

EUROPEAN ECODESIGN REGULATIONS



Air-cooled liquid chiller with scroll compressor

AQUACIAT LD 0150-0600R



TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

[Information requirements pursuant to regulation \(EU\)N°2016/2281](#)

Description

Model	AQUACIAT LD 0150R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration		%	0

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	6.15
Annual electricity consumption	Q	kWh	50343

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P_A	kW	41.8
Rated power input	D_A	kW	14.2
Degradation coefficient chillers(*)	C_{dcA}		-
Rated energy efficiency ratio	$EER_{DC,A}$	kW/kW	2.95

Parameters at rating point B

Declared cooling capacity	P_B	kW	39.0
Declared power input	D_B	kW	9.74
Degradation co-efficient chillers(*)	C_{dcB}		-
Declared energy efficiency ratio	$EER_{DC,B}$		4.00

Parameters at rating point C

Declared cooling capacity	P_C	kW	36.2
Declared power input	D_C	kW	6.33
Degradation co-efficient chillers(*)	C_{dcC}		-
Declared energy efficiency ratio	$EER_{DC,C}$		5.71

Parameters at rating point D

Declared cooling capacity	P_D	kW	33.4
Declared power input	D_D	kW	4.15
Degradation co-efficient chillers(*)	C_{dcD}		-
Declared energy efficiency ratio	$EER_{DC,D}$		8.05

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant		kg/CO2 eq (100 years)	675

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France
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(*)If C_{dc} is not determined by measurement then the default degradation coefficient is $C_{dc}=0.9$

TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

[Information requirements pursuant to regulation \(EU\)N°2016/2281](#)

Description

Model	AQUACIAT LD 0180R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration		%	0

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	6.11
Annual electricity consumption	Q	kWh	57333

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P_A	kW	47.3
Rated power input	D_A	kW	16.1
Degradation coefficient chillers(*)	C_{dcA}		-
Rated energy efficiency ratio	$EER_{DC,A}$	kW/kW	2.94

Parameters at rating point B

Declared cooling capacity	P_B	kW	44.1
Declared power input	D_B	kW	10.9
Degradation co-efficient chillers(*)	C_{dcB}		-
Declared energy efficiency ratio	$EER_{DC,B}$		4.05

Parameters at rating point C

Declared cooling capacity	P_C	kW	41.0
Declared power input	D_C	kW	7.22
Degradation co-efficient chillers(*)	C_{dcC}		-
Declared energy efficiency ratio	$EER_{DC,C}$		5.68

Parameters at rating point D

Declared cooling capacity	P_D	kW	37.8
Declared power input	D_D	kW	4.76
Degradation co-efficient chillers(*)	C_{dcD}		-
Declared energy efficiency ratio	$EER_{DC,D}$		7.95

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant		kg/CO2 eq (100 years)	675

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France		
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(*)If C_{dc} is not determined by measurement then the default degradation coefficient is $C_{dc}=0.9$

TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

[Information requirements pursuant to regulation \(EU\)N°2016/2281](#)

Description

Model	AQUACIAT LD 0200R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration		%	0

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	6.10
Annual electricity consumption	Q	kWh	64330

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P _A	kW	52.9
Rated power input	D _A	kW	18.1
Degradation coefficient chillers(*)	C _{dcA}		-
Rated energy efficiency ratio	EER _{DC,A}	kW/kW	2.93

Parameters at rating point B

Declared cooling capacity	P _B	kW	49.4
Declared power input	D _B	kW	12.4
Degradation co-efficient chillers(*)	C _{dcB}		-
Declared energy efficiency ratio	EER _{DC,B}		3.98

Parameters at rating point C

Declared cooling capacity	P _C	kW	45.9
Declared power input	D _C	kW	8.09
Degradation co-efficient chillers(*)	C _{dcC}		-
Declared energy efficiency ratio	EER _{DC,C}		5.67

Parameters at rating point D

Declared cooling capacity	P _D	kW	42.3
Declared power input	D _D	kW	5.31
Degradation co-efficient chillers(*)	C _{dcD}		-
Declared energy efficiency ratio	EER _{DC,D}		7.97

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant		kg/CO2 eq (100 years)	675

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France		
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(*)If C_{dc} is not determined by measurement then the default degradation coefficient is C_{dc}=0.9

TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

[Information requirements pursuant to regulation \(EU\)N°2016/2281](#)

Description

Model	AQUACIAT LD 0202R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration		%	0

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	6.12
Annual electricity consumption	Q	kWh	67881

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P_A	kW	56.1
Rated power input	D_A	kW	18.9
Degradation coefficient chillers(*)	C_{dcA}		-
Rated energy efficiency ratio	$EER_{DC,A}$	kW/kW	2.97

Parameters at rating point B

Declared cooling capacity	P_B	kW	52.4
Declared power input	D_B	kW	12.8
Degradation co-efficient chillers(*)	C_{dcB}		-
Declared energy efficiency ratio	$EER_{DC,B}$		4.08

Parameters at rating point C

Declared cooling capacity	P_C	kW	48.6
Declared power input	D_C	kW	8.54
Degradation co-efficient chillers(*)	C_{dcC}		-
Declared energy efficiency ratio	$EER_{DC,C}$		5.69

Parameters at rating point D

Declared cooling capacity	P_D	kW	44.9
Declared power input	D_D	kW	5.66
Degradation co-efficient chillers(*)	C_{dcD}		-
Declared energy efficiency ratio	$EER_{DC,D}$		7.92

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant		kg/CO2 eq (100 years)	675

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France		
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(*)If C_{dc} is not determined by measurement then the default degradation coefficient is $C_{dc}=0.9$

TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

[Information requirements pursuant to regulation \(EU\)N°2016/2281](#)

Description

Model	AQUACIAT LD 0240R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration		%	0

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	5.95
Annual electricity consumption	Q	kWh	79281

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P _A	kW	63.6
Rated power input	D _A	kW	22.0
Degradation coefficient chillers(*)	C _{dcA}		-
Rated energy efficiency ratio	EER _{DC,A}	kW/kW	2.89

Parameters at rating point B

Declared cooling capacity	P _B	kW	59.4
Declared power input	D _B	kW	15.1
Degradation co-efficient chillers(*)	C _{dcB}		-
Declared energy efficiency ratio	EER _{DC,B}		3.93

Parameters at rating point C

Declared cooling capacity	P _C	kW	55.2
Declared power input	D _C	kW	10.2
Degradation co-efficient chillers(*)	C _{dcC}		-
Declared energy efficiency ratio	EER _{DC,C}		5.43

Parameters at rating point D

Declared cooling capacity	P _D	kW	50.9
Declared power input	D _D	kW	6.47
Degradation co-efficient chillers(*)	C _{dcD}		-
Declared energy efficiency ratio	EER _{DC,D}		7.87

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant		kg/CO2 eq (100 years)	675

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France		
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(*)If C_{dc} is not determined by measurement then the default degradation coefficient is C_{dc}=0.9

TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

[Information requirements pursuant to regulation \(EU\)N°2016/2281](#)

Description

Model	AQUACIAT LD 0260R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration		%	0

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	5.54
Annual electricity consumption	Q	kWh	95337

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P _A	kW	71.2
Rated power input	D _A	kW	24.6
Degradation coefficient chillers(*)	C _{dcA}		-
Rated energy efficiency ratio	EER _{DC,A}	kW/kW	2.90

Parameters at rating point B

Declared cooling capacity	P _B	kW	66.5
Declared power input	D _B	kW	17.2
Degradation co-efficient chillers(*)	C _{dcB}		-
Declared energy efficiency ratio	EER _{DC,B}		3.87

Parameters at rating point C

Declared cooling capacity	P _C	kW	61.7
Declared power input	D _C	kW	12.0
Degradation co-efficient chillers(*)	C _{dcC}		-
Declared energy efficiency ratio	EER _{DC,C}		5.16

Parameters at rating point D

Declared cooling capacity	P _D	kW	57.0
Declared power input	D _D	kW	8.18
Degradation co-efficient chillers(*)	C _{dcD}		-
Declared energy efficiency ratio	EER _{DC,D}		6.97

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant		kg/CO2 eq (100 years)	675

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France		
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(*)If C_{dc} is not determined by measurement then the default degradation coefficient is C_{dc}=0.9

TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

[Information requirements pursuant to regulation \(EU\)N°2016/2281](#)

Description

Model	AQUACIAT LD 0300R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration		%	0

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	5.29
Annual electricity consumption	Q	kWh	113739

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P _A	kW	81.1
Rated power input	D _A	kW	29.2
Degradation coefficient chillers(*)	C _{dcA}		-
Rated energy efficiency ratio	EER _{DC,A}	kW/kW	2.78

Parameters at rating point B

Declared cooling capacity	P _B	kW	75.7
Declared power input	D _B	kW	20.4
Degradation co-efficient chillers(*)	C _{dcB}		-
Declared energy efficiency ratio	EER _{DC,B}		3.70

Parameters at rating point C

Declared cooling capacity	P _C	kW	70.3
Declared power input	D _C	kW	14.2
Degradation co-efficient chillers(*)	C _{dcC}		-
Declared energy efficiency ratio	EER _{DC,C}		4.94

Parameters at rating point D

Declared cooling capacity	P _D	kW	64.9
Declared power input	D _D	kW	9.80
Degradation co-efficient chillers(*)	C _{dcD}		-
Declared energy efficiency ratio	EER _{DC,D}		6.63

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant		kg/CO2 eq (100 years)	675

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France		
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(*)If C_{dc} is not determined by measurement then the default degradation coefficient is C_{dc}=0.9

TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

[Information requirements pursuant to regulation \(EU\)N°2016/2281](#)

Description

Model	AQUACIAT LD 0360R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration		%	0

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	5.50
Annual electricity consumption	Q	kWh	125809

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P _A	kW	93.4
Rated power input	D _A	kW	31.5
Degradation coefficient chillers(*)	C _{dcA}		-
Rated energy efficiency ratio	EER _{DC,A}	kW/kW	2.96

Parameters at rating point B

Declared cooling capacity	P _B	kW	87.1
Declared power input	D _B	kW	22.3
Degradation co-efficient chillers(*)	C _{dcB}		-
Declared energy efficiency ratio	EER _{DC,B}		3.91

Parameters at rating point C

Declared cooling capacity	P _C	kW	80.9
Declared power input	D _C	kW	15.6
Degradation co-efficient chillers(*)	C _{dcC}		-
Declared energy efficiency ratio	EER _{DC,C}		5.17

Parameters at rating point D

Declared cooling capacity	P _D	kW	74.7
Declared power input	D _D	kW	11.0
Degradation co-efficient chillers(*)	C _{dcD}		-
Declared energy efficiency ratio	EER _{DC,D}		6.79

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant		kg/CO2 eq (100 years)	675

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France		
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(*)If C_{dc} is not determined by measurement then the default degradation coefficient is C_{dc}=0.9

TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

Information requirements pursuant to regulation (EU)N°2016/2281

Description

Model	AQUACIAT LD 0390R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration	%	0	

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	5.28
Annual electricity consumption	Q	kWh	150442

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P_A	kW	107
Rated power input	D_A	kW	37.9
Degradation coefficient chillers(*)	C_{dcA}		-
Rated energy efficiency ratio	$EER_{DC,A}$	kW/kW	2.83

Parameters at rating point B

Declared cooling capacity	P_B	kW	100
Declared power input	D_B	kW	26.4
Degradation co-efficient chillers(*)	C_{dcB}		-
Declared energy efficiency ratio	$EER_{DC,B}$		3.79

Parameters at rating point C

Declared cooling capacity	P_C	kW	92.9
Declared power input	D_C	kW	18.6
Degradation co-efficient chillers(*)	C_{dcC}		-
Declared energy efficiency ratio	$EER_{DC,C}$		4.99

Parameters at rating point D

Declared cooling capacity	P_D	kW	88.1
Declared power input	D_D	kW	13.6
Degradation co-efficient chillers(*)	C_{dcD}		-
Declared energy efficiency ratio	$EER_{DC,D}$		6.46

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant	kg/CO2 eq (100 years)	675	

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France
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(*)If Cdc is not determined by measurement then the default degradation coefficient is Cdc=0.9

TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

[Information requirements pursuant to regulation \(EU\)N°2016/2281](#)

Description

Model	AQUACIAT LD 0450R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration		%	0

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	5.32
Annual electricity consumption	Q	kWh	172679

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P _A	kW	124
Rated power input	D _A	kW	43.7
Degradation coefficient chillers(*)	C _{dcA}		-
Rated energy efficiency ratio	EER _{DC,A}	kW/kW	2.84

Parameters at rating point B

Declared cooling capacity	P _B	kW	116
Declared power input	D _B	kW	30.3
Degradation co-efficient chillers(*)	C _{dcB}		-
Declared energy efficiency ratio	EER _{DC,B}		3.82

Parameters at rating point C

Declared cooling capacity	P _C	kW	108
Declared power input	D _C	kW	21.3
Degradation co-efficient chillers(*)	C _{dcC}		-
Declared energy efficiency ratio	EER _{DC,C}		5.04

Parameters at rating point D

Declared cooling capacity	P _D	kW	99.3
Declared power input	D _D	kW	15.3
Degradation co-efficient chillers(*)	C _{dcD}		-
Declared energy efficiency ratio	EER _{DC,D}		6.51

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant		kg/CO2 eq (100 years)	675

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France		
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(*)If C_{dc} is not determined by measurement then the default degradation coefficient is C_{dc}=0.9

TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

[Information requirements pursuant to regulation \(EU\)N°2016/2281](#)

Description

Model	AQUACIAT LD 0520R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration		%	0

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	5.46
Annual electricity consumption	Q	kWh	190508

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P _A	kW	140
Rated power input	D _A	kW	48.9
Degradation coefficient chillers(*)	C _{dcA}		-
Rated energy efficiency ratio	EER _{DC,A}	kW/kW	2.87

Parameters at rating point B

Declared cooling capacity	P _B	kW	131
Declared power input	D _B	kW	34.3
Degradation co-efficient chillers(*)	C _{dcB}		-
Declared energy efficiency ratio	EER _{DC,B}		3.82

Parameters at rating point C

Declared cooling capacity	P _C	kW	121
Declared power input	D _C	kW	23.9
Degradation co-efficient chillers(*)	C _{dcC}		-
Declared energy efficiency ratio	EER _{DC,C}		5.06

Parameters at rating point D

Declared cooling capacity	P _D	kW	112
Declared power input	D _D	kW	16.3
Degradation co-efficient chillers(*)	C _{dcD}		-
Declared energy efficiency ratio	EER _{DC,D}		6.90

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant		kg/CO2 eq (100 years)	675

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France		
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(*)If C_{dc} is not determined by measurement then the default degradation coefficient is C_{dc}=0.9

TECHNICAL DATASHEET FOR HIGH TEMPERATURE PROCESS CHILLER

[Information requirements pursuant to regulation \(EU\)N°2016/2281](#)

Description

Model	AQUACIAT LD 0600R		
Type of condensing	Air-cooled		
Evaporator fluid type	FW		
Evaporator fluid concentration		%	0

Performances established in accordance with EN14511:2018 and EN14825:2018

	Symbol	Unit	
Operating temperature	t	°C	7
Seasonal energy performance ratio	SEPR	kWh/kWh	5.21
Annual electricity consumption	Q	kWh	227405

Parameters at full load and reference ambient temperature at rating point A

Rated cooling capacity	P_A	kW	160
Rated power input	D_A	kW	58.0
Degradation coefficient chillers(*)	C_{dcA}		-
Rated energy efficiency ratio	$EER_{DC,A}$	kW/kW	2.76

Parameters at rating point B

Declared cooling capacity	P_B	kW	149
Declared power input	D_B	kW	40.8
Degradation co-efficient chillers(*)	C_{dcB}		-
Declared energy efficiency ratio	$EER_{DC,B}$		3.66

Parameters at rating point C

Declared cooling capacity	P_C	kW	137
Declared power input	D_C	kW	28.3
Degradation co-efficient chillers(*)	C_{dcC}		-
Declared energy efficiency ratio	$EER_{DC,C}$		4.85

Parameters at rating point D

Declared cooling capacity	P_D	kW	128
Declared power input	D_D	kW	19.5
Degradation co-efficient chillers(*)	C_{dcD}		-
Declared energy efficiency ratio	$EER_{DC,D}$		6.55

Other items

Capacity control	STAGED		
Water flow rate control, Indoor	VARIABLE		
Refrigerant type	R32		
GWP of refrigerant		kg/CO2 eq (100 years)	675

Contact details	CIAT - Avenue Jean Falconnier BP 14 - 01325 Culoz - France
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(*)If C_{dc} is not determined by measurement then the default degradation coefficient is $C_{dc}=0.9$