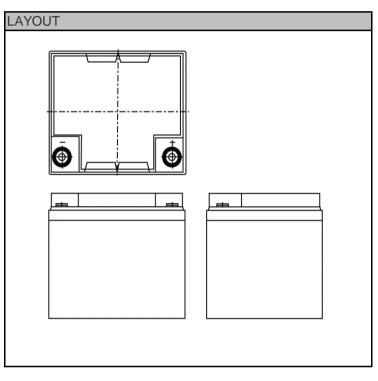
# **Data Sheet**

# **NPL-Series - Valve Regulated Lead Acid Battery**

# NPL38-12I (FR)

Nominal voltage    12    V      20-hr rate Capacity to 10.5V at 20°C    38    Ah      10-hr rate Capacity to 10.8V at 20°C    33.44    Ah      DIMENSIONS	SPECIFICATIONS			
20-hr rate Capacity to 10.5V at 20°C    38    Ah      10-hr rate Capacity to 10.8V at 20°C    33.44    Ah      DIMENSIONS    197 (±0.5)    mm      Width    165 (±0.5)    mm      Width    165 (±0.5)    mm      Might    170 (±0.5)    mm      Might    170 (±0.5)    mm      Mass (typical)    N/A    mm      Mass (typical)    14.0    kg      TERMINAL TYPE    Female threaded terminal    M5    mm      Torque    2.5    Nm    OPERATING TEMPERATURE RANGE    Storage (in fully charged condition)    -20°C to +60°C      Discharge    -15°C to -50°C    Discharge    -20°C to +60°C    Charge      Storage (in fully charged condition)    ABS (UL.94:HB)    Flaat and Qbion    ABS (UL.94:HB)      Flaad and Option    ABS (UL.94:HB)    Flaat and Qbion    ABS (UL.94:V0)      CHARGE VOLTAGE    2275 (±1%)    V/cell      Float charge voltage temperature correction factor (for variations from the standard 20°C)    -3    mV/cell/°C      Cyclic (or Boost) charge at 20°C <t< td=""><td></td><td>12</td><td>V</td></t<>		12	V	
10-hr rate Capacity to 10.8V at 20°C    33.44    Ah      DIMENSIONS			-	
DIMENSIONS    197 (±0.5)    mm      Width    165 (±0.5)    mm      Height    170 (±0.5)    mm      (height over terminals)    N/A    mm      Mass (typical)    14.0    kg      TERMINAL TYPE    Female threaded terminal    M5    mm      Torque    2.5    Nm    OPERATING TEMPERATURE RANGE      Storage (in fully charged condition)    -20°C to +60°C    Charge    -15°C to +50°C      Discharge    -20°C to +60°C    Charge    -15°C to +50°C      Storage (in fully charged condition)    -20°C to +60°C    Charge      Capacity loss per month at 20°C (approx)    3    %      CASE MATERIAL    Storage voltage temperature correction factor (for variations from the standard 20°C)    -23    mV/cell/°C      Charge voltage at 20°C    14.5 (±3%)    V    V/cell      Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)    -4    mV/cell/°C      Cyclic (or Boost) charge at 20°C    2.42 (±3%)    V/cell    V/cell      Cyclic (or Boost) charge at 20°C    2.42 (±3%)    V/cell <t< td=""><td></td><td></td><td></td></t<>				
Length    197 (±0.5)    mm      Width    165 (±0.5)    mm      Height    170 (±0.5)    mm      Mass (typical)    14.0    kg      TERMINAL TYPE        Female threaded terminal    M5    mm      Torque    2.5    Nm      OPERATING TEMPERATURE RANGE        Storage (in fully charged condition)    -20°C to +60°C       Charge    -15°C to +50°C       Discharge    -20°C to +60°C       Storage (in fully charged condition)    -20°C to +60°C       Charge    -15°C to +50°C        Discharge    -20°C to +60°C        Standard Option    ABS (UL.94:HB)        Flame retardant option (FR)    ABS (UL.94:W0)        CASE MATERIAL          Float charge voltage temperature correction factor (for variations from the standard 20°C)          Cyclic (re Boost) charge at 20°C    14.5		55.44	All	
Width    165 (±0.5)    mm      Height    170 (±0.5)    mm      (height over terminals)    N/A    mm      Mass (typical)    14.0    kg      TERMINAL TYPE        Female threaded terminal    M5    mm      Torque    2.5    Nm      OPERATING TEMPERATURE RANGE        Storage (in fully charged condition)    -20°C to +60°C       Charge    -15°C to +50°C       Discharge    -20°C to +60°C       Storage (in fully charged condition)    -20°C to +60°C       Capacity loss per month at 20°C (approx)    3    %      CASE MATERIAL    Standard Option    ABS (UL.94:HB)      Flame retardant option (FR)    ABS (UL.94:V0)       CHARGE VOLTAGE    Vol    2.275 (±1%)    V/cell      Float charge voltage temperature correction factor (for variations from the standard 20°C)    -3    mV/cell/°C      Cyclic (or Boost) charge at 20°C    14.5 (±3%)    V       Cyclic (or Boost) charge current limit    6.00 <td></td> <td></td> <td></td>				
Height    170 (±0.5)    mm      (height over terminals)    N/A    mm      Mass (typical)    14.0    kg      TERMINAL TYPE				
N/A    mm      Mass (typical)    14.0    kg      TERMINAL TYPE    Female threaded terminal    M5    mm      Torque    2.5    N/m      OPERATING TEMPERATURE RANGE    Storage (in fully charged condition)    -20°C to +60°C      Discharge    -15°C to +50°C    Discharge      Discharge    -20°C to +60°C    STORAGE      Capacity loss per month at 20°C (approx)    3    %      CASE MATERIAL    Standard Option    ABS (UL.94:HB)      Flame retardant option (FR)    ABS (UL.94:HB)    Flame retardant option (FR)      Float charge voltage temperature correction factor (for variations from the standard 20°C)    13.65 (±1%)    V      Cyclic (or Boost) charge at 20°C    13.45 (±3%)    V    V      Cyclic (or Boost) charge at 20°C    14.5 (±3%)    V    V/cell/°C      Cyclic (or Boost) charge at 20°C    14.5 (±3%)    V    V/cell      Cyclic (or Boost) charge at 20°C    4    mV/cell/°C    MV/cell/°C      CHARGE CURRENT    14.5 (±3%)    V    V/cell      Float charge outage temperature correction factor (for variation		, ,		
Nase (typical)    14.0    kg      TERMINAL TYPE    Female threaded terminal    M5    mm      Torque    2.5    Nm    OPERATING TEMPERATURE RANGE      Storage (in fully charged condition)    -20°C to +60°C    Charge    -15°C to +50°C      Discharge    -20°C to +60°C    Storage (in fully charged condition)    -20°C to +60°C      STORAGE    Capacity loss per month at 20°C (approx)    3    %      CASE MATERIAL    Standard Option    ABS (UL.94:HB)      Flame retardant option (FR)    CASES (UL.94:W0)    CHARGE VOLTAGE      Float charge voltage temperature correction factor (for variations from the standard 20°C)    -3    mV/cell/°C      Cyclic (or Boost) charge at 20°C    14.5 (±3%)    V    V/cell      Cyclic Corbarge voltage temperature correction factor (for variations from the standard 20°C)    -4    mV/cell/°C      Cyclic (or Boost) charge at 20°C    14.5 (±3%)    V    V/cell      Cyclic (or Boost) charge at 20°C    -4    mV/cell/°C    mV/cell/°C      Cyclic (or Boost) charge current limit    6.00    A    A      MAXIMUM DISCHARGE CURRENT    1 </td <td></td> <td>, ,</td> <td></td>		, ,		
TERMINAL TYPE  M5  mm    Female threaded terminal  M5  mm    Torque  2.5  Nm    OPERATING TEMPERATURE RANGE  Storage (in fully charged condition)  -20°C to +60°C    Charge  -15°C to +50°C  Discharge    Discharge  -20°C to +60°C    STORAGE  Capacity loss per month at 20°C (approx)  3  %    CASE MATERIAL  Standard Option  ABS (UL.94:HB)    Flame retardant option (FR)  ABS (UL.94:HB)    Flame retardant option (FR)  ABS (UL.94:W0)    CHARGE VOLTAGE  Float charge voltage temperature correction factor  -3  mV/cell/°C    Float charge voltage temperature correction factor  -3  mV/cell/°C  (cr variations from the standard 20°C)  14.5 (±3%)  V    Cyclic (or Boost) charge at 20°C  14.5 (±3%)  V  V/cell  V/cell/°C    Cyclic (or Boost) charge at 20°C  14.5 (±3%)  V  V/cell/°C  W/cell/°C    Cyclic (or Boost) charge current limit  No limit  A  Cyclic (or Boost) charge current limit  6.00  A    MAXIMUM DISCHARGE CURRENT  1  1  1  200  A		-		
Female threaded terminalM5mmTorque2.5NmOPERATING TEMPERATURE RANGEStorage (in fully charged condition)-20°C to +60°CCharge-15°C to +50°CDischarge-20°C to +60°CSTORAGE-20°C to +60°CCapacity loss per month at 20°C (approx)3%CASE MATERIALStandard OptionABS (UL.94:HB)Fleme retardant option (FR)ABS (UL.94:HB)Fleme retardant option (FR)ABS (UL.94:HB)Fleme retardant option (FR)ABS (UL.94:HB)Float charge voltage temperature correction factor (for variations from the standard 20°C)-3mV/cell/°CCyclic (or Boost) charge at 20°C14.5 (±3%)VCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCHARGE CURRENTFloat charge current limit6.00AMAXIMUM DISCHARGE CURRENT200ASHORT-CIRCUIT CURRENT & INTERNAL RESISTANCEInternal resistance18.22mShort-Circuit current804AIMPEDANCE-7.5mPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years </td <td></td> <td>14.0</td> <td>Ng</td>		14.0	Ng	
Torque    2.5    Nm      OPERATING TEMPERATURE RANGE    Storage (in fully charged condition)    -20°C to +60°C      Charge    -15°C to +50°C    Discharge    -20°C to +60°C      Discharge    -20°C to +60°C    Storage (in fully charged condition)    -20°C to +60°C      STORAGE    Capacity loss per month at 20°C (approx)    3    %      CASE MATERIAL    Standard Option    ABS (UL.94:HB)      Flame retardant option (FR)    ABS (UL.94:HB)      Flame retardant option (FR)    ABS (UL.94:V0)      CHARGE VOLTAGE    500 (L94:V0)      Float charge voltage temperature correction factor (for variations from the standard 20°C)    14.5 (±3%)    V      Cyclic (or Boost) charge at 20°C    14.5 (±3%)    V    2.42 (±3%)    V/cell      Cyclic (or Boost) charge at 20°C    14.5 (±3%)    V    2.42 (±3%)    V/cell      Cyclic (or Boost) charge current limit    No limit    A    mV/cell/°C      CHARGE CURRENT    1    1    Molent/°C    Molent/°C      Float charge current limit    No limit    A    A      MAXIMUM DISCHARGE CURRENT		M5	mm	
OPERATING TEMPERATURE RANGE    Storage (in fully charged condition)  -20°C to +60°C    Charge  -15°C to +50°C    Discharge  -20°C to +60°C    Storage (in fully charged condition)  -20°C to +60°C    Discharge  -20°C to +60°C    STORAGE  -20°C to +60°C    Capacity loss per month at 20°C (approx)  3  %    CASE MATERIAL  Standard Option  ABS (UL.94:HB)    Flame retardant option (FR)  ABS (UL.94:HB)    Flame retardant option (FR)  ABS (UL.94:W0)    CHARGE VOLTAGE		-		
Storage (in fully charged condition)-20°C to +60°CCharge-15°C to +50°CDischarge-20°C to +60°CSTORAGE-20°C to +60°CCapacity loss per month at 20°C (approx)3%CASE MATERIALStandard OptionABS (UL.94:HB)Flame retardant option (FR)ABS (UL.94:V0)CHARGE VOLTAGE13.65 (±1%)VFloat charge voltage at 20°C13.65 (±1%)VFloat charge voltage temperature correction factor (for variations from the standard 20°C)-3mV/cell/°CCyclic (or Boost) charge at 20°C14.5 (±3%)VCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCHARGE CURRENT-4mV/cell/°CmV/cell/°CFloat charge current limitNo limitAAAQuito (or Boost) charge current limitNo limitAAMXIMUM DISCHARGE CURRENT200AA1 minute200AAAMAXIMUM DISCHARGE CURRENT18.22m1 second500AA1 minute804AAIMPEDANCEMeasured at 1 kHz7.5mPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years <td></td> <td>2.5</td> <td></td>		2.5		
Charge  -15°C to +50°C    Discharge  -20°C to +60°C    STORAGE  -20°C to +60°C    Capacity loss per month at 20°C (approx)  3  %    CASE MATERIAL			2 460°C	
Discharge  -20°C to +60°C    STORAGE  3    Capacity loss per month at 20°C (approx)  3    Standard Option  ABS (UL.94:HB)    Flame retardant option (FR)  ABS (UL.94:HB)    Flame retardant option (FR)  ABS (UL.94:V0)    CHARGE VOLTAGE  2.275 (±1%)  V/cell    Float charge voltage temperature correction factor (for variations from the standard 20°C)  -3  mV/cell/°C    Cyclic (or Boost) charge at 20°C  14.5 (±3%)  V    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    CHARGE CURRENT  Float charge current limit  AO  AO    Stodnard  500  A  A    MAXIMUM DISCHARGE CURRENT  200  A    1 second  500  A  A    1 minute  200  A  A    SHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE  M  A    IMPEDANCE				
STORAGE    Capacity loss per month at 20°C (approx)  3  %    CASE MATERIAL  Standard Option  ABS (UL.94:HB)    Standard Option  ABS (UL.94:V0)  CHARGE VOLTAGE    Float charge voltage at 20°C  13.65 (±1%)  V    Float charge voltage temperature correction factor (for variations from the standard 20°C)  -3  mV/cell/°C    Cyclic (or Boost) charge at 20°C  14.5 (±3%)  V  V/cell    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    CHARGE CURRENT  -4  mV/cell/°C  mV/cell/°C    Float charge current limit  No limit  A  A    Cyclic (or Boost) charge current limit  6.00  A  MAXIMUM DISCHARGE CURRENT  1  1  second  A  A    I second  500  A  1  1  MAXIMUM DISCHARGE CURRENT  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1				
Capacity loss per month at 20°C (approx)3%CASE MATERIALStandard OptionABS (UL.94:HB)Flame retardant option (FR)ABS (UL.94:VO)CHARGE VOLTAGE13.65 ( $\pm$ 1%)VFloat charge voltage at 20°C13.65 ( $\pm$ 1%)V/cellFloat charge voltage temperature correction factor (for variations from the standard 20°C)-3mV/cell/°CCyclic (or Boost) charge at 20°C14.5 ( $\pm$ 3%)VCyclic (or Boost) charge at 20°C14.5 ( $\pm$ 3%)V/cellCyclic (or Boost) charge at 20°C-4mV/cell/°CCyclic (or Boost) charge temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCHARGE CURRENT-4mV/cell/°CFloat charge current limitNo limitACyclic (or Boost) charge current limit6.00AMAXIMUM DISCHARGE CURRENT200A1 second500A1 minute200ASHORT-CIRCUIT CURRENT & INTERNAL RESISTANCEInternal resistanceInternal resistance18.22mShort-Circuit current804AIMPEDANCE7.5mPERFORMANCE & CHARACTERISTICSNPLRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12Yuasa design life @ 20°Cup to 10years	-	-20 C II	5 +00 C	
CASE MATERIAL    Standard Option  ABS (UL.94:HB)    Flame retardant option (FR)  ABS (UL.94:V0)    CHARGE VOLTAGE  13.65 (±1%)  V    Float charge voltage at 20°C  13.65 (±1%)  V/cell    Float charge voltage temperature correction factor (for variations from the standard 20°C)  -3  mV/cell/°C    Cyclic (or Boost) charge at 20°C  14.5 (±3%)  V    Cyclic (or Boost) charge at 20°C  2.42 (±3%)  V/cell    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    CHARGE CURRENT  Float charge current limit  No limit  A    Float charge current limit  0.00  A  MAXIMUM DISCHARGE CURRENT    1 second  500  A  1  1    1 second  500  A  A    MAXIMUM DISCHARGE CURRENT  18.22  m    1 second  500  A  A    Internal resistance  18.22  m    Short-Circuit current  804  A  A		3	0/_	
Standard OptionABS (UL.94:HB)Flame retardant option (FR)ABS (UL.94:V0)CHARGE VOLTAGE13.65 (±1%)VFloat charge voltage at 20°C13.65 (±1%)V/cellFloat Charge voltage temperature correction factor (for variations from the standard 20°C)-3mV/cell/°CCyclic (or Boost) charge at 20°C14.5 (±3%)VCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCHARGE CURRENT-4mV/cell/°CCFloat charge current limitNo limitACyclic (or Boost) charge current limit6.00AMAXIMUM DISCHARGE CURRENT16.00AMAXIMUM DISCHARGE CURRENT1200AShort-CIRCUIT CURRENT & INTERNAL RESISTANCE18.22m(according to EN IEC 60896-21)18.22mInternal resistance18.22mShort-Circuit current804AIMPEDANCE7.5mPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years		3	70	
Flame retardant option (FR)  ABS (UL94:V0)    CHARGE VOLTAGE  13.65 (±1%)  V    Float charge voltage at 20°C  13.65 (±1%)  V/cell    Float Charge voltage temperature correction factor (for variations from the standard 20°C)  -3  mV/cell/°C    Cyclic (or Boost) charge at 20°C  14.5 (±3%)  V    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    CHARGE CURRENT  -4  mV/cell/°C  mV/cell/°C    Float charge current limit  No limit  A    Cyclic (or Boost) charge current limit  6.00  A    MAXIMUM DISCHARGE CURRENT  1  200  A    1 second  500  A  1    1 minute  200  A  Short-CIRCUIT CURRENT & INTERNAL RESISTANCE    (according to EN IEC 60896-21)  Internal resistance  18.22  m    Short-Circuit current  804  A  IMPEDANCE    Measured at 1 kHz  7.5  m    PERFORMANCE & CHARACTERISTICS  Refer to the technical manual		ABS (III	94·HB)	
CHARGE VOLTAGE  13.65 (±1%)  V    Float charge voltage at 20°C  13.65 (±1%)  V/cell    Float Charge voltage temperature correction factor (for variations from the standard 20°C)  -3  mV/cell/°C    Cyclic (or Boost) charge at 20°C  14.5 (±3%)  V    Cyclic Core Boost) charge at 20°C  14.5 (±3%)  V    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    CHARGE CURRENT  Float charge current limit  No limit  A    Float charge current limit  No limit  A  A    Cyclic (or Boost) charge current limit  6.00  A  A    MXIMUM DISCHARGE CURRENT  1  second  A  A    1 second  500  A  A  A    1 minute  200  A  A  A    Short-CIRCUIT CURRENT & INTERNAL RESISTANCE  (according to EN IEC 60896-21)  Internal resistance  18.22  m    Internal resistance  18.22  m  Short-Circuit current  804  A		· · · · ·		
Float charge voltage at 20°C $13.65 (\pm 1\%)$ VFloat charge voltage temperature correction factor (for variations from the standard 20°C)-3mV/cell/°CCyclic (or Boost) charge at 20°C $14.5 (\pm 3\%)$ VCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCHARGE CURRENT-4mV/cell/°CmV/cell/°CFloat charge current limitNo limitAACyclic (or Boost) charge current limit6.00AAMAXIMUM DISCHARGE CURRENT500AA1 second500AA1 minute200ASHORT-CIRCUIT CURRENT & INTERNAL RESISTANCEI(according to EN IEC 60896-21)Internal resistance18.22mInternal resistance18.22mShort-Circuit currentAIMPEDANCEMeasured at 1 kHz7.5mPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10yearsS	, ,	ADS (UL94:VU)		
Float charge voltage at 20°C  2.275 (±1%)  V/cell    Float Charge voltage temperature correction factor (for variations from the standard 20°C)  -3  mV/cell/°C    Cyclic (or Boost) charge at 20°C  14.5 (±3%)  V    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)  -4  mV/cell/°C    CHARGE CURRENT  -4  mV/cell/°C  mV/cell/°C    Float charge current limit  No limit  A    Cyclic (or Boost) charge acurrent limit  6.00  A    MAXIMUM DISCHARGE CURRENT  500  A    1 second  500  A    1 minute  200  A    SHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE  (according to EN IEC 60896-21)    Internal resistance  18.22  m    Masured at 1 kHz  7.5  m    PERFORMANCE & CHARACTERISTICS  Refer to the technical manual  NPL    DESIGN LIFE  UROBAT Classification: High performance  10 to 12  years    Yuasa design life @ 20°C  up to 10  years	CHARGE VOLTAGE	13.65 (+1%)	V	
(for variations from the standard 20°C)3Intv/cell/*CCyclic (or Boost) charge at 20°C14.5 (±3%)VCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCHARGE CURRENT-4mV/cell/°CFloat charge current limitNo limitACyclic (or Boost) charge current limit6.00AMAXIMUM DISCHARGE CURRENT6.00A1 second500A1 minute200ASHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE0(according to EN IEC 60896-21)18.22mInternal resistance18.22mShort-Circuit current804AIMPEDANCE7.5mPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	Float charge voltage at 20°C		-	
Cyclic (of Bodst) charge at 20 C2.42 (±3%)V/cellCyclic Charge voltage temperature correction factor (for variations from the standard 20°C)-4mV/cell/°CCHARGE CURRENT-4mV/cell/°CFloat charge current limitNo limitACyclic (or Boost) charge current limit6.00AMAXIMUM DISCHARGE CURRENT500A1 second500A1 minute200ASHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE(according to EN IEC 60896-21)Internal resistance18.22mShort-Circuit current804AIMPEDANCE7.5mPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	Float Charge voltage temperature correction factor (for variations from the standard 20°C)	-3	mV/cell/°C	
"-4""MV/Cell/*CCHARGE CURRENTNo limitAFloat charge current limitNo limitACyclic (or Boost) charge current limit6.00AMAXIMUM DISCHARGE CURRENT500A1 second500A1 minute200ASHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE(according to EN IEC 60896-21)Internal resistance18.22mShort-Circuit current804AIMPEDANCE7.5Measured at 1 kHz7.5mPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFE10 to 12EUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	Cyclic (or Boost) charge at 20°C		•	
Float charge current limitNo limitACyclic (or Boost) charge current limit6.00AMAXIMUM DISCHARGE CURRENT11 second500A1 minute200ASHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE(according to EN IEC 60896-21)Internal resistance18.22mShort-Circuit current804AIMPEDANCE7.5mPERFORMANCE & CHARACTERISTICSPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFE10 to 12yearsYuasa design life @ 20°Cup to 10years		-4	mV/cell/°C	
Cyclic (or Boost) charge current limit6.00AMAXIMUM DISCHARGE CURRENT11 second500A1 minute200ASHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE(according to EN IEC 60896-21)Internal resistance18.22mShort-Circuit current804AIMPEDANCE7.5mPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	CHARGE CURRENT			
MAXIMUM DISCHARGE CURRENT1 second5001 minute200ASHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE(according to EN IEC 60896-21)Internal resistance18.22Maximum Market804AIMPEDANCEMeasured at 1 kHz7.5PERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12Yuasa design life @ 20°Cup to 10years	Float charge current limit	No limit	А	
1 second500A1 minute200ASHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE(according to EN IEC 60896-21)Internal resistance18.22mShort-Circuit current804AIMPEDANCEMeasured at 1 kHz7.5mPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	Cyclic (or Boost) charge current limit	6.00	А	
1 minute200ASHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE(according to EN IEC 60896-21)Internal resistance18.22mInternal resistance18.22mShort-Circuit current804AIMPEDANCE804AMeasured at 1 kHz7.5mPERFORMANCE & CHARACTERISTICSNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	MAXIMUM DISCHARGE CURRENT			
SHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE(according to EN IEC 60896-21)Internal resistance18.22Short-Circuit current804AIMPEDANCEMeasured at 1 kHz7.5PERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12Yuasa design life @ 20°Cup to 10years	1 second	500	А	
(according to EN IEC 60896-21)Internal resistance18.22mShort-Circuit current804AIMPEDANCE804AMeasured at 1 kHz7.5mPERFORMANCE & CHARACTERISTICS7.5mRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	1 minute	200	А	
Internal resistance18.22mShort-Circuit current804AIMPEDANCE804AMeasured at 1 kHz7.5mPERFORMANCE & CHARACTERISTICS7.5mRefer to the technical manualNPL10DESIGN LIFE10 to 12yearsEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	SHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE			
Short-Circuit current804AIMPEDANCEMeasured at 1 kHz7.5mPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	(according to EN IEC 60896-21)			
IMPEDANCEMeasured at 1 kHz7.5PERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12Yuasa design life @ 20°Cup to 10	Internal resistance	18.22	m	
Measured at 1 kHz7.5mPERFORMANCE & CHARACTERISTICSRefer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	Short-Circuit current	804	А	
PERFORMANCE & CHARACTERISTICS    Refer to the technical manual  NPL    DESIGN LIFE    EUROBAT Classification: High performance  10 to 12  years    Yuasa design life @ 20°C  up to 10  years	IMPEDANCE			
Refer to the technical manualNPLDESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	Measured at 1 kHz	7.5	m	
DESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	PERFORMANCE & CHARACTERISTICS			
DESIGN LIFEEUROBAT Classification: High performance10 to 12yearsYuasa design life @ 20°Cup to 10years	Refer to the technical manual	NPL		
Yuasa design life @ 20°C up to 10 years	DESIGN LIFE			
	EUROBAT Classification: High performance	10 to 12	years	
SAFETY	Yuasa design life @ 20°C	up to 10	years	
	SAFETY			





### **3RD PARTY CERTIFICATIONS**

ISO 9001 - Quality Management Systems ISO 14001 - Environmental Management Systems EN 18001 - OHSAS Management Systems UNDERWRITERS LABORATORIES Inc.



## STANDARDS

IEC61056 IEC60896-21/22







### Installation

Can be installed and operated in any orientation except permanently inverted

#### Handles

Batteries must not be suspended by their handles (where fitted)

#### Vent valves

Each cell is fitted with a low pressure release valve to allow gasses to escape and then reseal.

#### Gas Release

VRLA Batteries release hydrogen gas which can form explosive mixtures in air. Do not place inside a sealed container

#### Recycling

YUASA's VRLA batteries must be recycled at the end of life in accordance with local and national laws and regulations







ALL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE Issue No.: V.3 / Issue Date: September 2012



YUASA BATTERY SALES UK LTD. Unit 13, Hunts Rise South Marston Industrial Estate Swindon SN3 4TG UK

www.yuasaeurope.com	NPL	