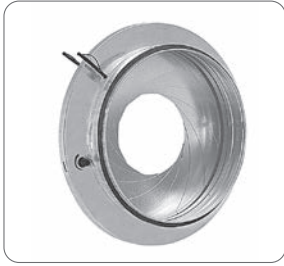


IRIS

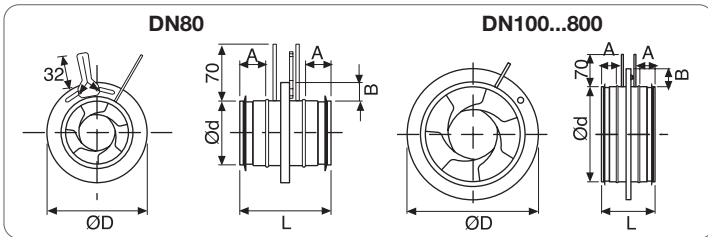


Description

- IRIS:** volume control damper
- option to read real-time flow value via Pressure plugs
 - made of galvanised steel

Δp

IRIS



IRIS dimensions

DN	Ød	ØD	L	A	B	Weight
80	79	125	110	30	22	0.5
100	99	165	110	30	32	0.5
125	124	188	110	30	32	0.7
150	149	230	210	27	40	0.9
160	159	230	110	30	35	0.9
200	199	285	110	30	42	1.4

IRIS dimensions

DN	Ød	ØD	L	A	B	Weight
250	249	335	135	40	42	2.1
315	314	410	135	40	47	3.5
400	398	525	190	60	62	6.4
500	498	655	170	50	77	9.6
630	628	815	170	50	92	15.6
800	798	1015	270	100	107	25.0

All prices are list prices for local market, for a quotation please contact us.

Price list

TYPE/DN	80	100	125	160	200	250	315	400	500	630	800
GALVANISED STEEL IRIS	34	34	38	57	64	95	126	257	396	600	1285
STAINLESS STEEL IRIS	-	241	264	298	344	516	689	1262	1951	2433	3672
Flow rate m ³ /h	180	280	440	720	1130	1760	2800	6330	9890	15700	25320

Max flow for V = 10 m/s up to DN 315 and V = 14 m/s other DN
 ■: in AISI 304 stainless steel (except for DN 315/400 in AISI 316 L stainless steel)

NOTES: IRIS never closes completely

Tolerance with straight duct ± 5%

Assembly	Distance L	
	m ² = ±7%	m ² = ±10%
	≤ 1D	≤ 1D
	≤ 4D	≤ 2D
	≤ 2D	≤ 2D
	≤ 2D	≤ 12D

DLC



Description

- DLC:** single blade volume control damper
- made of galvanised steel
 - Drive shaft Ø 8 mm up to DN 250
 - Drive shaft Ø 12 mm up to DN 710
- DLCX:** like DLC but in AISI 304/316 stainless steel

Available execution

- In 304 stainless steel (list price x3)
- In 316L stainless steel (list price x4)
- Frame special dim. <500 mm (list price +30%)
- 8 mm casing return (list price +15%)

Accessories DLC (see page

- electric actuator/ pneumatic cylinder / etc.

DS



Description

- DS:** single blade volume control damper
- made of galvanised steel
 - manual control
 - pair of external outer gaskets
 - gasket on blade
 - leakage class 4 EN 1751

Accessories

- 24V or 230V actuators with 2 microswitches (list price €220)

All prices are list prices for local market, for a quotation please contact us.

Price list

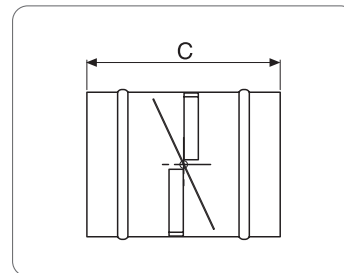
Type\DN	100	125	160	200	250	315	400	500	630	710
DLC	24	26	29	36	39	50	87	109	117	129
DS	20	22	24	26	30	35	45			

Delivery: Material with prices in bold in stock under text

Manual drives

Type	€
R9	up to DN 250 : 5
R11	up to DN 710 : 15

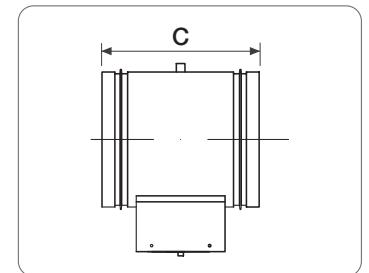
DLC



DLC

DN	C
100÷250	200
300÷355	300
400÷710	400

DS



DS

DN	C
80÷200	170
225÷400	255

Selection table for accessories

R12 P18					Electric actuators	
Model damper	Surface (m ²)	Ø Shaft	Manual drive	Pneumatic actuator	Torque required	
					On-Off (Nm)	Spring Return (Nm)*
DL 50	< 0.80	Ø 8	R9	Ø 27 stroke 100	5	5
DL 101	< 0.10	Ø 12	R11 or R12	Ø 20 stroke 50	5	10
	< 0.80	Ø 12	R11 or R12	Ø 27 stroke 100	5	10
	< 1.00	Ø 12	R11 or R12	Ø 35 stroke 150	10	20
	< 1.50	Ø 12	R12	Ø 35 stroke 150	10	20
	< 3.00	Ø 12	R12	Ø 35 stroke 150	20	30
DL151-201	< 0.10	Ø 12	R11 or R12	Ø 20 stroke 50	5	10
	< 0.80	Ø 12	R11 or R12	Ø 27 stroke 100	5	10
	< 1.00	Ø 12	R11 or R12	Ø 35 stroke 150	10	20
	< 1.50	Ø 12	R12	Ø 35 stroke 150	10	20
	< 3.00	Ø 12	R12	Ø 35 stroke 150	20	30
DL 151T / DL 201 T	< 0.10	Ø 12	R12 P18	Ø 20 stroke 50	See table	
	< 0.80	Ø 12	R12 P18	Ø 27 stroke 100		
	< 1.00	Ø 12	R12 P18	Ø 35 stroke 150		
	< 3.00	Ø 12	R12 P18	Ø 50 stroke 200		
	< 4.00	Ø 12	R12 P18	Ø 50 stroke 200		
DLC / DLC-T / SRCZ	100/250	Ø 8	R9	Ø 20 stroke 50	5	5
	315/450	Ø 12	R11 or R12	Ø 27 stroke 100	5	10
	500/710	Ø 12	R11 or R12	Ø 27 stroke 100	10	20
SRCZ	800/1050	Ø 18	R12 special	Ø 27 stroke 100	10	20
	1100/1500	Ø 25	R12 special	Ø 35 stroke 150	20	40
	1600/2000	Ø 30	R12 special	Ø 50 stroke 200	40	60

*NB: for spring return actuators - check during production stage.

DL 151 T / DL 201 T selection table Leakage Class 4 - EN 1751

		HEIGHT									
No. of blades		1	2	3	4	5	6	7	8	9	10
DL 151T		160	310	460	610	760	910	1060	1210	1360	1510
BASE	DL 201T	210	410	610	810	1010	1210	1410	1610	1810	2010
200		5 Nm									
400		5 Nm									
600		10 Nm									
800		10 Nm									
1000		10 Nm		20 Nm		30 Nm		40 Nm			
1200		10 Nm		20 Nm		30 Nm		40 Nm			
1400		10 Nm		20 Nm		30 Nm		40 Nm			
1600		10 Nm		20 Nm		30 Nm		40 Nm			
1800		10 Nm		20 Nm		30 Nm		40 Nm		50 Nm	
2000		10 Nm		20 Nm		30 Nm		40 Nm		50 Nm	

DL 151 T / DL 201 T selection table Leakage Class 3 - EN 1751

		HEIGHT									
No. of blades		1	2	3	4	5	6	7	8	9	10
DL 151T		160	310	460	610	760	910	1060	1210	1360	1510
BASE	DL 201T	210	410	610	810	1010	1210	1410	1610	1810	2010
200											
400											
600				7/10 Nm							
800				7/10 Nm							
1000				7/10 Nm							
1200				7/10 Nm		15 Nm					
1400				7/10 Nm		15 Nm		30 Nm			
1600				7/10 Nm		15 Nm		30 Nm			
1800				7/10 Nm		15 Nm		30 Nm			40 Nm
2000				7/10 Nm		15 Nm		30 Nm			40 Nm

BELIMO ON-OFF price list - running time 150 sec.

Model	5 Nm
	Price list €
LM24A	183
LM24A-S	209
LM230A	183
LM230A-S	209
LM24A-SR	249
LM230A-SR	296

Model	10 Nm
	Price list €
NM24A	225
NM24A-S	270
NM230A	233
NM230A-S	278
NM24A-SR	325
NM230ASR	373

Model	20 Nm
	Price list €
SM24A	259
SM24A-S	323
SM230A	264
SM230A-S	329
SM24A-SR	369
SM230ASR	416

Model	40 Nm
	Price list €
GM24A	457
GM230A	465
GM24A-SR	551

All prices are list prices for local market, for a quotation please contact us.

BELIMO spring return price list (spring 20 sec. / motor 75 sec.)

Model	4 Nm
	Price list €
LF24	293
LF24-S	338
LF230	318
LF230-S	361
LF24-SR	395

Model	10 Nm
	Price list €
NFA	433
NFA-S2	493
NF24A	364
NF24A-S2	414
NF24A-SR	438
NF24A-SR-S2	487

Model	20 Nm
	Price list €
SFA	517
SFA-S2	564
SF24A	449
SF24A-S2	498
SF24A-SR	520
SF24A-SR-S2	555

Model	30 Nm
	Price list €
EF24A	908
EF24A-S2	972
EF230A	1043
EF230A-S2	1108
EF24A-SR	1026
EF24A-SR-S2	1089

BELIMO ON-OFF price list -fast running 35 sec.

Model	5 Nm
	Price list €
LMC24A	189
LMC230A	189
LMC24A-SR	256

Model	10 Nm
	Price list €
NMC24A-MP	379

Model	20 Nm
	Price list €
SMC24A-MP	427

Model	Micro
	Price list €
S1A 1 MICRO	76
S2A 2 MICRO	100
S2A-F (LF-NF-SF)	150

BELIMO ON-OFF price list - super fast running time 2.5 / 20 sec.

4 Nm - 2.5 sec	
Model	Price list €
LMQ24A	371
LMQ24A-SR	384
NMQ24A	409

8 Nm - 4 sec	
Model	Price list €
NMQ24A	409
NMQ24A-SR	460

8 Nm - 20 sec	
Model	Price list €
NMD230A	384

16 Nm - 7 sec	
Model	Price list €
SMQ24A	445
SMQ24A-SR	509

16 Nm - 20 sec	
Model	Price list €
SMD24A	358
SMD230A	419

WAIRCOM pneumatic cylinders price list

With support, shaft and linkage with double acting cylinder	
Dimensions	Price list €
D.20 L=50	138
D.27 L=100	173
D.35 L=150	230
D.50 L=200	374
D.70 L=200	501
D.85 L=200	645

Including solenoid valve, regulator and 24 or 230V coil to indicate when ordering	
Dimensions	Price list €
D.20 L=50	472
D.27 L=100	507
D.35 L=150	564
D.50 L=200	714
D.70 L=200	973
D.85 L=200	1112

MANUAL DRIVES price list

Model	Price list €
R9 GALVANISED	5
R9 304 STAINLESS STEEL	7
R9 316 STAINLESS STEEL	9
R10 GALVANISED	11
R10 304 STAINLESS STEEL	13
R10 316 STAINLESS STEEL	17
R11 GALVANISED	15
R11 304 STAINLESS STEEL	25
R11 316 STAINLESS STEEL	32
R12 GALVANISED	21
R12 304 STAINLESS STEEL	32
R12 316 STAINLESS STEEL	42
R12 P18 GALVANISED	28
R12 P18 X304	45
R12 P18 X316	58

Model	Price list €
Front manual drive	
R13 GALVANISED	38
R13 304 STAINLESS STEEL	50
R13 316 STAINLESS STEEL	64
Joint	
R14 GALVANISED	12
R14 304 STAINLESS STEEL	21
R14 316 STAINLESS STEEL	27
R20 GALVANISED	20
R20 304 STAINLESS STEEL	49
R20 316 STAINLESS STEEL	64
Assembly plate, internal flow control	
R21 ALUMINIUM	70
R21 GALVANISED	62
R21 304 STAINLESS STEEL	146
R21 316 STAINLESS STEEL	190

Actuator assembly

Brand	Price list €
BELIMO	35
SIEMENS	35
SCHISCHEK	200*
Others	

*: including FAT
FAT other motors €60

Accessory price list

BEARING OPTIONS	FIXED COST	PRICE LIST €	UNIT
GALVANISED BEARINGS D.12	0	31	€/ Blade
304 STAINLESS STEEL BEARINGS D.12	0	52	€/ Blade
316 STAINLESS STEEL BEARINGS D.12	0	69	€/ Blade
GALVANISED BEARINGS D.18	0	58	€/ Blade
304 STAINLESS STEEL BEARINGS D.18	0	86	€/ Blade
316 STAINLESS STEEL BEARINGS D.18	0	92	€/ Blade

BEARINGS OPTIONS	FIXED COST	PRICE LIST €	UNIT
TEFLON BEARINGS D.12	0	7	€/ Blade
TEFLON BEARINGS D.18	0	14	€/ Blade

BEARINGS OPTIONS	FIXED COST	PRICE LIST €	UNIT
BRONZE BEARINGS D.6	0	+ 5 %	EACH
BRONZE BEARINGS D.8	0	+ 5 %	EACH
BRONZE BEARINGS D.12	0	+ 5 %	EACH
BRONZE BEARINGS D.18	0	+ 5 %	EACH

SPOT WELDING OPTIONS	FIXED COST	PRICE LIST €	UNIT
SPOT WELDING ON LINKAGES	0	10	€/ Blade

NUT OPTIONS	FIXED COST	PRICE LIST €	UNIT
SELF-LOCKING NUTS ON LINKAGES	0	+ 5 %	EACH
SELF-LOCKING NUTS ON BLADES	0	+ 5 %	EACH

DRILLING OPTIONS	FIXED COST	PRICE LIST €	UNIT
FLANGE ON DEMAND	0	52	EACH

DRIVE SHAFTS OPTIONS	FIXED COST	PRICE LIST €	UNIT
SQUARE DRIVE SHAFT	0	52	EACH
DRIVE SHAFT >100	0	23	EACH

SHAFTS OPTIONS	FIXED COST	PRICE LIST €	UNIT
304 STAINLESS STEEL SHAFTS AND LINKAGES D.12	0	12	€/ Blade
316L STAINLESS STEEL SHAFTS AND LINKAGES D.12	0	17	€/ Blade
304 STAINLESS STEEL SHAFTS AND LINKAGES D.18	0	29	€/ Blade
316L STAINLESS STEEL SHAFTS AND LINKAGES D.18	0	38	€/ Blade

SHAFTS OPTIONS	FIXED COST	PRICE LIST €	UNIT
GALVANISED STUB SHAFT D.18	0	13	€/ Blade
304 STAINLESS STEEL STUB SHAFT D.18	0	20	€/ Blade
316L STAINLESS STEEL STUB SHAFT D.18	0	23	€/ Blade

SHAFTS OPTIONS	FIXED COST	PRICE LIST €	UNIT
GALVANISED STEEL CONTINUOUS SOLID SHAFTS D.6	13	3	€/ m
GALVANISED STEEL CONTINUOUS SOLID SHAFTS D.8	16	5	€/ m
GALVANISED STEEL CONTINUOUS SOLID SHAFTS D.12	20	10	€/ m
GALVANISED STEEL CONTINUOUS SOLID SHAFTS D.18	23	22	€/ m

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SHAFTS OPTIONS	FIXED COST	PRICE LIST €	UNIT
304 STAINLESS STEEL CONTINUOUS SOLID SHAFTS D.6	13	5	€/ m
304 STAINLESS STEEL CONTINUOUS SOLID SHAFTS D.8	16	7	€/ m
304 STAINLESS STEEL CONTINUOUS SOLID SHAFTS D.12	20	15	€/ m
304 STAINLESS STEEL CONTINUOUS SOLID SHAFTS D.18	23	33	€/ m

SHAFTS OPTIONS	FIXED COST	PRICE LIST €	UNIT
316L STAINLESS STEEL CONTINUOUS SOLID SHAFTS D.6	13	6	€/ m
316L STAINLESS STEEL CONTINUOUS SOLID SHAFTS D.8	16	10	€/ m
316L STAINLESS STEEL CONTINUOUS SOLID SHAFTS D.12	20	20	€/ m
316L STAINLESS STEEL CONTINUOUS SOLID SHAFTS D.18	23	46	€/ m

LINKAGE COVER PLATE OPTIONS	FIXED COST	PRICE LIST €	UNIT
GALVANISED LINKAGE COVER PLATE	0	58	€/ m
ALUMINIUM LINKAGE COVER PLATE	0	58	€/ m
304 STAINLESS STEEL LINKAGE COVER PLATE	0	92	€/ m
316L STAINLESS STEEL LINKAGE COVER PLATE	0	115	€/ m

LINKAGE OPTIONS	FIXED COST	PRICE LIST €	UNIT
GALVANISED DOUBLE LINKAGE	0	17	€/ Blade
304 STAINLESS STEEL DOUBLE LINKAGE	0	29	€/ Blade
316L DOUBLE LINKAGE	0	40	€/ Blade

GASKET OPTIONS	FIXED COST	PRICE LIST €	UNIT
SILICONE GASKET	0	35	€/ Blade

PACKAGED PRODUCT OPTIONS	FIXED COST	PRICE LIST €	UNIT
PACKAGED PRODUCT ASSEMBLY	0	+ 15 %	EACH

CASING OPTIONS	FIXED COST	PRICE LIST €	UNIT
SPECIAL CASING < 210 mm	0	52	EACH
SPECIAL CASING <300 mm	0	104	EACH

VERTICAL OPTIONS	FIXED COST	PRICE LIST €	UNIT
VERTICAL OPERATION	0	+ 10 %	EACH

WIRE MESH OPTIONS	FIXED COST	PRICE LIST €	UNIT
ALUMINIUM WIRE MESH	0	115	€/ sqm
304 STAINLESS STEEL WIRE MESH	0	144	€/ sqm
316L STAINLESS STEEL WIRE MESH	0	173	€/ sqm
304 STAINLESS STEEL WIRE MESH	0	184	€/ sqm
316L STAINLESS STEEL WIRE MESH	0	219	€/ sqm

SUPPORT OPTIONS	FIXED COST	PRICE LIST €	UNIT
GALVANISED STEEL HEAT INSULATED SUPPORT	0	161	EACH
304 STAINLESS STEEL HEAT INSULATED SUPPORT	0	213	EACH
316L STAINLESS STEEL HEAT INSULATED SUPPORT	0	230	EACH

FLANGE DRILLING OPTIONS AS PER ISO 15138 (list price +€52)

ZONE 1 Spring return 24-230V

All prices are list prices for local market, for a quotation please contact us.

	Zone 1		Opening	Closing	Price list €
	Model	Torque (Nm)	Motor running time (seconds)	Spring return (seconds)	
ON-OFF, 3 points, 2 micro switches	EX MAX 5.10 - SF	5-10	3/15/30/60/120	3 - 10	3055
ON-OFF, 3 points, 2 micro switches	EX MAX 15 - SF	15	3/15/30/60/120	3 - 10	3388
ON-OFF, 3 points, 2 micro switches	EX MAX 30 - SF	30	40/60/90/120/150	20	4746
ON-OFF, 3 points, 2 micro switches	EX MAX 50 - SF	50	40/60/90/120/150	20	5422

Modulating spring return 24-230V

	Zone 1		Opening	Closing	Price list €
	Model	Torque (Nm)	Motor running time (seconds)	Spring return (seconds)	
3 POINTS, 0...10 Volt 4...20 m	EX MAX 5.10 - YF	5-10	7.5/15/30/60/120	3 - 10	3263
3 POINTS, 0...10 Volt 4...20 m	EX MAX 15 - YF	15	7.5/15/30/60/120	3 - 10	3594
3 POINTS, 0...10 Volt 4...20 m	EX MAX 30 - YF	30	40/60/90/120/150	20	5287
3 POINTS, 0...10 Volt 4...20 m	EX MAX 50 - YF	50	40/60/90/120/150	20	5961

Spring return 24-230V - Offshore - Closure in 1 second

	Zone 1		Opening	Closing	Price list €
	Model	Torque (Nm)	Motor running time (seconds)	Spring return (seconds)	
ON-OFF, 2 micro switches	EX MAX 8 - SF1	8	3/15/30/60/120	1	3685
ON-OFF, 2 micro switches	EX MAX 15 - SF1	15	3/15/30/60/120	1	3855

Spring return 24-230V - Offshore - Closure in 3 seconds

	Zone 1		Opening	Closing	Price list €
	Model	Torque (Nm)	Motor running time (seconds)	Spring return (seconds)	
ON-OFF, 2 micro switches	EX MAX 30 - SF3	30	40/60/90/120/150	3	5863
ON-OFF, 2 micro switches	EX MAX 50 - SF3	50	40/60/90/120/150	3	6532

Accessories	Model	Price list €
MICRO	EX SWITCH	679
JUNCTION BOX	EXBOX Y/S	308
JUNCTION BOX WITH MICRO	EXBOX Y/S/SW	338
BRACKET FOR JUNCTION BOX 5/10/15 Nm	MKK-S	55
BRACKET FOR JUNCTION BOX 30/50 Nm	MKK-M	73
NICKEL PLATED CABLE GLAND KIT FOR ACTUATOR	KIT-S8-MAX	39
CABLE GLAND KIT FOR JUNCT. NICKEL PLATED JUNCTION BOX	KIT-S8-BOX	103

Actuators assembled, square drive shaft and FAT

ZONE 2 Spring return 24-230V

All prices are list prices for local market, for a quotation please contact us.

	Zone 2		Opening	Closing	Price list €
	Model	Torque (Nm)	Motor running time (seconds)	Spring return (seconds)	
ON-OFF, 3 points, 2 micro switches	RED MAX 5.10 - SF	5-10	3/15/30/60/120	3 - 10	2685
ON-OFF, 3 points, 2 micro switches	RED MAX 15 - SF	15	3/15/30/60/120	3 - 10	3066
ON-OFF, 3 points, 2 micro switches	RED MAX 30 - SF	30	40/60/90/120/150	20	4410
ON-OFF, 3 points, 2 micro switches	RED MAX 50 - SF	50	40/60/90/120/150	20	5084

Modulating spring return 24-230V

	Zone 2		Opening	Closing	Price list €
	Model	Torque (Nm)	Motor running time (seconds)	Spring return (seconds)	
3 POINTS, 0...10 Volt 4...20 m	RED MAX 5.10 - YF	5-10	7.5/15/30/60/120	3 - 10	2888
3 POINTS, 0...10 Volt 4...20 m	RED MAX 15 - YF	15	7.5/15/30/60/120	3 - 10	3224
3 POINTS, 0...10 Volt 4...20 m	RED MAX 30 - YF	30	40/60/90/120/150	20	4949
3 POINTS, 0...10 Volt 4...20 m	RED MAX 50 - YF	50	40/60/90/120/150	20	5623

Spring return 24-230V - Offshore - Closure in 1 second

	Zone 2		Opening	Closing	Price list €
	Model	Torque (Nm)	Motor running time (seconds)	Spring return (seconds)	
ON-OFF, 2 micro switches	RED MAX 8 - SF1	8	3/15/30/60/120	1	3347
ON-OFF, 2 micro switches	RED MAX 15 - SF1	15	3/15/30/60/120	1	3514

Spring return 24-230V - Offshore - Closure in 3 seconds

	Zone 2		Opening	Closing	Price list €
	Model	Torque (Nm)	Motor running time (seconds)	Spring return (seconds)	
ON-OFF, 2 micro switches	RED MAX 30 - SF3	30	40/60/90/120/150	3	5486
ON-OFF, 2 micro switches	RED MAX 50 - SF3	50	40/60/90/120/150	3	6162

Accessories	Model	Price list €
MICRO	RED SWITCH	635
JUNCTION BOX	REDBOX Y/S	276
JUNCTION BOX WITH MICRO	REDBOX Y/S/SW	308
BRACKET FOR JUNCTION BOX 5/10/15 Nm	MKK-S	55
BRACKET FOR JUNCTION BOX 30/50 Nm	MKK-M	73
NICKEL PLATED CABLE GLAND KIT FOR ACTUATOR	KIT-S8-MAX	39
NICKEL PLATED CABLE GLAND KIT FOR ACTUATOR	KIT-S8-BOX	103

Special executions	Model	Price list €
SURCHARGE FOR STAINLESS STEEL 5/10/15 Nm	MAX VAS	1691
SURCHARGE FOR STAINLESS STEEL 30/50 Nm	MAX VAM	3596
SURCHARGE FOR MARINE COATING 5/10/15 Nm	MAX CTS	676
SURCHARGE FOR MARINE COATING 30/50 Nm	MAX CTM	1014
SURCHARGE FOR STAINLESS STEEL JUNCTION BOX	BOX../VA	610
SURCHARGE FOR JUNCTION BOX MARINE COATING	BOX../CT	308
SURCHARGE FOR MICRO MARINE COATING	SWITCH../CT	308