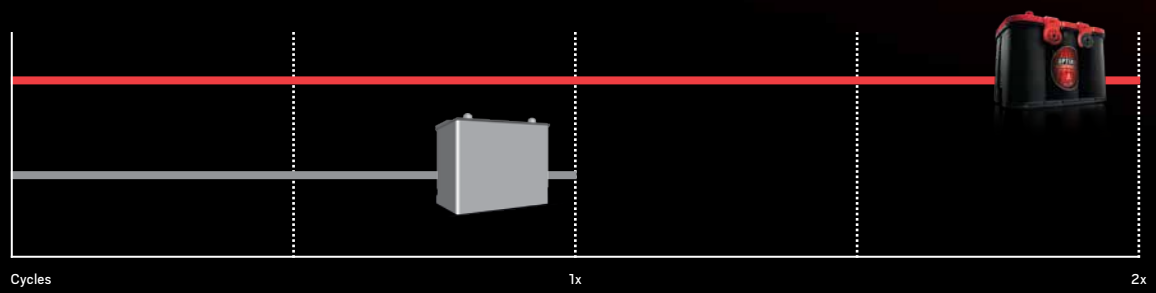
- 1** Corrosion resistant terminals
- 2** Solid moulded cell connections for increased durability
- 3** Self sealing safety valves
- 4** Rugged SPIRALCELL construction provides maximum vibration resistance and extends product life
- 5** Impact resistant polypropylene case
- 6** High purity lead grids for long life
- 7** Absorbent glass mat separator holds electrolyte like a sponge to eliminate acid spilling



## REPETITIVE RESERVE CAPACITY

OPTIMA® batteries have the ability to withstand significantly more discharge/recharge cycles and still accept a high percentage of the original full capacity.

- OPTIMA® YELLOWTOP® 75 Ah/C20
- Traditional battery 98 Ah/C20



## UP TO 2 TIMES LONGER LIFE\*

Damage from heat is the leading cause of battery failure. Even in high heat environments, OPTIMA batteries can outlast traditional batteries by up to 2 times.

\*When compared to traditional batteries



# SPECIFICATIONS

## OPTIMA® YELLOWTOP®

	YTS 5,5 (BCI D31A)	YTR 5,0 (BCI D27F)	YTS 4,2 (BCI D34)	YTU 4,2 (BCI D34/78)	YTR 3,7 (BCI D35)	YTS 2,7 (BCI D51)	YTS 2,7J (DS46B24R)	YTR 2,7 (BCI D51R)	YTR 2,7J (BCI D51R)	YTS 2,1 (6 VOLT)
Part Number	851 187 000 888 2	837 327 000 888 2	812 254 000 888 2	814 254 000 888 2	840 222 000 888 2	871 176 000 888 2	870 176 000 888 2	873 176 000 888 2	872 176 000 888 2	818 356 000 888 2
Length base: mm	317	300	245	245	229	228	228	228	228	253
Length top cover: mm	325	309	254	254	237	237	237	237	237	254
Height not including terminals: mm	218	200	173	173	168	201	201	201	201	176
Height including terminals: mm	238	219	200	200	197	227	227	227	227	203
Width base: mm	158	169	172	172	172	121	121	121	121	83
Width top cover: mm	165	172	175	175	171	129	129	129	129	90
Nominal Voltage: V	12	12	12	12	12	12	12	12	12	6
Cold Cranking Amps: (EN) CCA	975	845	765	765	660	460	460	460	460	765
Capacity: (EN) Ah	75	66	55	55	48	38	38	38	38	55
Reserve Capacity: (BCI) Min	155	140	120	120	98	66	66	66	66	120
Weight: kg	26.5	20.6	19.5	19.9	16.6	11.8	11.8	11.8	11.8	9.5

## OPTIMA® REDTOP®

	RTC 4,2 (BCI 34C)	RTS 4,2 (BCI 34)	RTR 4,2 (BCI 34R)	RTU 4,2 (BCI 34/78)	RTF 4,2 (BCI 78)	RTS 3,7 (BCI 25)	RTR 3,7 (BCI 35)	RTU 3,7 (BCI 75/25)	RTS 2,1 (6 VOLT)
Part Number	801 287 000 888 2	802 250 000 888 2	803 251 000 888 2	804 250 000 888 2	878 209 000 888 2	820 255 000 888 2	835 255 000 888 2	822 255 000 888 2	810 355 000 888 2
Length base: mm	245	245	255	245	245	229	229	229	255
Length top cover: mm	254	254	254	254	254	237	237	237	252
Height not including terminals: mm	184	173	173	173	184	168	168	168	185
Height including terminals: mm	200	200	200	200	184	197	197	197	206
Width base: mm	172	172	172	172	172	172	172	172	83
Width top cover: mm	175	175	175	175	185	171	171	171	90
Nominal Voltage: V	12	12	12	12	12	12	12	12	6
Cold Cranking Amps: (EN) CCA	815	815	815	815	815	730	730	730	815
Capacity: (EN) Ah	50	50	50	50	50	44	44	44	50
Reserve Capacity: (BCI) Min	100	100	100	100	100	90	90	90	110
Weight: kg	17.2	17.2	17.2	17.6	17.5	14.4	14.4	15	8.3

## CHARGING INFORMATION

**ALTERNATOR** 13.8 to 15.0 volts

**BATTERY CHARGER** (Constant Voltage) 13.8 to 15.0 volts, 10 amps, 12 – 15 hours approximate

**FLOAT CHARGE** 13.2 to 13.8 volts, 1 amp maximum current

**RAPID RECHARGE** (Constant Voltage Charger)

Maximum voltage 15.6 volts. No current limit as long as temperature remains below 50 °C. Charge until current drops below 1 amp.

**RECHARGE TIME** (Example assuming 100% discharge – 10.5 volts)

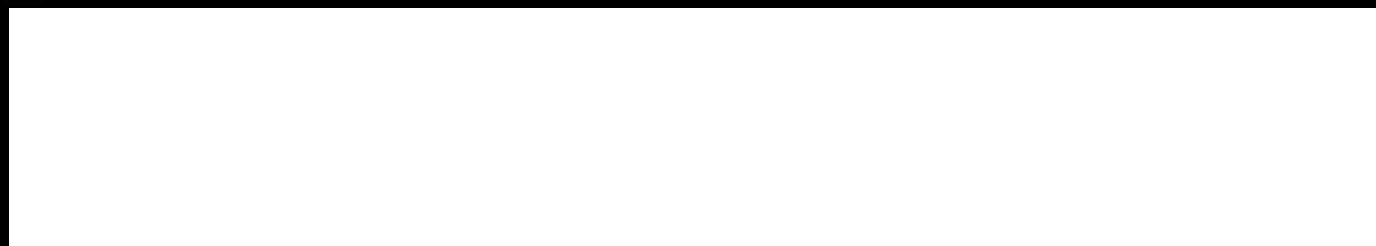
AMPERAGE	APROX. TIME TO 90% CHARGE	
	4,2	5,5
100 amps	35 minutes	52 minutes
50 amps	75 minutes	112 minutes
25 amps	140 minutes	210 minutes

Recharge time will vary according to temperature and charger characteristics. When using Constant Voltage chargers, current will taper down as the battery becomes recharged. When current drops below 1 amp, the battery will be close to a full state of charge.

**CYCLIC APPLICATION OR STRING SERIES APPLICATIONS** Constant Voltage with Constant Current finish (CC/CV): 14.7 volts, temperature < 50 °C, no current limits. When current falls below 1 amp, finish with 3 amps constant current for 1 hour for type 5,5 and 2 amps for all other types.

(All charge recommendations assume an average room temperature of 25 °C.)

Your authorised dealer / distributor



[www.optimabatteries.com](http://www.optimabatteries.com)

The OPTIMA logo, OPTIMA batteries, THE ULTIMATE POWER SOURCE, SPIRALCELL TECHNOLOGY, YELLOWTOP and REDTOP are trademarks of Johnson Controls, Inc.