General Technical Particulars

	Units	
Type of Cell		**2TBS100**
Nominal Voltage per cell	Volts	2
Manufacturer's Name		Exide Industries Ltd.
Standards to which battery is manufactured		IS 1651
IS Nomenclature		
Number of cells in the battery bank		n
Nominal Voltage of Battery	Volts	2 X n
Declared Capacity at 27 degree C upto 1.80 ecv		
Initial	AH	100
Rated	AH	100
End of Life	AH	80
Rated Capacity at mimimum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Rated Capacity at maximum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Capacity in AH at various end cell voltages and duration of discharge		
	E.C.V.	**Ah output**
1 hour	1.67	51.00
2 hour	1.70	64.20
3 hour	1.75	74.70
4 hour	1.76	79.20
5 hour	1.77	85.80
6 hour	1.77	89.60
7 hour	1.78	92.70
8 hour	1.78	95.00
9 hour	1.80	97.90
10 Hour	1.80	100.00
Maximum momentary current for 1 min till 1.60 e.c.v		180
Expected life of battery under normal operation & maintainence conditions	Years	15 years in stand-by float application
Internal Resistance of cell (IR)	milli ohms	1.45
Loss in capacity in 28 days due to self discharge	%	<8%
Recommended Charging rate for		
a) Float Charging		
i) Limit current	A	15
ii) Voltage	V	2.23 vpc
b) Boost charging		
i) Starting Current	A	12
ii) Finishing current	A	6
iii) Voltage	V	2.75
Trickle Charging Rate		
i) Minimum	mA	100
ii) Maximum	mA	400
Equalising charge		
a) Voltage	V	2.3
b) Current	A	5
c) Duration	Hrs.	6
d) Interval between succesive equalising charge	Months	3
Recommended Specific gravity at 27 deg C		
a) for first filling		1.220 +/- 0.005
b) at full charge		1.240 +/- 0.005
c) when Battery is discharged at 10 hours rate		1.160 - 1.130

Permissible max. temperature of Electrolyte		
i) During Initial Charging	deg C	50
ii) During Normal Operation	deg C	45
Overall dimensions		
Each Cell L x W x H (tolerance of +/- 2 mm in each case)	mm	103 x 206 x 430
Complete Battery	mm	Depends on the battery layout
Distance between cell centres	mm	112
Quantity of Electrolyte per Cell	litres	4.9
Quantity of Electrolyte for battery (Including 10% extra)	litres	n X electrolyte per cell X 1.1
Weight(+/-5%)		
Each cell		
without acid	kg	8.7
with acid	kg	14.6
Complete Battery without acid	kg	n X each cell weight without acid
with acid	kg	n X each cell weight with acid
Material and type of Plates		
i) Positive Plates		
Material		Lead-Antimony alloy spine
Height of Positive Plate	mm	260
Thickness of Positive Plate	mm	9.3
Area of Positive Plate	sqm	0.094
No. of positive plates per cell		2
Whether positive plates of individual cells are interchangeable		Yes, but not recommended
ii) Negative Plates		
Material		Lead - Calcium alloy grid
Height of Negative Plate	mm	250
Thickness of Negative Plate	mm	4.5
Area of Negative Plate	sqm	0.091
No. of negative plates per cell		2
Whether negative plates of individual cells are interchangeable		Yes, but not recommended
Material and type of Separators		
Material		Synthetic fibre based material
Thickness of separator	mm	1.7
Clearance between bottom of the plate and the bottom of the container	mm	23
Clearance between top of the plates and top of container	mm	56
Whether explosion vents are offerred		YES
Type of Vent and Filling Plugs		Explosion proof microporous ceramic made

Container		
Thickness of Container	mm	6
Material of Container		Transparent SAN
Cover		
Type of cover		Adhesive sealed
Material of Cover		Opaque SAN
Connections		
Material of Inter-Cell Connectors		Insulated Lead Plated Copper
Thickness of Inter-Cell Connectors	mm	3
Method of connection		Bolted
Inter-row, Inter-tier connectors and end take-offs furnished?		Yes
Material of Bolt, Nut and Washer for Inter-Cell and Cable Connections		Lead plated MS
Racks		
Racks		
a) Number of racks per battery		Depends on the battery layout
b) Number of cells per rack		Depends on the battery layout
c) Type of racks		Depends on the battery layout
d) Material of rack		Steel / Teak wood
e) Dimensions of the racks		Depends on the battery layout
Ventilation requirements		
Cubic content of battery rooms	m^3	To be provided by customer
Gas generation per single cell per hour	Lit	3.2
No. of air exchanges required per hour		Depends on the size of battery room
Gasification Voltage per Cell	Volt	2.36
Recommended Max. period of cell storage before the first Charge (After Installation and filling of Electrolyte)		12 - 18 hours
Recommended Storage life of Battery (Dry shelf life)		12 months

General Technical Particulars

	Units	
Type of Cell		**2TBS120**
Nominal Voltage per cell	Volts	2
Manufacturer's Name		Exide Industries Ltd.
Standards to which battery is manufactured		IS 1651
IS Nomenclature		
Number of cells in the battery bank		n
Nominal Voltage of Battery	Volts	2 X n
Declared Capacity at 27 degree C upto 1.80 ecv		
Initial	AH	120
Rated	AH	120
End of Life	AH	96
Rated Capacity at mimimum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Rated Capacity at maximum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Capacity in AH at various end cell voltages and duration of discharge		
	E.C.V.	**Ah output**
1 hour	1.67	61.20
2 hour	1.70	77.04
3 hour	1.75	89.64
4 hour	1.76	95.04
5 hour	1.77	102.96
6 hour	1.77	107.52
7 hour	1.78	111.24
8 hour	1.78	114.00
9 hour	1.80	117.48
10 Hour	1.80	120.00
Maximum momentary current for 1 min till 1.60 e.c.v		216
Expected life of battery under normal operation & maintainence conditions	Years	15 years in stand-by float application
Internal Resistance of cell (IR)	milli ohms	1.45
Loss in capacity in 28 days due to self discharge	%	<8%
Recommended Charging rate for		
a) Float Charging		
i) Limit current	A	18
ii) Voltage	V	2.23 vpc
b) Boost charging		
i) Starting Current	A	14.4
ii) Finishing current	A	7.2
iii) Voltage	V	2.75
Trickle Charging Rate		
i) Minimum	mA	120
ii) Maximum	mA	480
Equalising charge		
a) Voltage	V	2.3
b) Current	A	6
c) Duration	Hrs.	6
d) Interval between succesive equalising charge	Months	3

Recommended Specific gravity at 27 deg C		
a) for first filling		1.220 +/- 0.005
b) at full charge		1.240 +/- 0.005
c) when Battery is discharged at 10 hours rate		1.160 - 1.130
Permissible max. temperature of Electrolyte		
i) During Initial Charging	deg C	50
ii) During Normal Operation	deg C	45
Overall dimensions		
Each Cell L $^{\pm 3}$x W$^{\pm 3}$ x H$^{\pm 5}$	mm	103 x 206 x 430
Complete Battery	mm	Depends on the battery layout
Distance between cell centres	mm	112
Quantity of Electrolyte per Cell	litres	4.7
Quantity of Electrolyte for battery (Including 10% extra)	litres	n X electrolyte per cell X 1.1
Weight(+/-5%)		
Each cell		
without acid	kg	9.3
with acid	kg	15.0
Complete Battery without acid	kg	n X each cell weight without acid
with acid	kg	n X each cell weight with acid
Material and type of Plates		
i) Positive Plates		
Material		Lead-Antimony alloy spine
Height of Positive Plate	mm	260
Thickness of Positive Plate	mm	9.3
Area of Positive Plate	sqm	0.094
No. of positive plates per cell		2
Whether positive plates of individual cells are interchangeable		Yes, but not recommended
ii) Negative Plates		
Material		Lead - Calcium alloy grid
Height of Negative Plate	mm	250
Thickness of Negative Plate	mm	4.5
Area of Negative Plate	sqm	0.091
No. of negative plates per cell		3
Whether negative plates of individual cells are interchangeable		Yes, but not recommended
Material and type of Separators		
Material		Synthetic fibre based material
Thickness of separator	mm	1.7
Clearance between bottom of the plate and the bottom of the container	mm	23
Clearance between top of the plates and top of container	mm	56
Whether explosion vents are offerred		YES
Type of Vent and Filling Plugs		Explosion proof microporous ceramic made

Container

Thickness of Container	mm	6
Material of Container		Transparent SAN

Cover

Type of cover		Adhesive sealed
Material of Cover		Opaque SAN

Connections

Material of Inter-Cell Connectors		Insulated Lead Plated Copper
Thickness of Inter-Cell Connectors	mm	3
Method of connection		Bolted
Inter-row, Inter-tier connectors and end take-offs furnished?		Yes
Material of Bolt, Nut and Washer for Inter-Cell and Cable Connections		Lead plated MS

Racks

Racks		
a) Number of racks per battery		Depends on the battery layout
b) Number of cells per rack		Depends on the battery layout
c) Type of racks		Depends on the battery layout
d) Material of rack		Steel / Teak wood
e) Dimensions of the racks		Depends on the battery layout

Ventilation requirements

Cubic content of battery rooms	m^3	To be provided by customer
Gas generation per single cell per hour	Lit	3.84
No. of air exchanges required per hour		Depends on the size of battery room
Gasification Voltage per Cell	Volt	2.36
Recommended Max. period of cell storage before the first Charge (After Installation and filling of Electrolyte)		12 - 18 hours
Recommended Storage life of Battery (Dry shelf life)		12 months

General Technical Particulars

	Units	
Type of Cell		**3TBS150**
Nominal Voltage per cell	Volts	2
Manufacturer's Name		Exide Industries Ltd.
Standards to which battery is manufactured		IS 1651
IS Nomenclature		
Number of cells in the battery bank		n
Nominal Voltage of Battery	Volts	2 X n
Declared Capacity at 27 degree C upto 1.80 ecv		
Initial	AH	150
Rated	AH	150
End of Life	AH	120
Rated Capacity at mimimum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Rated Capacity at maximum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Capacity in AH at various end cell voltages and duration of discharge		
	E.C.V.	**Ah output**
1 hour	1.67	76.50
2 hour	1.70	96.30
3 hour	1.75	112.05
4 hour	1.76	118.80
5 hour	1.77	128.70
6 hour	1.77	134.40
7 hour	1.78	139.05
8 hour	1.78	142.50
9 hour	1.80	146.85
10 Hour	1.80	150.00
Maximum momentary current for 1 min till 1.60 e.c.v		270
Expected life of battery under normal operation & maintainence conditions	Years	15 years in stand-by float application
Internal Resistance of cell (IR)	milli ohms	1.05
Loss in capacity in 28 days due to self discharge	%	<8%
Recommended Charging rate for		
a) Float Charging		
i) Limit current	A	22.5
ii) Voltage	V	2.23 vpc
b) Boost charging		
i) Starting Current	A	18
ii) Finishing current	A	9
iii) Voltage	V	2.75
Trickle Charging Rate		
i) Minimum	mA	150
ii) Maximum	mA	600
Equalising charge		
a) Voltage	V	2.3
b) Current	A	7.5
c) Duration	Hrs.	6
d) Interval between succesive equalising charge	Months	3
Recommended Specific gravity at 27 deg C		
a) for first filling		1.220 +/- 0.005
b) at full charge		1.240 +/- 0.005
c) when Battery is discharged at 10 hours rate		1.160 - 1.130

Permissible max. temperature of Electrolyte		
i) During Initial Charging	deg C	50
ii) During Normal Operation	deg C	45
Overall dimensions		
Each Cell L x W x H (tolerance of +/- 2 mm in each case)	mm	103 x 206 x 430
Complete Battery	mm	Depends on the battery layout
Distance between cell centres	mm	112
Quantity of Electrolyte per Cell	litres	4.4
Quantity of Electrolyte for battery (Including 10% extra)	litres	n X electrolyte per cell X 1.1
Weight(+/-5%)		
Each cell		
without acid	kg	10.1
with acid	kg	16.3
Complete Battery without acid	kg	n X each cell weight without acid
with acid	kg	n X each cell weight with acid
Material and type of Plates		
i) Positive Plates		
Material		Lead-Antimony alloy spine
Height of Positive Plate	mm	260
Thickness of Positive Plate	mm	9.3
Area of Positive Plate	sqm	0.094
No. of positive plates per cell		3
Whether positive plates of individual cells are interchangeable		Yes, but not recommended
ii) Negative Plates		
Material		Lead - Calcium alloy grid
Height of Negative Plate	mm	250
Thickness of Negative Plate	mm	4.5
Area of Negative Plate	sqm	0.091
No. of negative plates per cell		3
Whether negative plates of individual cells are interchangeable		Yes, but not recommended
Material and type of Separators		
Material		Synthetic fibre based material
Thickness of separator	mm	1.7
Clearance between bottom of the plate and the bottom of the container	mm	23
Clearance between top of the plates and top of container	mm	56
Whether explosion vents are offerred		YES
Type of Vent and Filling Plugs		Explosion proof microporous ceramic made

Container		
Thickness of Container	mm	6
Material of Container		Transparent SAN
Cover		
Type of cover		Adhesive sealed
Material of Cover		Opaque SAN
Connections		
Material of Inter-Cell Connectors		Insulated Lead Plated Copper
Thickness of Inter-Cell Connectors	mm	3
Method of connection		Bolted
Inter-row, Inter-tier connectors and end take-offs furnished?		Yes
Material of Bolt, Nut and Washer for Inter-Cell and Cable Connections		Lead plated MS
Racks		
Racks		
a) Number of racks per battery		Depends on the battery layout
b) Number of cells per rack		Depends on the battery layout
c) Type of racks		Depends on the battery layout
d) Material of rack		Steel / Teak wood
e) Dimensions of the racks		Depends on the battery layout
Ventilation requirements		
Cubic content of battery rooms	m^3	To be provided by customer
Gas generation per single cell per hour	Lit	4.8
No. of air exchanges required per hour		Depends on the size of battery room
Gasification Voltage per Cell	Volt	2.36
Recommended Max. period of cell storage before the first Charge (After Installation and filling of Electrolyte)		12 - 18 hours
Recommended Storage life of Battery (Dry shelf life)		12 months

General Technical Particulars

	Units	
Type of Cell		**3TBS180**
Nominal Voltage per cell	Volts	2
Manufacturer's Name		Exide Industries Ltd.
Standards to which battery is manufactured		IS 1651
IS Nomenclature		
Number of cells in the battery bank		n
Nominal Voltage of Battery	Volts	2 X n
Declared Capacity at 27 degree C upto 1.80 ecv		
Initial	AH	180
Rated	AH	180
End of Life	AH	144
Rated Capacity at mimimum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Rated Capacity at maximum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Capacity in AH at various end cell voltages and duration of discharge		
	E.C.V.	**Ah output**
1 hour	1.67	91.80
2 hour	1.70	115.56
3 hour	1.75	134.46
4 hour	1.76	142.56
5 hour	1.77	154.44
6 hour	1.77	161.28
7 hour	1.78	166.86
8 hour	1.78	171.00
9 hour	1.80	176.22
10 Hour	1.80	180.00
Maximum momentary current for 1 min till 1.60 e.c.v		324
Expected life of battery under normal operation & maintainence conditions	Years	15 years in stand-by float application
Internal Resistance of cell (IR)	milli ohms	1.05
Loss in capacity in 28 days due to self discharge	%	<8%
Recommended Charging rate for		
a) Float Charging		
i) Limit current	A	27
ii) Voltage	V	2.23 vpc
b) Boost charging		
i) Starting Current	A	21.6
ii) Finishing current	A	10.8
iii) Voltage	V	2.75
Trickle Charging Rate		
i) Minimum	mA	180
ii) Maximum	mA	720
Equalising charge		
a) Voltage	V	2.3
b) Current	A	9
c) Duration	Hrs.	6
d) Interval between succesive equalising charge	Months	3
Recommended Specific gravity at 27 deg C		
a) for first filling		1.220 +/- 0.005
b) at full charge		1.240 +/- 0.005
c) when Battery is discharged at 10 hours rate		1.160 - 1.130

Permissible max. temperature of Electrolyte		
i) During Initial Charging	deg C	50
ii) During Normal Operation	deg C	45
Overall dimensions		
Each Cell L x W x H (tolerance of +/- 2 mm in each case)	mm	103 x 206 x 430
Complete Battery	mm	Depends on the battery layout
Distance between cell centres	mm	112
Quantity of Electrolyte per Cell	litres	4.4
Quantity of Electrolyte for battery (Including 10% extra)	litres	n X electrolyte per cell X 1.1
Weight(+/-5%)		
Each cell		
without acid	kg	10.5
with acid	kg	15.9
Complete Battery without acid	kg	n X each cell weight without acid
with acid	kg	n X each cell weight with acid
Material and type of Plates		
i) Positive Plates		
Material		Lead-Antimony alloy spine
Height of Positive Plate	mm	260
Thickness of Positive Plate	mm	9.3
Area of Positive Plate	sqm	0.094
No. of positive plates per cell		3
Whether positive plates of individual cells are interchangeable		Yes, but not recommended
ii) Negative Plates		
Material		Lead - Calcium alloy grid
Height of Negative Plate	mm	250
Thickness of Negative Plate	mm	4.5
Area of Negative Plate	sqm	0.091
No. of negative plates per cell		4
Whether negative plates of individual cells are interchangeable		Yes, but not recommended
Material and type of Separators		
Material		Synthetic fibre based material
Thickness of separator	mm	1.7
Clearance between bottom of the plate and the bottom of the container	mm	23
Clearance between top of the plates and top of container	mm	56
Whether explosion vents are offerred		YES
Type of Vent and Filling Plugs		Explosion proof microporous ceramic made

Container		
Thickness of Container	mm	6
Material of Container		Transparent SAN
Cover		
Type of cover		Adhesive sealed
Material of Cover		Opaque SAN
Connections		
Material of Inter-Cell Connectors		Insulated Lead Plated Copper
Thickness of Inter-Cell Connectors	mm	3
Method of connection		Bolted
Inter-row, Inter-tier connectors and end take-offs furnished?		Yes
Material of Bolt, Nut and Washer for Inter-Cell and Cable Connections		Lead plated MS
Racks		
Racks		
a) Number of racks per battery		Depends on the battery layout
b) Number of cells per rack		Depends on the battery layout
c) Type of racks		Depends on the battery layout
d) Material of rack		Steel / Teak wood
e) Dimensions of the racks		Depends on the battery layout
Ventilation requirements		
Cubic content of battery rooms	m^3	To be provided by customer
Gas generation per single cell per hour	Lit	5.76
No. of air exchanges required per hour		Depends on the size of battery room
Gasification Voltage per Cell	Volt	2.36
Recommended Max. period of cell storage before the first Charge (After Installation and filling of Electrolyte)		12 - 18 hours
Recommended Storage life of Battery (Dry shelf life)		12 months

General Technical Particulars

	Units	
Type of Cell		**3TBS200**
Nominal Voltage per cell	Volts	2
Manufacturer's Name		Exide Industries Ltd.
Standards to which battery is manufactured		IS 1651
IS Nomenclature		
Number of cells in the battery bank		n
Nominal Voltage of Battery	Volts	2 X n
Declared Capacity at 27 degree C upto 1.80 ecv		
Initial	AH	200
Rated	AH	200
End of Life	AH	160
Rated Capacity at mimimum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Rated Capacity at maximum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Capacity in AH at various end cell voltages and duration of discharge		
	E.C.V.	**Ah output**
1 hour	1.67	102.00
2 hour	1.70	128.40
3 hour	1.75	149.40
4 hour	1.76	158.40
5 hour	1.77	171.60
6 hour	1.77	179.20
7 hour	1.78	185.40
8 hour	1.78	190.00
9 hour	1.80	195.80
10 Hour	1.80	200.00
Maximum momentary current for 1 min till 1.60 e.c.v		360
Expected life of battery under normal operation & maintainence conditions	Years	15 years in stand-by float application
Internal Resistance of cell (IR)	milli ohms	0.95
Loss in capacity in 28 days due to self discharge	%	<8%
Recommended Charging rate for		
a) Float Charging		
i) Limit current	A	30
ii) Voltage	V	2.23 vpc
b) Boost charging		
i) Starting Current	A	24
ii) Finishing current	A	12
iii) Voltage	V	2.75
Trickle Charging Rate		
i) Minimum	mA	200
ii) Maximum	mA	800
Equalising charge		
a) Voltage	V	2.3
b) Current	A	10
c) Duration	Hrs.	6
d) Interval between succesive equalising charge	Months	3
Recommended Specific gravity at 27 deg C		
a) for first filling		1.220 +/- 0.005
b) at full charge		1.240 +/- 0.005
c) when Battery is discharged at 10 hours rate		1.140 - 1.120

Permissible max. temperature of Electrolyte		
i) During Initial Charging	deg C	50
ii) During Normal Operation	deg C	45
Overall dimensions		
Each Cell L x W x H (tolerance of +/- 2 mm in each case)	mm	103 x 206 x 430
Complete Battery	mm	Depends on the battery layout
Distance between cell centres	mm	112
Quantity of Electrolyte per Cell	litres	4.2
Quantity of Electrolyte for battery (Including 10% extra)	litres	n X electrolyte per cell X 1.1
Weight(+/-5%)		
Each cell		
without acid	kg	11.5
with acid	kg	16.7
Complete Battery without acid	kg	n X each cell weight without acid
with acid	kg	n X each cell weight with acid
Material and type of Plates		
i) Positive Plates		
Material		Lead-Antimony alloy spine
Height of Positive Plate	mm	260
Thickness of Positive Plate	mm	9.3
Area of Positive Plate	sqm	0.094
No. of positive plates per cell		3
Whether positive plates of individual cells are interchangeable		Yes, but not recommended
ii) Negative Plates		
Material		Lead - Calcium alloy grid
Height of Negative Plate	mm	250
Thickness of Negative Plate	mm	4.5, 3.2
Area of Negative Plate	sqm	0.091
No. of negative plates per cell		4
Whether negative plates of individual cells are interchangeable		Yes, but not recommended
Material and type of Separators		
Material		Synthetic fibre based material
Thickness of separator	mm	1.7
Clearance between bottom of the plate and the bottom of the container	mm	23
Clearance between top of the plates and top of container	mm	56
Whether explosion vents are offerred		YES
Type of Vent and Filling Plugs		Explosion proof microporous ceramic made

Container		
Thickness of Container	mm	6
Material of Container		Transparent SAN
Cover		
Type of cover		Adhesive sealed
Material of Cover		Opaque SAN
Connections		
Material of Inter-Cell Connectors		Insulated Lead Plated Copper
Thickness of Inter-Cell Connectors	mm	3
Method of connection		Bolted
Inter-row, Inter-tier connectors and end take-offs furnished?		Yes
Material of Bolt, Nut and Washer for Inter-Cell and Cable Connections		Lead plated MS
Racks		
Racks		
a) Number of racks per battery		Depends on the battery layout
b) Number of cells per rack		Depends on the battery layout
c) Type of racks		Depends on the battery layout
d) Material of rack		Steel / Teak wood
e) Dimensions of the racks		Depends on the battery layout
Ventilation requirements		
Cubic content of battery rooms	m^3	To be provided by customer
Gas generation per single cell per hour	Lit	6.4
No. of air exchanges required per hour		Depends on the size of battery room
Gasification Voltage per Cell	Volt	2.36
Recommended Max. period of cell storage before the first Charge (After Installation and filling of Electrolyte)		12 - 18 hours
Recommended Storage life of Battery (Dry shelf life)		12 months

General Technical Particulars

	Units	
Type of Cell		**4TBS250**
Nominal Voltage per cell	Volts	2
Manufacturer's Name		Exide Industries Ltd.
Standards to which battery is manufactured		IS 1651
IS Nomenclature		
Number of cells in the battery bank		n
Nominal Voltage of Battery	Volts	2 X n
Declared Capacity at 27 degree C upto 1.80 ecv		
Initial	AH	250
Rated	AH	250
End of Life	AH	200
Rated Capacity at mimimum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Rated Capacity at maximum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Capacity in AH at various end cell voltages and duration of discharge		
	E.C.V.	**Ah output**
1 hour	1.67	127.50
2 hour	1.70	160.50
3 hour	1.75	186.75
4 hour	1.76	198.00
5 hour	1.77	214.50
6 hour	1.77	224.00
7 hour	1.78	231.75
8 hour	1.78	237.50
9 hour	1.80	244.75
10 Hour	1.80	250.00
Maximum momentary current for 1 min till 1.60 e.c.v		450
Expected life of battery under normal operation & maintainence conditions	Years	15 years in stand-by float application
Internal Resistance of cell (IR)	milli ohms	0.74
Loss in capacity in 28 days due to self discharge	%	<8%
Recommended Charging rate for		
a) Float Charging		
i) Limit current	A	37.5
ii) Voltage	V	2.23 vpc
b) Boost charging		
i) Starting Current	A	30
ii) Finishing current	A	15
iii) Voltage	V	2.75
Trickle Charging Rate		
i) Minimum	mA	250
ii) Maximum	mA	1000
Equalising charge		
a) Voltage	V	2.3
b) Current	A	12.5
c) Duration	Hrs.	6
d) Interval between succesive equalising charge	Months	3
Recommended Specific gravity at 27 deg C		
a) for first filling		1.220 +/- 0.005
b) at full charge		1.240 +/- 0.005
c) when Battery is discharged at 10 hours rate		1.140 - 1.120

Permissible max. temperature of Electrolyte		
i) During Initial Charging	deg C	50
ii) During Normal Operation	deg C	45
Overall dimensions		
Each Cell L x W x H (tolerance of +/- 2 mm in each case)	mm	103 x 206 x 430
Complete Battery	mm	Depends on the battery layout
Distance between cell centres	mm	112
Quantity of Electrolyte per Cell	litres	3.9
Quantity of Electrolyte for battery (Including 10% extra)	litres	n X electrolyte per cell X 1.1
Weight(+/-5%)		
Each cell		
without acid	kg	13.7
with acid	kg	18.5
Complete Battery without acid	kg	n X each cell weight without acid
with acid	kg	n X each cell weight with acid
Material and type of Plates		
i) Positive Plates		
Material		Lead-Antimony alloy spine
Height of Positive Plate	mm	260
Thickness of Positive Plate	mm	9.3
Area of Positive Plate	sqm	0.094
No. of positive plates per cell		4
Whether positive plates of individual cells are interchangeable		Yes, but not recommended
ii) Negative Plates		
Material		Lead - Calcium alloy grid
Height of Negative Plate	mm	250
Thickness of Negative Plate	mm	4.5, 3.2
Area of Negative Plate	sqm	0.091
No. of negative plates per cell		3, 2
Whether negative plates of individual cells are interchangeable		Yes, but not recommended
Material and type of Separators		
Material		Synthetic fibre based material
Thickness of separator	mm	1.7
Clearance between bottom of the plate and the bottom of the container	mm	23
Clearance between top of the plates and top of container	mm	56
Whether explosion vents are offerred		YES
Type of Vent and Filling Plugs		Explosion proof microporous ceramic made

Container		
Thickness of Container	mm	6
Material of Container		Transparent SAN
Cover		
Type of cover		Adhesive sealed
Material of Cover		Opaque SAN
Connections		
Material of Inter-Cell Connectors		Insulated Lead Plated Copper
Thickness of Inter-Cell Connectors	mm	3
Method of connection		Bolted
Inter-row, Inter-tier connectors and end take-offs furnished?		Yes
Connection hardware with 5% extra furnished?		Yes
Material of Bolt, Nut and Washer for Inter-Cell and Cable Connections		Lead plated MS
Racks		
Racks		
a) Number of racks per battery		Depends on the battery layout
b) Number of cells per rack		Depends on the battery layout
c) Type of racks		Depends on the battery layout
d) Material of rack		Steel / Teak wood
e) Dimensions of the racks		Depends on the battery layout
Ventilation requirements		
Cubic content of battery rooms	m^3	To be provided by customer
Gas generation per single cell per hour	Lit	8
No. of air exchanges required per hour		Depends on the size of battery room
Gasification Voltage per Cell	Volt	2.36
Recommended Max. period of cell storage before the first Charge (After Installation and filling of Electrolyte)		12 - 18 hours
Recommended Storage life of Battery (Dry shelf life)		12 months

General Technical Particulars

	Units	
Type of Cell		**5TBS300**
Nominal Voltage per cell	Volts	2
Manufacturer's Name		Exide Industries Ltd.
Standards to which battery is manufactured		IS 1651
IS Nomenclature		
Number of cells in the battery bank		n
Nominal Voltage of Battery	Volts	2 X n
Declared Capacity at 27 degree C upto 1.80 ecv		
Initial	AH	300
Rated	AH	300
End of Life	AH	240
Rated Capacity at mimimum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Rated Capacity at maximum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Capacity in AH at various end cell voltages and duration of discharge		
	E.C.V.	**Ah output**
1 hour	1.67	153.00
2 hour	1.70	192.60
3 hour	1.75	224.10
4 hour	1.76	237.60
5 hour	1.77	257.40
6 hour	1.77	268.80
7 hour	1.78	278.10
8 hour	1.78	285.00
9 hour	1.80	293.70
10 Hour	1.80	300.00
Maximum momentary current for 1 min till 1.60 e.c.v		540
Expected life of battery under normal operation & maintainence conditions	Years	15 years in stand-by float application
Loss in capacity in 28 days due to self discharge	%	<8%
Recommended Charging rate for		
a) Float Charging		
i) Limit current	A	45
ii) Voltage	V	2.23 vpc
b) Boost charging		
i) Starting Current	A	36
ii) Finishing current	A	18
iii) Voltage	V	2.75
Trickle Charging Rate		
i) Minimum	mA	300
ii) Maximum	mA	1200
Equalising charge		
a) Voltage	V	2.3
b) Current	A	15
c) Duration	Hrs.	6
d) Interval between succesive equalising charge	Months	3
Recommended Specific gravity at 27 deg C		
a) for first filling		1.220 +/- 0.005
b) at full charge		1.240 +/- 0.005
c) when Battery is discharged at 10 hours rate		1.140 - 1.120

Permissible max. temperature of Electrolyte		
i) During Initial Charging	deg C	50
ii) During Normal Operation	deg C	45
Overall dimensions		
Each Cell L x W x H (tolerance of +/- 2 mm in each case)	mm	145 x 206 x 430
Complete Battery	mm	Depends on the battery layout
Distance between cell centres	mm	153
Quantity of Electrolyte per Cell	litres	7
Quantity of Electrolyte for battery (Including 10% extra)	litres	n X electrolyte per cell X 1.1
Weight(+/-5%)		
Each cell		
without acid	kg	16.6
with acid	kg	25.3
Complete Battery without acid	kg	n X each cell weight without acid
with acid	kg	n X each cell weight with acid
Material and type of Plates		
i) Positive Plates		
Material		Lead-Antimony alloy spine
Height of Positive Plate	mm	260
Thickness of Positive Plate	mm	9.3
Area of Positive Plate	sqm	0.094
No. of positive plates per cell		5
Whether positive plates of individual cells are interchangeable		Yes, but not recommended
ii) Negative Plates		
Material		Lead - Calcium alloy grid
Height of Negative Plate	mm	250
Thickness of Negative Plate	mm	(4.5 / 3.2)
Area of Negative Plate	sqm	0.091
No. of negative plates per cell		4,2
Whether negative plates of individual cells are interchangeable		Yes, but not recommended
Material and type of Separators		
Material		Synthetic fibre based material
Thickness of separator	mm	1.7
CIearance between bottom of the plate and the bottom of the container	mm	23
Clearance between top of the plates and top of container	mm	56
Whether explosion vents are offerred		YES
Type of Vent and Filling Plugs		Explosion proof microporous ceramic made

Container		
Thickness of Container	mm	6
Material of Container		Transparent SAN
Cover		
Type of cover		Adhesive sealed
Material of Cover		Opaque SAN
Connections		
Material of Inter-Cell Connectors		Insulated Lead Plated Copper
Thickness of Inter-Cell Connectors	mm	3
Method of connection		Bolted
Inter-row, Inter-tier connectors and end take-offs furnished?		Yes
Material of Bolt, Nut and Washer for Inter-Cell and Cable Connections		Lead plated MS
Racks		
Racks		
a) Number of racks per battery		Depends on the battery layout
b) Number of cells per rack		Depends on the battery layout
c) Type of racks		Depends on the battery layout
d) Material of rack		Steel / Teak wood
e) Dimensions of the racks		Depends on the battery layout
Ventilation requirements		
Cubic content of battery rooms	m^3	To be provided by customer
Gas generation per single cell per hour	Lit	9.6
No. of air exchanges required per hour		Depends on the size of battery room
Gasification Voltage per Cell	Volt	2.36
Recommended Max. period of cell storage before the first Charge (After Installation and filling of Electrolyte)		12 - 18 hours
Recommended Storage life of Battery (Dry shelf life)		12 months

General Technical Particulars

	Units	
Type of Cell		**6TBS350**
Nominal Voltage per cell	Volts	2
Manufacturer's Name		Exide Industries Ltd.
Standards to which battery is manufactured		IS 1651
IS Nomenclature		
Number of cells in the battery bank		n
Nominal Voltage of Battery	Volts	2 X n
Declared Capacity at 27 degree C upto 1.80 ecv		
Initial	AH	350
Rated	AH	350
End of Life	AH	280
Rated Capacity at mimimum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Rated Capacity at maximum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Capacity in AH at various end cell voltages and duration of discharge		
	E.C.V.	**Ah output**
1 hour	1.67	178.50
2 hour	1.70	224.70
3 hour	1.75	261.45
4 hour	1.76	277.20
5 hour	1.77	300.30
6 hour	1.77	313.60
7 hour	1.78	324.45
8 hour	1.78	332.50
9 hour	1.80	342.65
10 Hour	1.80	350.00
Maximum momentary current for 1 min till 1.60 e.c.v		630
Expected life of battery under normal operation & maintainence conditions	Years	15 years in stand-by float application
Loss in capacity in 28 days due to self discharge	%	<8%
Recommended Charging rate for		
a) Float Charging		
i) Limit current	A	52.5
ii) Voltage	V	2.23 vpc
b) Boost charging		
i) Starting Current	A	42
ii) Finishing current	A	21
iii) Voltage	V	2.75
Trickle Charging Rate		
i) Minimum	mA	350
ii) Maximum	mA	1400
Equalising charge		
a) Voltage	V	2.3
b) Current	A	17.5
c) Duration	Hrs.	6
d) Interval between succesive equalising charge	Months	3
Recommended Specific gravity at 27 deg C		
a) for first filling		1.220 +/- 0.005
b) at full charge		1.240 +/- 0.005
c) when Battery is discharged at 10 hours rate		1.140 - 1.120

Permissible max. temperature of Electrolyte		
i) During Initial Charging	deg C	50
ii) During Normal Operation	deg C	45
Overall dimensions		
Each Cell L x W x H (tolerance of +/- 2 mm in each case)	mm	145 x 206 x 430
Complete Battery	mm	Depends on the battery layout
Distance between cell centres	mm	153
Quantity of Electrolyte per Cell	litres	6.5
Quantity of Electrolyte for battery (Including 10% extra)	litres	n X electrolyte per cell X 1.1
Weight(+/-5%)		
Each cell		
without acid	kg	19.2
with acid	kg	27.3
Complete Battery without acid	kg	n X each cell weight without acid
with acid	kg	n X each cell weight with acid
Material and type of Plates		
i) Positive Plates		
Material		Lead-Antimony alloy spine
Height of Positive Plate	mm	260
Thickness of Positive Plate	mm	9.3
Area of Positive Plate	sqm	0.094
No. of positive plates per cell		6
Whether positive plates of individual cells are interchangeable		Yes, but not recommended
ii) Negative Plates		
Material		Lead - Calcium alloy grid
Height of Negative Plate	mm	250
Thickness of Negative Plate	mm	4.5, 3.2
Area of Negative Plate	sqm	0.091
No. of negative plates per cell		5, 2
Whether negative plates of individual cells are interchangeable		Yes, but not recommended
Material and type of Separators		
Material		Synthetic fibre based material
Thickness of separator	mm	1.7
Clearance between bottom of the plate and the bottom of the container	mm	23
Clearance between top of the plates and top of container	mm	56
Whether explosion vents are offerred		YES
Type of Vent and Filling Plugs		Explosion proof microporous ceramic made

Container		
Thickness of Container	mm	6
Material of Container		Transparent SAN
Cover		
Type of cover		Adhesive sealed
Material of Cover		Opaque SAN
Connections		
Material of Inter-Cell Connectors		Insulated Lead Plated Copper
Thickness of Inter-Cell Connectors	mm	3
Method of connection		Bolted
Inter-row, Inter-tier connectors and end take-offs furnished?		Yes
Material of Bolt, Nut and Washer for Inter-Cell and Cable Connections		Lead plated MS
Racks		
Racks		
a) Number of racks per battery		Depends on the battery layout
b) Number of cells per rack		Depends on the battery layout
c) Type of racks		Depends on the battery layout
d) Material of rack		Steel / Teak wood
e) Dimensions of the racks		Depends on the battery layout
Ventilation requirements		
Cubic content of battery rooms	m^3	To be provided by customer
Gas generation per single cell per hour	Lit	11.2
No. of air exchanges required per hour		Depends on the size of battery room
Gasification Voltage per Cell	Volt	2.36
Recommended Max. period of cell storage before the first Charge (After Installation and filling of Electrolyte)		12 - 18 hours
Recommended Storage life of Battery (Dry shelf life)		12 months

General Technical Particulars

	Units	
Type of Cell		**5TBS400**
Nominal Voltage per cell	Volts	2
Manufacturer's Name		Exide Industries Ltd.
Standards to which battery is manufactured		IS 1651
IS Nomenclature		
Number of cells in the battery bank		n
Nominal Voltage of Battery	Volts	2 X n
Declared Capacity at 27 degree C upto 1.80 ecv		
Initial	AH	400
Rated	AH	400
End of Life	AH	320
Rated Capacity at mimimum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Rated Capacity at maximum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Capacity in AH at various end cell voltages and duration of discharge		
	E.C.V.	**Ah output**
1 hour	1.67	204.00
2 hour	1.70	256.80
3 hour	1.75	298.80
4 hour	1.76	316.80
5 hour	1.77	343.20
6 hour	1.77	358.40
7 hour	1.78	370.80
8 hour	1.78	380.00
9 hour	1.80	391.60
10 Hour	1.80	400.00
Maximum momentary current for 1 min till 1.60 e.c.v		720
Expected life of battery under normal operation & maintainence conditions	Years	15 years in stand-by float application
Internal Resistance of cell (IR)	milli ohms	0.52
Loss in capacity in 28 days due to self discharge	%	<8%
Recommended Charging rate for		
a) Float Charging		
i) Limit current	A	60
ii) Voltage	V	2.23 vpc
b) Boost charging		
i) Starting Current	A	48
ii) Finishing current	A	24
iii) Voltage	V	2.75
Trickle Charging Rate		
i) Minimum	mA	400
ii) Maximum	mA	1600
Equalising charge		
a) Voltage	V	2.3
b) Current	A	20
c) Duration	Hrs.	6
d) Interval between succesive equalising charge	Months	3
Recommended Specific gravity at 27 deg C		
a) for first filling		1.220 +/- 0.005
b) at full charge		1.240 +/- 0.005
c) when Battery is discharged at 10 hours rate		1.140 - 1.120

Permissible max. temperature of Electrolyte		
i) During Initial Charging	deg C	50
ii) During Normal Operation	deg C	45
Overall dimensions		
Each Cell L x W x H (tolerance of +/- 2 mm in each case)	mm	145 x 206 x 546
Complete Battery	mm	Depends on the battery layout
Distance between cell centres	mm	153
Quantity of Electrolyte per Cell	litres	8.2
Quantity of Electrolyte for battery (Including 10% extra)	litres	n X electrolyte per cell X 1.1
Weight(+/-5%)		
Each cell		
without acid	kg	21.0
with acid	kg	31.2
Complete Battery without acid	kg	n X each cell weight without acid
with acid	kg	n X each cell weight with acid
Material and type of Plates		
i) Positive Plates		
Material		Lead-Antimony alloy spine
Height of Positive Plate	mm	336
Thickness of Positive Plate	mm	9.3
Area of Positive Plate	sqm	0.112
No. of positive plates per cell		5
Whether positive plates of individual cells are interchangeable		Yes, but not recommended
ii) Negative Plates		
Material		Lead - Calcium alloy grid
Height of Negative Plate	mm	329.5
Thickness of Negative Plate	mm	4.5, 3.2
Area of Negative Plate	sqm	0.111748
No. of negative plates per cell		4, 2
Whether negative plates of individual cells are interchangeable		Yes, but not recommended
Material and type of Separators		
Material		Synthetic fibre based material
Thickness of separator	mm	1.7
Clearance between bottom of the plate and the bottom of the container	mm	28
Clearance between top of the plates and top of container	mm	90
Whether explosion vents are offerred		YES
Type of Vent and Filling Plugs		Explosion proof microporous ceramic made

Container		
Thickness of Container	mm	6
Material of Container		Transparent SAN
Cover		
Type of cover		Adhesive sealed
Material of Cover		Opaque SAN
Connections		
Material of Inter-Cell Connectors		Insulated Lead Plated Copper
Thickness of Inter-Cell Connectors	mm	5
Method of connection		Bolted
Inter-row, Inter-tier connectors and end take-offs furnished?		Yes
Connection hardware with 5% extra furnished?		Yes
Material of Bolt, Nut and Washer for Inter-Cell and Cable Connections		Lead plated MS
Racks		
Racks		
a) Number of racks per battery		Depends on the battery layout
b) Number of cells per rack		Depends on the battery layout
c) Type of racks		Depends on the battery layout
d) Material of rack		Steel / Teak wood
e) Dimensions of the racks		Depends on the battery layout
Ventilation requirements		
Cubic content of battery rooms	m^3	To be provided by customer
Gas generation per single cell per hour	Lit	12.8
No. of air exchanges required per hour		Depends on the size of battery room
Standard Maintenance accessories provided	Yes/No	Yes
Gasification Voltage per Cell	Volt	2.36
Recommended Max. period of cell storage before the first Charge (After Installation and filling of Electrolyte)		12 - 18 hours
Recommended Storage life of Battery (Dry shelf life)		12 months

General Technical Particulars

	Units	
Type of Cell		**6TBS450**
Nominal Voltage per cell	Volts	2
Manufacturer's Name		Exide Industries Ltd.
Standards to which battery is manufactured		IS 1651
IS Nomenclature		
Number of cells in the battery bank		n
Nominal Voltage of Battery	Volts	2 X n
Declared Capacity at 27 degree C upto 1.80 ecv		
Initial	AH	450
Rated	AH	450
End of Life	AH	360
Rated Capacity at mimimum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Rated Capacity at maximum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Capacity in AH at various end cell voltages and duration of discharge		
	E.C.V.	**Ah output**
1 hour	1.67	229.50
2 hour	1.70	288.90
3 hour	1.75	336.15
4 hour	1.76	356.40
5 hour	1.77	386.10
6 hour	1.77	403.20
7 hour	1.78	417.15
8 hour	1.78	427.50
9 hour	1.80	440.55
10 Hour	1.80	450.00
Maximum momentary current for 1 min till 1.60 e.c.v		810
Expected life of battery under normal operation & maintainence conditions	Years	15 years in stand-by float application
Internal Resistance of cell (IR)	milli ohms	0.5
Loss in capacity in 28 days due to self discharge	%	<8%
Recommended Charging rate for		
a) Float Charging		
i) Limit current	A	67.5
ii) Voltage	V	2.23 vpc
b) Boost charging		
i) Starting Current	A	54
ii) Finishing current	A	27
iii) Voltage	V	2.75
Trickle Charging Rate		
i) Minimum	mA	450
ii) Maximum	mA	1800
Equalising charge		
a) Voltage	V	2.3
b) Current	A	22.5
c) Duration	Hrs.	6
d) Interval between succesive equalising charge	Months	3
Recommended Specific gravity at 27 deg C		
a) for first filling		1.220 +/- 0.005
b) at full charge		1.240 +/- 0.005
c) when Battery is discharged at 10 hours rate		1.160 - 1.130

Permissible max. temperature of Electrolyte		
i) During Initial Charging	deg C	50
ii) During Normal Operation	deg C	45
Overall dimensions		
Each Cell L x W x H (tolerance of +/- 2 mm in each case)	mm	145 x 206 x 546
Complete Battery	mm	Depends on the battery layout
Distance between cell centres	mm	153
Quantity of Electrolyte per Cell	litres	8.3
Quantity of Electrolyte for battery (Including 10% extra)	litres	n X electrolyte per cell X 1.1
Weight(+/-5%)		
Each cell		
without acid	kg	25.8
with acid	kg	35.9
Complete Battery without acid	kg	n X each cell weight without acid
with acid	kg	n X each cell weight with acid
Material and type of Plates		
i) Positive Plates		
Material		Lead-Antimony alloy spine
Height of Positive Plate	mm	336
Thickness of Positive Plate	mm	9.3
Area of Positive Plate	sqm	0.112
No. of positive plates per cell		6
Whether positive plates of individual cells are interchangeable		Yes, but not recommended
ii) Negative Plates		
Material		Lead - Calcium alloy grid
Height of Negative Plate	mm	329.5
Thickness of Negative Plate	mm	4.5
Area of Negative Plate	sqm	0.111748
No. of negative plates per cell		7
Whether negative plates of individual cells are interchangeable		Yes, but not recommended
Material and type of Separators		
Material		Synthetic fibre based material
Thickness of separator	mm	1.7
Clearance between bottom of the plate and the bottom of the container	mm	28
Clearance between top of the plates and top of container	mm	90
Whether explosion vents are offerred		YES
Type of Vent and Filling Plugs		Explosion proof microporous ceramic made

Container		
Thickness of Container	mm	6
Material of Container		Transparent SAN
Cover		
Type of cover		Adhesive sealed
Material of Cover		Opaque SAN
Connections		
Material of Inter-Cell Connectors		Insulated Lead Plated Copper
Thickness of Inter-Cell Connectors	mm	5
Method of connection		Bolted
Inter-row, Inter-tier connectors and end take-offs furnished?		Yes
Material of Bolt, Nut and Washer for Inter-Cell and Cable Connections		Lead plated MS
Cell insulators provided If yes, material of insulator	Yes/No	No
Racks		
Racks		
a) Number of racks per battery		Depends on the battery layout
b) Number of cells per rack		Depends on the battery layout
c) Type of racks		Depends on the battery layout
d) Material of rack		Steel / Teak wood
e) Dimensions of the racks		Depends on the battery layout
Ventilation requirements		
Cubic content of battery rooms	m^3	To be provided by customer
Gas generation per single cell per hour	Lit	14.4
No. of air exchanges required per hour		Depends on the size of battery room
Gasification Voltage per Cell	Volt	2.36
Recommended Max. period of cell storage before the first Charge (After Installation and filling of Electrolyte)		12 - 18 hours
Recommended Storage life of Battery (Dry shelf life)		12 months

General Technical Particulars

	Units	
Type of Cell		**7TBS500**
Nominal Voltage per cell	Volts	2
Manufacturer's Name		Exide Industries Ltd.
Standards to which battery is manufactured		IS 1651
IS Nomenclature		
Number of cells in the battery bank		n
Nominal Voltage of Battery	Volts	2 X n
Declared Capacity at 27 degree C upto 1.80 ecv		
Initial	AH	500
Rated	AH	500
End of Life	AH	400
Rated Capacity at mimimum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Rated Capacity at maximum ambient temperature	Ah	As per formula: Ct=C27{1+0.0043(t-27)}
Capacity in AH at various end cell voltages and duration of discharge		
	E.C.V.	**Ah output**
1 hour	1.67	255.00
2 hour	1.70	321.00
3 hour	1.75	373.50
4 hour	1.76	396.00
5 hour	1.77	429.00
6 hour	1.77	448.00
7 hour	1.78	463.50
8 hour	1.78	475.00
9 hour	1.80	489.50
10 Hour	1.80	500.00
Maximum momentary current for 1 min till 1.60 e.c.v		900
Expected life of battery under normal operation & maintainence conditions	Years	15 years in stand-by float application
Loss in capacity in 28 days due to self discharge	%	<8%
Recommended Charging rate for		
a) Float Charging		
i) Limit current	A	75
ii) Voltage	V	2.23 vpc
b) Boost charging		
i) Starting Current	A	60
ii) Finishing current	A	30
iii) Voltage	V	2.75
Trickle Charging Rate		
i) Minimum	mA	500
ii) Maximum	mA	2000
Equalising charge		
a) Voltage	V	2.3
b) Current	A	25
c) Duration	Hrs.	6
d) Interval between succesive equalising charge	Months	3
Recommended Specific gravity at 27 deg C		
a) for first filling		1.220 +/- 0.005
b) at full charge		1.240 +/- 0.005
c) when Battery is discharged at 10 hours rate		1.140 - 1.120

Permissible max. temperature of Electrolyte		
i) During Initial Charging	deg C	50
ii) During Normal Operation	deg C	45
Overall dimensions		
Each Cell L x W x H (tolerance of +/- 2 mm in each case)	mm	145 x 206 x 546
Complete Battery	mm	Depends on the battery layout
Distance between cell centres	mm	153
Quantity of Electrolyte per Cell	litres	7.4
Quantity of Electrolyte for battery (Including 10% extra)	litres	n X electrolyte per cell X 1.1
Weight(+/-5%)		
Each cell		
without acid	kg	27.4
with acid	kg	36.4
Complete Battery without acid	kg	n X each cell weight without acid
with acid	kg	n X each cell weight with acid
Material and type of Plates		
i) Positive Plates		
Material		Lead-Antimony alloy spine
Height of Positive Plate	mm	336
Thickness of Positive Plate	mm	9.3
Area of Positive Plate	sqm	0.112
No. of positive plates per cell		7
Whether positive plates of individual cells are interchangeable		Yes, but not recommended
ii) Negative Plates		
Material		Lead - Calcium alloy grid
Height of Negative Plate	mm	329.5
Thickness of Negative Plate	mm	4.5
Area of Negative Plate	sqm	0.111748
No. of negative plates per cell		7
Whether negative plates of individual cells are interchangeable		Yes, but not recommended
Material and type of Separators		
Material		Synthetic fibre based material
Thickness of separator	mm	1.7
Clearance between bottom of the plate and the bottom of the container	mm	28
Clearance between top of the plates and top of container	mm	90
Whether explosion vents are offerred		YES
Type of Vent and Filling Plugs		Explosion proof microporous ceramic made

Container		
Thickness of Container	mm	6
Material of Container		Transparent SAN
Cover		
Type of cover		Adhesive sealed
Material of Cover		Opaque SAN
Connections		
Material of Inter-Cell Connectors		Insulated Lead Plated Copper
Thickness of Inter-Cell Connectors	mm	5
Method of connection		Bolted
Inter-row, Inter-tier connectors and end take-offs furnished?		Yes
Material of Bolt, Nut and Washer for Inter-Cell and Cable Connections		Lead plated MS
Racks		
Racks		
a) Number of racks per battery		Depends on the battery layout
b) Number of cells per rack		Depends on the battery layout
c) Type of racks		Depends on the battery layout
d) Material of rack		Steel / Teak wood
e) Dimensions of the racks		Depends on the battery layout
Ventilation requirements		
Cubic content of battery rooms	m^3	To be provided by customer
Gas generation per single cell per hour	Lit	16
No. of air exchanges required per hour		Depends on the size of battery room
Gasification Voltage per Cell	Volt	2.36
Recommended Max. period of cell storage before the first Charge (After Installation and filling of Electrolyte)		12 - 18 hours
Recommended Storage life of Battery (Dry shelf life)		12 months