

TCR/R/EW

400 °C/2h centrifugal extractor fans with backward curved impeller fitted with electronically adjustable, high efficiency, asynchronous IE3 motors



VARIABLE SPEED DRIVE
VSD: Electronic speed drive.
VSD1/A-RFM
VSD3/A-RFT
Supply on request

CONTROL
Supplied as an optional accessory

POWER SUPPLY
VSD1/A-RFM:
220-240 V 50/60 Hz
VSD3/A-RFT:
380-415 V 50/60 Hz

400 °C/2h centrifugal, single inlet extractor fans for outdoor operation in fire risk zones, with extreme robustness, fitted with a backward curved impeller and an electronically adjustable, high efficiency IEC asynchronous motor.

Fan:

- Sheet steel casing.
- Backward curved impeller in very robust sheet steel, with anti-heat paint.
- Approved in accordance with standard EN 12101-3.

Motor:

- New high efficiency AC asynchronous motors (IE3).
- Fitted with durable ball bearings. IP55 protection.
- Three-phase 230/400 V 50 Hz (up to 4 kW) and 400/690 V 50 Hz (powers greater than 4 kW).
- Maximum temperature of air to be carried: S1 -20 °C+ 250 °C continuous service. S2 300 °C/2h and 400 °C/2h service.

Electronic speed drive:

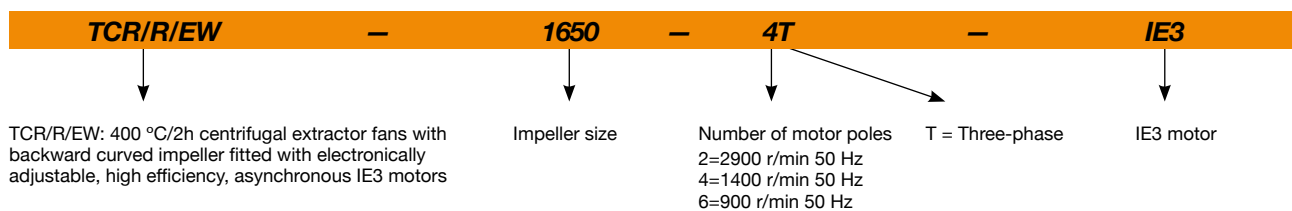
- Adjustable speed by 0-10 V signal or PI automatic control integrated in the inverter.

- Highly configurable electronic drive with 2 analog inputs, 2 digital inputs, 1 relay output and 1 analog or digital output to select.
- Possibility of connection to MODBUS and CAN Open field buses.
- Electronic drive for easy installation outside the work area. Thanks to its DIN rail it can be mounted on control panels minimizing connections.
- Supplied pre-wired with shielded cable in accordance with EMC directive 2014/30/EU.
- Available with single-phase 220-240 V 50/60 Hz input up to 3 CV (Type VSD1 / A-RFM) or three-phase 380-415 V 50/60 Hz (Type VSD3 / A-RFT). IP20 standard protection. IP66 protection up to 10 CV on request.
- Working temperature (VSD): -25°C + 50 °C.

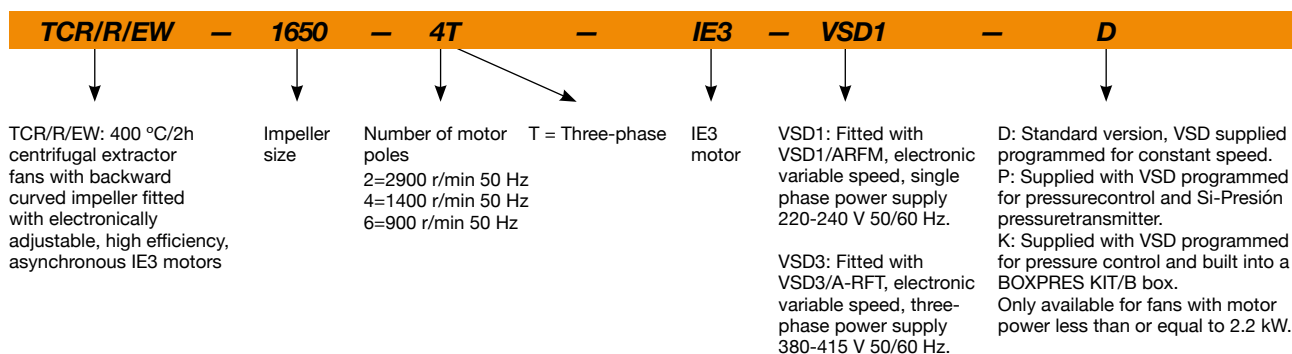
Finishing:

- Anti-corrosive finish in polyester resin, polymerised at 190 °C, after degreasing with phosphate-free nanotechnology treatment.

Fan order code



Order code with variable speed drive (VSD) included



Technical characteristics

Model	Speed min/max (r/min)	Single-phase VSD 230 V 50/60 Hz		Three-phase VSD 400 V 50/60 Hz		Maximum current motor 50 Hz (A)			Installed power (kW)	Flow rate min/max (m³/h)	Sound pressure level min/max dB (A)	Approx. weight (Kg)
		Maximum current input (A)	Model VSD	Maximum current input (A)	Model VSD	230V	400V	690V				
TCR/R/EW-1240-2T-IE3	1160/2900	-	-	9.44	VSD3/A-RFT-5.5	13.00	7.50	-	4.00	4440 / 11110	62/82	93
TCR/R/EW-1240-4T-IE3	570/1420	8.32	VSD1/A-RFM-1	2.31	VSD3/A-RFT-1	2.82	1.62	-	0.75	2330 / 5830	47/67	71
TCR/R/EW-1445-2T-IE3	1170/2935	-	-	17.45	VSD3/A-RFT-10	-	13.90	8.06	7.50	6620 / 16560	65/85	126
TCR/R/EW-1445-4T-IE3	580/1455	11.87	VSD1/A-RFM-2	3.30	VSD3/A-RFT-2	4.07	2.34	-	1.10	3240 / 8100	50/70	93
TCR/R/EW-1650-4T-IE3	580/1440	15.78	VSD1/A-RFM-1	4.38	VSD3/A-RFT-2	5.41	3.11	-	1.50	4240 / 10600	52/72	114
TCR/R/EW-1650-6T-IE3	380/940	8.69	VSD1/A-RFM-1	2.41	VSD3/A-RFT-1	3.36	1.93	-	0.75	2980 / 7450	42/62	111
TCR/R/EW-1856-4T-IE3	580/1440	-	-	7.20	VSD3/A-RFT-5.5	10.70	6.15	-	3.00	6100 / 15240	58/78	152
TCR/R/EW-1856-6T-IE3	380/945	12.43	VSD1/A-RFM-2	3.45	VSD3/A-RFT-2	4.68	2.69	-	1.10	4020 / 10040	50/70	145
TCR/R/EW-2063-4T-IE3	590/1465	-	-	12.81	VSD3/A-RFT-7.5	-	10.30	5.97	5.50	9800 / 24490	60/80	225
TCR/R/EW-2063-6T-IE3	380/950	16.64	VSD1/A-RFM-2	4.62	VSD3/A-RFT-2	6.43	3.70	-	1.50	6460 / 16140	50/70	209
TCR/R/EW-2271-4T-IE3	590/1470	-	-	25.10	VSD3/A-RFT-15	-	21.40	12.40	11.00	13900 / 34760	62/82	315
TCR/R/EW-2271-6T-IE3	390/970	-	-	7.39	VSD3/A-RFT-5.5	12.00	6.91	-	3.00	9200 / 23000	57/77	280



Erp. (Energy Related Products)

Information on Directive 2009/125/EC can be downloaded from the SODECA website or the QuickFan selector programme.

Acoustic characteristics

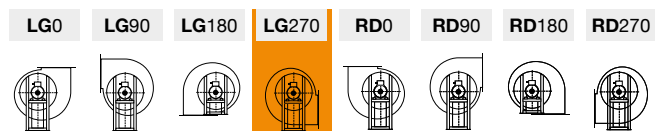
The indicated values are determined by measuring the sound pressure level and sound power in dB(A) obtained in a free field at a distance equivalent to twice the size of the fan plus the impeller diameter, with a minimum of 1.5 m.

Sound power spectrum Lw(A) in dB(A) per Hz frequency band

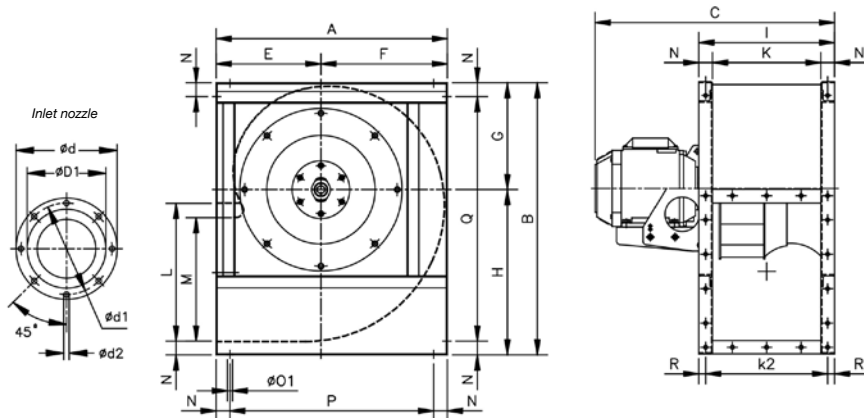
	63	125	250	500	1000	2000	4000	8000		63	125	250	500	1000	2000	4000	8000
TCR/R/EW-1240-2T	68	83	81	93	90	94	96	83	TCR/R/EW-1856-4T	69	78	91	87	90	91	85	71
TCR/R/EW-1240-4T	56	40	76	79	79	80	70	59	TCR/R/EW-1856-6T	61	69	81	83	80	81	71	60
TCR/R/EW-1445-2T	73	85	83	95	93	97	99	89	TCR/R/EW-2063-4T	80	85	91	93	91	88	81	73
TCR/R/EW-1445-4T	59	72	78	83	80	83	78	64	TCR/R/EW-2063-6T	69	70	82	82	81	83	73	63
TCR/R/EW-1650-4T	64	74	82	84	83	85	76	66	TCR/R/EW-2271-4T	79	80	89	92	94	95	91	78
TCR/R/EW-1650-6T	53	65	72	77	73	69	62	54	TCR/R/EW-2271-6T	73	73	87	86	90	90	79	68

Orientations

Standard supply LG 270



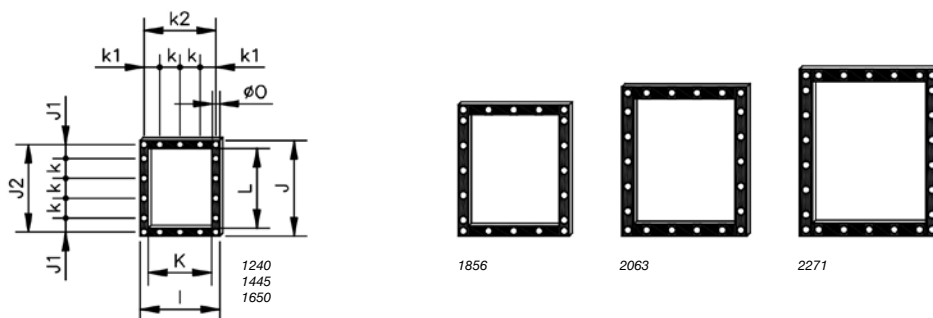
Dimensions mm



	A	B	C	Ød	Ød1	ØD1*	Ød2	E	F	G	H	I	K	k2	L	M	N	Ø01	P	Q	R
TCR/R/EW-1240-2T	673	790	734	472	444	319	M8	305	368	310	480	395	315	355	400	358.5	40	11	593	710	20
TCR/R/EW-1240-4T	673	790	634	472	444	319	M8	305	368	310	480	395	315	355	400	358.5	40	11	593	710	20
TCR/R/EW-1445-2T	765	880	827	524	494	358	M10	350	415	340	540	445	355	405	450	407	45	11	675	790	20
TCR/R/EW-1445-4T	765	880	699	524	494	358	M10	350	415	340	540	445	355	405	450	407	45	11	675	790	20
TCR/R/EW-1650-4T	832	970	953	582	555	401	M10	375	457	378	592	490	400	450	500	446	45	13	742	880	20
TCR/R/EW-1650-6T	832	970	772.5	582	555	401	M10	375	457	378	592	490	400	450	500	446	45	13	742	880	20
TCR/R/EW-1856-4T	925	1084	880	645	615	457	M10	415	510	426	658	550	450	500	560	493	50	13	825	984	25
TCR/R/EW-1856-6T	925	1084	825	645	615	457	M10	415	510	426	658	550	450	500	560	493	50	13	825	984	25
TCR/R/EW-2063-4T	1037	1218	981	720	688	507	M10	465	572	477	741	620	500	560	630	530	60	13	917	1098	30
TCR/R/EW-2063-6T	1037	1218	932	720	688	507	M10	465	572	477	741	620	500	560	630	530	60	13	917	1098	30
TCR/R/EW-2271-4T	1173	1375	1197	800	768	575	M10	525	648	538	837	690	560	625	710	603.5	65	13	1043	1245	32.5
TCR/R/EW-2271-6T	1173	1375	1095	800	768	575	M10	525	648	538	837	690	560	625	710	603.5	65	13	1043	1245	32.5

* Recommended nominal tube diameter

Outlet nozzle

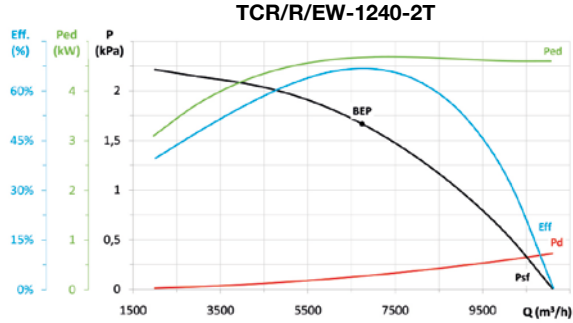


	I	J	J1	J2	K	k3	k1	k2	L	Ø0
TCR/R/EW-1240	395	480	70	440	315	100	77.5	355	400	13
TCR/R/EW-1445	445	540	99	498	355	100	102.5	405	450	11
TCR/R/EW-1650	490	590	87.5	550	400	125	100	450	500	13
TCR/R/EW-1856	550	660	55	610	450	125	125	500	560	13
TCR/R/EW-2063	620	750	95	690	500	125	92.5	560	630	13
TCR/R/EW-2271	690	840	75	778	560	125	62.5	625	710	13

Characteristic curves

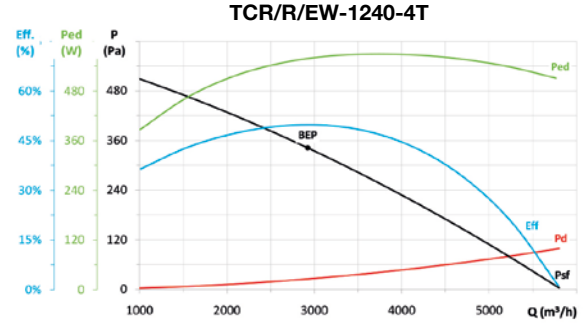
Q= Flow rate in m³/h, m³/s and cfm

Pe= Static pressure in mm H₂O, Pa and inwg



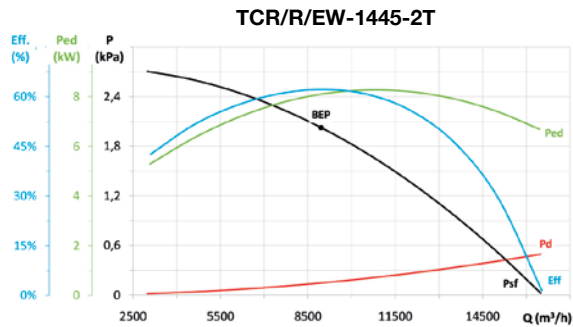
MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
A	S	1,02	1,04	69,6%	73,1	4,675	6744	1667,2	2901	NECESSARY

* η_e (%) = Eff. (%) x Cc



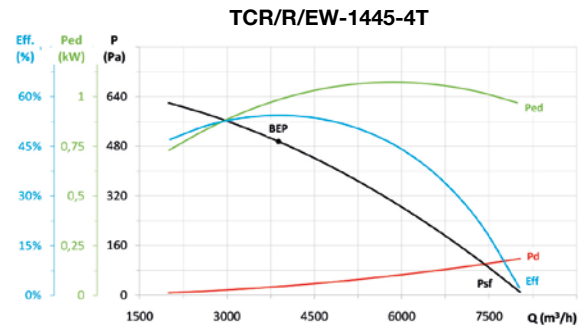
MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
A	S	1,00	1,11	55,1%	68,2	0,558	2924	342,3	1453	NECESSARY

* η_e (%) = Eff. (%) x Cc



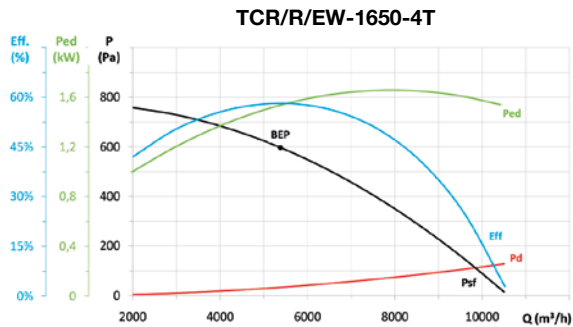
MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
A	S	1,02	1,04	64,6%	65,6	8,103	8951	2025,7	2939	NECESSARY

* η_e (%) = Eff. (%) x Cc



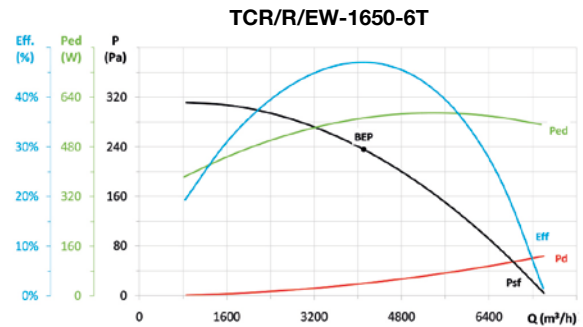
MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
A	S	1,01	1,09	59,1%	69,7	0,983	3883	495,3	1468	NECESSARY

* η_e (%) = Eff. (%) x Cc



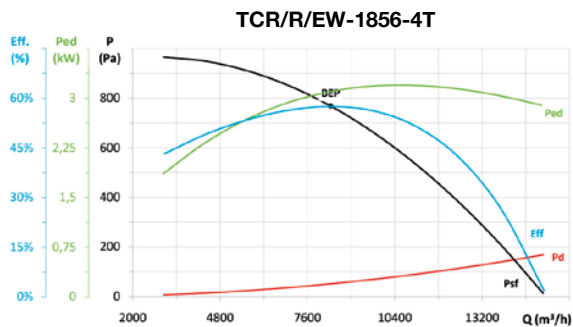
MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
A	S	1,01	1,08	62,5%	71,1	1,535	5378	597,4	1449	NECESSARY

* η_e (%) = Eff. (%) x Cc



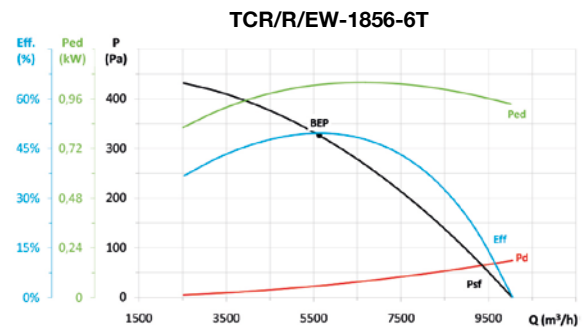
MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
A	S	1,00	1,10	52,0%	65,0	0,572	4109	235,7	966	NECESSARY

* η_e (%) = Eff. (%) x Cc



MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
A	S	1,01	1,05	60,6%	65,9	3,096	8342	768,0	1448	NECESSARY

* η_e (%) = Eff. (%) x Cc



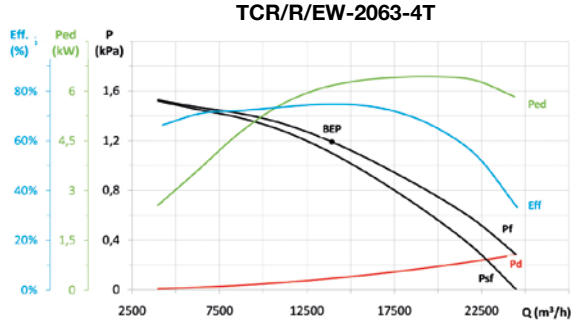
MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
A	S	1,00	1,09	53,9%	64,3	1,028	5632	326,1	960	NECESSARY

* η_e (%) = Eff. (%) x Cc

Characteristic curves

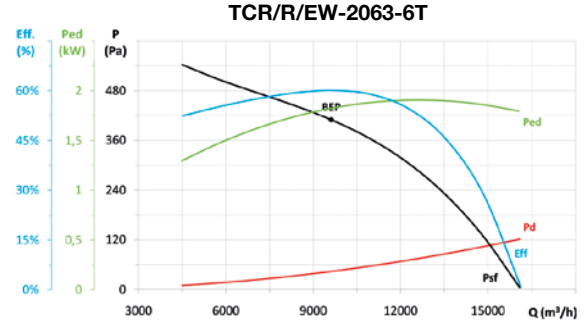
Q= Flow rate in m³/h, m³/s and cfm

Pe= Static pressure in mm H₂O, Pa and inwg



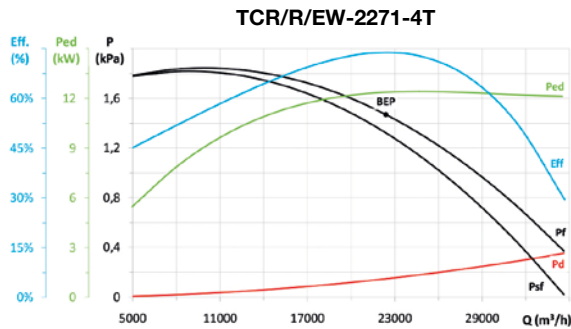
MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
B	T	1,01	1,04	77,8%	80,0	6,161	13992	1390,7	1466	NECESSARY

* η_e (%) = Eff. (%) x Cc



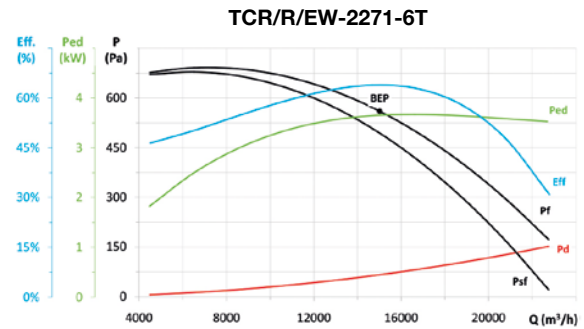
MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
A	S	1,00	1,07	64,3%	72,1	1,822	9620	409,7	952	NECESSARY

* η_e (%) = Eff. (%) x Cc



MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
B	T	1,01	1,04	76,8%	76,7	12,369	22380	1469,6	1470	NECESSARY

* η_e (%) = Eff. (%) x Cc



MC	EC	SR	Cc	η_e (%)*	N	[kW]	[m ³ /h]	[Pa]	[rpm]	VSD
B	T	1,01	1,05	67,1%	71,7	3,654	15016	560,2	970	NECESSARY

* η_e (%) = Eff. (%) x Cc

Accessories

